

# **NY Green Bank**

## Annual Review 2019 – 20 and Annual Business Plan 2020 – 21

Case 13-M-0412

June 19, 2020

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#### Letter from the President of NY Green Bank

I write this President's Letter at a time of great uncertainty in the United States and across the globe. We ended our last fiscal year while the U.S. was battling the COVID-19 crisis, whose domestic epicenter has been in New York State. After nearly three months of New York State on PAUSE, businesses across the state are reopening in phases under the New York Forward plan – the starting point for the New York State economy's long road to return to normal. Moreover, our nation is witnessing historic demonstrations and calls for racial justice. We at NY Green Bank understand the strong link between environmental justice and civil rights and recognize the role we can play to ensure all New Yorkers have equal access to clean energy and healthy communities.

We are optimistic about our ability to continue to transform financing markets for clean energy and sustainable infrastructure in the State and help deliver the promise of environmental justice. Despite the challenges presented by the COVID-19 crisis, as we prepare to file this 2020 – 21 plan, NY Green Bank has surpassed a milestone \$1.0 billion of capital commitments across a range of segments, transaction sizes and investment structures. We reached this milestone while our team has been working remotely since mid-March. During this period, we have been operating seamlessly – executing and originating transactions and working with our borrowers to address specific needs that have arisen as a result of COVID-19 and the PAUSE order.

As the nation's leading green bank entity, during the fiscal year ending March 31, 2020, we committed over \$222.3 million of capital to new clean energy and sustainable infrastructure investments. In aggregate, our portfolio as of the end of the fiscal year was expected to support up to \$2.6 billion in total clean energy project costs in the State and to reduce greenhouse gas emissions by up to 19.6 million metric tons – which is equivalent to taking up to 192 thousand cars off the road for 23 years.

In the 2019 – 20 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, including as the sole financing provider and in transactions arranged by others. NY Green Bank closed its first preferred equity transaction – with a property seeking LEED certification – which also demonstrates a pathway for financing energy efficient new construction. We further broadened the range of segments in which we have made investments with a transaction supporting energy efficient controlled environment agriculture. These products and transactions demonstrate NY Green Bank's continued market leadership.

With a growing portfolio comes an increased number of fundings, borrower compliance monitoring and operational activities. During the fiscal year ending March 31, 2020, we strengthened our risk and portfolio management operations by adding senior investment administration and portfolio support resources to ensure that NY Green Bank continues to be an effective steward of the New York State ratepayer capital invested in our portfolio of clean energy and sustainable infrastructure transactions. We also expanded the senior leadership of our Investment & Portfolio Management group and Strategy, Impact & Investor Relations team with the additions of two Managing Directors with deep industry experience.

NY Green Bank invests on commercial terms and has generated revenues that exceed our expenses every year since 2017 when we achieved self-sufficiency for the first time. The 2019 – 20 fiscal year was no exception; NY Green Bank's net income grew during the period by over 15%.

Even with these successes, of which NY Green Bank is understandably proud, we know that there is a great deal more to be done to address the environmental injustices that have long affected New York State's disadvantaged communities. We can and will play an important role in supporting key priorities of Governor Andrew M. Cuomo under the Climate Leadership & Community Protection Act. NY Green Bank recently closed a \$25.0 million transaction aimed at bringing clean energy and energy efficiency to low- and moderate-income communities in the state. During the 2020 – 21 fiscal year, we will continue to innovate as we have done in the past in order to seek out and scale up our financing of opportunities that support the environmental justice goals of the CLCPA.

We thank 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. As the New York State economy recovers from the COVID-19 crisis and as a powerful spotlight is shone on the interrelated issues of civil and environmental justice, we at NY Green Bank know there is still much to be accomplished. The NY Green Bank team looks forward making a continued contribution during the 2020 – 21 fiscal year.

Sincerely,

Alfred Griffin President

June 19, 2020

## 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 responds to market opportunities that create attractive precedents, standardize investment practices and create roadmaps that capital providers can readily replicate and scale. As funders "crowd in" to an 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 <u>www.greenbank.ny.gov/Investments/Portfolio</u>.

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

Defined terms used, but not separately described, in the text of this document have the meanings given to them in <u>Part IV: Glossary & Definitions</u>.

#### 1.1 Review & Plan Purpose

NYGB has prepared this Annual Review 2019 – 20 and Annual Business Plan 2020 – 2021 (the "**Review and Plan**") to inform stakeholders, existing and potential clients, counterparties and all other interested entities of NYGB's:

- Activities and performance in the fiscal year ending March 31, 2020 (the "2019 20 Plan Year"); and
- Strategic objectives for the fiscal year ending March 31, 2021 (the "2020 21 Plan Year"), together with deliverables and a discussion of the activities NYGB will undertake to achieve its objectives.

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

- <u>Part I: NY Green Bank Overview</u>, providing information about NYGB's mission and role in the context of energy strategy within NYS;
- Part II: Annual Review 2019 20, describing the activities of NYGB in the 2019 20 Plan Year and its performance against the previous business plan; and
- <u>Part III: Annual Business Plan 2019 20</u>, describing NYGB's objectives and strategic activities for the 2020 – 21 Plan Year.

NYGB maintains alignment with the State's strategic direction as 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**").<sup>1</sup> 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."<sup>2</sup> NYGB plays a central role in New York's Clean Energy Fund ("**CEF**"), which was created pursuant to the CEF Order. As part of Governor Cuomo's Reforming the Energy Vision ("**REV**") strategy, the CEF is a \$5.3 billion commitment over 10 years to advance clean energy growth and innovation, drive economic development across NYS and reduce ratepayer collections.<sup>3</sup> 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. For more information on the CEF and REV strategy, see <u>www.nyserda.ny.gov/About/Clean-Energy-Fund</u> and <u>www.rev.ny.gov</u>.

NYS has continued to expand its clean energy goals since the Inception<sup>4</sup> of NYGB and the CEF, including enactment of the Climate Leadership and Community Protection Act ("**CLCPA**") in July 2019. Codifying the nation-leading goals of Governor Cuomo's Green New Deal, the CLCPA establishes the most ambitious and comprehensive climate and clean energy legislation in the country, including mandates to:

- 1. Achieve 70% renewable energy by 2030 and zero-carbon emission electric sector by 2040;
- 2. Reduce energy consumption statewide by 185 trillion British thermal units ("**Btus**") through energy efficiency improvements;
- 3. Install 9,000 megawatts of offshore wind ("**OSW**") by 2035; 6,000 megawatts of distributed solar by 2025; and 3,000 megawatts of energy storage by 2030; and
- 4. Establish a Climate Action Council ("**CAC**") and policy roadmap that will ensure 35% of clean energy program resources benefit disadvantaged communities and individuals working in conventional energy industries are provided with training and opportunities in the growing clean energy economy.

