NY Green Bank

Annual Review 2018 – 19
and
Annual Business Plan 2019 – 20

Case 13-M-0412

June 19, 2019

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Letter from the President of NY Green Bank

NY Green Bank accelerated its momentum and impact in fiscal year 2018 – 19 and solidified its position as the country's preeminent green bank entity. We grew our overall investments to date by over 61.0%, expanded the product categories we offer our counterparties, and diversified our Investment Portfolio. We substantially exceeded our capital commitment objective for the year while also continuing to operate self-sufficiently, with cumulative revenue exceeding cumulative expenses since inception. We expect to continue this momentum into the 2019 – 20 fiscal year.

During the fiscal year ending March 31, 2019, we committed over $280.1 million of capital to new clean energy and sustainable infrastructure investments across 15 transactions in support of up to $2.0 billion in total project costs of clean energy in the State. In total, our portfolio of investments since inception is expected to reduce greenhouse gas emissions by up to 15.2 million metric tons – which is equivalent to taking up to 156 thousand cars off the road for 23 years. To the best of our knowledge, no other investment manager in the United States with an exclusively sustainable infrastructure credit focus has closed as many transactions and committed as much capital as NY Green Bank.

In the 2018 – 19 fiscal year, we played a variety of roles in capital structures, including construction finance, short-term aggregation finance and long-term finance (including mini-perm structures), and we invested as both senior lender, back-leverage lender and as subordinated lender. We also broadened the range of segments in which we have made investments, adding critical mass in onshore wind and community distributed generation, for which we had been assiduously laying the groundwork during prior periods. These products and transactions demonstrate NY Green Bank's continued success in leading the market with innovative financing approaches.

NY Green Bank has strengthened its already robust origination, asset management and operations capabilities in order to successfully manage nearly three-quarters of a billion dollars of overall investments to date. Our pipeline of transactions is growing and during the fiscal year we closed on more than double the commitments of the prior year. We also actively managed a sizable portfolio of transactions that had closed in prior periods. In addition to sourcing, structuring, negotiating and executing new commitments, we reviewed portfolio performance on a monthly and quarterly basis; managed numerous portfolio fundings along with interest and principal payments; negotiated dozens of waivers and amendments; and prepared, publicly released and presented quarterly and annual reports (both financial and impact).

Together with our NYSERDA colleagues, we supported the first independent impact evaluation of NYGB's activities, which was completed in March 2019 and reports on evidence of NY Green Bank's impact on transforming financing markets.

We will maintain our momentum and impact in the 2019 – 20 fiscal year and continue to support key priorities of Governor Andrew M. Cuomo that are expected to drive substantial additional market activity in New York State. These include energy storage, solar-plus-storage, energy efficiency, sustainable transportation, and controlled environment agriculture, as well as projects that benefit low-to-moderate income communities. As we did with community distributed generation, a segment where we laid a foundation in the 2017 – 18 fiscal year that enabled us to close five community distributed generation transactions in the 2018 – 19 fiscal year, we will also work to identify and address financing issues that are likely to arise as the offshore wind and related infrastructure segment develops in response to the State's ambitious target of 9,000 megawatts of offshore wind by 2035. NY Green Bank's financing solutions will utilize a variety of business models and deployment strategies that will leverage our team's proven ability to innovate and think creatively.

NY Green Bank invests on commercial terms, which enables us to generate revenues that exceed our expenses. In fiscal year 2018 – 19, we enjoyed another strong year in which we surpassed our net income objective by more than two times, further solidifying NY Green Bank's growing track record of self-sufficiency.

During the year ending March 31, 2019, NY Green Bank continued to explore the opportunity to raise at least an additional $1.0 billion from the private sector and expand our clean energy investments nationally, including through a market assessment that validated investor interest in NY Green Bank's platform and results. In the upcoming year, we will support Governor Cuomo's call for the development of terms for a public-private partnership to execute NY Green Bank's third-party capital raise and national expansion, which will deliver even greater benefits to New Yorkers.

Thank you to Governor Cuomo, the NY Green Bank team, our NYSERDA and other State colleagues, our Advisory Committee, New York State ratepayers, private market participants and counterparties, and our many other constituents for your support of NY Green Bank's contributions to the achievement of New York State's climate and clean energy goals. This is an exciting time for NY Green Bank and the clean energy markets. There is much to be accomplished and I am confident that the talent and dedication of the NY Green Bank team and our valued colleagues and constituents will enable us to fulfill our objectives.

Sincerely,

Alfred Griffin
President

June 19, 2019

Part I

NY Green Bank Overview

1. NY Green Bank Overview

NY Green Bank ("**NYGB**") is a $1.0 billion investment fund designed to accelerate clean energy deployment in New York State ("**NYS**" or the "**State**") and is globally recognized as a leading sustainable infrastructure investor. NYGB's participation in a growing number and diversity of transactions spurs clean energy development in NYS, with benefits for New York residents and more broadly. NYGB is a division of the New York State Energy Research and Development Authority ("**NYSERDA**").

Since its formation, NYGB has worked to increase the size, volume and breadth of sustainable infrastructure investment activity throughout the State, expand the base of investors focused on NYS clean energy and increase market participants' access to capital on commercial terms. To achieve these objectives, NYGB collaborates with the private sector to develop transaction structures and methodologies that overcome typical clean energy investment barriers. These barriers include challenges in evaluating risk and addressing the needs of distributed energy and efficiency projects where underwriting may be oriented toward larger opportunities and/or toward groups of somewhat homogeneous investments that make up larger portfolios.

NYGB invests where there are limited precedents, less familiar asset structures and/or deal structuring complexities that require specialized skillsets. NYGB applies project and structured finance transaction approaches that isolate project assets, allocate and protect against downside risks to the greatest possible extent and monetize low volatility project-generated cash flows to generate appropriate risk-adjusted returns.

NYGB focuses on opportunities that create attractive precedents, standardized practices and roadmaps that capital providers can readily replicate and scale. As funders "crowd in" to a particular area within the sustainable infrastructure landscape, NYGB moves on to other areas that have received less investor interest.

To solve client problems in real-time and address capital provider needs, NYGB operates within private sector time horizons and commercial norms. More information on NYGB's growing investment portfolio ("**Investment Portfolio**") is available at www.greenbank.ny.gov/Investments/Portfolio.

Guidance on how industry participants and capital providers can work with NYGB, as well as more general information, can be found at www.greenbank.ny.gov.

Defined terms used, but not separately described, in the text of this document have the meanings given to them in Part IV (Glossary & Definitions).

1.1 Review & Plan Purpose

NYGB has prepared this Annual Review 2018 – 19 and Annual Business Plan 2019 – 20 (the "**Review and Plan**") to inform all stakeholders, existing and potential clients, counterparties and all other interested entities of NYGB's:

(a) Activities and performance in the fiscal year ending March 31, 2019 (the "**2018 – 19 Plan Year**"); and

(b) Strategic objectives for the fiscal year ending March 31, 2020 (the "**2019 – 20 Plan Year**"), together with deliverables and a discussion of the activities NYGB will undertake to achieve these objectives.

To help navigate the information contained in this document, this Review and Plan has been structured into separate parts, including:

(a) Part I: NY Green Bank Overview, providing information about NYGB's mission and role in the context of energy strategy within NYS;

(b) Part II: Annual Review 2018 - 19, describing the activities of NYGB in the 2018 – 19 Plan Year and its performance against the previous business plan; and

(c) Part III: Annual Business Plan 2019 – 20.

NYGB maintains alignment with the strategic direction provided by the New York Public Service Commission (the "**Commission**") in the "Order Authorizing the Clean Energy Fund Framework" issued and effective January 21, 2016 (the "**CEF Order**").[1] This includes, importantly, that NYGB activities continue to contribute directly to the objectives of the current State Energy Plan ("**SEP**") and Clean Energy Standard ("**CES**") "through [NYGB's] ability to drive down costs associated with meeting [SEP and CES] objectives."[2] As NYS clean energy goals are expanded over time – for example, in the "Green New Deal" for New York that Governor Andrew M. Cuomo announced as part of the Executive Budget in January 2019,[3] NYGB orients its own targets and deliverables to both align with the programmatic priorities of NYSERDA and support achievement of the broader State outcomes.

This Review and Plan also reflects NYGB's central role in New York's Clean Energy Fund ("**CEF**"), which was created pursuant to the CEF Order. The CEF is a $5.3 billion commitment over 10 years[4] and is part of Governor Cuomo's Reforming the Energy Vision ("**REV**") strategy to advance clean energy growth and innovation, while driving economic development across NYS and reducing ratepayer collections. For more information on the CEF and REV strategy, see www.nyserda.ny.gov/About/Clean-Energy-Fund and www.rev.ny.gov.

Each investment made by NYGB contributes to the primary CEF outcomes of greenhouse gas ("**GHG**") emissions reductions, customer bill savings, energy efficiency, clean energy generation and mobilization of capital. In turn, the CEF objectives support the State's aggressive clean energy targets, including under New York's Green New Deal which mandates a significant increase in the CES with a goal of 70.0% energy generation from renewable sources by 2030 and carbon-free electricity by 2040.

This Review and Plan is a product of NYGB's annual strategy review and business planning process contemplated at its Inception.[5] Previous business plans (respectively the "**2014 Plan**",[6] "**2015 Plan**",[7] "**2016 Plan**",[8] "**2017 Plan**"[9] and "**2018 Plan**"[10]) are available at www.greenbank.ny.gov/Resources/Public-Filings.

1.2 Mission

NYGB's mission is set out in Figure 1.

Figure 1: Mission Statement

To accelerate clean energy deployment in New York State by working in collaboration with the private sector to transform financing markets

The key elements of NYGB's mission are to collaborate with private sector 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 has observed many common financial market barriers to clean energy and sustainable infrastructure projects in the State that constrain growth in the sector, including: lack of transaction standardization; insufficient

[1] See: http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={B23BE6D8-412E-4C82-BC58-9888D496D216}.
[2] Cases 14-M-0094 et al., page 74.
[3] See: www.governor.ny.gov/news/governor-cuomo-announces-green-new-deal-included-2019-executive-budget. New York's Green New Deal includes certain critical components, including: (a) quadrupling New York's offshore wind ("**OSW**") target to 9,000 megawatts ("**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 British thermal units ("**Btus**") below forecasted energy use in 2025.
[4] January 2016 through December 2025.
[5] "**Inception**" means the inception of NYGB pursuant to and as of the date of, the Initial Capitalization Order in December 2013. Case 13-M-0412, "Order Establishing New York Green Bank and Providing Initial Capitalization", issued and effective December 19, 2013 (the "**Initial Capitalization Order**"), Ordering Clause 5, page 24.
[6] NY Green Bank Business Plan, Case 13-M-0412, filed June 2014.
[7] NY Green Bank Business Plan, Case 13-M-0412, filed June 2015.
[8] NY Green Bank Business Plan, Case 13-M-0412, filed June 2016.
[9] NY Green Bank Annual Review 2016 – 17 and Annual Business Plan 2017 – 18, Case 13-M-0412, filed June 2017.
[10] NY Green Bank Annual Review 2017 – 18 and Annual Business Plan 2018 – 19, Case 13-M-0412, filed June 2018.

scale and volume; less familiar project sponsors and counterparty credits; inadequate data on underlying debt (or equity) investments and/or technology performance; and underdeveloped or nonexistent capital markets for clean energy projects. Variation in these themes exists across investments, with such barriers limiting investment at scale into otherwise attractive renewable energy, energy efficiency and other sustainable infrastructure opportunities.

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.

1.3 Key Investment Criteria

NYGB's key investment criteria, applied to all potential transactions, are defined by the Commission in the Initial Capitalization Order and are reproduced in Figure 2.[11]

Figure 2: Key Investment Criteria

1. Transactions will have expected financial returns such that the revenues of NYGB on a portfolio basis will be in excess of expected portfolio losses;
2. Transactions will be expected to contribute to financial market transformation in terms of:
   - Scale;
   - Improved private sector participation;
   - Level of awareness and confidence in clean energy investments; and/or
   - Other aspects of market transformation; and
3. Transactions will have the potential for energy savings and/or clean energy generation that will contribute to GHG emissions reductions in support of New York's clean energy policies.

1.4 Other Investment Considerations

In applying the key investment criteria, NYGB also considers additionality, market transformation, impact benefits and transaction size and participation, each of which is discussed below.

[11] Ordering Clause 6, pages 24 – 25.

1.4.1 Additionality

Additionality is the unique benefit that NYGB brings to the proposed financing or investment arrangement if any proposed project:

(a) Would likely not occur given the current state of the private markets; or

(b) Might occur in the private markets but would likely:
   i. Involve less favorable terms as to tenor, cost, fees and other key transaction terms;
   ii. Not happen at the market breadth needed to scale the sector;
   iii. Not involve the same level of focus on the NYS market; and/or
   iv. Not happen as quickly.

1.4.2 Transformation of Clean Energy Financing Markets

NYGB also assesses each proposed investment's contribution to clean energy financial market transformation in NYS through the:

(a) Type and amount of capital applied to total project costs and other clean energy activities in NYS (referred to as mobilization);

(b) Ability to scale or replicate the transaction to drive larger volume(s) of clean energy and sustainable infrastructure finance; and

(c) Increased awareness of and confidence in clean energy and sustainable infrastructure investments, driven by and reflected in:
   i. Evolution of private sector institutional underwriting; and
   ii. Progress made toward capital markets solutions for:
      - Contract standardization;
      - Aggregation; and
      - Clean energy financial performance data collection and utilization.

1.4.3 Impact & Public Benefits

NYGB also considers the expected direct and indirect impact and public benefits of potential investments as determined by a number of factors, including:

(a) Estimated energy savings and/or clean energy generation;

(b) Other estimated GHG reduction benefits to the extent included in proposed project(s) (outside those achieved through direct energy savings and/or clean energy generation); and

(c) The strength of the plan pursuant to which a counterparty (or designated third-party) tracks, records and reports performance data.

1.4.4 Transaction Size & Participation

NYGB considers various transaction sizes and participation levels (i.e., senior secured debt, equity), but largely expects its participation in any investment opportunity (whether related to a single asset or project portfolio) to fall within the range of $5.0 – $50.0 million.

Details of the types of transactions that NYGB considers, including illustrative guidelines for eligible technologies, are included in NYGB's open solicitations for proposals (the "**Investment RFPs**").[12] NYGB provides additional

[12] At the time of this Review and Plan, NYGB has four open investment solicitations, 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; and RFP 10: Financing for CDG Solar Projects Including Projects Paired with Energy Storage. All Investment RFPs and access to the portal for the online submission of investment proposals are

request for proposal ("**RFP**") resources to aid prospective proposers in the RFP process such as an indicative term sheet and a template for reporting quarterly direct impacts.[13]

1.5 Goals & Key Performance Indicators

The mission and key investment criteria shape NYGB's goals, which in turn drive NYGB's business operations and tactical initiatives. Additionally, NYGB's goals guide all stakeholders (such as employees, clients, counterparties, industry participants, investors, ratepayers and the public) as to where NYGB will focus its efforts and resources.

To manage NYGB's performance, NYGB sets key performance indicators ("**KPIs**") and tracks them to assess NYGB's progress toward its goals. These KPIs tie to NYGB's metrics and periodic reporting pursuant to the Metrics, Reporting & Evaluation Plan Version 3.0 (the "**Metrics Plan**").[14] KPIs and metrics are measures that may be used to evaluate NYGB's performance and provide transparency into and accountability for NYGB's activities. These KPIs are set out in Table 1.[15]

Table 1: Goals, Key Performance Indicators & Metrics

NYGB Goals	Key Performance Indicators	Metrics
Attract Capital to Clean Energy Markets in NYS	▪ Mobilizing capital at the project and portfolio levels	▪ Mobilization Ratio:[16,17] Total Project Costs (Cumulative) to NYGB Overall Investments to Date[18], third-party capital (if any)
	▪ Portfolio driving material clean energy investments across NYS	▪ Total Project Costs (Cumulative) enabled by NYGB ($)
	▪ Growing portfolio	▪ Overall Investments to Date ($)
	▪ Strong Active Pipeline[19]	▪ Active Pipeline ($)
	▪ Stimulating new clean energy proposals in NYS	▪ Investment Proposals Received (Cumulative) ($)
Be Self-Sufficient	▪ Revenue growth and expense and potential loss management drive continuing self-sufficiency	▪ Revenues (Cumulative) ($) ▪ Expenses (Cumulative) ($) ▪ Annual Audited Financial Statements

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

13 See: www.greenbank.ny.gov/Work-with-Us/RFP-Resources.

14 Case 13-M-0412, filed with the Commission on June 20, 2016.

15 Table 1 contains selected metrics that most directly tie to NYGB's goals and is not intended to be a complete listing of all metrics on which NYGB reports. For these details, see NYGB's Quarterly and Annual Metrics reports available at www.greenbank.ny.gov/Resources/Public-Filings.

16 As defined by the Metrics Plan, "**Mobilization Ratio**" represents the number of dollars of Total Project Costs (Cumulative) mobilized for each dollar committed to investments by NYGB and comprises the ratio of Total Project Costs (Cumulative) divided by Overall Investments to Date (subject to cap of the maximum amount of NYS ratepayer funding), to one.

17 Note that Mobilization Ratio includes the effects of capital recycling. Central to achieving NYGB's objectives is its ability to efficiently recycle funds. Unlike a pool of public funds that is dispensed once to qualifying projects as non-refundable grants or subsidies, funds entrusted to NYGB are disbursed under commercial arrangements generating investment income and requiring repayment in accordance with agreed terms for each product and counterparty. This means that as each dollar from NYGB cycles through successive investments, benefits will compound. The effective rate of accumulation of these benefits is directly tied to the weighted average holding periods of the financial products that NYGB provides to its clients. Further, as the commercial markets expand into and increasingly accommodate sustainable infrastructure finance needs previously supported by NYGB, the multiplier effect on NYGB's activities and investments will continue through market follow-on activity.

18 "**Overall Investments to Date**" means, at any time, the aggregate of all Committed Funds since Inception, expressed in dollars.

19 "**Active Pipeline**" means, at any time and for any period, the sum (expressed in dollars) of the proposed NYGB investment amount in all NYGB active transactions in the Pipeline where, in relation to each transaction: (a) there is agreement in principle between the parties; (b) there is momentum in moving the transaction forward; (c) conditions to investment are expected to be met; and (d) NYGB is dynamically proceeding towards and through recommendation by the "Greenlight Committee", IRC approval and transaction execution.

NYGB Goals	Key Performance Indicators	Metrics
Deliver Energy & Environmental Impact Benefits	▪ Contributing to CEF objectives and in turn REV the CES and State targets (by supporting increased deployment of renewable energy, distributed energy and energy efficiency)	▪ Estimated direct and indirect energy and environmental benefits: − Lifetime ("**Lifetime**") and first-year ("**First-Year**") energy saved by fuel type from energy efficiency projects (MWh/MMBtu[20]); − Lifetime and First-Year clean energy generated (MWh); − Lifetime and First-Year energy saved from Combined Heat and Power ("**CHP**") (MWh/MMBtu); − Clean energy generation installed capacity (MW) from CHP; − Clean energy generation installed capacity (MW); and − GHG emissions reductions (metric tons); and ▪ Installed direct and indirect energy and environmental benefits: − Energy saved by fuel type from energy efficiency projects (MWh/MMBtu) and/or actual clean energy generated (MWh); − Primary energy saved from CHP (Btu); − Clean energy generation installed capacity (MW); and − GHG emissions reductions (metric tons).

The NYGB goals, KPIs and metrics flow through all aspects of NYGB's business from investment and portfolio management to risk and compliance, operations and finance and legal and regulatory – aligning the entirety of NYGB's activities against its goals.

NYGB files quarterly metrics reports describing its performance for ratepayers, regulators and other stakeholders. In addition, pursuant to the Metrics Plan, NYGB reports on installed energy and environmental performance across the Investment Portfolio on an annual basis and separately also files a financial metrics report ("**Annual Financial Metrics Report**") annually in June focused largely on financial and risk metrics, including NYGB's audited financial statements (in turn including notes and management discussion and analysis, "**Audited Financials**"). All Annual Financial Metrics Reports and Audited Financials are available at www.greenbank.ny.gov/Resources/Public-Filings.

1.6 Impact & Reporting

One of NYGB's key investment criteria is to ensure that transactions have the potential for energy savings and/or clean energy generation that contribute to GHG emissions reductions in support of REV, CEF and SEP objectives. Specific direct and indirect impacts that are tracked include estimated clean energy generation, installed capacity, energy savings from efficiency measures as well as estimated GHG emissions reductions (collectively, "**Impact Benefits**").

The CEF Order includes 10-year minimum goals, measured as cumulative annual benefits.[21] The estimated contribution of NYGB's Investment Portfolio over the useful life ("**Useful Life**") of all underlying projects toward each of those goals comprises the direct impact benefit objectives ("**Direct Impact Benefit Objectives**") and includes:[22]

(a) 62.0 million MWh clean energy generated;

(b) 137.0 MMBtus saved through efficiency;

(c) 29.0 million metric tons of GHG emissions reductions; and

(d) A Mobilization Ratio of 8:1.

[20] "**MWh**" means megawatt hours and "**MMBtu**" means million British Thermal Units.
[21] CEF Order, Ordering Clause 2, page 106.
[22] CEF Order, page 41.

1.6.1 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. While the Metrics Plan was designed with an initial focus on direct impact benefits, NYGB differentiates between direct and indirect impact metrics, tracking both 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.[23]

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 with the rest of the CEF, to verify the indirect impacts as they accrue over time. Estimated indirect benefits are reflected in NYGB progress reporting, in general and towards 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 contribute to the 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 (i.e., the benefits from NYGB's investment into incremental/new clean energy projects and measures). 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 actual ("**Actual**") [24] benefits 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 for projects, pipelines, or other counterparty structures that wholly or in part catalyze other developments in the clean energy and sustainable infrastructure market beyond those in which NYGB directly invests – spurring follow-on market activity that can subsequently be verified (e.g., providing liquidity in the secondary markets and in relation to large-scale renewables ("**LSR**") with merchant exposure). For example, in the first quarter of 2019, NYGB participated in refinancing an existing fleet of operating wind assets, supporting a global private equity group's acquisition of the utility-scale wind portfolio. While some particular NYGB investments might not fund new project development in NYS, material indirect benefits are nevertheless expected to accrue to the State over time as a result of this type of NYGB activity. NYGB tracks such estimated benefits (which can be in MWs, MWh, MMBtus, or metric tons of GHG reduced/avoided) on a lifetime basis. The realization of indirect impact benefits is expected over time. To confirm the nature and extent of indirect impact benefits that are in fact realized by the State, periodic market assessments will occur as needed to confirm that new development activity has in fact eventuated, validating NYGB's estimated indirect impact benefits.

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[23] 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. We recognize that initiatives oriented towards market development, while they have the potential to create the greatest benefits for ratepayers in the long run, will have more indirect and less easily calculated clean energy benefits as compared to resource acquisition programs. We require 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."

[24] "**Actual(s)**" means direct Impact Benefits associated with installed projects, as opposed to estimated benefits before installation is complete.

1.6.2 First-Year & Lifetime Estimated Impact Benefits

Central to measuring and monitoring impact are the concepts of estimated benefits for both First-Year and Lifetime durations. First-Year is relevant only to discussion of direct Impact Benefits and refers to estimates of energy savings and clean energy generation in NYS for all projects expected to be installed and placed in service the first year after the availability period for NYGB capital has expired. [25] In most cases, this does not coincide with the first year of NYGB's investment, considering delayed draw schedules while projects are being constructed and/or portfolios of distributed assets are being assembled. First-Year metrics are also the basis for calculating the lifetime energy savings of the projects that benefit from NYGB investment, depending on the expected Useful Life (in years) of the technologies deployed.[26]

1.6.3 Methodology to Assess NYGB Impact

In managing its investment process and activity to achieve the Direct Impact Benefit Objectives and to maximize other impacts, NYGB engages its counterparties during the structuring and negotiation phase of each new investment. NYGB assesses the scope of all projects and initiatives included in any proposed investment and determines data sets and calculations needed to estimate the corresponding potential direct and/or indirect Impact Benefits. Estimates reflect the sustainable infrastructure or clean energy technologies utilized, installed capacity, number of systems to be deployed, operational yield of systems (i.e., capacity factors), industry-accepted electrical and fuel energy conversion factors and Useful Life of systems, among other factors. To control for exogenous factors (e.g., project ramp times, delays and seasonality), NYGB works with counterparties to identify low and high estimates of expected Impact Benefits. To ensure that the impact assessment methodology for any given investment is consistent with NYSERDA's methodologies for the CEF as a whole, NYGB leverages the experience of NYSERDA's performance management team and technical resource manuals.