This Review and Plan is a product of NYGB's annual strategy review and business planning process contemplated at its Inception. Previous business plans are available at <a href="http://www.greenbank.ny.gov/Resources/Public-Filings">www.greenbank.ny.gov/Resources/Public-Filings</a>.

#### 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 identified 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 scale and volume; less familiar project sponsors and counterparty credits; inadequate data on underlying debt (or equity)

<sup>&</sup>lt;sup>1</sup> See: <u>http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={B23BE6D8-412E-4C82-BC58-9888D496D216}</u>.

<sup>&</sup>lt;sup>2</sup> Cases 14-M-0094 et al., page 74.

<sup>&</sup>lt;sup>3</sup> January 2016 through December 2025.

<sup>&</sup>lt;sup>4</sup> "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.

investments and/or technology performance; and underdeveloped or nonexistent capital markets for clean energy projects. These barriers exist across asset classes and project types, 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:

- 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);
- Structuring financial products to foster replicable and standardized sustainable infrastructure investments;
- Pricing financial products consistently with commercial approaches to credit quality and risk, thus earning a return on investment to preserve and grow NYGB's capital base;
- Collaborating with, rather than competing against, market participants that can or already do engage the financial markets but are constrained by a lack of available financing; and
- 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.<sup>5</sup>

#### Figure 2: Key Investment Criteria

- 1. Transactions will have expected financial returns such that the revenues of NYGB on a portfolio basis will exceed 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.

#### 1.4.1 Additionality

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

- Would likely not occur given the current state of the private markets; or
- Might occur in the private markets but would likely:

<sup>&</sup>lt;sup>5</sup> Ordering Clause 6, pages 24 – 25.

- Involve less favorable terms as to tenor, cost, fees and other key transaction terms;
- Not happen at the market breadth needed to scale the sector;
- Not involve the same level of focus on the NYS market; and/or
- 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:

- Type and amount of capital applied to total project costs and other clean energy activities in NYS (referred to as mobilization);
- Ability to scale or replicate the transaction to drive larger volume(s) of clean energy and sustainable infrastructure finance; and
- Increased awareness of and confidence in clean energy and sustainable infrastructure investments, driven by and reflected in:
  - Evolution of private sector institutional underwriting; and
  - 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 factors that include:

- Estimated energy savings and/or clean energy generation;
- 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
- 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 (e.g., 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**").<sup>6</sup> NYGB provides additional request for proposal ("**RFP**") resources to aid prospective proposers in the RFP process.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> At the time of this Review and Plan, NYGB has five open investment solicitations, all of which are continuous, with proposals evaluated as they are received: <u>RFP 1: Clean Energy Financing Arrangements</u>; <u>RFP 7: Construction & Back-Leveraged Financing for Ground-Mounted</u> <u>Solar Generation Systems Targeting Corporate & Industrial End-Users</u>; <u>RFP 8: Financing Arrangements for Renewable & Energy Efficiency</u> <u>Projects: Office, Commercial & Industrial, and Multi-Family Real Estate Properties</u>; <u>RFP 10: Financing for CDG Solar Projects Including</u> <u>Projects Paired with Energy Storage</u> and <u>RFP 13: Financing for Energy Storage Projects</u>. All Investment RFPs and access to the portal for the online submission of investment proposals are available at <u>www.greenbank.ny.gov/Work-with-Us/Open-Solicitations</u>.

<sup>&</sup>lt;sup>7</sup> See: <u>www.greenbank.ny.gov/Work-with-Us/RFP-Resources</u>.

#### 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. 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 assess progress toward its goals, NYGB sets and tracks key performance indicators (**"KPIs"**). These KPIs tie to NYGB's metrics and periodic reporting pursuant to the Metrics, Reporting & Evaluation Plan Version 3.0 (the "**Metrics Plan**").<sup>8</sup> 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 <u>Table 1</u>.<sup>9</sup>

NYGB Goals	Key Performance Indicators	Metrics		
	1			
Attract Capital to Clean Energy Markets in NYS	<ul> <li>Mobilizing capital at the project and portfolio levels</li> </ul>	<ul> <li>Mobilization Ratio<sup>10,11</sup></li> <li>Total Project Costs (Cumulative) to NYGB Overall Investments to Date<sup>12</sup></li> <li>Third-party capital (if any)</li> </ul>		
	<ul> <li>Portfolio driving material clean energy investments across NYS</li> </ul>	<ul> <li>Total Project Costs (Cumulative) enabled by NYGB (\$)</li> </ul>		
	<ul> <li>Growing portfolio</li> </ul>	<ul> <li>Overall Investments to Date (\$)</li> </ul>		
	<ul> <li>Strong Active Pipeline<sup>13</sup></li> </ul>	<ul> <li>Active Pipeline (\$)</li> </ul>		
	<ul> <li>Stimulating new clean energy proposals in NYS</li> </ul>	<ul> <li>Investment Proposals Received (Cumulative) (\$)</li> </ul>		
	· · ·			
Be Self- Sufficient	<ul> <li>Revenue growth and expense and potential loss management driving continued self-sufficiency</li> </ul>	<ul> <li>Revenues (Cumulative) (\$)</li> <li>Expenses (Cumulative) (\$)</li> <li>Annual Audited Financial Statements</li> </ul>		
Deliver Energy & Environmental Impact Benefits	<ul> <li>Contributing to CEF objectives and in turn REV, CES and State targets (by supporting increased deployment of renewable</li> </ul>	<ul> <li>Estimated direct and indirect energy and environmental benefits:</li> <li>Lifetime ("Lifetime") and Annual ("Annual") energy saved by fuel type from energy efficiency projects</li> </ul>		

Table 1: Goa	ls. Kev	Performance	Indicators	& Metrics
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<sup>8</sup> Case 13-M-0412, filed with the Commission on June 20, 2016.

<sup>9</sup> <u>Table 1</u> 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 <u>www.greenbank.ny.gov/Resources/Public-Filings</u>.

<sup>10</sup> 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.

<sup>11</sup> 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.

<sup>12</sup> "Overall Investments to Date" means, at any time, the aggregate of all Committed Funds since Inception, expressed in dollars.

<sup>13</sup> "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 toward and through recommendation by the "Greenlight Committee," IRC approval and transaction execution.