After a transaction has received a recommendation to proceed from NYGB's Greenlight Committee (as described in Schedule 3), NYGB further refines its estimates of the metrics in NYS for all projects associated with NYGB investments. Once energy savings and/or clean energy generation are estimated, NYGB calculates the estimated GHG emissions reductions, utilizing electric and fuel energy conversion factors consistent with the CEF.

Figure 3 illustrates the steps involved in the calculation of First-Year and Lifetime metrics for a typical clean energy technology project such as solar photovoltaic ("**PV**") or energy efficiency where there are expected to be direct Impact Benefits. GHG emissions estimation methodologies can vary depending on the technology type, (e.g., the methodology for sustainable transportation projects for bike share platforms focuses on developing increased ridership to maximize the use of the bicycles and further offset traditional fossil fueled means of transportation).

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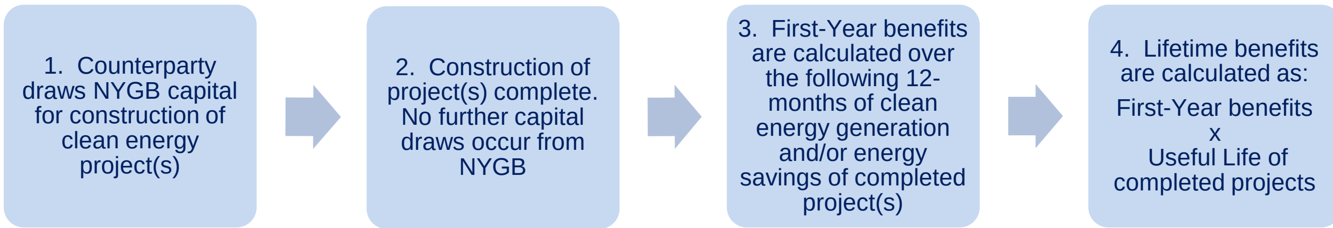
[25] All First-Year metrics are estimates and refer to the first year of estimated benefits (e.g., energy saved, installed capacity, GHG reductions) which are expected to occur when each underlying project is fully installed. This means that estimated First-Year benefits across NYGB's portfolio do not (and are not intended to) correspond to installed benefits in any given year and instead represent cumulative estimated benefits across the portfolio based on transactions executed throughout the CEF term. Note that underlying projects are usually installed over one or more years following execution of investment agreements (reflecting project development/implementation and funding deployment cycles). The sum of all estimated First-Year measures approximates 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 investments in the prescribed form annually, with such reporting included in the Quarterly Metrics Report for each quarter ending December 31.

[26] Note that NYGB's "expected Useful Life" applies to all technologies, including the "Effective Useful Life" approach applied by NYSERDA to new energy efficient equipment for the purpose of determining lifetime energy savings as found in Appendix P of the "New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs" (NYSERDA's technical resources manual). NYGB follows such guidelines when estimating the useful life of energy efficient equipment installed by counterparties to remain consistent with defined NYSERDA approaches. In the absence of a prescribed approach, NYGB consults independent engineers, program staff, and technical studies to determine the appropriate expected Useful Life. See: www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/72c23decff52920a85257f1100671bdd/$FILE/TRM%20Version%206.1%20-%20January%202019.pdf.

Figure 3: First-Year & Lifetime Direct Impact Benefit Calculation Methodology



Under the CEF and pursuant to the evaluation requirements set out in the Metrics Plan, NYSERDA carries out baseline impact evaluation efforts after a critical mass of investment types close and conducts follow-up evaluations to assess the accuracy of the estimation methods used by NYGB.[27]

1.6.4 Impact Reporting Process

Once a new investment is closed, NYGB publishes a summary description of the transaction on its website ("**Transaction Profiles**").[28] Transaction Profiles include estimates of the impact NYGB's participation in the investment is expected to have in terms of incremental clean energy benefits in NYS and financial market transformation. The transparency provided by Transaction Profiles highlights both NYGB-specific activities and the evolving available financing techniques that can be utilized to expand sustainable infrastructure in the State, for the benefit of potential clients and counterparties, as well as for stakeholders.

Pursuant to the reporting requirements set out in the Metrics Plan, NYGB aggregates the estimated direct Impact Benefit ranges from the Transaction Profiles and reports the cumulative estimated direct Impact Benefits in its Quarterly Metrics Reports and webinars.[29] These aggregate estimates inform all interested stakeholders of how NYGB is performing on an incremental quarterly basis and towards overall CEF goals. With the evolution towards also estimating indirect Impact Benefits, to more fully track the catalytic effect of NYGB activity on the clean energy market in the State, NYGB will include estimated indirect benefits in aggregate reporting to provide a more complete picture of impact, as contemplated by the CEF Order. At multi-year intervals, market assessments are expected to be conducted as needed to validate that estimated indirect Impact Benefits are manifested over time in NYS.

NYGB reports on the installed or Actual direct energy and environmental benefits of its Investment Portfolio on an aggregate basis each year. These annual reports reflect:

(a) Performance data periodically received from NYGB's clients and counterparties for clean energy installations made pursuant to and with the benefit of NYGB investments, as required by negotiated investment terms, in aggregate; and

(b) Technology performance and conversion factors, consistent with NYSERDA's overall reporting practices, as applicable.

NYGB reports on Actual energy and environmental performance each calendar year during the term of the CEF once a year in February.[30]

NYGB also submits periodic performance data for inclusion into other public reports, including the CEF (quarterly and annually), Regional Greenhouse Gas Initiative ("**RGGI**") status reports and plans (quarterly and annually,

[27] Metrics Plan, Section 3.0, pages 6 – 8.
[28] Pursuant to the requirements of the Metrics Plan, Transaction Profiles are the primary public document describing NYGB's individual investments. NYGB Transaction Profiles can be found at www.greenbank.ny.gov/Investments/Portfolio.
[29] Quarterly Metrics Reports and webinars can be found at www.greenbank.ny.gov/Resources/Public-Filings and www.greenbank.ny.gov/Resources/Publications-and-Events, respectively.
[30] NYGB has reported Actuals in the Quarterly Metrics Report for the years ending December 31, 2016, 2017 and 2018. See Table 2 of each report, available at www.greenbank.ny.gov/Resources/Public-Filings.

respectively, while RGGI funds are invested by NYGB[31]), the "Operations and Accomplishments and Mission Statement and Performance Measurement Annual Report" (i.e., NY Performs) and other applicable State reporting requirements.

Figure 4 presents an illustrative example of the calculation of direct Impact Benefits.

Figure 4: Estimating Direct Impact & Reporting Benefits

Calculation of Direct Impact Benefits – An Illustrative Example

In 2019, Clean Energy Co. secured $20.0 million of financing from NYGB with a three-year availability period. At closing, Clean Energy Co. plans to install five clean energy systems in NYS. Each system has a 20-year Useful Life and contributes an estimated incremental 5,000 metric tons of GHG emissions reductions per year of operation. A system's First-Year savings are then 5,000 metric tons, and the estimated Lifetime savings are 100,000 metrics tons in NYS (i.e., 5,000 metric tons x 20 years). The entire project would contribute an estimated First-Year savings of 25,000 metric tons (i.e., 5 systems x 5,000 First-Year savings per system), and an estimated Lifetime savings of 500,000 metric tons in NYS over the 20-year Useful Life (i.e., 5 systems x 5,000 First-Year savings per system x 20 years).

At the time of transaction close, NYGB would include the estimated 500,000 metric tons of GHG reductions as part of its estimated Impact Benefits, tied to its Overall Investments to Date and reported in the applicable Quarterly Metrics Report.

Over the three-year availability period, NYGB monitors its borrower's progress and reports summary data relating to the actual systems deployed (aggregated across NYGB's entire portfolio) each year.

In 2022, at the end of the three-year availability period, NYGB would assess if all five systems were installed and placed in service as expected. If, for example, more than five were built, NYGB would then adjust the estimated aggregated portfolio benefits to account for the actual systems placed in service in NYS. This adjustment is referred to as a "**True-Up**", a practice that is continuously exercised throughout the life of the CEF. True-Ups have a positive effect where more systems are built than expected, or per system output is greater than anticipated. If fewer than expected systems are built, or per system output is less than anticipated, NYGB would also adjust its reported impact accordingly.

While the estimation of indirect Impact Benefits will depend on, and vary by, the type of NYGB investment into clean energy assets that may already exist, NYGB's core methodology considers parameters such as NYGB investment amount, assumed debt-to-equity ratios and technology costs per unit of installed capacity for new projects (i.e., $/MW or $/kilowatt ("**kW**")) to determine the size of a new project that would be supported if NYGB committed a similar amount of capital to a developer planning to install new resources. In this way, indirect Impact Benefits are intended to capture the follow-on activity in the State catalyzed by NYGB's investment. NYGB activity that generates indirect Impact Benefits frequently has the effect of helping to preserve and get more from existing renewable assets, as well as contribute to the preservation of fuel diversity in the State – both critical components to meeting NYS goals, including with respect to resiliency.

[31] As part of NYGB's initial capitalization it received ~$52.9 million from RGGI which were used to fund various investments. In February 2019, as directed by the Commission, NYSERDA reallocated NYGB's ~$52.9 million RGGI capital amount in full to other clean energy initiatives in the State. Consequently, at the date of this Review and Plan, NYGB capital does not include any RGGI funds.

Part II

Annual Review 2018 – 19

2. Annual Review 2018 – 19

In this Part II, NYGB discusses its progress over the 2018 – 19 Plan Year, with respect to its objectives set out in the 2018 Plan. Additional detail is provided on NYGB's performance and activities – both investment and operational – including a discussion of NYGB's financial performance and impact.

2.1 Performance In the 2018 – 19 Plan Year

As shown in Figure 5, NYGB established three overarching objectives for the 2018 – 19 Plan Year:

(a) Commit $225.0 million to clean energy investments to reach cumulative commitments of $685.0 million;

(b) Mobilize capital and maintain an average portfolio-wide expected total cost of projects deployed in the State of at least three times NYGB's commitment, driving towards a ratio of at least 8:1 across all NYGB investments by the end of the CEF term in 2025; and

(c) Continue to grow revenues and manage expenses to remain self-sufficient and generate net income.

NYGB strongly exceeded its objective to commit $225.0 million to new investments during the year (by 25.0%) to reach $737.6 million in cumulative commitments, and materially surpassed its net income objective (by more than two times) to remain self-sufficient. With a Mobilization Ratio between 2.4:1 and 2.7:1 – averaging 2.6:1, NYGB did not meet the 3:1 ratio goal.

Figure 5: 2018 – 19 Overarching Objectives & Summary Results

Overarching Objectives:	Summary Results:
▪ Put ratepayer money to work, prudently: Commit **$685.0 million** (cumulative) to NYGB investments over the fiscal year ending March 31, 2019, with an average of **$56.25 million** in closed transactions per quarter.	▪ **$737.6 million** Overall Investments to Date, with **15 new transactions** closed in the 2018 – 19 Plan Year, totaling **$280.1 million** in additional commitments (**$52.6 million** over the cumulative target) and an average of **$70.0 million** in closings per quarter.
▪ Mobilize capital: Maintain an average, portfolio-wide Mobilization Ratio of at least **3:1** (the ratio of Total Project Costs (Cumulative) to NYGB Overall Investments to Date), driving towards a ratio of at least **8:1** across all NYGB investments by the end of the CEF term in 2025.	▪ Portfolio Mobilization Ratio in the 2018 – 19 Plan Year ended at 2.6:1 on average (based on the range of **2:4:1 to 2.7:1**).
▪ Maintain self-sufficiency: Continue to grow revenues and manage expenses to maintain self-sufficiency and generate net income.	▪ Net income of **$15.3 million** in the 2018 – 19 Plan Year, which was over **two times** greater than the **$7.4 million** net income forecast (2018 – 19 Plan).

2.1.1 Why Mobilization Ratio Results Have Decreased

While NYGB focuses on mobilizing large amounts of capital for clean energy and sustainable infrastructure in the State, it also prioritizes its market transformation mandate by seeking to create, accelerate, and grow new clean energy asset classes through the successful implementation of projects in the State where such development may not otherwise occur at all, as quickly or at the requisite scale.

While many new transactions were closed during the 2018 – 19 Plan Year that mobilize material amounts of private capital and support greater clean energy investment in NYS, the annual Mobilization Ratio did not meet the 3:1 target contained in the 2018 – 19 Plan due to NYGB's multiple, and sometimes indirect position in certain large transactions, including five transactions in the nascent Community Distributed Generation ("**CDG**") segment, where mobilization was below the 3:1 target, but for which NYGB provided a firm foundation and an impetus for further scalable and replicable development.

As defined and measured, the Mobilization Ratio does not capture the full extent of NYGB's impact on financial market transformation. For NYGB to be the effective catalyst in the market that the State requires, NYGB is sometimes required to play multiple roles in the capital structure for a single clean energy development. As an example, in a nascent asset class, NYGB may be asked to provide construction lending. Where it does so, the dollar value of the construction facility (for example, $10.0 million) is credited as mobilizing the Total Project Costs associated with the overall project (for example, $50.0 million). Where NYGB participation is also required to take out the construction facility and provide a term loan to the same project (say a term facility of $20.0 million), the way mobilization is calculated on a cumulative basis, NYGB's total investment of $30.0 million mobilizes the same Total Project Cost of $50.0 million – so a 5:1 ratio (i.e., $50.0 million to $10.0 million), as calculated under the Metrics Plan, decreases to 5:3 (or 1.7:1, i.e., $50.0 million to ($10.0 million plus $20.0 million)).

NYGB remains focused on achieving the key mobilization metric, derived from CEF goals,[32] of $8.0 billion of clean energy projects mobilized by NYGB activity by December 2025. At the same time, NYGB remains committed to interim metrics, such as a 3:1 annual mobilization target, while also prioritizing its market transformation objective. As of March 31, 2019, just under $2.0 billion of clean energy projects has been mobilized by NYGB activity.

2.1.2 How NYGB Addressed the Needs of LMI Communities

In the 2018 – 19 Plan Year, NYGB sought opportunities to ensure that the benefits of clean and resilient energy and sustainable infrastructure would be available to all end-users, including those in Low-to-Moderate Income ("**LMI**") communities.

Early in the 2018 – 19 Plan Year, the Commission noted that CDG projects in particular can deliver benefits of clean energy and distributed generation to customers who may otherwise be unable to take advantage of on-site clean energy generation, such as renters, consumers without access to rooftops suitable for solar panels, and/or those who are unable to benefit from solar investment tax incentives.[33] NYGB worked closely with its colleagues at NY-Sun to advance NY-Sun's programmatic priority program "Solar for All", which supports no-cost solar for 10,000 New Yorkers and addresses LMI energy efficiency opportunities. Specifically,

(a) On November 29, 2018, NYGB issued RFI 5: Low and Moderate-Income Participation in CDG Projects in New York State ("**RFI 5**"). Through the issuance and follow-up meetings and communications associated with RFI 5, NYGB and NYSERDA have connected with CDG project developers, sponsors, financiers, community-based organizations, and other market participants that specifically focus on, or are interested in, providing increased opportunities for LMI customers to participate in, and directly benefit from, the State's growing distributed energy resource market. At the submission deadline of December 31, 2018, NYGB had received a strong response from market participants and over the first quarter of 2019 NYGB engaged in follow-up meetings and discussions with respondents;

(b) To better understand specific financing gaps and design potential financing structures, and to further advance discussions and tangible next steps with stakeholders focused on the LMI customer segment, NYGB and NYSERDA hosted a half-day roundtable meeting on April 12, 2019 for over 30 industry participants (i.e., affordable housing property owners and managers) attending in New York City, Albany and Buffalo. All responses have helped NYGB identify product refinements targeted to better serve LMI market segment needs and address barriers in LMI-focused CDG projects;

[32] See Section 1.6.
[33] See: www3.dps.ny.gov/pscweb/WebFileRoom.nsf/ArticlesByCategory/52D956FF6624A419852582C800590805/$File/pr18050.pdf.

(c) NYGB participated in and presented at five LMI Stakeholder convenings hosted by the New York State Department of Public Service ("**DPS**") and NYSERDA (in Western New York, the Mid-Hudson, Central New York, Long Island and New York City ("**NYC**")); and

(d) NYGB provided materially-reduced loan pricing for Solar for All contracts.

NYGB drew several conclusions from the feedback it received from market participants and other LMI stakeholders and incorporated the thinking of leading Community Development Financial Institutions ("**CDFIs**"), housing authorities and non-profits into its financing approach. Key learnings included:

(a) LMI customer acquisition is particularly challenging for originators. Developers need straightforward and non-invasive means to qualify LMI customers. Furthermore, LMI end-user subscription to CDG solar would be enhanced by contracts that incorporated customer-friendly terms such as no FICO® score[34] requirements, indexed rates, shorter-term contracts and no termination fees. LMI market participants were not aware that NYGB is already providing financing with these terms to improve LMI customer acquisition; and

(b) As contemplated in the Commission Order Adopting Low-Income Community Distributed Generation Initiatives,[35] NYGB determined that a credit enhancement/loss reserve product for CDG tax equity could be impactful in further opening the CDG segment to and accelerating its deployment within LMI communities.

During the 2018 – 19 Plan Year, NYGB took action to implement financing approaches that addressed these learnings, including financing CDG projects in a manner that provides for a customer acquisition process that is supportive of an LMI customer base. As an example, NYGB executed a CDG solar transaction with BlueRock Solar Inc. ("**BlueRock**") that seeks to establish credit indicators for subscribers such that sole reliance is not placed on FICO scores (which reliance can have the effect of excluding LMI end-users). This transaction provides a model for the LMI sector, where traditional capital providers may be reluctant to finance CDG portfolios with no/low FICO scores or ascribe full credit to LMI customer contract cash flows. NYGB's financing agreement with Delaware River Solar ("**DRS**") also permitted end-users with no FICO scores and without long-term contracts.

As described in <u>Section 3.3.1</u>, NYGB plans to release a credit enhancement/loss reserve for CDG tax equity product in the 2019 – 20 Plan Year.

<u>Figure 6</u> discusses how NYGB's early financing of residential rooftop solar projects has benefited all end-user segments in the State, including in LMI communities. NYGB's actions to support CDG solar for LMI communities during the 2018 – 19 Plan Year should have the effect of expanding access to clean energy to even more LMI constituents.

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

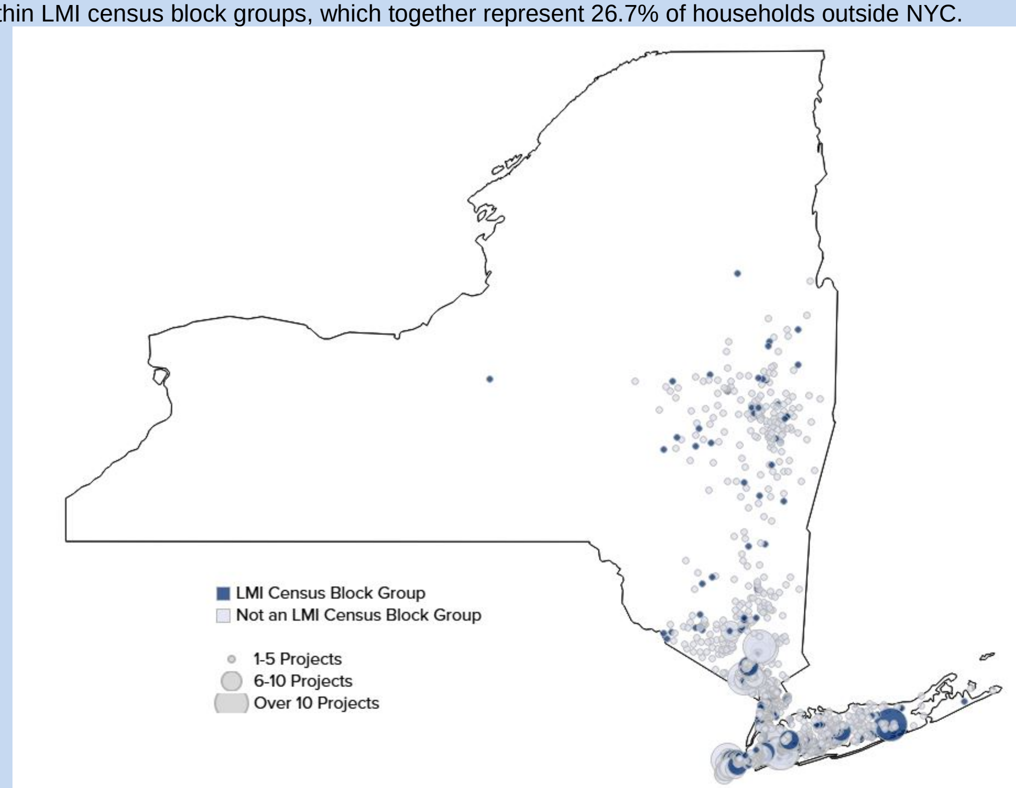
[35] See: http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BA3AC5DF4-C427-4B47-AAAB-1BF50965EB76%7D.

Figure 6: Case Example: Solar Benefits for LMI Stakeholders

NYGB first invested in residential solar in 2016 and made **$253.5 million** in total residential solar PV-related investments as of August 2017, distributed across all end-user income categories. From 2016 through August 2017, counterparties reported over 3,400 residential solar project installations to NYGB. These projects were analyzed by NYGB and NYSERDA to understand the general geographic distribution of the reported projects. The map below compares the project location and United States ("**U.S.**") census block groups to identify the overlap that these systems have with LMI designated regions.

As depicted in the State map below:

- 11.2% of NYGB-financed residential solar projects installed from Inception to August 2017 in NYC were installed within LMI census block groups, which together represent 33.6% of total NYC households; and
- 18.9% of NYGB residential solar projects installed from Inception to August 2017 outside of NYC were installed within LMI census block groups, which together represent 26.7% of households outside NYC.



2.1.3 How NYGB Catalyzed New Markets & Maintained a Strong Active Pipeline

NYGB is consistently focused on, and proactive with respect to, areas of potential market activity where it can accelerate the deployment of all CEF eligible forms of clean energy technology. In the 2018 – 19 Plan Year, many market uncertainties that had been experienced in the prior year for solar CDG were resolved and activity accelerated, helping NYGB to exceed its investment objective for the 2018 – 19 Plan Year by committing $105.8 million to five CDG transactions. NYGB stood ready to provide substantial structured debt facilities to CDG projects even though project timelines were extended for reasons beyond its direct control. In part because of NYGB's readiness to finance such projects, developers and their potential equity/tax equity providers were willing to invest time and energy in pursuit of CDG. This success demonstrates NYGB's ability to identify attractive markets in early stages and add momentum to their development through creative financing solutions.

NYGB maintained a strong Active Pipeline during the 2018 – 19 Plan Year for additional transaction types that NYGB continues to advance toward closing, such as energy storage, energy efficiency including tenant-improvement finance, clean-transportation, CDG, bio-energy, and LSR including OSW.

Investment Performance at a Glance

As of March 31, 2019

Stimulating New Clean Energy Proposals in the State	NYGB has received over **$3.4 billion** in investment proposals since inception.
Strong Active Pipeline	Active Pipeline of potential investments proceeding to close is **$702.7 million.**[36]
Driving Material Clean Energy Investments Across NYS	NYGB's investments support clean energy projects with a total project cost of **between $1.7 and $2.0 billion**[37] in aggregate, based on Overall Investments to Date of **$737.6 million**.
Mobilizing Capital	NYGB's Investment Portfolio represents continuing progress towards 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 NYS by NYGB activity by December 2025 (including the effect of capital recycling). Currently at **$2.0 billion** as of March 31, 2019.
Revenue Growth – Maintaining Self-Sufficiency	Continued revenue growth – **$58.6 million** in revenues has been generated since NYGB's Inception. NYGB continues to maintain self-sufficiency through the generation of annual net income.
Contributing to CEF Objectives, REV & the CES	NYGB's investments to date drive estimated gross GHG emissions reductions of **between 9.1 and 15.2 million metric tons**, equivalent to removing **between 134,818 and 156,044 cars** from the road for a period of **23 years**.[38]

[36] The value of the Active Pipeline is separate from the value of the Investment Portfolio. As of March 31, 2019, the $702.7 million in Active Pipeline does not include the $737.6 million in closed transactions comprising NYGB's Overall Investments to Date.