NYGB Goals	Key Performance Indicators	Metrics
	energy, distributed energy and energy efficiency)	<ul> <li>(MWh/MMBtu<sup>14</sup>);</li> <li>Lifetime and Annual clean energy generated (MWh);</li> <li>Lifetime and Annual energy saved from Combined Heat and Power ("CHP") (MWh/MMBtu);</li> <li>Clean energy generation installed capacity (MW<sup>15</sup>) from CHP;</li> <li>Clean energy generation installed capacity (MW);</li> <li>GHG emissions reductions (metric tons); and</li> <li>Installed direct and indirect energy and environmental benefits:</li> <li>Energy saved by fuel type from energy efficiency projects (MWh/MMBtu) and/or actual clean energy generated (MWh);</li> <li>Primary energy saved from CHP (Btu);</li> <li>Clean energy generation installed capacity (MW); and</li> <li>GHG emissions reductions (metric tons).</li> </ul>

The NYGB goals, KPIs and metrics flow through all aspects of NYGB's business from investment and portfolio management to risk and compliance, strategy, 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 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 <u>www.greenbank.ny.gov/Resources/Public-Filings</u>.

#### 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. NYGB tracks specific direct and indirect impacts, including 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.<sup>16</sup> 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:<sup>17</sup>

- 62.0 million MWh clean energy generated;
- 137.0 MMBtus saved through efficiency;
- 29.0 million metric tons of GHG emissions reductions; and
- A Mobilization Ratio of 8:1.

As NYGB has developed and grown since its 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,

<sup>&</sup>lt;sup>14</sup> "**MWh**" means megawatt hours and "**MMBtu**" means million British Thermal Units.

<sup>&</sup>lt;sup>15</sup> "**MW**" means megawatts.

<sup>&</sup>lt;sup>16</sup> CEF Order, Ordering Clause 2, page 106.

<sup>&</sup>lt;sup>17</sup> CEF Order, page 41.

NYGB differentiates between direct and indirect impact metrics, tracking both to quantify the estimated impact of each NYGB investment on the NYS clean energy and sustainable infrastructure market more comprehensively. 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.<sup>18</sup>

The quantification of indirect impact benefits is intended to capture the market transformational effects of NYGB's 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 toward meeting NYGB's CEF goals. The realization and evaluation of 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:

- "Direct Impact Metrics": Direct Impact Metrics quantify the estimated impact of a counterparty's project development or business-building activity (i.e., the benefits from NYGB's investment into incremental/new clean energy projects and measures). NYGB tracks and issues quarterly public reports of the Direct Impact Metrics outlined in the Metrics Plan; the reports include NYGB's progress in aggregate toward 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")<sup>19</sup> benefits reported annually for NYGB's Investment Portfolio in each calendar year. NYGB's investments typically involve terms that limit or incentivize the use of NYGB investment proceeds to new or incremental project development in NYS.
- "Indirect Impact Metrics": Indirect Impact Metrics seek to measure the effect of NYGB's 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. While some NYGB investments might not exclusively fund new project development in NYS or the acquisition of projects operating in NYS, they may be expected to result in greater project deployment in the State in the future. Hence, 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, NYGB will periodically undertake market assessments as needed to confirm that new development activity has in fact occurred, validating NYGB's estimated indirect impact benefits.

See <u>Schedule 4</u> for additional information about NYGB impact benefits assessment and reporting.

<sup>&</sup>lt;sup>18</sup> 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 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."

<sup>&</sup>lt;sup>19</sup> "Actual(s)" means direct Impact Benefits associated with installed projects, as opposed to estimated benefits before installation is complete.

## Part II

Annual Review 2019 - 20

#### 2 Annual Review 2019 – 20

NYGB is preparing this Review and Plan during the worst global public health crisis in recent history. The U.S. epicenter of the COVID-19 crisis is in NYS, where economic activity – including in the clean energy and sustainable infrastructure sector – was and remains severely curtailed as the State implemented ongoing measures aimed at slowing the rate of infection and the burden on the State's healthcare system. In response to Governor Cuomo's New York State on PAUSE Executive Order ("**PAUSE Order**") on March 16, 2020 – two weeks before the end of the NYGB's 2019 – 20 Plan Year – NYGB instituted a remote work plan and maintained its normal business operations with its full team of investment, strategy, finance, operations, legal, risk and compliance professionals.

Despite these challenges, NYGB had a strong 2019 – 20 Plan Year overall, including \$222.3 million of new commitments and several "first-of-kind" transactions. Highlights included closing NYGB's first preferred equity transaction and first sustainable agriculture transaction; committing \$25.0 million to a transaction supporting projects in low and moderate income ("LMI") communities; and achieving NYGB's largest volume of commitments in a single quarter (for the quarter ending December 31, 2019). At the time of this Review and Plan, NYGB has achieved a milestone of more than \$1.0 billion committed to clean energy and sustainable infrastructure projects in NYS since Inception. As of March 31, 2020, NYGB's investments are expected to mobilize \$2.6 billion in project costs and reduce GHGs by up to 19.6 million metric tons.

In this <u>Part II</u>, NYGB discusses its progress with respect to its objectives set out in its annual business plan for the 2019 – 20 Plan Year ("**2019 Plan**").<sup>20</sup> <u>Part II</u> provides detail 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 2019 – 20 Plan Year

As shown in Figure 3, NYGB established four overarching objectives for the 2019 – 20 Plan Year:

#### Figure 3: 2019 – 20 Overarching Objectives

- 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).
- 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.
- 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 succeeded in accomplishing a majority of these overarching objectives. As of March 31, 2020, NYGB had \$959.9 million in cumulative commitments and nearly achieved its commitment objective, with total commitments of \$222.3 million during the period. As in previous years, NYGB maintained a robust Active Pipeline that exceeded its target. NYGB materially surpassed its net income objective to remain self-sufficient. NYGB's investments continue to mobilize clean energy projects, including up to \$2.6 billion to date; during the 2020 – 21 Plan Year, NYGB will review its mobilization goal as part of the CEF's Triennial Review.

<u>Figure 4</u> and <u>Figure 5</u> summarize NYGB's investment and operational performance in support of these overarching objectives. The remainder of this <u>Part II</u> includes an in-depth discussion of the activities NYGB undertook to achieve its results.

<sup>&</sup>lt;sup>20</sup> See: <u>https://greenbank.ny.gov/-/media/greenbanknew/files/nygb-2019-business-plan.pdf</u>.

#### Figure 4: Investment Performance at a Glance As of March 31, 2020

Stimulating New Clean Energy Proposals in the State	NYGB has received over <b>\$4.1 billion</b> in investment proposals since Inception.
Strong Active Pipeline	Active Pipeline of potential investments proceeding to close is <b>\$757.4 million</b> . <sup>21</sup> NYGB maintained an Active Pipeline of <b>\$689.5 million</b> per quarter on average during the 2019 – 20 Plan Year.
Driving Material Clean Energy Investments Across NYS	NYGB's investments support clean energy projects with a total project cost of <b>between \$2.1 and \$2.6 billion</b> <sup>22</sup> in aggregate, based on Overall Investments to Date of <b>\$959.9 million</b> . NYGB closed <b>15 new transactions</b> in the 2019 – 20 Plan Year, totaling <b>\$222.3 million</b> in additional commitments and an average of <b>\$55.6 million</b> in closings per quarter.
Mobilizing Capital	NYGB's investment portfolio represents continuing progress toward mobilizing capital into clean energy and sustainable infrastructure projects in NYS, currently at up to <b>\$2.6 billion</b> .
Revenue Growth – Maintaining Self-Sufficiency	Continued revenue growth – <b>\$86.8 million</b> in revenues has been generated since NYGB's Inception. NYGB continues to maintain self-sufficiency through the generation of annual net income. NYGB generated net income of <b>\$17.3 million</b> in the 2019 – 20 Plan Year, which was \$3.0 million above (i.e., 1.2x) the 2019 Plan's \$14.3 million forecast.
Contributing to CEF Objectives, REV, CLCPA & the CES	NYGB's investments to date drive estimated gross GHG emissions reductions of <b>between 11.4 and 19.6 million metric tons</b> , equivalent to removing <b>between 155,548 and 192,389 cars</b> from the road for a period of <b>23 years</b> . <sup>23</sup>

<sup>&</sup>lt;sup>21</sup> The value of the Active Pipeline is separate from the value of the Investment Portfolio. As of March 31, 2020, the \$757.4 million in Active Pipeline does not include the \$959.9 million in closed transactions comprising NYGB's Overall Investments to Date.

<sup>&</sup>lt;sup>22</sup> 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 toward meeting the CEF objectives to support the State's clean energy goals. Given such periodic adjustments, the aggregate estimated benefits reported in Quarterly Reports are the most up-to-date estimates (and 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).

<sup>&</sup>lt;sup>23</sup> NYGB's GHG emissions reductions values reflect the estimated effect of both direct and indirect impact benefits.

#### Figure 5: Operational Performance at a Glance As of March 31, 2020

Increased its Investment in NYS	NYGB has closed <b>\$959.9 million</b> of transactions since its Inception, including <b>\$222.3</b> million new commitments across <b>15 transactions</b> in the 2019 – 20 Plan Year. As of March 31, 2020, NYGB's Current Portfolio was <b>\$584.7 million.</b>
Maintained a High Degree of Transparency	NYGB made <b>six</b> public filings including its 2019 – 20 Business Plan, Annual and Quarterly Metrics Reports, conducted <b>four</b> webinars to report quarterly performance; and issued its seasonal newsletter during the 2019 – 20 Plan Year. <sup>24</sup> It also reported on periodic CEF and other State disclosures.
Scaled Teams to Manage Activity	In parallel with portfolio growth, NYGB <b>added key positions</b> to ensure continued strong support and monitoring of all investments, 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 63 industry events, along with hosting its annual Statewide Meeting Series and developing and participating in roundtables and working groups. Additionally, NYGB conducted outreach via email notifications and updates, multiple social media platforms, interviews with journalists and convenings with interested market participants.
Diversified its Portfolio	NYGB manages a portfolio with over 37 positions that are invested in residential energy efficiency and solar, projects with long-term net metering contracts, large-scale onshore wind, community distributed generation, commercial and industrial energy efficiency among other technologies.

<sup>&</sup>lt;sup>24</sup> 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 Activities Supporting Strategic Priorities in the 2019 – 20 Plan Year

#### 2.2.1 How NYGB Supported Clean Energy Markets During the COVID-19 Crisis

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

As described in <u>Section 2.1</u>, two weeks before the end of the 2019 – 20 Plan Year, NY Green Bank instituted a remote work plan for its full team of investment, strategy, finance, operations, legal, risk and compliance professionals. Specifically, during the last month of the fiscal year, the NYGB team:

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

#### 2.2.2 How NYGB Addressed the Needs of LMI Communities

During the 2019 – 20 Plan Year, NYGB continued to build upon its effort to ensure that LMI and other disadvantaged communities (per the evolving definition under the CLCPA) have access to clean and resilient energy and sustainable infrastructure. NYGB's efforts have begun to pay off, with the closing of a \$25.0 million transaction with Inclusive Prosperity Capital ("**IPC**"), a non-profit specialty finance company, that will exclusively benefit LMI communities. See <u>Figure 6</u> for greater detail on the transaction.

In addition to its transaction with IPC, NYGB executed transactions (e.g., to support Community Distributed Generation ("**CDG**") projects in the State) with counterparties whose projects include LMI offtakers and beneficiaries or LMI-supportive terms. To achieve these successes, NYGB both reached out broadly to increase the market's awareness that NYGB sought to provide capital to projects serving LMI communities and engaged specifically with market participants such as Community Development Financial Institutions ("**CDFIs**"), project developers, public housing authorities, non-profits and other potential counterparties to identify and advance specific LMI projects in the State.

NYGB's 2019 – 20 Plan Year activities included:

- 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"));
- On July 11, 2019, NYGB hosted the webinar "Financing Community Distributed Generation for Low-to-Moderate Income Communities."<sup>25</sup> Through the webinar, follow-up meetings and other communications, NYGB and NYSERDA 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;
- In March 2020, NYGB issued Request for Information ("RFI") 7: Credit Enhancement Product for Tax Equity Providers in LMI-Inclusive CDG Projects ("RFI 7"). As discussed in the 2019 Plan, through its market engagement activities during the 2018 – 19 Plan Year, NYGB had determined that a credit enhancement/loss reserve product for CDG tax equity could be impactful in further opening the CDG

<sup>&</sup>lt;sup>25</sup> See: <u>https://greenbank.ny.gov/-/media/greenbanknew/files/NYGB\_Clean-Energy-for-LMI\_Webinar\_vF.pdf</u>.

segment to and accelerating its deployment within LMI communities. Through RFI 7, NYGB sought information to identify specific ways in which NYGB might stimulate increased availability of tax equity financing for CDG projects that offer LMI-inclusive subscription terms (short term contracts, indexed contracts, non-FICO customer credit approval approaches, etc.) in NYS by addressing existing market barriers and financing gaps. Specifically, RFI 7 sought market feedback regarding how NYGB could structure a credit enhancement/loss reserve product for CDG tax equity investors; and

NYGB also 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. NYGB was working on a transaction to finance LMI-inclusive CDG projects that
receive NY-Sun Solar for All incentives as of March 31, 2020, which has closed as of the date of this
Review and Plan.