[37] NYGB monitors its counterparties' clean energy project installations throughout the duration of each investment through the receipt and review of periodic reports as well as updated impact benefit calculation factors advised by DPS. Based on information received, NYGB continually manages the actual and expected energy and environmental impact benefits across its portfolio. As new information becomes available informing NYGB of NYS market uptake of clean energy projects, NYGB may correspondingly adjust (up or down) the overall portfolio's high and low estimated Total Project Costs and energy and environmental metrics (identified at closing of each investment, 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 towards 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 so no longer will reflect the sum of the low and high estimated benefits specified in the Transaction Profiles at the time of each transaction close).

[38] NYGB's GHG emissions reductions values reflect the estimated effect of both direct and indirect impact benefits.

Operational Performance at a Glance

As of March 31, 2019

Improved Information Security	NYGB worked with NYSERDA Information Technology staff to improve information security by using encrypted platforms that adhere to the NYS Information Security Policy and NYSERDA's Data Classification and Security Controls Policy.
High Degree of Transparency	NYGB made **six** public filings (e.g., Quarterly Metrics Reports, Annual Financial Metrics Report (including Audited Financials) and 2018 Plan, issued **three** press releases, hosted **four** webinars to report quarterly performance and published its seasonal newsletters during the 2018 – 19 Plan Year.[39] It also reported on periodic CEF, RGGI and other State disclosures.
Scaled Legal, Regulatory, Portfolio Management & Operations & Finance	In parallel with portfolio growth, NYGB scaled its internal legal counsel, portfolio management and operations functions to ensure continued strong support and monitoring of all transactions, including ongoing compliance, management of all fundings, tracking all modifications and waivers, generating related reports and managing transaction collateral.
Continued Outreach to Market Participants & Stakeholders	NYGB continued to actively engage stakeholders through participation in/ presentation at **84** industry events, along with hosting its annual Statewide Meeting Series and developing and participating in roundtables and working groups. Additional NYGB outreach was conducted via email notifications and updates, multiple social media platforms, interviews with journalists and convenings with interested market participants.
Robust Investment Administration	NYGB deployed **$184.1 million** in the 2018 – 19 Plan Year across more than **54** separate disbursements, averaging **one to two** fundings per week. NYGB also managed **96** separate repayments and **221** interest payments.

[39] See: www.greenbank.ny.gov/News-and-Media/In-The-News, www.greenbank.ny.gov/Resources/Public-Filings and www.greenbank.ny.gov/Resources/Publications-and-Events.

2.2 Progress Against Plan Deliverables

In the 2018 Plan, NYGB identified specific deliverables (the "**Plan Deliverables**") that collectively mark its progress in implementing key initiatives during the 2018 – 19 Plan Year. As presented in Table 2, NYGB succeeded in meeting all deliverables with the exception of achieving a Mobilization Ratio of 3:1 during the 2018 – 19 Plan Year as discussed in Section 2.1.1.

Table 2: Status of Plan Deliverables (2018 - 2019)

Category	Deliverable	Status at March 31, 2019
Strong Active Pipeline		
▪ **Active Pipeline**	▪ Maintain an Active Pipeline of at least $450.0 million per quarter on average throughout the 2018 – 19 Plan Year.	☑ **Achieved for the 2018 – 19 Plan Year:** Average Active Pipeline of **$600.2 million** per quarter.
▪ **Targeted Solicitation: Energy Storage**	▪ Publicly issue Request for Information ("**RFI**")/RFP.	☑ **Achieved for the 2018 – 19 Plan Year:** NYGB issued RFI 4: Financing Arrangements for Energy Storage Projects in New York State ("**RFI 4**") in June 2018 targeting energy storage developers and other market participants, in conjunction with the release of the NYS Energy Storage Roadmap.
	▪ Convene energy storage market participants to identify specific market needs and advance product development.	☑ **Achieved for the 2018 – 19 Plan Year:** NYGB participated in all three of the DPS/NYSERDA Technical Conferences on the Energy Storage Roadmap (in Albany, Farmingdale and New York City), presenting on NYGB financing opportunities within the storage sector.
▪ **Targeted Solicitation: Solar-Plus-Storage**	▪ Publicly issue RFI/RFP.	☑ **Achieved for the 2018 – 19 Plan Year:** NYGB reissued its RFP 10 to incorporate energy storage as RFP 10: Financing for CDG Solar Projects including Projects Paired with Energy Storage ("**RFP 10**") in October 2018. This remains an open solicitation.
	▪ Convene solar-plus-storage market participants to identify specific market needs and advance product development.	☑ **Achieved for the 2018 – 19 Plan Year:** In November 2018, in collaboration with NYSERDA, NYGB participated in and presented at the NYSERDA-hosted conference: "The Power of Synergy: PV + Energy Storage" (in New York City).
▪ **Targeted Solicitation: Pay-for-Performance**	▪ Publicly issue RFI/RFP.	N/A **Determined that RFI/RFP Issuance Not Necessary in 2018 – 19 Plan Year:** During 2018, NYGB worked extensively with NYSERDA colleagues on the key strategic Pay-for-Performance initiative – and these coordinated and focused efforts continue as a priority. Having surveyed the market and identified the likely project participants, it was concluded that for the 2018 – 19 Plan Year, NYSERDA and NYGB are already engaged with the likely universe of market participants and that issuing a formal RFI/RFP document would not be accretive to existing efforts at this stage. When the 2018 – 19 Plan Year objectives were set in the second quarter of 2018, it was assumed that an RFI/RFP would be the most effective way to identify and engage market participants. The collaborative experience of the NYGB and NYSERDA teams in the period since was that in the case of Pay-for-Performance, relevant market participant identification and engagement occurred through the outreach efforts undertaken.
	▪ Convene energy efficiency market participants to identify specific market needs and advance product development.	☑ **Achieved for the 2018 – 19 Plan Year:** In November 2018, in collaboration with NYSERDA, NYGB participated in and presented at the NYSERDA-hosted "Pay for Performance Commercial Stakeholder Meeting" (in New York City).

Category	Deliverable	Status at March 31, 2019
▪ **Targeted Solicitation: Tenant Improvement Financing**	▪ Publicly issue RFI/RFP.	☑ **Achieved for the 2018 – 19 Plan Year:** NYGB issued its RFI 6: On-Lease Commercial Tenant Energy Efficiency Financing ("**RFI 6"**) on March 27, 2019.
	▪ Convene large property owners and related stakeholders to identify specific market needs and advance product development.	☑ **Achieved for the 2018 – 19 Plan Year:** A webinar for large property owners and related stakeholders was held on April 9, 2019. NYGB continues to interact in a focused manner with large property owners with potential projects and an interest in working with NYGB, to refine potential product offerings and catalyze project proposals.
▪ **Targeted Solicitation: Clean Energy for Low-to-Moderate Income End-Users**	▪ Publicly issue RFI/RFP.	☑ **Achieved for the 2018 – 19 Plan Year:** In November 2018 NYGB issued RFI 5: Low to Moderate-Participation in CDG Projects in NYS. This RFI closed on December 31, 2018 and many responses were received which NYGB has reviewed in the context of targeted product development and NYGB continues to be actively engaged with respondents.
	▪ Convene LMI stakeholders to report on RFI 5 findings and to identify specific market needs and advance product development.	☑ **Achieved for the 2018 – 19 Plan Year:** The stakeholder convening occurred on April 12, 2019. In addition, in 2018 representatives of NYGB participated in and presented at five Low-to-Moderate-Income Stakeholder Convenings hosted by DPS and NYSERDA (in Western New York, the Mid-Hudson, Central New York, Long Island and New York City).
Portfolio Driving Material Clean Energy Investments Across NYS		
▪ **Committed Funds**	▪ Achieve an average of $56.25 million in closed transactions per quarter.	☑ **Achieved for the 2018 – 19 Plan Year:** Average of **$70.0 million** in closed transactions per quarter in the fiscal year.
	▪ Commit $685.0 million (cumulative) to NYGB investments as of March 31, 2019.	☑ **Achieved for the 2018 – 19 Plan Year: $737.6 million** Overall Investments to Date.
▪ **Evaluation**	▪ Select independent consultant(s) and finalize scope(s) of work.	☑ **Achieved for the 2018 – 19 Plan Year:** Independent consultant selected in July 2018 and engagement commenced and completed.
	▪ Work with NYSERDA and the independent consultant(s) to advance the baseline study of financial market transformation in accordance with the evaluation Work Plan.	☑ **Achieved for the 2018 – 19 Plan Year:** Financial Market Evaluation study report and related documents completed in March 2019 and filed with DPS.[40]
	▪ Work with NYSERDA and the independent consultant(s) to advance the impact evaluation.	☑ **Achieved for the 2018 – 19 Plan Year:** NYGB solar PV assets were included in the NY-Sun Solar PV Evaluation study conducted in early 2018. NYSERDA published the "Solar Photovoltaic Program Impact Evaluation for 2011-2016 – Final Report" in 2018.[41]

[40] See: www.greenbank.ny.gov/Resources/Public-Filings.
[41] See: www.nyserda.ny.gov/About/Publications/Program-Planning-Status-and-Evaluation-Reports/Evaluation-Contractor-Reports/2018-Reports.

Category	Deliverable	Status at March 31, 2019
Mobilizing Private Capital		
▪ **Mobilization Ratio**	▪ Achieve an average, portfolio-wide Mobilization Ratio of at least 3:1, driving towards a ratio of 8:1 across all NYGB investments by the end of the CEF term in 2025.	☒ **Not achieved for the 2018 – 19 Plan Year:** Portfolio Mobilization Ratio at an average of 2.6:1 in Q1 2019.[42] See further discussion in Section 2.1.1.
	▪ Evaluate strategies to provide for third-party capital investment at the portfolio level while continuing to deliver more per ratepayer dollar for the benefit of all New Yorkers.	☑ **Achieved for the 2018 – 19 Plan Year:** NYGB worked with its advisors to evaluate and propose third-party capital opportunities consistent with announcements by Governor Cuomo in fall 2017 and the 2019 State of the State initiatives.

The 2018 Plan also outlined the key activities that NYGB would undertake in the 2018 – 19 Plan Year to meet its mission and goals. The balance of this Part II specifically addresses deliverables and performance in each activity area.

[42] Given the range of Total Project Costs that NYGB investments mobilize, the Mobilization Ratio also represents a range; currently of 2.4:1 to 2.7:1.

2.3 Continued Portfolio Growth

As of March 31, 2019, NYGB had **$737.6 million** in Overall Investments to Date, including **$280.1 million** new commitments across **15 transactions** in the 2018 – 19 Plan Year. Each new transaction helps facilitate clean energy and sustainable infrastructure development in NYS in collaboration with private sector participants. Table 3 summarizes all transactions closed in the 2018 – 19 Plan Year with details of those transactions (based on corresponding Transaction Profiles) contained in Schedule 1.

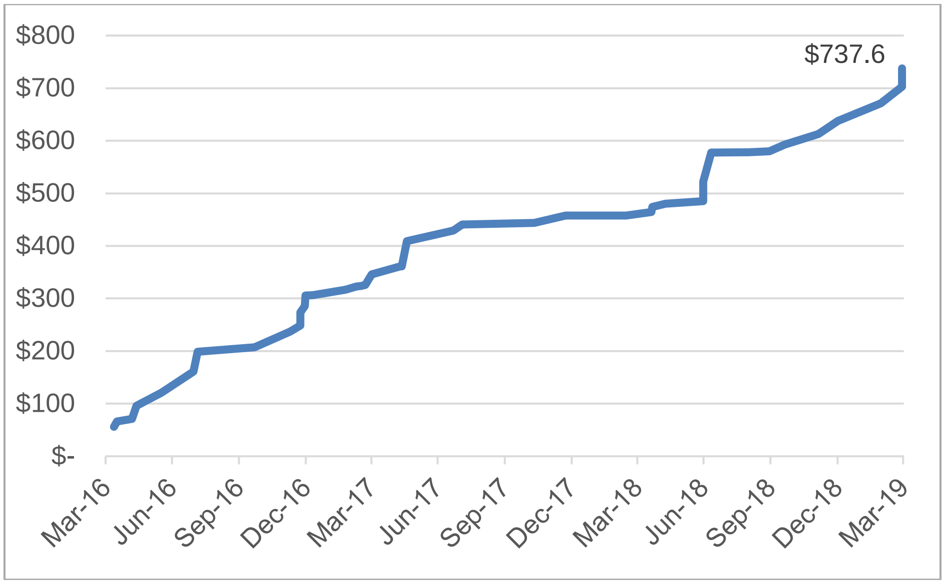
Table 3: New Transactions, 2018 – 19 Plan Year

New Transactions	Description	Newly Committed Amounts	Closing Date
Delaware River Solar, LLC	Three separate transactions including a term loan, construction finance and interconnection bridge loan to finance solar CDG in NYS.	$87.0 million	April 19, July 10 and December 31, 2018
Sunrun Inc. Post-Construction Aggregation Facility	Increasing a capital commitment to Sunrun Inc. ("**Sunrun**") to provide further liquidity to support Sunrun in meeting growing demand for residential rooftop solar PV and expanding its ability to finance the installation of solar projects throughout NYS.	$10.0 million	April 20, 2018
Motivate International Inc. Credit Facility	Upsized NYGB's previous capital commitment to finance the expansion of Motivate International Inc.'s bike share program in NYC ("**Citi Bike**").	$6.0 million	May 8, 2018
NRG Renew, Inc. ("Renew") Term Facility	Support for one of the first large-scale financings of a portfolio of CDG solar assets in NYS.	$18.0 million	June 29, 2018
BQ Energy ("BQ") – Homeridae and Steel Sun 2 Construction Loans	Construction finance to develop Commercial & Industrial ("**C&I**") solar projects in NYS pursuant to two separate transactions.	$17.4 million	June 29, October 19, 2018
Vivint Solar, Inc. Corporate Revolver	Participation in Vivint Solar, Inc.'s corporate lending facility to finance the acquisition of new customers and construction of solar PV systems in NYS.	$19.0 million	June 29, 2018
BlueRock Energy Solar, Inc.	Term loan secured by a solar project in Millport, NY to support the development of a portfolio of CDG projects in NYS.	$0.8 million	August 31, 2019
New York City Energy Efficiency Corporation	Co-lender in a construction-to-term loan to Ecosave Inc. to finance installation of energy efficiency improvements at the Hebrew Home at Riverdale senior care facility.	$2.0 million	September 28, 2019
Cypress Creek Renewables	Upsized existing facilities, utilizing Illinois collateral, for development and support of NYS utility-scale solar.	$20.0 million	December 4, 2018
Valcour Wind Energy, LLC	Recapitalization of six wind farms located in the State's North Country and Western NY regions across two transactions. The portfolio consists of 612.0 MW of operating projects.	$68.8 million	February 28, March 29, 2019
Rock Wind Holdings, LLC	Participation in the recapitalization of the borrower, the owner of five operating wind farms, including a 55.4 MW operating project located in Steuben County, NY.	$31.2 million	March 29, 2019
Total		**$280.1 million**[43]	

[43] Note that due to rounding for the purposes of presentation in this Review and Plan, the sum of each Newly Committed Amount may not be identical to the Total Newly Committed Amounts.

Figure 7 charts the monthly growth of Overall Investments to Date over the past three fiscal years.

Figure 7: Overall Investments to Date, Month-By-Month ($ millions)

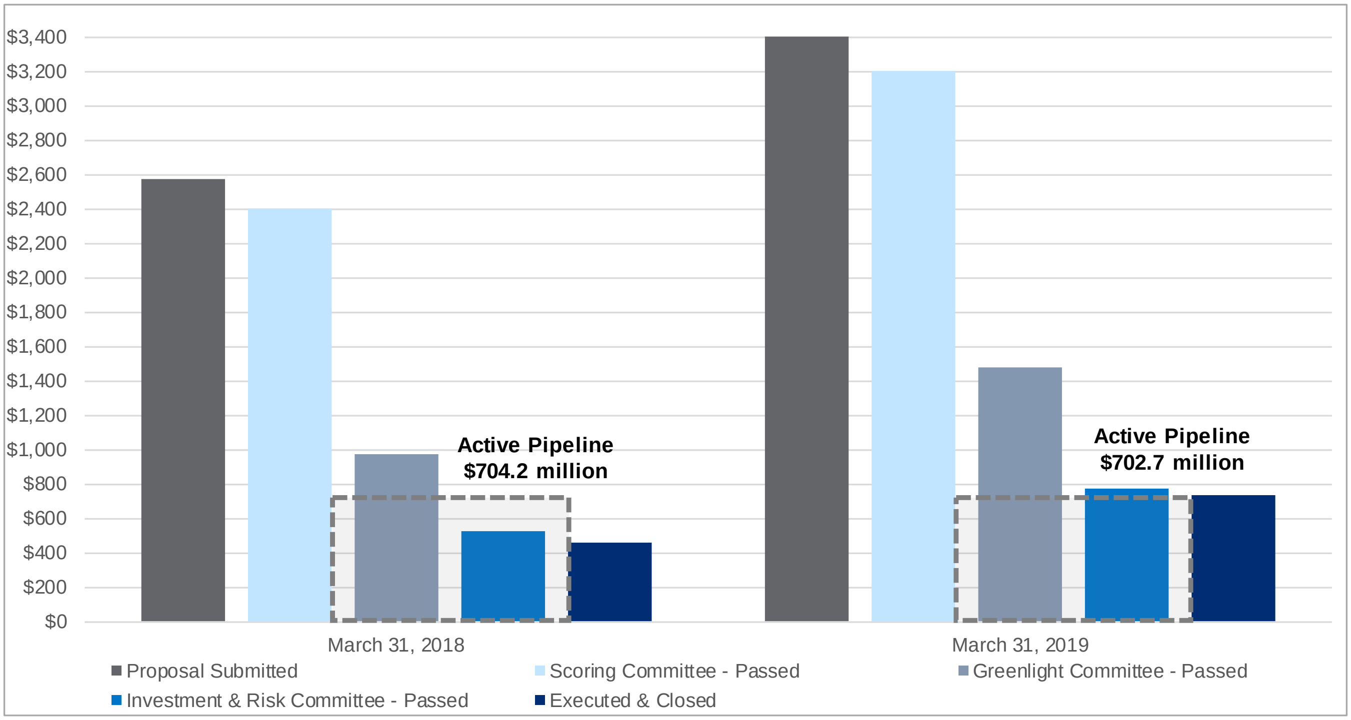


2.4 Maintained Strong Active Pipeline

2.4.1 Characteristics & Management of the Active Pipeline

Maintenance of a strong Active Pipeline is key to NYGB's ongoing success. From Inception through March 31, 2019, NYGB had received over $3.4 billion in investment proposals, resulting in an Active Pipeline of $702.7 million as of March 31, 2019. In the 2018 – 19 Plan Year, NYGB sought to maintain a strong Active Pipeline of at least $450.0 million on average per quarter. This objective was achieved: NYGB maintained an average $600.2 million Active Pipeline for the 2018 – 19 Plan Year. Figure 8 shows both Active Pipeline and transaction status (in terms of each phase of NYGB's investment process), with year-on-year comparison to the 2017 – 18 Plan Year.

Figure 8: Transaction Status & Active Pipeline: Year-on-Year Review ($ millions)



NYGB actively manages its pipeline to promote conversion of leads to proposals, and proposals to closed transactions. NYGB staff conduct weekly internal pipeline meetings to discuss and prioritize actions with respect to all transactions advancing to close, including evaluating and updating the probability of close to ensure that financial and impact goals are achieved. The Active Pipeline continues to be diversified across technology, location and end-user segments.

NYGB undertakes a range of activities to support the development and management of its Active Pipeline. During the 2018 – 19 Plan Year, NYGB staff participated in 84 industry events, mostly in the role of presenters and panelists. NYGB engaged in further outreach through its annual Statewide Meeting Series, discussions following the release of four RFPs/RFIs, clean energy and sustainable infrastructure industry roundtables, working groups, Quarterly Metrics Report webinars, press releases, regular mailings and interviews with clean energy and sustainable infrastructure industry stakeholders. These activities were supplemented by numerous press releases and informational and other interviews with members of the press.

2.4.2 Conducted Public & Stakeholder Outreach

NYGB routinely undertakes a range of outreach activities to support its robust pipeline of investment opportunities, as well as for public and stakeholder transparency. NYGB participated in numerous events during the 2018 – 19 Plan Year including the:

(a) "Community Solar in NYS" webinar hosted by the Green Bank Network ("**GBN**"), where representatives from NYGB and NY-Sun presented on the opportunities emerging in the NYS community solar market;

(b) Baker McKenzie Annual Global Renewable Energy Conference where NYGB discussed the increased activity in NYS's energy storage market, and the financing mechanisms needed to support this opportunity;

(c) C40 Financing Sustainable Cities Forum 2018 where NYGB participated on the "Investing Long-Term, Acting Now" panel and discussed its unique business model;

(d) REFF Wall Street Summit where NYGB and other industry experts addressed the financing challenges and opportunities in energy storage market on the “Grid Modernization: Opportunities for Growth and Investment” panel;

(e) All three DPS/NYSERDA Technical Conferences on the Energy Storage Roadmap, held in NYC, Farmingdale, and Albany. NYGB spoke to specific ways in which it could finance energy storage projects in NYS by addressing existing market barriers and financing gaps that impede current project development;

(f) Various NYSERDA-hosted technical conferences including: LMI Stakeholder Meetings, Energy Storage Technical Conferences, Pay-for-Performance (“**P4P**”) Stakeholder Meeting, and NYSERDA’s Heat Pump Technical Conference. NYGB addressed specific ways it can help address financing barriers;

(g) Tenth Annual Climate Week in NYC, including participation on a panel during the Built Environment – Imagining the Smart Buildings of Tomorrow event hosted by the Climate Group;

(h) Eagle’s Nest Conference in the Adirondacks focused on solar, OSW and energy storage, where NYGB presented its business model and how it is used to overcome financial and market barriers in clean energy in NYS to various market participants including many project developers;

(i) Power of Waste Conference hosted by Energy Vision in Saratoga which provided NYGB an opportunity to present on its approach to financing biomass projects;

(j) Green Seeds series co-hosted by NYSERDA, which aims to grow NYC’s sustainability community and address barriers in the clean energy market;

(k) Ribbon cutting ceremony for BQ’s Beacon project, which received a $3.1 million construction loan and term loan from NYGB;

(l) DRS Thompson project groundbreaking. The DRS Thompson project is one of several within a larger portfolio that received financing from NYGB;

(m) United States Department of Energy Storage Financing Summit, where NYGB delivered the keynote address;

(n) Offshore Wind Finance Forum, where NYGB delivered the keynote address;

(o) Solar Energy Industries Association Finance & Tax Seminar, where NYGB presented its approach to financing CDG projects;

(p) New York Battery & Energy Storage Technology Consortium’s Annual Meeting & Conference: Capture the Energy, where NYGB presented on its financing solutions for energy storage projects; and

(q) Australian Consulate’s International Women’s Day celebration, where NYGB Chief Operating Officer, Caroline Angoorly, shared career path insights as part of a panel of female business leaders.

NYGB also organized several meetings in different regions of NYS as part of its annual Statewide Meeting Series:

(a) March 21, 2019, North Country: NYGB co-hosted a regional meeting with the Adirondack North Country Association. NYGB presented on how it can support clean energy and sustainable infrastructure projects in the North Country region. NYGB also used the opportunity to learn from attendees about the types of projects they are working on and any market barriers or financing gaps that inhibit project deployment in the region; and

(b) March 12 –13, 2019, Mohawk Valley: NYGB explored opportunities to work together with SUNY Cobleskill and F.X. Matt Brewing on energy efficiency, controlled-environment agriculture and renewable natural gas technologies.

2.4.3 Issued Targeted Solicitations & Participated in Strategic Convenings

In the 2018 –19 Plan Year, NYGB sought to stimulate investment opportunities in markets that align with NYS, NYSERDA and NYGB’s strategic priorities through targeted solicitations (i.e., either RFIs or RFPs) and participation in stakeholder convenings in various market segments, including:

(a) Energy Storage;

(b) Solar-Plus-Storage;

(c) P4P;

(d) Tenant Improvement Finance; and

(e) Clean Energy for LMI.