#### Figure 6: Transaction Example: Inclusive Prosperity Capital

NYGB's **\$25.0 million** transaction with IPC will support continued investments in clean energy markets and eligible solar, energy efficiency and other sustainable infrastructure projects that will benefit LMI communities and underserved markets.

The transaction:

- Enables IPC to further scale its activities and portfolio by providing capital that is expected to result in increased LMI financings in NYS; and
- Develops a scalable, replicable financing structure that capital providers can use to develop a track record for mission-driven institutional investors in clean energy.

Given IPC's mission, this transaction enables increased capital deployment for clean energy in LMI communities and non-profits and is expected to reduce GHGs in the State by as much as 520,000 metric tons during the useful life of clean energy projects in the NYS serving LMI communities.

During the 2019 – 20 Plan Year and on an ongoing basis, NYGB has engaged with a broad ecosystem of partners and agencies serving LMI and other disadvantaged communities, including:

- Energy Efficiency for All New York ("EEFA"): a coalition that includes the Natural Resources Defense Council ("NRDC"), Enterprise Community Partners and the Community Preservation Corporation ("CPC");
- Public housing authorities such as the New York City Housing Authority ("NYCHA") (a prior NYGB counterparty);
- Non-profits such as NYS Association for Affordable Housing, Joint Ownership Entity NYC, National Housing Trust;
- Other NYSERDA programs and initiatives, such as RetrofitNY, NY-Sun and Clean Heating & Cooling; and
- Other NYS entities, including the Office of Temporary and Disability Assistance, Department of Housing and DPS.

Through this multi-stakeholder engagement, NYGB has developed a nuanced understanding of the sector's financing and policy-related challenges. As a result, NYGB's LMI activities have gained traction over the past fiscal year. Nonetheless, NYGB recognizes significantly more investment must be made to meet the climate justice goals of the CLCPA and reach the 42% of the State's population residing in LMI census areas. As described in <u>Section 3.6.1</u>, NYGB plans to launch an initiative during the 2020 – 21 Plan Year to accelerate its investment in projects benefitting LMI and disadvantaged communities.

#### 2.2.3 How NYGB Catalyzed New Markets

NYGB focuses on, and is proactive with respect to, areas of potential market activity where it can accelerate the deployment of all CEF-eligible clean energy technologies.

NYGB closed its first preferred equity investment that capitalized energy efficiency measures in a new construction project seeking certification under the Leadership in Energy and Environmental Design ("LEED") green building program. NYGB's \$5.0 million commitment to the Saranac Waterfront Lodge (the "Lodge") will support the Lodge to become the first LEED Certified hotel in the Adirondack Park. The Lodge will incorporate energy efficiency measures including efficient HVAC equipment and insulation, advanced lighting, and improved building controls, in addition to storm water management improvements and electric vehicle ("EV") charging stations. This investment not only diversifies NYGB's portfolio but also increases market awareness that institutional capital is available for highly energy-efficient new construction projects in NYS. NYGB's investment also supports economic development and job creation in the downtown Saranac Lake region and demonstrates the viability of financing a sustainable new build in a tertiary market like the State's North Country region. In addition to seasonal and part-time positions, the Lodge is expected to create approximately 71 full-time jobs upon opening and 116 jobs from construction.

In the 2019 – 20 Plan Year, NYGB also laid important groundwork for financing energy storage projects. In 2018, Governor Cuomo announced that NYGB would seek to invest at least \$200.0 million in qualified storage-related investments. To support this commitment, NYGB issued <u>RFP 13</u>: Financing for Energy Storage Projects on November 12, 2019 ("**RFP 13**"). On November 19, 2019, NYGB hosted the webinar "Financing Energy Storage Projects" to highlight its financing approach for energy storage projects following the announcement of planned NYSERDA incentives for energy storage projects. NYGB also highlighted its commitment to accelerate deployment of energy storage (including solar-plus-storage) projects by presenting its financing approach at outreach events including the *NY Energy Market Summit* and by discussing the financial barriers observed in energy storage markets during the *Young Professionals in Energy* speaker series in NYC. NYGB's activities contributed to catalyzing financing activity in energy storage markets as evidenced by its receipt of strong investment proposals that were proceeding to close as of the end of the 2019 – 20 Plan Year.

#### 2.2.4 How NYGB Evaluated Options for Raising Private Capital

Considerably more investment is needed for NYS to achieve its ambitious climate goals. As such, NYGB has, since a 2017 announcement by Governor Cuomo, been investigating ways to increase its capital mobilization by raising and investing private capital alongside NYS ratepayer capital. A market sounding conducted during the 2018 – 19 Plan Year by Moelis & Company ("**Moelis**"), an independent investment bank retained by NYSERDA and NYGB, received a positive response, validating investor interest in NYGB among institutional capital providers, especially those with Environmental, Social and Governance ("**ESG**") and impact investing priorities.

During the 2019 – 20 Plan Year, NYGB continued to explore options for raising additional capital that would build on NYGB's successful track record and provide a suitable investment vehicle for institutional capital to invest in clean energy and other sustainable infrastructure in NYS. Specifically, NYGB:

- Evaluated the likely timing of when third-party capital would be needed. NYGB considered such factors
  as when it would become capital constrained given its current portfolio size, pace of origination and
  portfolio characteristics, and how much "dry powder" it would need to give confidence to potential
  counterparties that NYGB would have access to sufficient capital to finance their projects; and
- Assessed the range of vehicles through which it might raise private capital, in particular comparing the
  economics, risks and constraints of raising capital for co-investment versus a bond issuance or bank
  facility.

#### 2.3 Continued Portfolio Growth and Capital Mobilization

As of March 31, 2020, NYGB had **\$959.9 million** in Overall Investments to Date, estimated to mobilize at least **\$2.1 billion** (and up to \$2.6 billion) of clean energy investment in the State. This included **\$222.3 million** new

commitments across **15 transactions** in the 2019 – 20 Plan Year. Each new transaction helps facilitate clean energy and sustainable infrastructure development in NYS in collaboration with private sector participants. <u>Table 2</u> summarizes all transactions closed in the 2019 – 20 Plan Year with details of those transactions (based on corresponding Transaction Profiles<sup>26</sup>) contained in <u>Schedule 1</u>.

<sup>&</sup>lt;sup>26</sup> Transaction Profiles (in a standard format broadly in the form of <u>Schedule 1</u> as per the Metrics Plan) are used to support evaluation design and other information needs and are developed as NYGB financing/investment agreements are executed.

#### Table 2: New Transactions, 2019 - 20 Plan Year

New Transactions	Description	Newly Committed Amounts	Closing Date
Spruce Finance	Recapitalization of a portfolio of residential solar photovoltaic (" <b>PV</b> ") assets by Spruce Finance Inc., including 9.0 MW of capacity in NYS.	\$27.1 million	April 29, 2019
Distributed Sun – SUNEIGHT 2019	Bridge loan facility to finance project interconnection advance payments to New York State Electric & Gas Corporation (" <b>NYSEG</b> ") and Rochester Gas and Electric Corporate (" <b>RG&amp;E</b> ") for CDG solar projects.	\$1.0 million	May 20, 2019
Agbotic	Finance the construction and operation of a cluster of energy efficient robotic greenhouses (collectively, the " <b>Project</b> ") located in Sackets Harbor, NY developed by Agbotic, Inc. The greenhouses will grow certified organic produce for sale into local markets, while the Project's energy efficiency measures and on-site generation are expected to reduce GHG emissions.	\$6.0 million	June 20, 2019
Ecosave	Providing a scalable financing model and establishing performance history for financing involving energy efficiency for medium-sized, unrated commercial and institutional customers.	\$15.0 million	June 27, 2019
Saranac Lake Resort	Finance the construction and operation of an energy efficient lodging property seeking LEED certification located in the Village of Saranac Lake and developed by Saranac Lake Resort Owner, LLC.	\$5.0 million	September 25, 2019
Eden Renewables	24-month senior secured bridge loan facility to finance project interconnection deposits to National Grid for CDG solar projects in NYS.	\$2.5 million	November 8, 2019
AES – Project Aurora	participation in a syndicated term loan facility to a portfolio of distributed solar projects developed by AES Distributed Energy, Inc. (" <b>AES DE</b> ").	\$50.0 million	December 4, 2019
Generate Capital	Refinancing a portion of a senior secured term loan between Generate Lending, LLC and Plug Power, Inc. to increase investment in NYS clean energy projects.	\$35.0 million	December 5, 2019
BQ Energy - Corporate	Expansion of NYGB's investment in the solar development pipeline of BQ Energy Development, LLC (" <b>BQ</b> ") as part of its ongoing efforts to participate in sustainable infrastructure investments in NYS.	\$10.0 million	December 16, 2019
True Green Capital Management	Participation in the first NYS-only CDG portfolio financing arranged by a commercial bank. With its term loan commitment, NYGB expects to support up to 10 community distributed solar projects in NYS totaling up to 70.2 MW.	\$20.2 million	December 27, 2019
Sunrun Safe Harbor	Part of an \$84.0 million financing arrangement by Key and ING banks to allow Sunrun to take advantage of the IRS's safe harbor program with respect to the 2019 commercial investment tax credit (" <b>ITC</b> "), and ultimately, supports Sunrun's continued growth in NYS and nationally and its continued ability to deliver attractive economics to residential homeowners.	\$10.0 million	February 6, 2020
Spruce Finance Upsize	Upsize of existing participation in the Spruce credit facility to \$40.0 MM in support of the acquisition of two residential solar portfolios totaling approximately 59.0 MW. The portfolios contain a diversified mix of seasoned assets previously financed in part by tax equity investors.	\$13.9 million	March 3, 2020
Inclusive Prosperity Capital	\$25.0 million senior secured, multi-draw credit facility to invest in energy efficiency, solar, and other sustainable infrastructure projects that will benefit LMI communities and underserved markets.	\$25.0 million	March 18, 2020
Eden Renewables Upsize	Increased loan commitment under current 24-month senior secured bridge loan facility to finance additional project interconnection deposits to National Grid for CDG solar projects in NYS.	\$1.8 million	March 31, 2020
Total		\$222.3 million <sup>27</sup>	

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





#### 2.4 Maintained Strong Active Pipeline

Maintaining a strong Active Pipeline is key to NYGB's ongoing success. From Inception through March 31, 2020, NYGB had received over \$4.1 billion in investment proposals, resulting in an Active Pipeline of \$757.4 million as of March 31, 2020. In the 2019 – 20 Plan Year, NYGB sought to maintain a strong Active Pipeline of at least \$450.0 million on average per quarter. With an average \$689.5 million Active Pipeline for the 2019 – 20 Plan Year, NYGB surpassed its objective. 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 2018 – 19 Plan Year.

<sup>&</sup>lt;sup>27</sup> 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 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.

The remainder of this <u>Section 2.4</u> describes the myriad activities NYGB undertakes to ensure that NYS clean energy and sustainable infrastructure market participants are aware of NYGB and its financing offerings. These business development and stakeholder engagement activities drive NYGB's robust pipeline development.

#### 2.4.1 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. During the 2019 – 20 Plan Year, NYGB staff participated in 63 industry events, mostly in the role of keynote speakers, 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 and members of the press.

NYGB participated in numerous events during the 2019 – 20 Plan Year including:

- As a panelist at the opening ceremony of NY Energy Week;
- As a speaker at Northeast Clean Energy Council ("NECEC") Cleantech Financial Innovations Summit;
- Keynoting the 2019 New York Power Summit;

- Conducting a joint webinar with Connecticut Green Bank and Regional Plan Association and discussing the potential for NYGB and Connecticut Green Bank to work together:
- Keynoting the Environmental Finance Green Bonds America 2019 Conference;
- Presenting NYGB's approach to financing NYSERDA performance-based incentives at the Pay for Performance & National Grid Stakeholder Meeting;
- Speaking to how NYGB has been an early-mover to encourage private capital investment in sustainable infrastructure at the Horizon19 Summit;
- Presenting on NYGB's on-lease commercial tenant energy efficiency financing structure at the NYC Landlord-Tenant Workshop hosted by Institute for Market Transformation, NYSERDA and NYC Mayor's office:
- Discussing how countries can become a magnet for private green investments in an Executive Fireside Chat featuring NYGB's President and the Danish Minister for Environment at the New York Climate Week 2019 Corporate & Governance Climate Commitments – The Clean Economy in Denmark and New York;
- Presenting at Columbia University's Implementing New York's New Climate Law event describing how NYGB plans to support the CLCPA;
- Presenting its approach to financing energy storage projects during the NY Energy Market Summit;
- Joining a panel during the Young Professionals in Energy speaker series in NYC that discussed financing barriers observed in energy storage markets;
- As a panelist at the Inaugural Annual U.S. Green Bank Summit; .
- Discussing challenges NYGB faces as an active lender in the energy storage market at the US Department of Energy, Energy Storage Financing Summit;
- Co-hosting the Clean Transportation Forum and discussing the capital investments available to catalyze clean transportation project deployment; and
- Keynoting the 2020 NY Power Summit.