During the 2018 – 19 Plan Year:

(a) NYGB issued RFI 4 to engage energy storage developers and other market participants in one-on-one conversations and broader convenings to further the financing of this integral asset class in NYS in the immediate term. At the due date of December 31, 2018, NYGB had received a strong response from market participants. These responses and ongoing interactions continue to inform NYGB's consideration of key issues in the feasibility of storage financings and the structuring of potential products, all on a backdrop of ongoing engagement with energy storage developers active in the State's nascent and evolving energy storage market. NYGB continues to anticipate further activity in the storage segment and stands ready to offer creative financing solutions to support its growth;

(b) NYGB participated and presented at the NYSERDA-hosted conference: "The Power of Synergy: PV + Energy Storage" (in November 2018, NYC);

(c) NYGB reissued its RFP 10 in October 2018 to incorporate energy storage as a priority investment.[44] RFP 10 remains an open solicitation;

(d) As described in Section 2.1.2, on November 29, 2018, NYGB issued RFI 5 and engaged in follow up discussions during the first quarter of 2019 to inform solutions and address market barriers for LMI participation in CDG projects; and

(e) NYGB issued RFI 6 on March 27, 2019 to explore financings to provide capital on a wholesale basis for use by building owners/managers that would in turn be made available to tenants to finance qualified energy efficiency improvements. RFI 6 seeks to: (i) solicit feedback from real estate market participants on a rolling basis with respect to NYGB's proposed on-lease commercial tenant energy efficiency financing product; (ii) identify prospective opportunities; and (iii) collaborate with potential end-users on their efficiency upgrade financing needs. NYGB is using the information received in response to this RFI to refine its on-lease commercial tenant energy efficiency financing product as well as to identify and develop other standardized, replicable, and scalable financing approaches for energy efficiency improvement projects or portfolios of projects. For example, NYGB may provide debt finance for energy efficiency measures that would occur in the build-out or retrofit of a facility, under an approach that maintains the owner-tenant relationship. Debt finance could be used to purchase energy efficient equipment or perform other upgrades, with debt service sculpted to be less than expected energy savings, with an on-lease payback period shorter than a given remaining lease period. Ultimately, NYGB seeks to work with large property owners to achieve scale and standardization of such a financing solution, to help attract private capital to the market.

When the 2018 – 19 Plan Year objectives were set in the second quarter of 2018, it was assumed that an RFI/RFP addressing P4P would be the most effective way to identify and engage energy efficiency market participants that would be utilizing NYSERDA's P4P program. However, during the 2018 – 19 Plan Year, NYGB determined that it was already engaged with the likely universe of market participants, including through the NYSERDA-hosted "Pay for Performance Commercial Stakeholder Meeting" (in NYC) at which NYGB was a presenter. As such, NYGB concluded that issuing a formal RFI/RFP would not be accretive to existing efforts already underway. During the 2018 – 19 Plan Year, NYGB collaborated extensively with its NYSERDA colleagues to identify and engage with likely project participants. NYGB continues to refine potential product offerings and catalyze financing proposals through focused interactions with market participants with potential projects and an interest in working with NYGB.

[44] See: www.greenbank.ny.gov/Work-with-Us/Open-Solicitations/Solicitation-Details?SolicitationId=a0rt000000BngihAAB.

2.4.4 Issued & Contributed to Press Releases

NYGB issued or contributed to a number of press releases during the 2018 – 19 Plan Year, in support of Governor Cuomo's leadership on clean energy and climate initiatives and specific State initiatives. These included:

(a) June 1, 2018: Governor Cuomo Announces New U.S. Climate Alliance Initiatives to Mark One-Year Anniversary of President Trump's Decision to Withdraw from the Global Paris Climate Accord;[45]

(b) June 21, 2018: Governor Cuomo Announces New York Energy Storage Roadmap to Achieve Nation-Leading Target of 1,500 Megawatts by 2025 to Combat Climate Change;[46] and

(c) August 15, 2018: NY Green Bank Announces Strong Second Quarter with Commitments Now Totaling Over $522 Million in Support of Up to $1.7 Billion in Clean Energy Investment Across the State.[47]

2.4.5 Issued Periodic Newsletters & Web Site Updates

NYGB continued to further its transparency and connection to the market and other stakeholders through its summer and winter newsletters, which highlight recent transactions, portfolio and pipeline information, recent NYGB media coverage and other organizational activities. On August 23, 2018, NYGB issued its Summer Newsletter,[48] highlighting its release of RFP 10 and RFI 4, as well as financial and impact metrics as of June 30, 2018. On February 20, 2019, NYGB issued its Winter Newsletter[49], highlighting its financial and impact performance as of December 31, 2018, in addition to referencing the then recently filed Quarterly Metrics Report for the period ended December 31, 2018, and RFI 5. More than 7,000 individuals receive NYGB newsletters and updates.

In addition to updates in the normal course, NYGB highlighted special events and news coverage[50] that occurred during the FY 2018 – 19 Plan Year on its website under "News and Media", including:

(a) In April 2018, NYGB Chief Operating Officer, Caroline Angoorly, was recognized by Crain's New York *"Notable Women in Finance";*[51]

(b) On June 19, 2018, the Washington Examiner discussed various green bank/green investment initiatives, including NYGB;[52]

(c) On September 24, 2018, NYGB was announced as a finalist in the S&P Global Platts Global Energy Awards: Rising Star Award;[53]

(d) On November 29, 2018, at the Sixth Annual International Green Bank Congress, the GBN announced that green banks had, collectively and globally, already mobilized $41.0 billion for clean energy and sustainable infrastructure, ahead of the 2019 target of $40.0 billion;[54]

(e) In January 2019, Lexis Practice Advisor published an interview with NYGB on what makes it different from other financial institutions and on the innovative financing solutions crucial to accelerating clean energy deployment in NYS;[55] and

[45] See: www.nyserda.ny.gov/About/Newsroom/2018-Announcements/2018-06-01-Governor-Cuomo-Announces-New-US-Climate-Alliance-Initiatives.
[46] See: www.governor.ny.gov/news/governor-cuomo-announces-new-york-energy-storage-roadmap-achieve-nation-leading-target-1500.
[47] See: www.greenbank.ny.gov/News-and-Media/In-The-News/2018-08-15-NY-Green-Bank-Announces-Strong-Second-Quarter.
[48] See: www.greenbank.ny.gov/News-and-Media/In-The-News/201809-Summer-Newsletter.
[49] See: www.greenbank.ny.gov/News-and-Media/In-The-News/201902-Winter-2018-Newsletter.
[50] NYGB was referenced in 52 articles or media pieces during the 2018 – 19 Plan Year.
[51] See: www.crainsnewyork.com/assets/pdf/CN11500345.PDF.
[52] See: www.washingtonexaminer.com/policy/energy/states-create-green-banks-to-push-renewable-energy.
[53] See: www.spglobal.com/platts/global-energy-awards/finalists/2018.
[54] See: www.sdg.iisd.org/news/green-banks-mobilize-us41-billion-for-clean-energy-ahead-of-2019-target/.
[55] See: www.greenbank.ny.gov/-/media/greenbanknew/files/news-20190107-Lexis-Practice.pdf.

(f) On February 12, 2019, NYGB was featured on the Norton Rose Currents Podcast,[56] discussing NYGB's role in accelerating clean energy markets, its innovative approach to financing clean energy transactions and its plans to raise third-party capital and expand financing across North America.

2.5 Improved Financial Performance & Remained Self-Sufficient

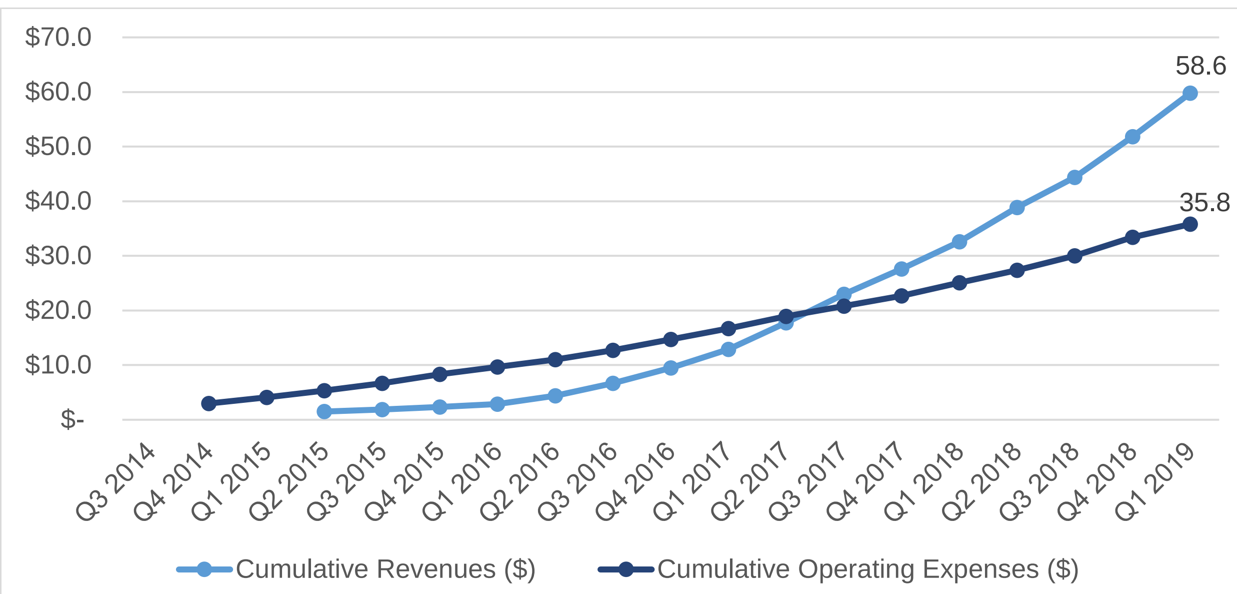
For the 2018 – 19 Plan Year, NYGB continued its focus on execution and asset management across all aspects of its sustainable infrastructure investment business, consistent with comparable established entities with analogous investment activities. This was reflected in additional transaction execution activity in the period, increasing NYGB's Investment Portfolio, ongoing business development to maintain a robust pipeline of potential investments, as well as focus on implementing and maintaining operational platforms, policies and practices consistent with industry best practice.

Selected financial highlights are discussed in this Section 2.5. Detailed financial information is included in NYGB's Audited Financials and published in NYGB's Annual Financial Metrics Report.

2.5.1 Revenues, Expenses & Net Income

NYGB's Investment Portfolio generated significant Operating Revenues for the 2018 – 19 Plan Year. As such, NYGB maintained its self-sufficiency (i.e., generation of net income) and exceeded its annual net income target as stated in the 2018 Plan.[57] Specifically, NYGB generated $26.0 million in revenues, incurred $10.7 million in expenses and produced $15.3 million in net income. This continued self-sufficiency has strengthened NYGB's cumulative revenue versus cumulative expense performance, as illustrated in Figure 9.

Figure 9: Cumulative Revenues vs. Cumulative Expenses ($ millions)



[56] See: www.projectfinance.law/podcasts/2019/february/ep51-working-with-the-ny-green-bank/.
[57] 2018 Plan, page 37 available at www.greenbank.ny.gov/-/media/greenbanknew/files/nygb-2018-business-plan.PDF.

A summary of NYGB's 2018 – 19 financial results is contained in Table 4.

Table 4: Fiscal Year 2018 – 19 Financial Summary ($ thousands)

	March 31, 2019	March 31, 2018	% Change 2018 - 2019
Operating revenues:			
Fees	$3,947	$2,484	58.9%
Loans and financing receivables interest	15,253	16,703	(8.7)%
Provisions for losses on loans and financing receivables	(388)	(844)	(54.0)%
Total operating revenues	18,812	18,343	2.6%
Operating expenses:			
Salaries and benefits	6,421	5,716	12.3%
Investment related expenses	456	435	4.8%
Other operating costs	765	1,152	(33.6)%
General and administrative expenses	1,100	920	19.6%
Depreciation	184	154	19.5%
NYS assessments	125	86	45.3%
Total operating expenses	9,051	8,463	6.9%
Operating income	9,761	9,880	(1.2)%
Non-operating revenues:			
Capital contributions[58]	119,882	9,529	1,158.1%
Investment income	7,223	1,354	433.5%
Total non-operating revenues	127,105	10,883	1,067.9%
Non-operating expenses:			
Capital expansion	1,425	-	100.0%
Program evaluation	211	-	100.0%
Total non-operating expenses	1,636	-	100.0%
Income before transfers	135,230	20,763	551.3%
Transfers – capital contributions (redemptions)	(52,926)	100,152	(152.8)%
Change in net position	82,304	120,915	(31.9)%
Net position, beginning of year	486,151	365,236	n/a
Net position, end of year	$568,455	$486,151	16.9%
Net Income (Loss)	**$15,348**	**11,234**	**36.6%**

Source: NYGB Financial Statements; NYGB Analysis

As shown in Table 4, Total operating revenues increased $0.5 million (2.6%) from the prior year. A 58.9% increase in fees is primarily attributable to NY Green Bank closing a larger number of transactions during the fiscal year. A decrease in loans and financing receivables interest of 8.7% is due to an increase in loan repayments, which are central to NY Green Bank's capital preservation and recycling.

A provision for losses on loans and financing receivables in the amount of $387,898 has been recorded for the year ending March 31, 2019; this represents 0.13% of the total loans and financing receivables balance at that date.

Total operating expenses increased $0.6 million (6.9%), most significantly driven by increases in salaries and benefits. Salaries and benefits (which include NYGB staff salary expenses ($3.0 million), NYSERDA allocated

[58] As part of U.S. generally accepted accounting standards, the Governmental Accounting Standards Board requires capital contributions made to NYGB from NYSERDA's available cash and investment balances to be treated as transfers, while those derived directly from the Bill-As-You-Go ("**BAYG**") approach be accounted for as nonoperating revenues to NYGB. As a result, additions to NYGB's capital during the fiscal year equal the sum of "Capital contributions" under Non-operating revenues and "Transfers – capital contributions (redemptions)."

administrative salary expenses ($1.6 million), and allocated fringe benefit expenses ($1.8 million)) increased $0.7 million (12.3%) from the prior year. This occurred due to an increase in NYGB's staffing consistent with plan, as well as an increase in the overall pool of allocable expenses of which NYGB pays its *pro rata* share (which is calculated based on NYGB's direct staffing costs as a proportion of NYSERDA's program staffing costs).

Investment Related Expenses, which include legal and other costs incurred for various Portfolio Investments, were 4.8% more than the previous year, which generally reflects transaction volumes and counterparty reimbursement rates. Program operating costs decreased $0.4 million (33.6%) due to a decrease in professional service expenses (e.g., consultants and temporary employees).

General and Administrative Expenses, which include allocable costs such as rent, utilities and insurance increased $0.2 million (19.6%) due to an increase in the allocable cost as compared to the prior year. Depreciation and NYS Assessments reflect NYGB's allocable share of NYSERDA's depreciation and NYSERDA's cost recovery fee assessment from the State, respectively. Both of these dollar amounts have increased from the prior year.

Investment income increased $5.9 million (433.5%), directly reflecting NYGB's higher average investment, resulting from contributed capital received but not immediately deployed, as well as operating income generated and principal payments received less capital redemptions.

Non-operating expenses increased $1.6 million primarily due to capital advisory costs of $1.4 million. In October 2017, Governor Cuomo announced that NYGB would explore options to raise at least an additional $1.0 billion in private sector funds to invest at a portfolio level ("**Capital Initiative**") and would take steps toward exploring a national expansion (described in detail in <u>Section 2.10</u> below). NYGB engaged an outside consultant to assist in the exploration of the Capital Initiative. Separately, program evaluation costs increased $0.2 million; these expenses are attributable to periodic independent assessments of NYGB's impact in the marketplace (e.g., energy, environmental and market transformation).

2.5.2 Capital & Liquidity Management

The CEF Order established incremental ratepayer collections in varying amounts from 2016 through 2025 totaling $631.5 million to complete funding of NYGB's authorized $1.0 billion capital. NYGB's cash and invested capital balances reflect its initial $218.5 million capitalization in December 2013, a capital installment of $150.0 million received in August 2016, further aggregate capital contributions of $109.7 million received during the 2017 – 18 Plan Year and an additional net inflow of $67.0 million during the 2018 – 19 Plan Year. The net inflow of $67.0 million included a $52.9 million capital redemption of NYGB's initial capitalization funded from RGGI reserves repurposed by NYSERDA to provide funding to support NYSERDA's statewide energy storage initiative.

NYGB receives incremental capital contributions through NYSERDA as capital is committed. An additional $401.9 million in capitalization is expected to be provided based on the Commission's approval of $1.0 billion in funded capitalization. NYSERDA funds these contributions either from a transfer of existing cash and investment balances (of certain Commission authorized programs, i.e., transfers in), or from the CEF ratepayer collections held by the electric utilities under the BAYG approach (i.e., capital contributions), consistent with the CEF Order. NYGB's forecasted liquidity needs are fully addressed through access to allocated capital installments, or by a credit facility if and when required, as described in the CEF Order.[59]

[59] CEF Order, page 108.

Table 5 presents NYGB's allocated ratepayer capital position, which reflects the funding of ratepayer capital installments to NYGB pursuant to Commission Orders.[60,61]

Table 5: Allocated Ratepayer Capital Position ($ thousands)

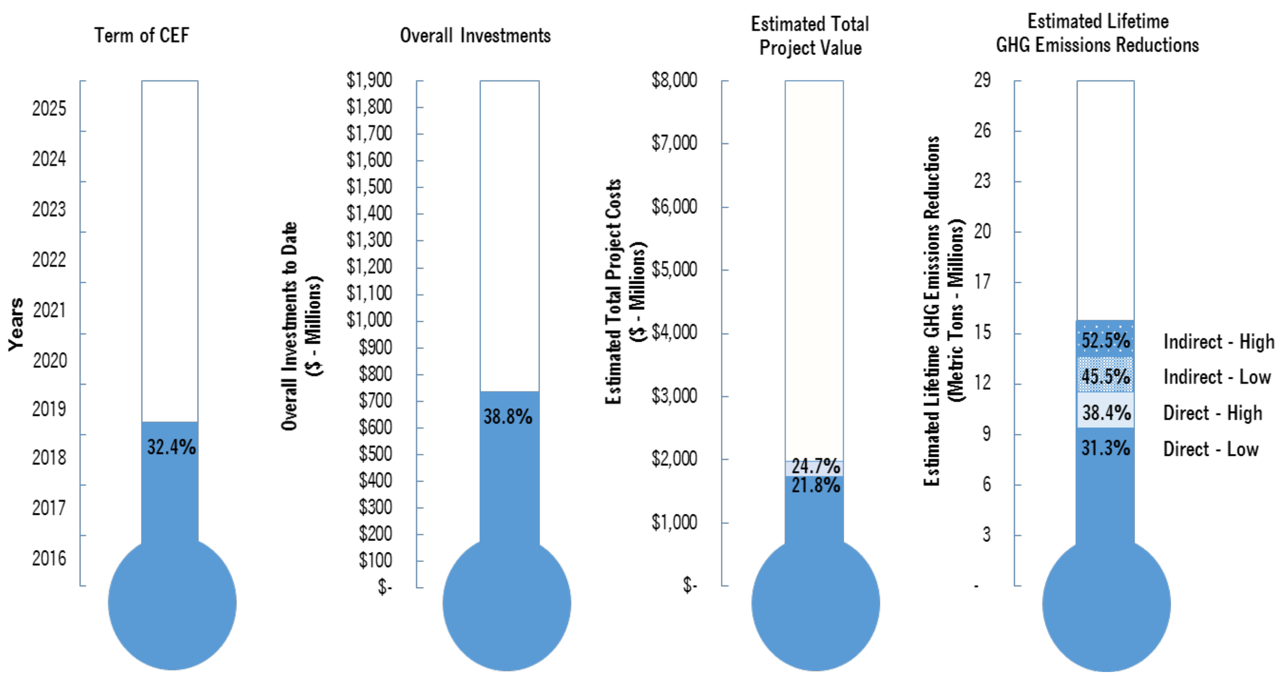
	March 31, 2019	March 31, 2018	March 31, 2017
Allocated Ratepayer Capital (beginning)	478,207	$368,526	$218,526
Transfers – Capital Contributions (Redemptions)	(52,926)	100,152	150,000
Capital Contributions	119,882	9,529	-
Allocated Ratepayer Capital (end)	**545,163**	**$478,207**	**$368,526**
Source: NYGB Financial Statements, NYGB Analysis			

2.6 Delivered Increasing Impact Benefits for all New Yorkers

At the end of the 2018 – 19 Plan Year, NYGB's Investment Portfolio is estimated to result in between 478.0 and 596.3 MW of clean energy installed capacity and produced estimated lifetime clean energy generation of between 16.9 and 20.7 million MWh in NYS.

NYGB remains on track to achieve its CEF goals. Figure 10 shows NYGB's progress as of March 31, 2019 toward CEF goals related to Overall Investments to Date and reduction of GHG emissions.

Figure 10: NYGB On Track to Meet Key CEF Goals as of March 31, 2019



[60] Part of NYGB's establishment involved the authorization of $17.5 million of the initial capitalization of $218.5 million for start-up and administration expenses. At March 31, 2019, NYGB's cumulative (direct and indirect) operating expenses were $35.8 million and for the same period, NYGB's cumulative (operating and non-operating) revenues totaled $58.6 million. Since the $17.5 million in administrative expenses has been expended in full, NYGB's ongoing expenses are being met by revenues, with excess revenues being applied to NYGB's investment activities. At March 31, 2019, such excess revenues totaled $40.3 million (i.e., calculated as the sum of $58.6 million and $17.5 million, less cumulative expenses of $35.8 million).

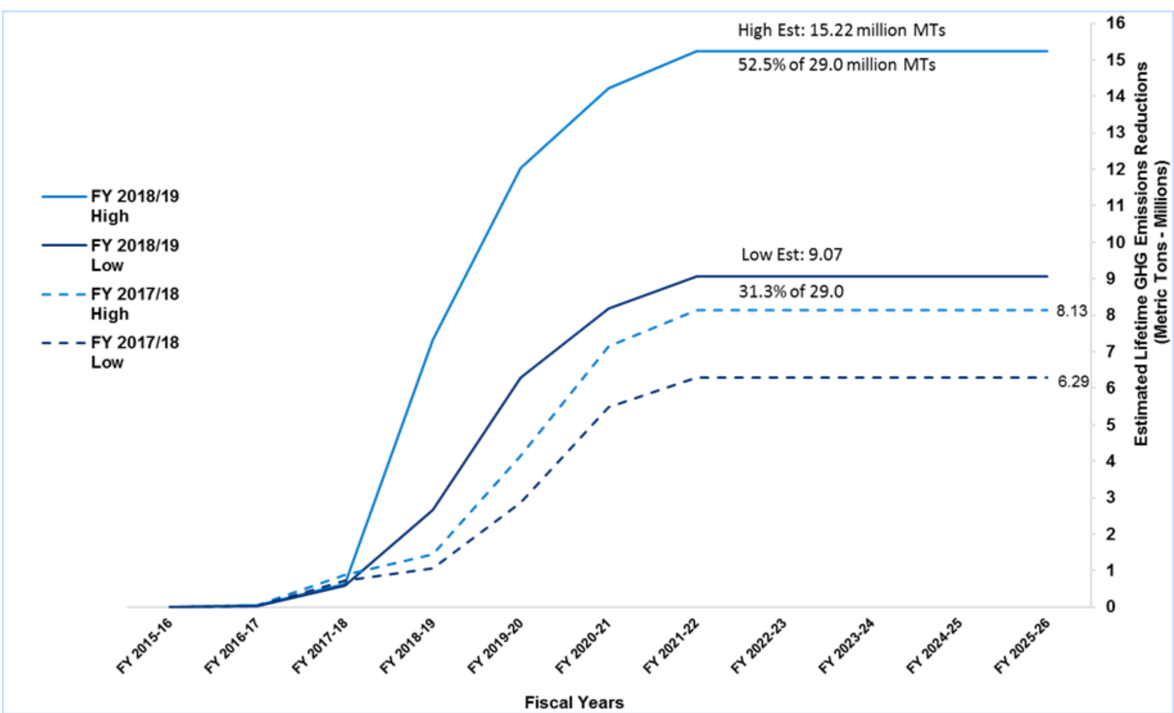
[61] NYGB manages one investment that was funded by a Department of Energy grant for $500,000. The grant is considered contributed capital in NYGB's Annual Financial Statements, but it does not count toward the $1.0 billion capitalization from NYS. Therefore, the Allocated Ratepayer Capital excludes this grant.

By the end of the CEF term, December 2025, NYGB expects: (a) to recycle its $1.0 billion authorized capital almost twice, resulting in $1.9 billion in overall investments; (b) $8.0 billion of clean energy and sustainable infrastructure projects mobilized in the State by NYGB activity; and (c) estimated lifetime GHG emissions reductions of 29 million metric tons. As illustrated in Figure 10 – left to right – as of March 31, 2019, 32.4% of the 10-year CEF term had elapsed and NYGB had invested $737.6 million Overall Investments, 38.8% of its goal for the term. Total project value mobilized by NYGB activity as of March 31, 2019 is up to ~$2.0 billion (24.7%), behind the $2.7 billion level that represents one-third of the $8.0 billion goal. This is explained by the total notional size of the NYS opportunities NYGB has financed to date and by the dynamics of the mobilization metric (as discussed in Section 2.1.1). 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. Finally, NYGB's Investment Portfolio is on track to meet its GHG emissions reductions target, with estimated GHG emissions reductions from existing projects in the range of 31.3% to 52.5% of the 29.0 million metric tons goal.[62]

NYGB's clean energy and sustainable infrastructure investments in the 2018 – 19 Plan Year translate to an additional 2.8 – 7.1 million metric tons in expected lifetime GHG emissions reductions, a 44.2% increase of the 6.3 – 8.1 million metric tons recorded at the end of the 2017 – 18 Plan Year (based on low estimates). This is equivalent to removing between 134,818 and 156,044 cars from the roads for a period of 23 years.

Figure 11 illustrates a year-on-year comparison of the Investment Portfolio's realization of direct Lifetime GHG Emissions Reductions on an installed basis. The First-Year benefits of the Investment Portfolio as of March 31, 2019 are expected to be fully realized in fiscal year 2021 – 2022. The lag between NYGB commitment and realization of the emission reductions is due to the development stage of new projects, which can vary from less than one year to over five years. Capital committed can either be deployed in full at the time of transaction closing, or throughout the applicable multi-year availability period (e.g., when certain milestones are achieved, such as when permits are issued, equipment orders placed, or funds are drawn to pay for delivery and construction).

Figure 11: Estimated Portfolio Lifetime GHG Emissions Reductions as of March 31, 2019



[62] For a complete list of NYGB's estimated impact benefits as of March 31, 2019, see Metrics, Reporting & Evaluation, Quarterly Report No. 19 (Through March 31, 2019), available at www.greenbank.ny.gov/Resources/Public-Filings.

2.7 Mobilized Private Capital

As of March 31, 2019, NYGB's Overall Investments to Date of $737.6 million mobilize close to $2.0 billion of clean energy investment in the State. NYGB remains confident that it will meet the key mobilization goal, derived from CEF goals, of an 8:1 Mobilization Ratio across all NYGB investments by the end of the CEF term in 2025.

2.8 Performed Evaluation, Measurement & Verification

Pursuant to the CEF Order and Clean Energy Fund Information Supplement,[63] NYGB's portfolio is subject to baseline and ongoing evaluations as the portfolio grows throughout and following the 10-year term of the CEF.

2.8.1 Financial Market Transformation

As described in Section 1.2, the transformation of clean energy financing markets is a key element of NYGB's mission. During the 2018 – 19 Plan Year, NYSERDA and NYGB implemented the initial phase of a long-term review process of the NYGB Investment Portfolio, including a baseline evaluation of NYGB's effect on financial market transformation over the three year period ending December 31, 2018 (the "**Study Period**").[64] On June 29, 2018, NYSERDA, in conjunction with NYGB, filed its NY Green Bank Financial Market Transformation Evaluation Plan (the "**Study Plan**") with DPS. NYSERDA engaged independent consultant DNV GL ("**DNV GL**") to perform the financial market transformation evaluation.

Between September 2018 and February 2019, DNV GL performed its analysis (the "**Study**") to assess the impact of NYGB's early activities on clean energy financing markets in NYS. In its report,[65] which was completed in March 2019 and subsequently filed with the Commission, DNV GL identified evidence that early NYGB activity has already begun to drive financial market transformation in the Study Period – particularly in the rooftop (residential) solar market segment. For example, Solar Mosaic, Inc., a NYGB counterparty, has garnered significant market share, raised substantial sums and reduced its cost of capital through multiple credit-rated securitization transactions following early transactions in which NYGB played a pivotal role.

DNV GL concluded that NYGB has made a strong start in achieving its financial market transformation goals across the product types and portfolio as existed during the Study Period. Five years after its formation, and with $637.6 million in overall investments as of December 31, 2018 (the end of the Study Period), NYGB is an established investment and asset management platform. As NYGB's Investment Portfolio continues to season and grow over time, it is expected that further data supporting NYGB's influence on financial market transformation will be observed in future periodic evaluations.

2.8.2 Energy & Environmental Impact in NYS

During the 2018 – 19 Plan Year, NYGB supported the "Solar Photovoltaic Program Impact Evaluation for 2011 – 2016, Final Report," which was prepared for NYSERDA by DNV GL and published in June 2018.[66] The report included the energy and environmental performance of projects that NYGB had financed (which overlap with NY-SUN projects).

2.9 Scaled Internal Counsel, Portfolio Management, Operations & Finance

NYGB added dedicated resources to scale its internal counsel in the 2018 – 19 Plan Year. These resources further strengthen NYGB's diligence activities in support of credit underwriting transactions in its Active Pipeline, as well as support ongoing management of its growing Investment Portfolio, including activities related to

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[63] See: https://greenbank.ny.gov/-/media/greenbanknew/files/2015-NYGB-Clean-Energy-Fund-Information-Supplement.pdf.

[64] A baseline evaluation is the initial measurement of a metric or indicator collected early in the investment term. Establishing a baseline evaluation allows an assessment of the effect of NYGB's subsequent investment activity. The baseline evaluations are followed up with periodic evaluations to track impacts.

[65] See: www.greenbank.ny.gov/Resources/Public-Filings.

[66] See "Solar Photovoltaic Program Impact Evaluation for 2011-2016 – Final Report" at www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2018-Solar-Photovoltaic-Impact-Evaluation-2011-2016.pdf.

amendments and modifications to existing investments, legal participation in NYGB's new investments, and structuring and other aspects related to third-party capital raise and national expansion efforts.

NYGB also added dedicated resources to its ongoing portfolio management and investment administration functions, to scale the onboarding of new transactions, fundings, compliance, control account monitoring and transaction exit workflows. In addition, and consistent with industry-wide shifts towards greater information security, NYGB worked both internally and with its counterparties to further secure document sharing platforms. This effort served to support the ongoing security and maintenance of confidential and/or private information related to the Investment Portfolio, including in compliance with NYS protocols and initiatives.

2.10 Worked Toward Third-Party Capital & National Expansion

In fall 2017, Governor Cuomo announced that NYGB would explore options to raise at least an additional $1.0 billion in private sector funds to invest at a portfolio level and would take steps toward exploring a national expansion. The Capital Initiative would build on NYGB's successful track record and seek to develop a suitable investment vehicle for institutional capital providers – especially those with Environmental, Social and Governance ("**ESG**") priorities – to invest significant amounts of private capital in clean energy and other sustainable infrastructure in NYS and beyond.

By mobilizing material amounts of capital at the portfolio level, the Capital Initiative seeks to enable NYGB to use less ratepayer capital to achieve the State's clean energy goals and deliver other increased benefits to NYS. These other benefits include increasing economic activity, improving energy choice and affordability for all New Yorkers and further enhancing the State's position as a leader on clean energy finance.

During the 2018 – 19 Plan Year, NYSERDA and NYGB worked with Moelis & Company ("**Moelis**"), an independent investment bank retained by NYSERDA and NYGB, to conduct a market sounding with numerous institutional capital providers to gauge interest and obtain feedback on the Capital Initiative. The market sounding received a positive response, validating investor interest in NYGB among institutional capital providers, especially those with ESG and impact investing priorities.

In January 2019, Governor Cuomo released the 2019 State of the State Book[67] and called for the development of terms for a public-private partnership ("**PPP**") to effectuate NYGB's third-party capital raise and expansion across North America. PPP is an effective and efficient means to further leverage the clean energy and sustainable infrastructure investment and asset management platform that NYS has created through NYGB. By partnering with reputable commercial parties who are similarly focused on advancing sustainable infrastructure and clean energy financing markets, NYS can achieve even greater direct and indirect benefits for the State's consumers – including energy reliability, affordability and greater consumer choice. NYGB looks forward to advancing the Governor's initiative to bring even greater clean energy benefits to New Yorkers while continuing to advance its work in delivering innovative clean energy financing solutions during the 2019 – 20 Plan Year.

2.11 Improved Risk Framework & Related Processes

NYGB is exposed to two types of risks: those inherent in its investment and portfolio management activities and those driven by internal and external factors that impact its ability to perform as an enterprise. NYGB must effectively manage its exposure to both categories of risk to grow its Investment Portfolio, remain self-sufficient, and contribute to CEF, CES, and SEP objectives.

During the 2018 – 19 Plan Year, NYGB further refined its procedures to identify, assess and mitigate investment risk in the evaluation of prospective transactions, transaction participants and credit underwriting. NYGB follows established funding protocols for its portfolio and operations (specifying conditions that must be satisfied prior to NYGB funding) and monitoring criteria consistent with investment approvals. Funding protocols also require multiple levels of approvals from both investment and control functions and seek to reflect industry best practices.

[67] See: www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/2019StateoftheStateBook.pdf.

NYGB has investment monitoring processes in place including monthly and quarterly transaction reviews or reports to assess ongoing performance and compliance; quarterly reviews that compare operating, financial results and investment value with expectations; and quarterly business, portfolio and pipeline reviews with the Investment and Risk Committee ("**IRC**"). NYGB assesses risk associated with individual transactions via "shadow ratings" and monitors risk on an individual and portfolio basis, managing overall risk of loss within defined limits.

While NYGB is not required to be a Registered Investment Adviser ("**RIA**"),[68] as part of organizational awareness, NYGB developed an understanding of the types of processes, practices and controls required of investment entities that are regulated by the Securities Exchange Commission. In furtherance of the best practices of RIAs, during the 2018 – 19 Plan Year, NYGB developed a Disaster Recovery Plan, including call-trees for all NYGB staff, and a complaints log and protocol to ensure that any complaints or concerns that may arise are effectively and efficiently recorded, monitored and appropriately managed, as part of overall reputation risk management.

Further information with respect to NYGB's risk management and oversight framework is included in Schedule 2.

2.12 Green Bank Network Activities

In the 2018 – 19 Plan Year, national and international interest in NYGB and other green bank business models continued to develop. NYGB remains an active, founding member of the GBN and over the last year:

(a) Attended quarterly member calls to share organizational updates, discuss best practices, and development of GBN including introducing new members;

(b) Provided content for several "knowledge products" including Capacity, Cognizance, Confidence, and Capital: How Green Banks are Driving Energy Efficiency in Affordable Housing (November 2018);[69]

(c) Participated in GBN Webinar Series "Community Solar in New York State" where representatives from NYGB and NY-Sun presented on the opportunities emerging in the NYS community solar market;[70]

(d) Provided expert insight into several green bank industry studies including The Nature Conservancy and Coastal Enterprises, Inc. report "Advancing Clean Energy Investment in Northern New England"[71] and the "Green Banks Around the Globe: 2018 Year in Review"[72] report; and

(e) Participated in numerous meetings with other states, municipalities and quasi-government entities exploring their own potential green banks who seek to learn from NYS leadership and NYGB's early experience (e.g., the Fujian Provincial State-owned Assets Supervision and Administration Commission (SASAC) and a Brazilian delegation of owners and developers of solar and wind energy projects in Brazil).

[68] See: www.sec.gov/divisions/investment/iaregulation/memoia.htm.
[69] See: www.greenbanknetwork.org/wp-content/uploads/2018/11/GBN-IB-Efficiency-in-Affordable-Housing.pdf.
[70] See: www.greenbanknetwork.org/wp-content/uploads/2018/05/NYGB-Community-Solar-Webinar-April-2018.pdf.
[71] See: www.ceimaine.org/wp-content/uploads/2019/02/VEIC-Clean-Energy-Investment-Report-January-2019-for-Distribution.pdf.
[72] See: www.greenbanknetwork.org/portfolio/2018-year-in-review.

Part III

Annual Business Plan 2019 – 20

3. Annual Business Plan 2019 – 20

With $737.6 million in Overall Investments to Date as of March 31, 2019 across a number of investment products and a wide and growing range of clean energy and sustainable infrastructure market segments, NYGB has cemented its position as the nation's premier green bank. NYGB operates at the intersection of clean energy and sustainable infrastructure innovation on the one hand, and public policy priorities, incentives and programs on the other. NYGB is well-positioned to identify promising "near frontier" market opportunities and provide liquidity needed to establish and expand new markets and asset classes, while also earning competitive returns on invested capital.

NYGB remains focused on overcoming market barriers and financing gaps in clean energy investment in NYS by sourcing, structuring, negotiating and entering into investments that meet its investment criteria on commercial terms. As such, NYGB will continue to:

(a) Respond to market needs including those at the "near frontier" of sustainable infrastructure investment (e.g., energy efficiency, energy storage and solar-plus-storage) in the 2019 – 20 Plan Year;

(b) Progress investments in the Active Pipeline toward close to the maximum possible extent under NYGB control; and

(c) Manage its existing Investment Portfolio to deliver the expected clean energy outcomes.

In the 2019 – 20 Plan Year, NYGB's key objectives are to commit an additional $225.0 million ($962.6 million on a cumulative basis) to new investments, advance efforts to further mobilize capital into NYS sustainable infrastructure and remain self-sufficient. These 2019 – 20 Plan Objectives (the "**Plan Objectives**") are summarized in Figure 12.

Figure 12: 2019 – 20 Plan Objectives

- Maintain an Active Pipeline of at least **$450.0 million** per quarter on average by engaging with clean energy and sustainable infrastructure participants across a number of targeted market segments, and including those that can benefit LMI communities.
- Put ratepayer money to work, prudently: Commit **$962.6 million** (cumulative) to NYGB investments over the fiscal year ending March 31, 2020, involving an additional **$225.0 million** for the year (with an average of **$56.25 million** in closed transactions per quarter).
- Mobilize capital: Driving toward a Mobilization Ratio of at least **8:1** (i.e., $8.0 billion of clean energy projects mobilized by NYGB activity) by the end of the CEF term in 2025.
- Maintain self-sufficiency: Continue to strengthen NYGB operations, grow revenues and manage expenses to maintain self-sufficiency and generate net income.

NYGB intends to achieve its Plan Objectives by executing on its 2019 – 20 Plan Deliverables set out in Table 6.

Table 6: 2019 – 20 Plan Deliverables

Category	Deliverable
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.

Category	Deliverable
Clean Energy for LMI	▪ Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI/RFP.
	▪ Convene LMI stakeholders to present NYGB's CDG financing approach on LMI-friendly terms, such as to not require FICO scores or long-term contracts.
	▪ 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.
Energy Storage	▪ Participate in NYSERDA webinar to inform market participants of how NYGB financings can leverage NYSERDA planned bulk and retail storage incentives.
	▪ Publicly issue new standalone Energy Storage RFP following announcement of planned NYSERDA storage incentives.
	▪ Convene energy storage market participants to present NYGB standalone Energy Storage RFP.
Energy Efficiency	▪ Provide guidance to market participants on key items to improve the probability of securing project financing from NYGB (to be included in NYSERDA pay-for-performance RFP for small commercial applications).
	▪ Participate in NYSERDA residential stakeholder pay-for-performance convening and others with commercial market players around tenant improvement financing models.
Large-Scale Renewables	▪ Contribute to NYSERDA land-based LSR RFP and NYS port infrastructure RFI to communicate potential NYGB financing roles and structures to likely respondents and related parties.
	▪ Participate in May 2019 webinar[73] for NYSERDA's LSR RFP[74] to provide information to potential respondents on NYGB financing options, so that these may be reflected in, and priced into, RFP responses.
	▪ Participate in NYSERDA convening of LSR market participants to communicate NYGB financing opportunities to NYSERDA RFP respondents.
Community Distributed Generation	▪ Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI/RFP, as noted above under "Clean Energy for LMI."
	▪ 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."
Clean Transportation	▪ Convene market participants and clean transportation innovators to identify specific market needs or gaps and advance NYGB financing product development and offerings.
Bio Energy	▪ Convene market participants to identify specific market needs and advance product development and potential offerings.
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).
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.
	▪ Collaborate with NYSERDA and other relevant stakeholders to continue to explore the viability of a PPP 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.
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.
	▪ Issue new RFP for legal service providers to NYGB and select slate of approved providers by December 2019.

[73] See: www.nyserda.ny.gov/All%20Programs/Programs/Clean%20Energy%20Standard/Renewable%20Generators%20and%20Developers/RES%20Tier%20One%20Eligibility/Solicitations%20for%20Long%20term%20Contracts.

[74] Issued April 23, 2019. See: www.portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00Pt000000ED99VEAT.

Progress against Plan Deliverables will be reported in Quarterly Metrics Reports, filed pursuant to the Metrics Plan, together with a brief narrative (as appropriate) of status and an explanation of any material variances relative to expectations. This is in addition to the normal scope of quarterly reporting, including with respect to Impact Benefits, and together will inform all NYGB stakeholders of NYGB's activities and projects.

3.1 Build, Maintain & Actively Manage the NYGB Pipeline

The quality, depth and breadth of the Active Pipeline are fundamental drivers of NYGB's continued success. Accordingly, several of NYGB's 2019 – 20 activities aim to develop, maintain and actively manage a strong pipeline through outreach to, and interaction with, a wide variety of potential proposers and via NYGB's ongoing collaboration with its clients, counterparties and NYSERDA colleagues.

NYGB will work to maintain a strong Active Pipeline of at least $450.0 million on average this 2019 – 20 Plan Year to correspond with the objective to deliver $962.6 million (cumulative) Overall Investments to Date by March 31, 2020. NYGB will seek to originate transactions that meet its investment criteria and, where applicable, in coordination with, and leveraging, NYSERDA initiatives. Ensuring this objective is met requires that NYGB develop new products and open new investment channels that follow from the REV, CEF and State strategies, and which complement NYSERDA's programmatic priorities. NYGB will continue to reach out to market participants and other clean energy stakeholders through webinars, roundtables and other industry convenings or events, via targeted solicitations, and in other ways that enable NYGB to reach its targeted audience.

The mix of technologies and end-user segments represented in NYGB's Active Pipeline and Investment Portfolio evolves over time, reflecting changing market opportunities and market maturity. NYGB focuses both on replicating and scaling markets where it is already active (e.g., by facilitating transactions with new counterparties or that serve new end-user segments) as well as on identifying and developing a pipeline of projects that are at the "near frontier" of sustainable infrastructure investments.

In support of its priorities, NYGB will focus on each of the following, as presented in Table 6 and described in detail in Section 3.3:

(a) Developing transaction structures to expand the end users served by NYGB projects: **Clean Energy for LMI Communities**;

(b) Replicating and scaling markets where NYGB has developed competitive solutions: **LSR** (including Land-Based LSR and OSW) and **CDG Solar**;

(c) Expanding in segments where NYGB has demonstrated early successes: **Energy Efficiency** (including Pay-for-Performance and Tenant Improvement Financing) and **Clean Transportation**; and

(d) Preparing to serve nascent markets as they develop: **Energy Storage** (including Solar-Plus-Storage) and **Bio Energy**.

In addition, NYGB will continue to manage its pipeline with the goal of converting leads to proposals, and proposals to closed transactions. NYGB will:

(a) Engage actively with counterparties to ensure transactions are progressing to close;

(b) Conduct weekly pipeline meetings where the NYGB team discusses and prioritizes actions with respect to all transactions that are advancing to close; and

(c) Continuously evaluate and update the probability of close and the anticipated closing date of each investment to ensure that financial and impact outcomes are realized.

3.2 Remain Self-Sufficient

NYGB achieved self-sufficiency a year ahead of schedule during the 2017 – 18 Plan Year and has remained self-sufficient since that time. NYGB prices its investments in a commercial manner to reflect inherent risk of transactions and seeks to cover its operating expenses and portfolio default risk, as well as preserve its capital base. NYGB is targeting continued self-sufficiency in the 2019 – 20 Plan Year and, at the time of this Review and Plan,[75] forecasts its Revenues, Expenses and Net Income as shown in Table 7.

Table 7: Actual & Forecast Revenues, Expenses & Net Income (Loss) ($ millions)

	Actual FY 2015 - 16	Actual FY 2016 - 17	Actual FY 2017 - 18	Forecast FY 2018 - 19	Actual FY 2018 - 19	Forecast FY 2019 - 20
Revenues	$1.9	$9.7	$19.7	$20.3	$26.0	$26.1
Operating Expenses						
Direct Expenses[76]	2.9	4.8	5.5	6.9	5.5	6.6
Indirect Expenses[77]	2.6	2.3	3.0	4.0	3.6	4.0
Total Operating Expenses	5.5	7.0	8.5	10.9	9.1	10.6
Net Income, Prior to Non-Operating Expenses	(3.6)	2.7	11.2	9.4	16.9	15.5
Non-Operating Expenses[78]	-	-	0.0	2.0	1.6	1.2
Total Expenses	5.5	7.0	8.5	12.9	10.7	11.8
Net Income	$(3.6)	$2.7	$11.2	$7.4	$15.3	$14.3

Source: NYGB Financial Statements, NYGB Analysis

Forecast Revenues for FY ’19 – 20 are lower than Actual Revenues for FY ’18 – 19 primarily because, in forecasting new commitments for the 2019 – 20 Plan Year, NYGB assumes $225.0 million in new commitments, rather than basing forecasts on unexpectedly strong investment years (i.e., $280.1 million closed in FY ’18 – 19 (Actual)). NYGB forecasts that increased capital deployed from a larger Investment Portfolio overall will more than offset reduced non-operating investment income from lower cash balances and any assumed losses on deployed capital. As a result of these business assumptions and projected operating and non-operating expenses in line with prior years, the FY ’19 – 20 projected Net Income Prior to Non-Operating Expenses and Net Income are lower than actual results from FY ’18 – 19.

3.3 2019 – 20 Activities to Meet Objectives & Deliverables

NYGB – now operating as a mature clean energy and sustainable infrastructure investment and asset management platform – plans to commit an additional $225.0 million ($962.6 million on a cumulative basis) during the 2019 – 20 Plan Year to priority areas such as energy storage, LSR, CDG solar, energy efficiency, and other segments with a high volume of eligible transactions that meet NYGB’s investment criteria, and where developers/owners and their projects can benefit from NYGB’s deep industry knowledge, structuring expertise and innovative financing mechanisms.

NYGB will also continue to support the State’s ambitious energy and climate agenda,[79] and will continue to work with NYSERDA and independently to identify additional clean energy segments that can be further replicated and scaled with NYGB participation.

Consistent with prior practice, NYGB will:

(a) Undertake active outreach to the market, via convenings and other efforts to identify areas of opportunity, including those related to key existing and new State initiatives;

(b) Adopt a programmatic approach to providing financing in support of key State initiatives where possible, including through new financing products, innovative transaction types and standardization to promote financing scale; and

[75] Forecast has been updated from the NYSERDA budget in January 2019 to reflect activity in the Investment Portfolio as of April 30, 2019.
[76] Direct Expenses include: Salaries & Direct Benefits; Transaction Expenses; Sales, General & Administrative.
[77] Indirect Expenses include: NYSERDA allocations.
[78] Non-Operating Expenses include: Evaluation, Third-Party Capital Legal & Strategic Advisory Services.
[79] See: www.governor.ny.gov/news/governor-cuomo-announces-green-new-deal-included-2019-executive-budget.

(c) Identify key constraints and financial barriers to move projects forward, including expeditiously implementing financial solutions under NYGB's control.

3.3.1 Focus on Clean Energy for LMI Communities

During the 2019 – 20 Plan Year, NYGB will seek to finance clean energy and sustainable infrastructure projects that expand the end-user segments served by NYGB-financed projects. Specifically, NYGB will focus on opportunities that benefit LMI stakeholders and communities within the State. LMI opportunities cut across a wide range of segments on which NYGB focuses, including energy efficiency, CDG solar and others.

Selected 2019 – 20 Plan Year activities aimed at expanding LMI access to clean energy include:

(a) *CDG Solar*. As described in Section 2.1 and Section 2.4.3 above, NYGB has invested considerable energy in developing financing products for CDG solar, financed five CDG solar projects in the 2018 – 19 Plan Year, and remains committed to increasing its financing activity in the segment. During the 2019 – 20 Plan Year, NYGB will convene LMI stakeholders and market participants to present NYGB's financing approach for subscription-based projects, which may not require FICO scores or long-term contracts, depending on the other structural aspects of proposed transactions and assessed overall credit. As a follow up to the insights gained from RFI 5 and related stakeholder convenings as described in Section 2.1.2, NYGB will also issue an RFP that delivers to the market a new product that will provide credit enhancement/loss reserve for CDG tax equity. Availability of tax equity remains one of the strongest roadblocks to widespread CDG deployment in the State. By helping to activate additional CDG tax equity, NYGB expects to stimulate more CDG projects, which will benefit ratepayers across the income spectrum, including LMI communities.