One of NYGB's most exciting events of the year included the December 17 ribbon-cutting for the ForeFront Power Mechanicville Community Solar Project, at which NYSERDA announced that two gigawatts of solar capacity had been installed across the State, underscoring NYS's position as one of the fastest growing distributed solar markets in the nation. Since 2011 NYS has witnessed remarkable growth in its solar market, including nearly 1,800 percent growth, leveraging \$4.0 billion in private investment, fueling nearly 12,000 jobs and decreasing the cost of solar by nearly 60 percent.<sup>28</sup> NYGB spoke at the ceremony, highlighting its involvement in development financing for the project. This project is one of over 300 MW of community solar or distributed generation projects that have been supported by NYGB with over \$200.0 million in capital commitments toward community solar since 2017.

NYGB also organized and/or attended several meetings in regions across NYS as part of its annual Statewide Meeting Series:

- Capital District (October 23, 2019): NYGB was invited to participate in the Zoning and Planning Workshop at Hudson Valley Community College. NYGB presented its financing capabilities and discussed its portfolio. A fellow NYSERDA member also discussed NYStretch Energy Code;
- . Southern Tier (October 24, 2019): NYGB joined representatives of local governments and businesses throughout the Southern Tier region to discuss how energy infrastructure, policies, technologies, and funding programs interact to create opportunities for business and economic development. NYGB also

<sup>&</sup>lt;sup>28</sup> See: <u>https://www.nyserda.ny.gov/About/Newsroom/2019-Announcements/2019-12-17-NYSERDA-Announces-Milestone-of-Two-Gigawatts-</u> of-Solar-Capacity-Installed-in-New-York#:~:text=The%20New%20York%20Energy%20Research,growth%2C%20leveraging%20%244%20billion%20in

discussed how it stimulates investment opportunity through targeted solicitations;

- Mohawk Valley (October 25, 2019): NYGB presented to municipality representatives in Mohawk Valley Economic Development Roundtable on opportunities for collaboration and financing with fellow panelists. NYGB also learned about the barriers fellow panelists face in their municipalities, which are akin to those NYGB has identified and actively works with its counterparties to solve;
- Central New York (October 28, 2019): NYGB attended the Sustainable Energy Expo, a professional business event designed to provide engineers, contractors, developers, architects, energy consultants, bankers and others involved in the building sector an opportunity to learn about the latest advances in non-fossil fuel energy solutions and how they can be integrated into new and existing building projects;
- Finger Lakes (November 6, 2019): NYGB was invited to the quarterly Economic Development Advisory Committee Meeting that gathers Finger Lakes/Genesee county officials to update community members on regional economic and job developments. NYGB presented its impact on the Finger Lakes to date and discussed how NYGB can continue to help advance clean energy projects in the region; and
- Long Island (January 28, 2020): NYGB attended the U.S. Green Buildings Council Long Island's ("USGBC LI") *Morning Green Scene* to hear PSEG Long Island's 2020 Energy Efficiency Programs Presentation. At the event, NYGB met with USGBC LI leadership to communicate how it can finance members' energy efficiency projects.

Additionally, national and international interest in NYGB and other green bank business models remains strong. NYGB is an active, founding member of the Green Bank Network ("**GBN**"), a membership organization aimed at stimulating knowledge sharing and collaboration between green banking entities globally. GBN reports that its members have collectively closed transactions that are expected to mobilize \$50.0 billion in public and private capital for sustainable infrastructure projects across the globe, surpassing its previously stated goal of catalyzing \$40.0 billion by 2019. These investments are expected to reduce 25.0 million metric tons of  $CO_2eq^{29}$  internationally.

During the 2019 – 20 Plan Year, in connection with GBN, NYGB met with representatives from NRDC's India team to discuss the formation of a green bank in India and facilitated a discussion of electric vehicles and charging infrastructure, which is a particular area of interest for the nascent Indian green bank initiative. In addition, NYGB attended quarterly member calls to share organizational updates, discuss best practices, and connect with new GBN members.

#### 2.4.2 Issued Targeted Solicitations & Participated in Strategic Convenings

In the 2019 – 20 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 energy storage, clean energy for LMI, biogas and land-based large-scale renewables ("**LSR**").

#### Specifically:

- On April 22, 2019, NYSERDA's Land-Based LSR Program released RFP19, which included how NYGB could support LSR projects. Further, on May 2, 2019, NYGB held a webinar to articulate its financing approach to LSR projects;
- On May 2 and 3, 2019 NYGB presented on its financing approach to energy storage in NYSERDA's Retail & Bulk Energy Storage webinars;
- On July 11, 2019, NYGB hosted the webinar "Financing Community Distributed Generation for Low- to Moderate- Income Communities." The webinar highlighted the ways NYGB continues to facilitate increased opportunities for LMI customers to participate in, and benefit directly from, NYS's growing distributed energy market;
- NYGB issued RFP 13 in November 2019 to accelerate the deployment of energy storage projects and

<sup>&</sup>lt;sup>29</sup> "**CO<sub>2</sub>eq**" means carbon dioxide equivalent.

provide a financing framework that may be utilized in the future by equity investors and private sector lenders;

- On March 6, 2020, NYGB hosted the Clean Transportation Forum with NECEC and NYSERDA at Con Edison in NYC. The Forum brought together over 130 representatives from the clean transportation industry along with finance experts to discuss where the clean transportation market is today, the policy and innovation shaping its future, and the capital investments available and needed to catalyze project deployment. During this interactive forum, audience members heard from top energy and finance leaders in the sector on timely topics such as the Transportation and Climate Initiative (TCI), public-private partnerships, capital solutions addressing financing gaps and new NYSERDA incentive programs. Speakers included representatives from IKEA, EVgo, Con Edison, NYSERDA and NYGB;
- On March 12, 2020, NYGB issued RFI 7 to identify specific ways in which NY Green Bank can be helpful in increasing the availability of tax equity financing for CDG projects in NYS that offer LMI-inclusive subscription terms by addressing existing market barriers and financing gaps that could impede project development; and
- On March 27, 2020, NYGB co-hosted the webinar "Financing Biogas Projects" with Energy Vision and presented its approach to financing biogas projects and experience with existing biogas and landfill gas projects in its pipeline.