(b) *Energy Efficiency*. The aggressive building performance legislation recently passed by the NYC Council affects buildings over 25,000 square feet. Fifty-nine percent of the 50,000 buildings affected are residential properties – and include LMI housing. Affected buildings will have to cut their emissions by 26.0% on average, and many will require comprehensive retrofits to do so. NYGB will continue transaction and product development with public housing authorities, CDFIs, and non-profits with LMI housing finance expertise to establish co-investment and/or credit enhancement/loss reserve products that will provide meaningful impact to these markets. During the 2019 – 20 Plan Year, NYGB will also develop and support financing mechanisms (including property-assessed clean energy ("**PACE**") financing, which was specifically provided for by the NYC legislation) that will facilitate energy efficiency projects and deep retrofits in existing LMI residential properties across NYS.

(c) *Opportunity Zones*. The Federal Tax Cuts and Jobs Act of 2017 created national Opportunity Zones[80] in which long-term investments are encouraged in certain low-income urban and rural communities nationwide. Over 500 census tracts in NYS have been identified as such areas.[81] NYGB will continue its exploration of investing in projects located in Opportunity Zones. This program could create opportunities to bolster private clean energy investments in certain low-income census tracts designated by Governor Cuomo. Opportunity funds will be able to make tax-advantaged investments in these zones. NYGB will continue to collaborate with the relevant State entities to explore forming and/or managing one or more Opportunity Funds to raise private capital and direct clean energy investments in the designated Opportunity Zones.

(d) *Solar for All*. NYGB will continue to work with its colleagues at NYSERDA's NY-Sun program to advance NY-Sun's programmatic priority program "Solar for All", in turn supporting no-cost solar for 10,000 New Yorkers and addressing LMI energy efficiency opportunities, including more efficiently priced capital where NYSERDA is counterparty for Solar for All contracts.[82]

(e) *Increase Awareness of NYGB Activity*. Based on feedback received from responses to RFI 5 and from participants at the roundtable meeting held on April 12, 2019, it was evident there was limited awareness among market participants that NYGB has already executed and continues to originate financing

80 "**Opportunity Zones**" are low-income census tracts with an individual poverty rate of at least 20.0%and median family income no greater than 80.0% of the area median.
81 See: www.esd.ny.gov/opportunity-zones.
82 See: www.governor.ny.gov/news/governor-cuomo-unveils-20th-proposal-2018-state-state-new-yorks-clean-energy-jobs-and-climate.

arrangements aimed at ensuring the availability of clean energy for LMI communities. During the 2019 – 20 Plan Year, NYGB will continue to engage with market participants and other LMI stakeholders to increase knowledge of NYGB's LMI-targeted offerings. Specifically, NYGB will host a webinar for LMI stakeholders to present its CDG financing approach for LMI inclusive contract types that are short term in nature, indexed in price and/or do not require FICO scores.

(f) *Actively Partner with Aggregators with Footprints in the LMI Sector.* NYGB is working to provide financing to LMI projects through CDFIs, housing authorities, specialty financial institutions, non-profits and other aggregators with a footprint in the LMI space. For example, NYGB seeks to replicate transactions such as its 2017 financing of energy efficient lighting and other measures in 18 public housing developments owned by the New York City Housing Authority ("**NYCHA**"), which delivered improvements benefitting LMI tenants in NYCHA-owned buildings. In other current discussions, NYGB is collaborating with a non-profit financer of LMI communities to advance CDG solar to residents of its multi-family properties.

3.3.2 Focus on Large-Scale Renewables

To help achieve the State's expanded goal of 70.0% of its electricity from renewable sources by 2030 (up from 50.0%), NYSERDA announced it would provide $1.5 billion in competitive awards toward 20 LSR projects.[83] NYSERDA and NYGB characterize the LSR segment as including land-based renewables (existing and new), OSW generation, transmission assets (onshore and offshore), and related infrastructure (ports and other supply chains). On April 23, 2019, Governor Cuomo announced New York's third annual solicitation for LSR projects under the CES.[84] The solicitation is expected to support approximately 1.5 million MWh of renewable energy per year, and spur over $1.0 billion in private investment.

NYGB will seek to support financing opportunities across all LSR sub-segments, with a particular focus during the 2019 – 20 Plan Year on land-based renewables, OSW, and port infrastructure. Specifically, NYGB will:

(a) Contribute content related to NYGB financing opportunities to NYSERDA's public solicitations for land-based LSR and port infrastructure needed in preparation for OSW; and

(b) Jointly with NYSERDA convene land-based LSR market participants after NYSERDA's RFP issuance to explain how respondents can factor NYGB capital and products into their competitive submissions to NYSERDA.

3.3.3 Focus on Community Distributed Generation Solar Projects

NYGB has long believed that CDG solar will provide a sizable opportunity for new clean energy deployment in NYS. As such, NYGB laid a strong foundation for financing CDG solar project by engaging with key market participants; developing relevant financing structures; issuing term sheets to multiple developers; preparing loan documentation, and publicly issuing RFP 10. This led to commitments of $105.8 million across five CDG solar projects in the 2018 – 19 Plan Year, and a growing pipeline of such transactions.

NYGB expects to play a continuing role in overcoming market barriers and financing gaps currently faced by CDG solar projects in NYS in the near-term. To this end, NYGB will issue a solicitation for feedback on a proposed new product that would provide credit enhancement/loss reserve for CDG tax equity, thus enabling more capital to be accessed, CDG projects to be built and driving further access to clean energy for end-users in the State.

3.3.4 Focus on Energy Efficiency Markets

NYGB has been financing energy efficiency transactions since its Inception and has developed expertise across a range of financial products and types of counterparties. Energy efficiency projects represent $52.4 million in Overall Investments to Date and $83.0 million in Active Pipeline projects as of March 31, 2019. Energy efficiency is a significant and growing part of the clean energy economy in NYS and, as such, NYGB continues to view the

[83] See: www.nyserda.ny.gov/About/Newsroom/2019-Announcements/2019-01-18-NYSERDA-Announces-Details-for-20-Large-Scale-Renewable-Energy-Projects.

[84] See: www.governor.ny.gov/news/governor-cuomo-announces-third-solicitation-large-scale-renewable-energy-projects-accelerate.

energy efficiency segment as attractive, as the segment enjoys significant technological innovation and public sector support, with demand driven by increasingly stringent energy performance standards.

The State's policy framework for energy efficiency was released in April 2018 and includes an ambitious statewide energy efficiency target of 185.0 trillion Btu of end-use energy savings (below the 2025 energy use forecast) in buildings and industrial facilities throughout the State.[85] To accelerate the progress toward the 2025 goals, in December 2018, the Commission approved an order adopting 31.0 trillion Btu of additional customer-level energy reduction by the State's investor-owned utilities. The new targets were designed to double utility energy efficiency progress by 2025 by stimulating building retrofits, equipment upgrades, and innovation in technologies such as heat pumps.[86]

In October 2018, NYSERDA announced that $1.0 million is available to large real estate portfolio owners – such as real estate developers, colleges and universities, retailers, public sector agencies, and other private, public, or non-profit entities – to support development of energy performance standards and institutional mechanisms to enable the design, construction and operation of net-zero buildings[87] across their statewide portfolios. For LMI properties, NYSERDA's RetrofitNY program is working to create new solutions to renovate LMI multi-family buildings while achieving or approaching net-zero energy use and creating standardized and scalable processes that will improve residents' comfort and buildings' energy performance.

To advance energy efficiency in NYC, on April 18, 2019 the City Council passed groundbreaking legislation mandating aggressive building performance standards covering 50,000 residential and commercial buildings in the city. To comply with the new standards will require a 26.0% reduction in existing building carbon emissions[88] – which NYGB believes will result in a significant continuing pipeline of investment opportunities.

NYGB is poised to take advantage of the strong energy efficiency policy push at both the State and NYC levels. During the 2019 – 20 Plan Year, NYGB will promote the State's goals by engaging with market participants to advance opportunities supporting the commercial, industrial and residential energy efficiency market in NYS. Specifically, NYGB will target the following energy efficiency financing opportunities:

(a) *Pay-for-Performance*: NYGB will support NYSERDA's release of two P4P solicitations – P4P Small Commercial RFP and P4P Residential Aggregator RFP – by providing guidance to be included in the RFPs describing key elements that will improve a developer's probability of securing financing. Through its deep experience in financing energy efficiency projects, including with residential aggregator Sealed, NYGB has demonstrated its ability to develop creative financing mechanisms to support P4P structures, and stands ready to finance additional transactions arising from NYSERDA's solicitations;

(b) *Tenant Improvement Finance:* During the 2019 – 20 Plan Year, NYGB will build on insights gained from extensive and ongoing engagement with large property owners, management companies, the NYC Mayor's Office and the Real Estate Board of New York to offer financing solutions that owners can use with their tenants to support the implementation of energy efficiency improvements in offices and other leased spaces. NYGB's RFI 6, released in March 2019, will solicit feedback from market participants on NYGB's on-lease commercial tenant energy efficiency product. NYGB's innovative financing mechanism maintains the owner-tenant relationship by providing capital on a wholesale basis for use by building owners/managers to provide financing solutions to their tenants for qualified improvements. NYGB's offering structures the debt service payments to be lower than anticipated energy savings, with a payback period shorter than the remaining lease term. As in its financing facilities for the C&I solar segment, NYGB will develop standardized contracts to promote adoption and scale, which will improve the value proposition to tenants and attract other private sector capital providers;[89]

(c) *"Underwriting the Underwriters":* During the 2019 – 20 Plan Year, NYGB will explore additional structures to provide funding to other third-party lenders/specialty finance companies where proceeds could fund

[85] See: NYSERDA, DPS "New Efficiency: New York" at www.nyserda.ny.gov/About/Publications/New-Efficiency.
[86] See: www.governor.ny.gov/news/governor-cuomo-announces-dramatic-increase-energy-efficiency-and-energy-storage-targets-combat.
[87] Net-zero energy buildings consume no more energy, on an annual basis, than they produce onsite through renewable energy technologies.
[88] See: www.urbangreencouncil.org/sites/default/files/building_emissions_law_summary.pdf.
[89] NYSERDA, DPS "New Efficiency: New York", page 44, available at: www.nyserda.ny.gov/-/media/Files/Publications/New-Efficiency-New-York.pdf.

loans for energy efficiency projects underwritten and financed by those lenders consistent with agreed credit approaches and underwriting standards; and

(d) *Controlled Environment Agriculture*: NYGB is actively pursuing opportunities across the controlled environment agriculture ("**CEA**") segment, including vertical farms and greenhouses (both soil and hydroponic). State-of-the-art facilities are not only energy efficient, but also have broad positive impact resulting from reduced transportation requirements (as facilities may be located closer to the markets they serve), lower water consumption, and reduced reliance on packaging/plastics. NYGB will continue to work to close its first CEA financing and then leverage that experience in similar transactions to start to scale this new asset class.

3.3.5 Focus on Clean Transportation

Through its $54.3 million cumulative financing of Motivate International across multiple transactions in 2017 and 2018, NYGB demonstrated an early willingness and ability to develop innovative financing mechanisms in support of the clean transportation segment. Since that time, through market research and stakeholder outreach with NYSERDA's Clean Transportation team, other State and local (e.g., NYC) agencies, and clean transportation market participants, NYGB has expanded its activities in the segment to encompass electric vehicles ("**EVs"**) and their related infrastructure and value chain.

In February 2019, Governor Cuomo announced that the State would make available up to $31.6 million for EV fast charging stations and related infrastructure to support the State's goal of 800,000 zero-emission vehicles in NYS by 2025.[90] During the 2019 – 20 Plan Year, NYGB will advance EV and other clean transportation segment projects already in its Active Pipeline (including continuing due diligence with several EV segment manufacturing companies that submitted proposals in response to RFP 1: Clean Energy Financing Arrangements) and will encourage further demand for EV financing by convening EV market participants to identify specific market needs and advance product development.

3.3.6 Focus on Energy Storage (including Solar-Plus-Storage)

NYGB believes that the Energy Storage segment is poised for growth. The State's Green New Deal doubles the prior target for energy storage that Governor Cuomo had announced during his 2018 State of the State address and calls for 3,000 MW of energy storage in NYS by 2030. On April 25, 2019, Governor Cuomo announced $280.0 million available for energy storage projects in the State – with such funding being part of a $400.0 million commitment to achieve the 3,000 MW storage target.[91] NYGB will also continue to work with NYSERDA on implementing the Energy Storage Roadmap[92] by being creative and nimble in providing financing structures and opportunities. To accelerate development of the storage segment in the State, NYSERDA has authorized $350.0 million in retail and bulk incentives and will work with Long Island Power Authority to develop a similar set of incentives for Long Island.[93]

Building on the momentum generated through its June 2018 RFI 4 and October 2018 RFP 10, NYGB will continue to engage with energy storage developers and other stakeholders to support the State's increased energy storage deployment target and progress toward NYGB's previously announced commitment to provide at least $200.0 million for storage-related investments in NYS.[94]

Specifically, during the 2019 – 20 Plan Year, NYGB will publicly issue a standalone energy storage RFP in connection with NYSERDA's announcement of its energy storage incentive programs. Further, NYGB will engage in dialogue with energy storage developers and other market participants regarding specific ways in which NYGB can help to finance energy storage projects in NYS by addressing existing market barriers and financing gaps that could impede project development. NYGB seeks to identify and work with stakeholders

[90] See: www.governor.ny.gov/news/governor-cuomo-announces-316-million-funding-available-dramatically-expand-electric-vehicle.
[91] See: www.nyserda.ny.gov/About/Newsroom/2019-Announcements/2019-04-25-Governor-Cuomo-Announces-280-Million-Available-for-Energy-Storage-Projects-to-Combat-Climate-Change.
[92] See: https://www.ethree.com/wp-content/uploads/2018/06/NYS-Energy-Storage-Roadmap-6.21.2018.pdf.
[93] See: www.nyserda.ny.gov/-/media/Files/Programs/Energy-Storage/Storage-order-and-draft-bridge-incentive-design.pdf.
[94] See: www.governor.ny.gov/news/governor-cuomo-announces-new-york-energy-storage-roadmap-achieve-nation-leading-target-1500.

expecting to participate in the NYS storage market and is prepared to provide financing in a manner most impactful to market participants as project demand and activity accelerates.

3.3.7 Focus on Bio Energy

For certain promising clean energy and sustainable infrastructure segments, NYGB will dedicate effort in advance of widespread market development to identify financing barriers and develop solutions to address them. As an example, NYGB worked on solutions for CDG solar financing during several Plan Years prior to closing its first CDG solar financing transaction in the 2018 – 19 Plan Year. NYGB is doing the same in the Bio Energy segment, with a focus on landfill gas, biogas, gasification, low-carbon fuel standards ("**LCFS**") and biomass.

According to the United States Environmental Protection Agency, 29.0% of national GHG emissions in 2017 were produced by the transportation sector,[95] while the NYSERDA Greenhouse Gas Inventory 1990 – 2015 (revised in September 2018)[96] shows the transportation sector as responsible for one-third of all State GHG emissions. Accordingly, decarbonization of the sector through low carbon fuels and electrification of transportation could contribute meaningfully to the State's achievement of its climate goals. NYGB will evaluate policies such as LCFS, and will conduct market outreach, including a stakeholder convening during the 2019 – 20 Plan Year to identify specific market needs and advance financial product development for the segment.

NYGB has determined that CEF-compliant biomass projects (e.g., anaerobic digestion, biomass-to-energy, landfill-gas recovery, etc.) represent a sustainable infrastructure financing opportunity that is currently unsupported at scale by private capital. NYGB will continue to explore pathways to identify pipeline opportunities in NYS and facilitate the activities required to attract third-party capital to invest in and develop this asset class.

3.3.8 Focus on Energy Resiliency

NYGB has identified energy resiliency – such as standalone energy systems that can operate independently in the event of a grid disruption – as a promising clean energy segment that could benefit from NYGB financing innovation. NYGB's interest in energy resiliency is also consistent with NYS priorities and programs to help communities prepare for and adapt to climate change. While advancing these energy solutions is complex (given the multiple clean energy developments that must be aggregated and optimized to establish energy resiliency) and this market has not yet progressed to scale in the State, NYGB continues to look for opportunities to facilitate financings for projects meeting its investment criteria.

3.3.9 Work with Other Existing NYS Energy Programs & Initiatives

NYGB will capitalize on opportunities for new investment opportunities not separately addressed elsewhere in Section 3.3 that further align various agencies' and authorities' efforts by identifying, developing and providing financial solutions to evolving market areas that meet NYGB's investment criteria.

3.3.10 Mobilize Third-Party Capital to Invest in NYS Sustainable Infrastructure

NYGB seeks to achieve an 8:1 Mobilization Ratio by the end of 2025 and has historically managed its average Mobilization Ratio through collaboration with other market participants and leveraging their capital during the lifecycle of NYGB transactions. As announced by Governor Cuomo in September 2017, NYGB believes that there is a meaningful set of institutional investors seeking investments in sustainable infrastructure in NYS and across the U.S. that require scale only available at a portfolio level. Through a market sounding facilitated by Moelis (as described in Section 2.10), NYSERDA and NYGB validated that there is a significant level of interest in NYGB and the Capital Initiative among institutional capital providers. In the 2019 – 20 Plan Year, NYSERDA and NYGB will continue to explore the viability of a PPP to effectuate NYGB's third-party capital raise and expansion under a structure designed to maximize the likelihood of a successful capital raise while continuing to deliver the same or greater benefits to all New Yorkers.

[95] See: www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.
[96] See: www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Energy-Statistics.

3.3.11 Continue to Assess Financial Market Transformation & NYGB Impact

Pursuant to the CEF Order and CEF Information Supplement,[97] NYGB's portfolio is subject to baseline evaluation and ongoing evaluations as the portfolio grows throughout the 10-year term of the CEF. Through the development of the Metrics Plan, which involved extensive stakeholder, DPS and NYSERDA input, NYGB identified a set of financial and Impact Benefit metrics that are publicly reported quarterly and annually. As discussed in Section 1.6, metrics continue to evolve to include a range of Impact Benefits (which can be direct and/or indirect).

Consistent with the Metrics Plan, NYSERDA engaged a qualified and independent third party in the 2018 – 19 Plan Year to undertake an initial evaluation of certain aspects of NYGB's portfolio to assess both early indicators of financial market transformation as well as the energy and environmental impact of NYGB investments by focusing on product categories and other data reflected in NYGB public reporting.

Following the execution of each investment, NYGB creates and publishes a Transaction Profile describing the impact that NYGB's participation is expected to have in the transaction - both on Impact Benefits and clean energy financial market transformation in NYS. Transaction Profiles further outline the planned market characterization baseline and market transformation potential, along with the proposed evaluation method and timeframe for each transaction.

NYGB coordinates with NYSERDA to identify areas where evaluation activities may be combined to address the needs of both NYGB and NYSERDA through a single evaluation effort. As discussed in Section 2.8.1, the first NYGB financial market transformation study was completed by independent consultant DNV GL at the end of March 2019, with the complete package subsequently being filed with DPS. This study is the first and serves as a baseline assessment in connection with NYGB's initial impacts and portfolio. During the 2019 – 20 Plan Year, NYGB will continue to work with NYSERDA to distill lessons-learned from the initial evaluation activities (impact and market) and begin to reflect those in an ongoing periodic evaluation approaches and plans (including with respect to indicators of market change as well as the methods and form of data collection used to assess them).

3.3.12 Ongoing Impact – Metrics, Data Collection & Reporting

Consistent with core goals of maximizing transparency of NYGB's activities and impact, during the 2019 – 20 Plan Year, NYGB will continue collaboration with NYSERDA's Performance Management team to further integrate NYGB with ongoing CEF reporting and other NYSERDA evaluation efforts. These efforts will also focus on achieving greater efficiencies through reducing reporting burden and streamlining data collection and analysis. This may ultimately necessitate the modification of some metrics, and includes the following 2019 – 20 Plan Year activities:

(a) *Integration with CEF Online Dashboard:* The CEF Order requires creation and implementation of an online dashboard (the "**CEF Dashboard**")[98] for which NYSERDA's Metrics, Tracking & Performance Working Group developed an implementation delivery plan. The CEF Dashboard is intended to allow tracking of key performance metrics of all ratepayer funded clean energy activities and provide additional transparency to stakeholders. NYGB will work over the 2019 – 20 Plan Year to integrate its reporting requirements with the CEF Dashboard. NYGB expects this effort to further standardize, formalize, and streamline the tasks required to deliver impact data to its stakeholders; and

(b) *NYSERDA Solar Photovoltaic Evaluation:* In April 2019 NYSERDA began the second phase of its "Solar Photovoltaic Program Impact Evaluation." As presented in Table 2, NYGB supported the first phase report, which was filed by NYSERDA in June 2018. The second phase will evaluate projects installed from June 2016 through May 2018 and will again present the impact evaluation of projects installed under NYSERDA solar photovoltaic programs. NYGB will similarly support the second phase evaluation, whose final report is expected to be filed with DPS by the end of the 2019 – 20 Plan Year.

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[97] Case 14-M-0094, submitted by NYSERDA on June 25, 2015, available at www.nyserda.ny.gov/About/Funding/Clean-Energy-Fund.

[98] Cases 14-M-0094 et al at page 36.

3.3.13 Maintain Transparency

NYGB will continue to provide extensive information to its stakeholders and the public, including through required filings such as its annual business plan, quarterly and annual metrics reports, Annual Financials, and Transaction Profiles for all closed investments. This information is available on NYGB's website.[99] NYGB will also continue to report its progress by way of newsletters, quarterly webinars and various other outreach efforts with a large range of stakeholders and other market participants.

3.3.14 Maintain Self Sufficiency by Strengthening Operations

NYGB continuously optimizes and leverages its established investment and asset management platform to ensure sustained self-sufficiency. During the 2019 – 20 Plan Year, NYGB will undertake activities designed to minimize risk, improve operations, and reduce costs, including:

(a) *Continued Emphasis on Active Management Consistent with NYS Requirements & Commercial Principles:* As investment volumes continue to increase, NYGB will retain its focus on maintaining a solid and streamlined investment and portfolio management process. NYGB will remain prudent and adhere to the Commission's key investment criteria, emphasizing rigor in the diligence process, oversight of each commitment and active portfolio management. Through a judicious approach to staffing, NYGB will ensure it has sufficient resources to continue origination, conversion and ongoing monitoring in connection with existing investment execution, and management as the Investment Portfolio continues to grow;

(b) *Ensure Ongoing Access to Needed External Resources:* NYGB accesses critical longer-term services and third-party provided infrastructure pursuant to public procurement processes. As contracts are renewed, extended and rebid, NYGB will re-examine scope and deliverables to ensure ongoing alignment of the services being provided with the needs of NYGB's business. In the 2019 – 20 Plan Year, NYGB will be launching new RFPs for both technical and legal services, in both cases, to identify the slate of approved service providers in these two specific areas;

(c) *Continue Best-Practice Risk Management:* Effective risk management efforts ultimately result in higher return on investments and greater public benefits, both of which advance NYGB's goal of maintaining self-sufficiency and help ensure that NYGB remains a prudent steward of the considerable ratepayer funds with which it is entrusted. NYGB will continue efforts to prioritize and continue to improve excellence in its risk and compliance tools and frameworks as well as its internal operations and procedures. As its Investment Portfolio grows, NYGB undertakes monthly and quarterly reviews to manage performance, identify and address risks and other issues that may arise; and

(d) *Standardize, Formalize & Streamline Business Practices:* As the Investment Portfolio grows, ongoing opportunities exist for NYGB to reduce transaction costs by standardizing documents and procedures, and thereby exert downward pressure on capital costs across the market by gathering and making data available on project and investment performance (subject to commercial confidentiality practices and the protection of competitive information). Standardizing contracts and procedures plays an important role in developing capital markets for clean energy asset classes.

NYGB will continue to develop standardized business-level and legal term sheets and legal documentation to streamline the investment process and demonstrate best practices. By improving market understanding of clean energy asset classes in the State, NYGB will stimulate more efficient and cheaper capital pricing for eligible technologies. Together, these efforts will help reduce remaining obstacles to private capital providers in scaling up sustainable infrastructure investment activity.

Internally, NYGB will seek ways to improve the efficiency and effectiveness of its investment, portfolio management, operations, middle and back-office functions (including managing those activities performed by key service providers) and reporting on all areas of the business to NYSERDA/NYGB management and externally to stakeholders.

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[99] See: www.greenbank.ny.gov/Resources/Public-Filings and www.greenbank.ny.gov/Investments/Portfolio.

3.3.15 Staff Recruitment, Development, Diversity & Inclusion

NYGB has 32 full time employees planned for the 2019 – 20 Plan Year, which is near the full headcount (35) required to achieve its goals. Adequate staffing is a fundamental prerequisite to NYGB's ability to fully and successfully execute on this Plan in 2019 – 20. As with other comparable investment organizations in both the public and private sectors, NYGB requires appropriate recruitment and retention to achieve its mission and goals and support growth in the business.

Developing and retaining staff in general continue to be critical areas of focus for the 2019 – 20 Plan Year. Recruiting efforts emphasize individuals who bring rich experience in their fields from having worked in other private, public and/or not-for-profit institutions focused on energy and/or financing. Each member of the NYGB team is highly motivated and dedicated to serving the public by advancing the REV strategy. Recruiting candidates away from other opportunities (including those in the private sector) and retaining staff, requires that NYGB maintain a stimulating environment where employees believe they can have impact and gain critical investment, portfolio management and clean energy commercial experience, while working in an environment and organization that operates in a manner broadly consistent with private sector norms.

As with the rest of NYS, NYGB is an equal opportunity employer and values diversity. As part of NYSERDA, NYGB seeks to create a climate of acceptance; valuing diversity and inclusion to enrich the NYGB environment, foster greater team productivity and enable the success of everyone, irrespective of identity.

Part IV

Glossary & Definitions

4. Glossary & Definitions

"**2014 Plan**" has the meaning given to that term in Section 1.1.

"**2015 Plan**" has the meaning given to that term in Section 1.1.

"**2016 Plan**" has the meaning given to that term in Section 1.1.

"**2017 Plan**" has the meaning given to that term in Section 1.1.

"**2018 Plan**" has the meaning given to that term in Section 1.1.

"**2018 – 19 Plan Year**" has the meaning given to that term in Section 1.1.

"**2019 – 20 Plan Year**" has the meaning given to that term in Section 1.1.

A

"**Active Pipeline**" has the meaning given to that term in footnote 19.

"**Actual(s)"** has the meaning given to that term in footnote 24.

"**Annual Financial Metrics Report**" means each Metrics report required to be filed by NYGB with the Commission with respect to each fiscal year.

"**Audited Financials**" means annual audited financial statements prepared in accordance with applicable accounting standards by a reputable, experienced and independent accounting firm, in consultation with NYGB and NYSERDA staff.

B

"**BAYG**" has the meaning given to that term in footnote 58.

"**BlueRock**" has the meaning given to that term in Section 2.1.2.

"**BQ**" has the meaning given to that term in Table 3.

"**Btus**" has the meaning given to that term in footnote 3.

C

"**C&I**" has the meaning given to that term in Table 3.

"**Capital Initiative**" has the meaning given to that term in Section 2.5.1.

"**CCR**" has the meaning given to that term in Schedule 1.

"**CDFIs**" has the meaning given to that term in Section 2.1.2.

"**CDG"** has the meaning given to that term in Section 2.1.1.

"**CEA**" has the meaning given to that term in Section 3.3.4.

"**CEF**" has the meaning given to that term in Section 1.1.

"**CEF Order**" has the meaning given to that term in Section 1.1.

"**CES**" has the meaning given to that term in Section 1.1.

"**CESIR**" has the meaning given to that term in Schedule 1.

"**CHP**" has the meaning given to that term in Table 1.

"**Citi Bike**" has the meaning given to that term in Table 3.

"**CLF**" has the meaning given to that term in Schedule 1.

"**Commission**" has the meaning given to that term in Section 1.1.

"**Commission Orders**" means, collectively, the Initial Capitalization Order and the "Order Approving Additional Capitalization with Modification for [NY] Green Bank" issued and effective July 17, 2015.

"Committed Funds" means, in any period, the aggregate funds to be provided by NYGB pursuant to executed investment and financing agreements which remain in force during that period, without such funds having been Deployed, expressed in dollars. "**Committed**" has a corresponding meaning.

"**Construction Loan Facility**" has the meaning given to that term in Schedule 1.

"**CPP**" has the meaning given to that term in Schedule 1.

"**Credit Facilities**" has the meaning given to that term in Schedule 1.

D

"**Deployed Funds**" means, in any period, the aggregate funds that have been advanced by NYGB pursuant to the terms of executed investment and financing agreements which remain in force during that period, expressed in dollars. "**Deployed**" has a corresponding meaning.

"**Direct Impact Benefit Objectives**" has the meaning given to that term in Section 1.6.

"**Direct Impact Metrics**" has the meaning given to that term in Section 1.6.1.

"**DNV GL**" has the meaning given to that term in Section 2.8.1.

"**DPS"** has the meaning given to that term in Section 2.1.2.

"**DRS**" has the meaning given to that term in Section 2.1.2.

E

"**ESA**" has the meaning given to that term in Schedule 1.

"**ESG**" has the meaning given to that term in Section 2.10.

"**EV**" has the meaning given to that term in Section 3.3.5.

"**Expense**" means, in any period, the aggregate of: (a) all direct costs incurred by NYGB in day-to-day operations, including all business development, transaction, and general and administrative expenses, expressed in dollars;

and (b) all indirect costs allocated quarterly to NYGB by NYSERDA, generally based on the proportion which NYGB's direct salary costs bear to the total salary costs of all NYSERDA program staff, expressed in dollars and includes recurring and non-recurring items.

F

"**FICO**" has the meaning given to that term in footnote 34.

"**First-Year**" has the meaning given to that term in Table 1.

G

"**GBN**" has the meaning given to that term in Section 2.4.2.

"**GHG**" has the meaning given to that term in Section 1.1.

"**Greenlight Committee**" means the committee of that name in NYGB's investment process.

I

"**Impact Benefits**" has the meaning given to that term in Section 1.6.

"**Inception**" has the meaning given to that term in footnote 5.

"**Indirect Impact Metrics**" has the meaning given to that term in Section 1.6.1.

"**Initial Capitalization Order**" has the meaning given to that term in footnote 5.

"Investment Portfolio" means, at any time, collectively, the investment transactions that NYGB has executed with its counterparties that have not yet matured or otherwise expired in accordance with their respective terms.

"**Investment RFPs**" has the meaning given to that term in Section 1.4.4.

"**IRC**" has the meaning given to that term in Section 2.11.

K

"**KPIs**" have the meaning given to that term in Section 1.5.

"**kW**" has the meaning given to that term in Section 1.6.4.

L

"**LCFS**" has the meaning given to that term in Section 3.3.7.

"**Lifetime**" has the meaning given to that term in Table 1.

"**LMI**" has the meaning given to that term in Section 2.1.2.

"**LSR**" has the meaning given to that term in Section 1.6.1.

M

“**Metrics Plan**” has the meaning given to that term in Section 1.5.

“**MMBtu”** has the meaning given to that term in footnote 20.

“**Mobilization Ratio”** has the meaning given to that term in footnote 16.

“**Moelis**” has the meaning given to that term in Section 2.10.

“**MW**” has the meaning given to that term in footnote 3.

“**MWh**” has the meaning given to that term in footnote 20.

N

“**Net Income**” means, in any period, Revenues less Expenses with a positive result.

“Net Loss” means, in any period, Revenues less Expenses with a negative result.

“**NYC**” has the meaning given to that term in Section 2.1.2.

“**NYCBS**” has the meaning given to that term in Schedule 1.

“**NYCEEC**” has the meaning given to that term in Schedule 1.

“**NYCHA**” has the meaning given to that term in Section 3.3.1.

“**NYGB**” has the meaning given to that term in Section 1.

“**NYGB Loan Products**” has the meaning given to that term in Schedule 1.

“**NYS**” has the meaning given to that term in Section 1.

“**NYSERDA**” has the meaning given to that term in Section 1.

O

“**Opportunity Zones**” has the meaning given to that term in footnote 80.

“**OSW**” has the meaning given to that term in footnote 3.

“**Overall Investments to Date”** has the meaning given to that term in footnote 18.

P

“**P4P**” has the meaning given to that term in Section 2.4.2.

“**PACE**” has the meaning given to that term in Section 3.3.1.

“**Plan Deliverables**” has the meaning given to that term in Section 2.2.

“**Plan Objectives**” has the meaning given to that term in Section 3.

"**Post-Construction Aggregation Facilities**" has the meaning given to that term in Schedule 1.

"**PPP**" has the meaning given to that term in Section 2.10.

"**PV**" has the meaning given to that term in Section 1.6.3.

Q

"**Quarterly Metrics Reports**" means each Metrics report required to be filed by NYGB with the Commission in respect of each calendar quarter as set out in Section 2.1 of the Metrics Plan and addressing the matters identified in Section 2.2 of the Metrics Plan as applicable.

R

"**Renew**" has the meaning given to that term in Table 3.

"**REV**" has the meaning given to that term in Section 1.1.

"**Revenue**" means, in any period, NYGB revenue from all sources, including without limitation all fees, interest, penalties, dividends and other receivables related to Committed Funds and Deployed Funds (inclusive of such amounts as may be capitalized, accrued or paid-in-kind) due to NYGB during that period as remuneration for providing financial facilities in transactions and includes interest received on cash held by NYGB,[100] all expressed in dollars.

"**Review and Plan**" has the meaning given to that term in Section 1.1.

"**RFI**" has the meaning given to that term in Table 2.

"**RFI 4**" has the meaning given to that term in Table 2.

"**RFI 5**" has the meaning given to that term in Section 2.1.2.

"**RFI 6**" has the meaning given to that term in Table 2.

"**RFP**" has the meaning given to that term in Section 1.4.4.

"**RFP 10**" has the meaning given to that term in Table 2.

"**RGGI**" has the meaning given to that term in Section 1.6.4.

"**RIA**" has the meaning given to that term in Section 2.11.

S

"**Scoring Committee**" means the committee of that name in NYGB's investment process.

"**SEP**" has the meaning given to that term in Section 1.1.

"State" has the meaning given to that term in Section 1.

"**Study**" has the meaning given to that term in Section 2.8.1.

[100] It is NYGB's practice to invest cash balances in low risk instruments.

"**Study Period**" has the meaning given to that term in Section 2.8.1.

"**Study Plan**" has the meaning given to that term in Section 2.8.1.

"**Sunrun**" has the meaning given to that term in Table 3.

T

"**Total Project Costs (Cumulative)**" means, in any period, the aggregate of all amounts required to deploy clean energy project(s) comprising each (past and present) NYGB investment for the corresponding term of that investment. "Total Project Costs (Cumulative)" captures all capital for the relevant investment irrespective of source (including, without limitation, sponsor equity, tax equity, other equity interests, all categories and types of debt or hybrid interests and incentives), including any assumed rollover of revolving facilities. "Total Project Costs (Cumulative)" is measured since Inception and expressed in dollars.

"**Transaction Profiles"** has the meaning given to that term in Section 1.6.4.

"**True-Up**" has the meaning given to that term in Figure 4.

U

"**U.S."** has the meaning given to that term in Figure 6.

"**Useful Life"** has the meaning given to that term in Section 1.6.

Schedules

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1. 2018 – 19 Plan Year Investments
2. Risk Management & Oversight Framework
3. Investment Process

2018 – 19 Plan Year Investments

Each transaction NYGB closed in the 2018 – 19 Plan Year is described in this Schedule 1. All descriptions are derived from information included in Transaction Profiles.

Delaware River Solar – Supporting the Deployment of New York's Community Solar Projects

- *Reduces GHG emissions by up to 1,083,900 metric tons over the 25-year life of the underlying assets*
- *Generates at least 1,648,300 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 56.0 MW*

DRS is a solar development company based out of Callicoon, NYS that finances, builds, and operates CDG projects. DRS engaged NYGB to provide financing support for the development of the DRS CDG portfolio in NYS.

Under the Commission's Standardized Interconnection Requirements and Application Process, developers seeking interconnections for their projects are required to make a deposit of 25.0% of the interconnection upgrade estimates followed by full payment 120 business days later. In April 2018, NYGB and DRS closed a bridge loan for up to $7.0 million to finance up to 90.0% of those interconnection payments to NYS utilities, which will be used to progress up to 70.0 MW of CDG solar projects.

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

- *Reduces GHG emissions by up to 1,256,000 metric tons over the 25-year life of the underlying assets*
- *Generates at least 2,148,000 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 73.0 MW*

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 Bank PLC 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.

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

Motivate International Inc. – Expanding Urban Bike Sharing Program in NYC

- *Reduces GHG emissions by up to 32,500 metric tons over the 7-year life of the underlying assets*

In May 2017, NYGB provided a $43.3 million term loan and a $5.0 million seasonal variable funding note (collectively with the term loan, the "**Credit Facilities**") to NYC Bike Share, LLC ("**NYCBS**"). NYCBS is the exclusive operator of the NYC bike share system, Citi Bike, which comprises 12,000 bikes and 750 stations and is the largest bike share system in North America. Proceeds from the original Credit Facilities supported the addition of 2,000 bikes primarily in low-to-moderate income neighborhoods in Harlem, Queens, and Brooklyn and enabled NYCBS to address the seasonal nature of its business when there is lower ridership in winter months. In May 2018, due to favorable transaction performance within this new asset class, NYGB increased the term loan facility by $6.0 million.

NRG Renew – Supporting the Deployment of New York's Community Solar Projects

- *Reduces GHG emissions by up to 232,000 metric tons over the 25-year life of the underlying assets*
- *Generates at least 156,000 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 5.3 MW*

Renew, a leading integrated power company in the United States, is developing a national portfolio of CDG solar projects with 19.0% of the portfolio located in NYS. Renew engaged an investment bank to structure, arrange, and syndicate a term loan to finance the projects when they are placed in service, and NYGB committed $18.0 million as part of that term facility.

This transaction is among the first large-scale financings for a portfolio of CDG solar assets and is estimated to support the deployment of up to 15.0 MW of CDG solar assets in NYS. The transaction will help to demonstrate viability of the CDG model, drawing new investors and financial institutions into the marketplace and ultimately lowering the cost of capital. This, in turn, is expected to benefit consumers in the form of broader access to lower-cost clean energy generation.

BQ Energy Homeridae – Driving Standardization in the New York Solar Market

- *Reduces GHG emissions by up to 72,900 metric tons over the 25-year life of the underlying assets*
- *Generates at least 102,400 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 4.1 MW*

BQ is a Wappingers Falls, New York-based renewable energy project developer specializing in landfill and brownfield site redevelopment. NYGB's $4.9 million construction loan enables BQ to complete the 4.1 MW ground-mounted solar farm to be constructed on a remediated former ExxonMobil refinery site in Olean, NY. CIR Electric Construction Corporation will construct the project under a standardized balance of plant contract utilizing top-tier panels, inverters, and racking systems. The project will generate revenue by selling clean power (or, more specifically, selling the value of clean power evidenced by net metering credits) to the City of Olean, NY.

The Homeridae project is the fourth of several similar developments in BQ's pipeline that NYGB anticipates financing as part of a larger portfolio. BQ expects the majority of projects in the portfolio to be located on landfill and brownfield sites in Western NY, Central NY, Hudson Valley, and Long Island with the power generated providing clean power to municipalities, universities, schools, and hospitals, and utilities.

Vivint Solar Inc. Expanding the New York State Residential Solar Market

- *Reduces GHG emissions by at least 893,300 metric tons over the 25-year life of the underlying assets, with an incremental 93,300 metric tons attributed to the most recent transaction (closed on June 29, 2018)*
- *Generates at least 1,698,000 MWh of renewable energy over the life of the underlying projects, with an incremental 178,000 MWh attributed to the most recent transaction*

- *Increases renewable energy installed generation capacity by at least 58.0 MW, with an incremental 6.0 MW attributed to the most recent transaction*

On June 29, 2018, NYGB committed $19.0 million to participate in Vivint Solar's $150.0 million corporate revolving credit facility (the **"Construction Loan Facility" or "CLF"**) alongside seven other lenders. The CLF will be used by Vivint Solar to fund customer acquisition and construction of systems. Once installed, these systems will be refinanced through other debt facilities (described below) and tax equity commitments arranged by Vivint Solar. NYGB's participation in the CLF broadens the availability of construction financing for residential distributed energy projects across NYS.

This $19.0 million transaction is the third transaction NYGB has entered into with Vivint Solar (the first two being a $20.0 million post-construction aggregation facility and a $37.5 million term loan to refinance operating PV systems in NYS). Vivint Solar sought NYGB's participation in the CLF, aggregation facility, and term loan facility in order to further develop its project pipeline and finance operating assets in its national portfolio. With both construction and longer-term financing in place, Vivint Solar is positioned to meet the 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. One type of take-out financing is a securitization, or the sale of underlying cash flows resulting from residential leases or power purchase agreements to third-party investors. Solar developers can raise large amounts of capital through a securitization, allowing for further development of the emerging residential solar asset class. On June 4, 2018, Vivint Solar completed its first securitization, raising $466.0 million through the sale of the cash flows of a portfolio of residential solar systems. The greater size of this securitization (when compared to the size of Vivint Solar's debt facilities) will likely augment investor interest in solar assets, resulting in more attractive debt pricing. This, in turn, could benefit New Yorkers by allowing Vivint Solar to provide customers lower priced contracts to purchase power.

Delaware River Solar, LLC – Supporting the Deployment of New York's Community Solar Projects

- *Reduces GHG emissions by up to 1,083,900 metric tons over the 25-year life of the underlying assets*
- *Generates at least 1,648,300 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 56.0 MW*

In July 2018, NYGB and DRS closed a $55.0 million term loan which will finance the capital costs associated with the successful construction of up to 70.0 MW of CDG projects in NYS. This term financing, together with the $7.0 million interconnection bridge loan executed in April 2018, will further advance the development of the CDG portfolio in NYS.

NYGB committed a combined $62.0 million to DRS through the term loan and bridge loan facilities. These transactions will help to demonstrate the viability of the CDG model, drawing new investors and financial institutions into the marketplace, and ultimately lowering the cost of capital. This, in turn, is expected to benefit consumers in the form of broader access to lower-cost clean energy generation.

BlueRock Energy Solar, Inc. – Driving Standardization of Community Solar Financings in NYS

- *Reduces GHG emissions by up to 11,000 metric tons over the 25-year life of the underlying assets*
- *Generates at least 17,100 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 0.65 MW*

BlueRock is developing and operating a portfolio of CDG projects in NY, with a current pipeline of 20.0 MWdc. In 2017, BlueRock partnered with Renovus Solar, Inc. to develop and build the Renovus Rock, LLC project, a 646.0 kWdc project located in Millport, NY that has been operating since April 2017. BlueRock is now the sole owner of the project. NYGB has provided the term loan of $775,000, secured by the Renovus Rock, LLC project to support the development of BlueRock's CDG portfolio in NYS.

This transaction is estimated to support the deployment of CDG projects in the State, which will provide commercial and residential project subscribers access to reliable, clean, low-cost energy. As there is increasingly strong demand for CDG throughout NYS, growth of this asset class through the deployment of projects offers and requires participation by capital providers. Products like this term loan are expected to ultimately be offered by private capital providers in future to finance CDG portfolios at scale.

NYCEEC/Ecosave Inc. – Expanding Energy Efficiency Opportunities for Small & Medium Sized Commercial Customers in New York State

- *Reduces GHG emissions by up to 10,580 metric tons over the 15-year average life of the underlying assets*
- *Reduces electricity use by at least 12,230 MWh over the average life of the underlying measures*
- *Achieves energy savings from fuel of at least 38,170 MMBtu over the average life of the underlying measures*

NYGB committed up to $2.0 million to participate as a co-lender with the New York City Energy Efficiency Corporation ("**NYCEEC**") in a construction-to-term loan for Ecosave Inc. to finance the installation of energy efficiency improvements at the Hebrew Home senior care facility in Riverdale, NYS. Ecosave Inc. is an energy efficiency services company providing turnkey design, engineering, construction, management, and maintenance services for mid-sized commercial customers through an energy services agreement ("**ESA**") model. Using NYGB capital, energy efficiency improvements including LED lighting retrofits and Heating, Ventilation and Air Conditioning system upgrades will be installed at no upfront cost to the customer, and a portion of the resulting energy savings will be used to repay the lenders over time.

This transaction establishes greater performance history for energy efficiency projects with medium-sized, unrated, commercial and industrial customers, an asset class that historically has limited access to commercial capital. The transaction will help to demonstrate viability of the ESA model, drawing new investors and financial institutions into the marketplace. This fits within NYGB's strategy to increase liquidity and drive additional value in the NYS energy efficiency sector, ultimately lowering cost of capital for energy efficiency projects.

BQ Energy (Steel Sun) – Driving Standardization in the New York Solar Market

- *Reduces GHG emissions by up to 158,000 metric tons over the 25-year life of the underlying assets*
- *Generates at least 221,700 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 8.9 MW*

NYGB's $12.5 million construction loan enables BQ to construct an 8.9 MW ground-mounted solar farm on a brownfield site in Lackawanna, NY. CIR Electric Construction Corporation will construct the project under a standardized balance of system contract utilizing top-tier panels, inverters, and racking systems. The project will generate revenue by selling clean power (or, more specifically, the value of clean power evidenced by net metering credits) to Canisius College.

NYGB's participation in the Steel Sun project – and in similar past and future developments included in the proposed portfolio arrangement – helps to expand financing opportunities for smaller (i.e., less than 10.0 MW) solar systems by fostering standardization in underwriting (which is the process a lender uses to assess the creditworthiness or risk of a potential borrower) including a streamlined, uniform approach to integrating contractors, structuring contracts, and utilizing standardized equipment.

Delaware River Solar – Supporting Deployment of New York's Community Solar Projects

- *Reduces GHG emissions by up to 1,083,900 metric tons over the 25-year life of the underlying assets*
- *Generates at least 1,648,300 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 56.0 MW*

In December 2018, NYGB and DRS closed a third transaction that will provide $25.0 million in construction financing for project costs associated with building up to 70.0 MW of CDG projects in NYS. This transaction directly responds to the market demands for construction financing to further accelerate the build-out of CDG projects in the State. This credit facility complements NYGB's existing financings by further contributing to the reduction of transaction soft costs by utilizing a consistent set of lawyers, engineers, and other consultants on a negotiated programmatic basis. The construction facility, together with the $7.0 million interconnection bridge loan closed in April 2018, and the $55.0 million term loan closed in July 2018, will advance the development of DRS's CDG portfolio in NYS.

NYGB has committed a combined $87.0 million to DRS through the bridge, term, and construction loan facilities. These complementary transactions help to demonstrate the viability of the CDG model in the State, draw new investors and financial institutions into the marketplace, lowering the cost of capital. Consumers are expected to be ultimate beneficiaries in the form of broader access to lower-cost clean energy generation in the State, with corresponding resiliency, affordability, choice and environmental benefits.

Cypress Creek Renewables – Bridge Loan to Support the Deployment of Community Solar

- *Reduces GHG emissions by up to 3,537,000 metric tons over the 25-year life of the underlying assets*
- *Generates at least 5,072,000 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by at least 172.0 MW*

Cypress Creek Renewables ("**CCR**"), a California-based company, finances, builds, and operates CDG projects. CCR engaged NYGB to provide financing for the development of a CDG portfolio in New York.

In August 2017, NYGB and CCR closed a bridge loan for up to $11.5 million to finance interconnection deposit payments to NYS utilities, relating to as many as 72 CDG solar projects in the State. In December 2017, the bridge loan was increased by $13.5 million and extended until December 2019 to finance a portion of the balance of the estimated interconnection upgrade payments. In December 2018, the bridge loan was further increased by $20.0 million to a $45.0 million facility, and extended until April 2021, to finance interconnection deposit payments and support CCR's development of its NYS solar assets.

This transaction encourages an efficient use of sponsor equity and supports project development efforts in NYS by bridging the period for projects from completion of the Coordinated Electric System Interconnection Review ("**CESIR**") process until project financing arrangements are in place. NYGB's participation creates an easier pathway forward for developers and enables greater, and potentially earlier, deployment of CDG along with other distributed generation assets throughout the State.

This transaction is expected to generate project and customer performance data, which will help draw new investors and financial institutions into the marketplace in demonstrating that competitive risk-return profiles can be achieved by CDG enabled business models. This transaction also supports the deployment of CDG solar projects, which provide those who are not otherwise able to install solar energy generation systems on their property (e.g., homeowners whose rooftops cannot support solar systems, renters and those who cannot afford solar systems, etc.), with voluntary access to clean, low-cost energy, regardless of their home or business location.

Rock Wind Holdings - Supporting Large-Scale Onshore Wind in New York State

- *Equivalent to the estimated deployment of up to 35.1 MW of new large-scale wind resources in the State*[101]
- *Estimated to indirectly contribute up to 1,375,077 metric tons in reduced GHG emissions in the State from assumed future large-scale wind resources*
- *Estimated to indirectly spur the generation of at least 1,306,915 MWh of wind power in the State from future large-scale wind resources*

BlackRock Renewable Assets, the dedicated renewables investment team of BlackRock Real Assets, recently

[101] Since this investment does not involve the construction of new clean energy resources, the impact benefits attributable to this transaction are classified as indirect.

acquired a portfolio of five operating wind farms located in New York, Pennsylvania, and Illinois totaling 539.0 MW. NYGB has committed $31.25 million alongside capital from three commercial banks to support the long-term financing of these quasi-merchant assets, which include a 55.4 MW project in Steuben County, NYS.

Commercial banks are becoming more comfortable with merchant exposure for thermal facilities, but the market is less developed for merchant renewable projects. NYGB's participation signals that long-term financings of NYS wind projects with merchant tails are possible, which in turn is expected to encourage more primary wind development in the State. This transaction supports the secondary market for wind projects in NYS at a time when long-term offtake contracts are increasingly scarce.

The 55.4 MW project will continue to generate renewable wind energy for the State. NYGB participation in this secondary market transaction is expected to spur further private investment in this type of asset, delivering even more renewable generation options and benefits to ratepayers. The anticipated growth of LSR in the State (including onshore wind) can be expected to be maximized in a market where there is ample capital available for both project developments and the subsequent recapitalization and/or sale of operating assets. Many benefits of CEF initiatives in the State (including NYGB investments consistent with its mission, like this Rock Wind transaction) comprise follow-on market activity as part of quantifying overall impact. In this instance, the provision of secondary financing of operating wind assets is expected to provide confidence to developers and future financiers that there is increasing liquidity in merchant renewable project asset classes, across project lives, spurring even greater interest and activity. NYGB expects to see material indirect benefits from transactions like this one in the form of more large-scale renewable projects for NYS.

Valcour Wind Energy – Supporting Large-Scale Offshore Wind in New York State

- *Allows significant renewable assets to remain operational five years beyond their original design life*
- *Reduces GHG emissions by up to 1,613,567 metric tons from the underlying projects*[102]
- *Generates at least 2,913,810 MWh of renewable energy from the underlying projects*[103]
- *Equivalent to the estimated deployment of up to 69.1 MW of new large-scale wind resources in the State*
- *Estimated to indirectly contribute up to 2,708,114 metric tons in reduced GHG emissions in the State from assumed future large-scale wind resources*
- *Estimated to indirectly spur the generation of at least 2,573,876 MWh of wind power in the State from future large-scale wind resources*

Carlyle Power Partners (**"CPP"**), a dedicated power investment platform of The Carlyle Group, recently acquired a portfolio of six operating wind projects in NYS, originally announced in September 2018. In late February 2019, NYGB committed financing to Valcour Wind Energy alongside three commercial banks to support the acquisition. In late March 2019, in a separate transaction, NYGB committed additional funding to Cogentrix Valcour Intermediate Holdings to further support CPP's acquisition, for a total aggregate commitment of $68.75 million from NYGB. The wind projects total 612.0 MW and account for approximately 30.0% of current wind generation in the State. The first project in the portfolio started operating in 2008 and the final project came online in 2009.

The project finance market is becoming more comfortable with merchant exposure for thermal facilities, but the market is less developed for merchant renewable projects. NYGB's participation signals that long-term financings of NYS wind projects with merchant tails are possible, which in turn is expected to encourage more primary wind development in the State. This transaction supports the secondary market for wind projects in NYS at a time when long-term offtake contracts are increasingly scarce. Further large-scale renewable transactions are expected as NYGB continues to support LSR development in the NYS power market.

The recapitalization and expected operational improvements associated with this acquisition will allow the 612.0 MW of installed generation to remain operational beyond the original 20-year design life. During these additional years, the projects are expected to generate at least 2,913,810 MWh of clean energy and provide at least 1,532,889 metric tons of avoided GHG emissions. In addition to the environmental benefits, this transaction supports

[102] 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 both direct and indirect.

[103] Assuming the installed generation operates for at least five years beyond the original 20-year design life. This does not represent the useful life assumption used for the financial evaluation of the portfolio.

economic development in the State: more than 40 clean energy jobs in the North Country and Western NY will be retained through the continued operation of these wind projects, with continued lease payments made to landowners and property taxes contributed to local communities.

The 612.0 MW Valcour wind portfolio will continue to generate renewable wind energy for the State. NYGB participation in this secondary market transaction is expected to spur further private investment in this type of asset, delivering even more renewable generation options and benefits to ratepayers. The anticipated growth of LSR in the State (including onshore wind) can be expected to be maximized in a market where there is ample capital available for both project developments and the subsequent recapitalization and/or sale of operating assets. Many benefits of CEF initiatives in the State (including NYGB investments consistent with its mission, such as the Valcour transaction) comprise follow-on market activity as part of quantifying overall impact. In this instance, the provision of secondary financing of operating wind assets is expected to provide confidence to developers and future financiers that there is increasing liquidity in merchant renewable project asset classes across project lives, spurring even greater interest and activity. NYGB expects to see material indirect benefits from transactions like this one in the form of more large-scale renewable projects for NYS.

Risk Management & Oversight Framework

1. Introduction

Risk-taking is an intrinsic part of all investment businesses, including NYGB. At NYGB, risk management is not only important in minimizing and controlling loss, it also plays a role in strategic planning, portfolio construction, investment management processes and operations.

Effective management of NYGB risk is a cornerstone of NYGB's ability to be self-sustaining, to meet its mission of generating returns in excess of expenses and other uses of cash, and to be a responsible steward of the public funds with which it is entrusted. While realizing NYGB's market-responsive mission requires it to retain flexibility in its decision-making, investments and operations, NYGB is acutely aware that such flexibility must be subject to rigorous processes and accountabilities.

Risk management is the process of identifying, assessing and controlling both enterprise and portfolio risks to minimize unanticipated losses and uncompensated risks and optimize the risk/reward ratio. At NYGB, risk management principles are applied at the enterprise and Investment Portfolio levels and are both quantitative and qualitative in nature. This means that risk management is viewed not just as the duty of one individual or department but as the responsibility of all NYGB personnel as a fundamental part of organizational culture.

This Schedule 2 outlines the key risks in NYGB's business, risk management policies, mitigants and risk management oversight.

2. Risk Framework & Identification

NYGB classifies all risks arising in the business as either investment risks or enterprise risks. Investment risks are those involved in investment selection and asset management; enterprise risks reflect the balance of largely operational risks related to NYGB's business. Investment risks are further segmented into those related to investment selection and those related to portfolio management, reflecting that the nature of risks that arise in connection with the commitment and deployment of funds differs depending on whether NYGB is making a particular investment or managing its overall portfolio. Table 8 summarizes the key business risks to be managed by NYGB.

Table 8: Key Business Risks

<table>
<tr><th colspan="2">Investment Risks</th><th colspan="2">Enterprise Risks</th></tr>
<tr><td colspan="2">Investment Selection</td><td rowspan="2">Capitalization Risk</td><td rowspan="2">Risk that NYGB does not receive the funds allocated to it on the expected schedule, which could negatively impact NYGB’s concentration risk and result in a portfolio that is overweight in individual investment types versus plan</td></tr>
<tr><td>Technology Risk</td><td>The risk that the technology employed in a potential investment will not function as and when intended, including to expected and necessary performance levels</td></tr>
<tr><td>Operating Risk</td><td>Operational risks related to potential investments, including construction, fuel/renewable resource, input prices, servicing, maintenance and billing/collections arrangements, management, performance of other debt, equity and project participants</td><td>Liquidity/ Balance Sheet Risk</td><td>Risk that counterparties are unable to refinance NYGB’s position when expected and/or NYGB is unable to sell-down assets (at times and/or on terms acceptable to NYGB), tying up capital and slowing the capital recycle rate</td></tr>
<tr><td>Legal & Capital Structure Risk</td><td>Risks of inadequate contractual terms and documentation to properly structure the relevant project and protect NYGB’s interests; risks inherent in proposed capital structure and contractual risk allocations between capital providers</td><td>Capital Deployment Risk</td><td>Risk that capital is not deployed at a sufficient rate to generate the revenues necessary for self-sufficiency, or the benefits expected to the clean energy sector in New York and to the leveraging of public funds</td></tr>
<tr><td>Counterparty & Credit Risk</td><td>Risk of default by a project and/or direct NYGB counterparty in a proposed investment</td><td>Execution Risk</td><td>Risk of not having the right skills, in the needed amounts available to execute on NYGB business as intended (applies to internal capabilities and external collaborations)</td></tr>
<tr><td>Refinancing Risk</td><td>Risk of market development and conditions such that investment either cannot be refinanced where applicable, except in part or at a loss to NYGB, or on terms which might reasonably result in default</td><td>Operational Risk</td><td>Risks affecting NYGB’s “license to operate” potentially arising in these areas:
▪ Legal
▪ Legislative and regulatory
▪ Environmental
▪ Intra-Agency integration (e.g., NYSERDA, DPS, etc.)
▪ State Comptroller/NYSERDA audit deficiency
▪ Inadequate systems, processes or controls</td></tr>
<tr><td>Market/Price Risk</td><td>Risk that energy prices do not sustain the investment/project as modeled and proposed over its expected life</td><td>Political Risk</td><td>Risks relating to NYGB, as a State-sponsored specialty finance entity, being perceived as a target to provide special treatment to particular constituencies or suffering from changed political priorities with respect to clean energy within New York</td></tr>
<tr><td colspan="2">Portfolio Management</td><td rowspan="4">Reputation Risk</td><td rowspan="4">Risks that can arise in every aspect of NYGB’s business and operations that an event occurs relating to a transaction, counterparty or business practice which detrimentally impacts NYGB and therefore the regard in which it is held in the marketplace and among all stakeholders. Diminished reputation can materially undercut NYGB’s ability to operate and achieve success</td></tr>
<tr><td>Non-Performance</td><td>Risk that during the course of an investment it begins to under-perform and/or becomes non-performing</td></tr>
<tr><td>Concentration Exposures</td><td>Risks posed by lack of sufficient diversification among portfolio investments, such that non-performance in a particular investment type has a substantial impact on overall portfolio performance</td></tr>
<tr><td>Investment Servicing & Administration</td><td>Risk of investment servicing and administration (including all related monitoring and reporting) lacking in scope, accuracy, or timeliness, impacting the ability to optimally manage NYGB investments and portfolio</td></tr>
</table>

3. Risk Mitigation Principles

NYGB addresses the risks that arise across its business through the application of key risk management principles in combination with a system of specific risk mitigation measures. NYGB's investment risks are identified, managed and monitored according to the practices described in the balance of this Schedule 2 in the context of investment analysis and review, portfolio construction, ongoing portfolio monitoring and management, and organizational risk culture. NYGB's risk management reflects the principles set out below.

3.1 Investment Analysis & Review

(a) Structured and comprehensive due diligence for all potential investments, addressing all identified investment risk categories consistent with usual and customary commercial approaches;

(b) Conducting "know your customer" background checks on potential counterparties, with a process in place that can be tailored across the spectrum from smaller private ventures to larger companies;

(c) Creating the most appropriate investment structure, including financial terms (e.g., covenants, ratios, leverage, reporting requirements, etc.) for a particular asset class;

(d) Implementing a comprehensive set of contractual risk mitigants (e.g., representations, warranties and covenants, indemnities, defaults, penalties, etc.);

(e) Adhering to internal procedures for investment decision-making, including Scoring Committee, Greenlight Committee and IRC reviews, input and respective approval processes; and

(f) Leveraging internal and external expertise as required to understand particular opportunity, including technical and legal.

3.2 Portfolio Construction

(a) Apply prudent diversification principles to the extent possible taking into account NYGB's market-responsive approach, including with respect to:

  i. Each investment and how it fits within NYGB's portfolio;

  ii. Particular clean energy sub-sectors (e.g., solar, wind, storage, efficiency, etc.);

  iii. Types of projects (e.g., by technology etc.);

  iv. Target segment representation (including end-use type – commercial and industrial, residential, agricultural, etc.);

  v. Specific clients and counterparties;

  vi. Types of product offerings; and

  vii. Geographic distribution;

(b) Identify and monitor concentration risk and exposures (e.g., companies, technologies, asset classes, products, etc.), also taking into account NYGB's market-responsive approach;

(c) In the context of NYGB's demand-driven approach, evaluate and revise as needed minimum and maximum indicative single investment amounts;

(d) Use recognized commercial benchmarks for comparable asset classes to assess NYGB relative performance once the portfolio has reached sufficient size; and

(e) Manage returns from individual investments as well as across the entire portfolio, ensuring such returns generally exceed minimum hurdle rates.

3.3 Ongoing Portfolio Monitoring & Management

(a) Regular and periodic evaluation of each investment against its investment case;

(b) Identification of early signs of potential/actual under-performance and/or non-performance;

(c) Proactive management of recoveries and maximization of recovery in line with sound commercial principles; and

(d) Regular reporting to the IRC.

3.4 Organizational Risk Culture

(a) NYGB has adopted and strives to maintain an organizational culture in which understanding and managing risk is everyone's responsibility. Risk mitigation and management is not just about policing and enforcing limits. NYGB personnel at all levels must be cognizant of risks and willing to do their part to make sure that those risks within their sphere of responsibility are managed in a manner consistent with NYGB's policies and disclosures to clients, counterparties and broader stakeholders. Implementation and compliance with NYGB risk parameters, principles, policies and procedures forms part of personnel performance assessments;

(b) Ongoing NYGB emphasis on communications, transparency and consistent updates in connection with existing investments, investment opportunities, clients, counterparties and key stakeholders;

(c) Organizational checks and balances are established and maintained, including appropriate segregation of front/mid-back office functions. Risk function is housed in an independent control group with a single point of responsibility (i.e., the Managing Director, Risk & Compliance) and having access to NYGB's President and the IRC;

(d) NYGB organizational structure in which risk management roles and responsibilities are clearly defined, including written policies and other procedures identifying the specific people within the organization who are authorized to approve various actions, etc.;

(e) Senior management and the IRC are responsible to fully understand NYGB risks, define risk tolerances and set the risk management and ethical tone of the organization. This is critical to NYGB achieving its mission and protecting its reputation in the marketplace;

(f) NYGB acquires and maintains technology to support risk functions, including appropriate software platforms and other tools for portfolio management, performance analysis and monitoring;

(g) NYGB has implemented and seeks to maintain effective recordkeeping and management of all documents and records pursuant to commercial and appropriate protocols;

(h) NYGB works with information technology personnel at NYSERDA to ensure:

   i. Adequate backup and disaster recovery support; and

   ii. The existence of an effective system of security to protect the interests of NYGB employees, clients and counterparties;

(i) Financial statements are prepared quarterly (unaudited) and annually (audited) in accordance with all applicable accounting standards;

(j) An experienced and credible accounting firm is retained to audit NYGB financial statements annually; and

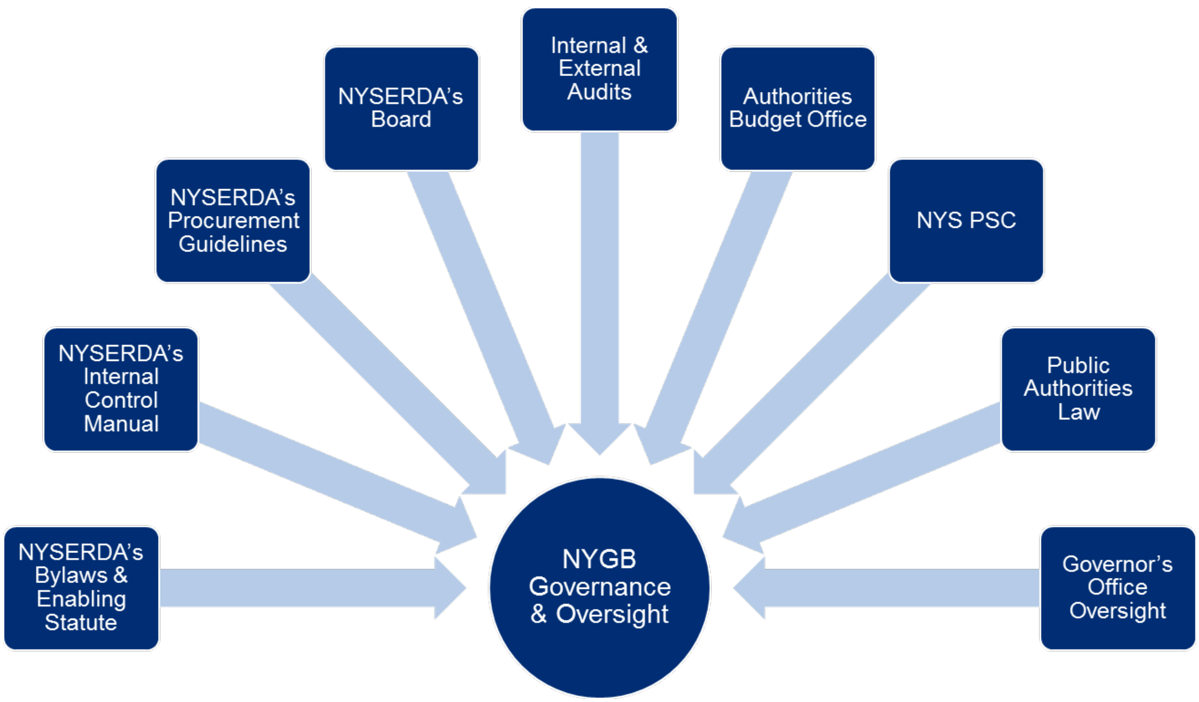
(k) NYGB, as a division of NYSERDA, remains subject to NYSERDA internal controls, policies and procedures and internal audits, as applicable.

3.5 Risk Management Oversight

3.5.1 Governance & Oversight Environment

As a division of NYSERDA, NYGB is subject to the full range of operational, reporting, and ethical requirements that NYSERDA requires across its operations, and provides quarterly briefings to the full NYSERDA Board. NYGB must comply with NYSERDA's Bylaws, Internal Control Manual, Operations and Procedures Manual, Personnel Handbook, Procurement Guidelines and Board requirements. NYGB is also subject to internal and external audits. Through their oversight of NYSERDA, the Authorities Budget Office and the Commission provide another layer of NYGB oversight. NYGB's governance and oversight environment is represented in Figure 13.

Figure 13: Governance & Oversight Environment



In addition to NYGB's external governance and oversight environment, NYGB has dedicated Risk & Compliance and Legal & Regulatory Affairs functions, as well as a number of key committees providing oversight of and/or inputs to various aspects of NYGB's business, including the IRC, NYGB senior management, the Scoring Committee, the Greenlight Committee and the Advisory Committee.

3.5.2 IRC

The IRC ultimately provides risk management oversight at NYGB, with respect to both investment and enterprise risks. The IRC is made up of senior NYSERDA officers who each possess financial and investment capabilities and experience, as well as senior NYGB personnel. The IRC currently comprises:

(a) President & CEO of NYSERDA;

(b) Treasurer of NYSERDA;

(c) President of NYGB; and

(d) NYGB Managing Directors.[104]

The IRC meets regularly to consider, review, and provide recommendations for consideration by NYSERDA's President & CEO in connection with the following items as needed, taking into account NYGB's mission, operations, asset allocation, exposures and all NYGB risk parameters and policies:

(a) NYGB strategy and business plans;

(b) Overall capital deployment plans and strategies;

(c) Risk management practices and framework;

(d) Financial and economic performance metrics and reporting;

(e) Key NYGB procedures;

(f) The Metrics Plan;

(g) Any other material documents required to be filed with the Commission or other State agency (including periodic reporting);

(h) Transaction Approval Memoranda;

(i) Quarterly Investment Reports;

(j) Proposed material waivers, amendments, restructurings and/or dispositions of existing NYGB investments; and

(k) Quarterly management reports.

In addition to reviewing/overseeing all financing and investment agreements, the IRC meets regularly to review NYGB's overall business, positions, portfolio construction and performance, including flagging any actual or potential issues with NYGB investment assets or portfolio. No commitment of NYGB capital is made without vetting by the IRC.

The President & CEO of NYSERDA, upon consideration of the input of IRC members, is the final decision-maker with respect to matters before the IRC.

3.5.3 Senior Management Portfolio Review

Senior management portfolio review is dedicated to ongoing risk assessment and comprises senior NYGB personnel who meet monthly to review the risk of each transaction in the Investment Portfolio and potential new transactions in the Pipeline. This process is designed to consistently review the entirety of NYGB risk exposure, and to filter transactions and distill issues for subsequent review by the IRC.

3.5.4 Scoring Committee

The Scoring Committee reviews all proposals received in response to RFP 1, RFP 7, RFP 8 and RFP 10 or any other similar RFP that may exist from time to time. The Scoring Committee consists of NYGB employees, all designated by NYGB's President. The role of the Scoring Committee is to review and evaluate all competitive proposals received by NYGB for completeness and against evaluation and selection criteria described in the relevant RFP. This process is designed to ensure efficiency and standardization in NYGB's approach to evaluating, and responding to, investment opportunities.

[104] Provided that no Managing Director who is responsible for the execution of a transaction being considered by the IRC will participate as a member of the IRC with respect to that transaction. In addition, any actual or potential conflicts of interest that exist or may arise for any IRC member will be reviewed by legal counsel and such member may be recused from participation if, and to the extent, warranted.

3.5.5 Greenlight Committee

The Greenlight Committee vets all potential investment opportunities before NYGB proceeds to full-scale diligence and negotiation of terms. All IRC members are eligible to participate in the Greenlight Committee, which is made up of at least three IRC members, including both NYSERDA and NYGB personnel (but excluding NYGB personnel directly involved in execution of the subject transaction). This committee reviews and makes recommendations (including the requirement of certain contingencies or conditions) to NYSERDA's President & CEO with respect to a proposed transaction. All issues raised by the Greenlight Committee must be addressed before a potential transaction is submitted to the IRC for review. The "greenlighting" requirement adds another check and balance on potential investments in NYGB's pipeline to ensure that individual transactions meet credit quality standards and all other applicable investment criteria, are consistent with NYGB's mission and are appropriate from a risk perspective.

3.5.6 Advisory Committee

The Advisory Committee is a group of senior professionals, prominent in their fields, that delivers guidance on an ongoing basis to the NYGB President and management team regarding matters pertinent to NYGB's business. Advisory Committee members are appointed on the recommendation of NYGB's President, with the approval of NYSERDA's President & CEO. These members represent a range of backgrounds that may include energy and environmental issues (preferably focused on the clean energy sector), project development and finance, banking, capital/financial markets, portfolio management, new venture management/business development, utility and related infrastructure, engineering/technology and real estate. Advisory Committee member expertise includes deep knowledge of project financing structures; portfolio management, renewable energy investment, regulatory and operational expertise; and active investor experience in clean energy. The Advisory Committee meets at least twice a year. Details regarding its members, purpose, objectives and terms of engagement are available at www.greenbank.ny.gov/About/Advisory-Committee.

Investment Process

Since Inception, NYGB actively and consistently works on a large volume of potential transactions within a clear investment framework. As the steward of significant public funds, NYGB has established and adheres to certain investment and business practices – consistent with prudent practice in comparable industries and institutions. These practices are reflected in all aspects of NYGB's business including originating, reviewing, evaluating, diligencing, credit underwriting, risk and mitigant assessments, structuring, negotiating, documenting and closing transactions, as well as ongoing risk and compliance and portfolio management principles.

NYGB employs various review committees in the origination, evaluation and response to investment opportunities. In addition to NYGB bringing to bear the experience of its staff and management, input and review are required at prescribed points in the investment cycle from internal committees that evaluate and "greenlight" proposals, as well as from the IRC.

The principal steps involved in the advancement of any investment proposal received by NYGB are represented in Figure 14. Each transaction goes through a number of critical steps – each in turn involving detailed review, input and other work of the NYGB transaction team, its advisors, committees and clients and counterparties (including their respective advisors) in an iterative and ongoing process until milestones are reached, culminating in the execution of transaction documentation.

Figure 14: Transaction Process