#### 2.4.3 Issued Periodic Newsletters & Web Site Updates

NYGB maintained transparency and connection to the market and its stakeholders through seasonal newsletters, which highlight recent transactions, portfolio and pipeline information, recent NYGB media coverage and other organizational activities. More than 9,500 individuals receive NYGB newsletters and updates. On August 27, 2019, NYGB issued its Summer Newsletter, <sup>30</sup> highlighting its financial and impact metrics as of June 30, 2019. Because of the COVID-19 crisis, NYGB did not issue its Winter Newsletter, as the State was limiting communications to those that were vital in nature. The NYGB seasonal newsletter will resume Summer 2020.

NYGB highlighted special events and news coverage<sup>31</sup> that occurred during the 2019 – 20 Plan Year on its website under "News and Media," including:

- On September 13, 2019, Environmental Finance conducted an interview with NYGB's President on NYGB's plan to grow its portfolio in previously unexplored areas. Environmental Finance published the interview prior to the NYGB President's keynote address at the ESG in Fixed Income conference, featuring Green Bonds America;<sup>32</sup>
- On September 24, 2019, the GBN announced that green banks had, collectively and globally, mobilized \$50.0 Billion in public and private capital for green infrastructure projects, surpassing their goal of \$40.0 billion by 2019;<sup>33</sup>
- On December 4, 2019, Environmental Law in New York published a feature on NYGB's work in NYS vehicle electrification;<sup>34</sup> and
- On January 6, 2020, American Banker wrote an article titled "What Will Drive Bank Lending" and highlighted how NYGB works to stimulate private capital investments in clean energy.<sup>35</sup>

#### 2.4.4 Issued Public Reports

As the prudent steward of public capital, NYGB periodically reports its progress and performance to allow the Commission, stakeholders and the public to assess NYGB's achievements in the context of its overall mission. In the 2019 – 20 Plan Year, NYGB issued the following public reports, all available at

<sup>&</sup>lt;sup>30</sup> See: <u>https://greenbank.ny.gov/News-and-Media/In-The-News/2019-Newsletter-Summer.</u>

<sup>&</sup>lt;sup>31</sup> NYGB was referenced in 46 articles or media pieces during the 2019 – 20 Plan Year.

<sup>&</sup>lt;sup>32</sup> See: <u>https://greenbank.ny.gov/-/media/greenbanknew/files/news-20190913-Growing-the-NY-Green-Bank.pdf</u>.

<sup>&</sup>lt;sup>33</sup> See: <u>https://greenbanknetwork.org/gbn-mobilizes-50-billion-welcomes-new-institutions/</u>.

<sup>&</sup>lt;sup>34</sup> See: https://greenbank.ny.gov/-/media/greenbanknew/files/news-2019-12-NYGB-New-York-Lead-Robert-Gurman.pdf.

<sup>&</sup>lt;sup>35</sup> See: <u>https://www.americanbanker.com/news/what-will-drive-bank-lending</u>.

#### www.greenbank.ny.gov/Resources/Public-Filings:

- Quarterly Reports and Webinars;
- Annual Business Plan;
- Annual Financial Metrics Report; and
- Audited Financial Statements.

#### 2.4.5 Formalized Segment Coordination in Collaboration with NYSERDA Colleagues

NYGB and NYSERDA programs hold regular meetings to ensure the organization remains informed and aligned on all initiatives. During the 2019 – 20 Plan Year, NYGB formalized a Segment Coordination approach to ensure a robust flow of information and collaboration with NYSERDA colleagues for each NYSERDA program and technology segment for which NYGB has developed or is developing a financing solution.

#### 2.4.6 Received External Recognition

In June 2019, The Circulars, an initiative of the World Economic Forum and Forum of Young Global Leaders, recognized NYGB as a Highly Commended Circular Economy Investor in The Circulars 2019 Yearbook for NYGB's efforts financing projects that encourage the circular economy to become mainstream.<sup>36</sup> The Yearbook showcases inspiring circular economy initiatives from private and public sector organizations around the globe and this year's commendation recognizes the ongoing leadership of NYS in clean energy and climate.

#### 2.5 Improved Financial Performance & Remained Self-Sufficient

NYGB continued its focus on execution and asset management across all aspects of its clean energy and sustainable infrastructure investment business, consistent with comparable established entities with similar investment activities. Selected financial highlights are discussed in this <u>Section 2.5</u>. Detailed financial information is included in NYGB's Audited Financials and published in NYGB's Annual Financial Metrics Report.<sup>37</sup>

#### 2.5.1 Revenues, Expenses & Net Income

NYGB's Investment Portfolio generated significant Operating Revenues during the 2019 – 20 Plan Year. Moreover, NYGB maintained its self-sufficiency (i.e., generation of net income) and exceeded its annual net income target as stated in the 2019 Plan.<sup>38</sup> Specifically, NYGB generated \$28.2 million in revenues, incurred \$10.9 million in expenses and produced \$17.3 million in net income (\$3.0 million more than its target). NYGB's continued self-sufficiency is reflected in its cumulative revenue versus cumulative expense performance, as illustrated in Figure 9. Table 3 summarizes NYGB's 2019 – 20 financial results.

<sup>&</sup>lt;sup>36</sup> A circular economy is an economic system aimed at eliminating waste and the continual use of resources.

<sup>&</sup>lt;sup>37</sup> See: <u>https://greenbank.ny.gov/Resources/Public-Filings</u>

<sup>&</sup>lt;sup>38</sup> 2019 Plan, page 37 available at https://greenbank.ny.gov/-/media/greenbanknew/files/nygb-2019-business-plan.pdf.



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

#### Table 3: Fiscal Year 2019 – 20 Financial Summary (\$ thousands)

	March 31, <u>2020</u>	March 31, <u>2019</u>	% Change <u>2020-2019</u>
Operating revenues:	¢0.047	<u> </u>	(45.0)0/
Fees	\$3,347 18.612	\$3,947 15.253	(15.2)% 22.0%
Loans and financing receivables interest	10,012	15,255	22.0%
Provisions for losses on loans and financing		(200)	4000/
receivables		(388)	100%
Total operating revenues:	21,959	18,812	16.7%
Operating expenses:		<b>• • • •</b>	10.001
Salaries and benefits	7,484	6,421	16.6%
Investment related expenses	399	456	(12.5)%
Other operating costs	1,277	765	66.9%
General and administrative expenses	1,247	1,100	13.4%
Depreciation	189	184	2.7%
NY State assessments	112	125	(10.4)%
Total operating expenses	10,708	9,051	18.3%
Operating income	11,251	9,761	15.3%
Non-operating revenues:			
Capital contributions	20,678	119,882	(82.8)%
Investment income	6,224	7,223	(13.8)%
Total non-operating revenues	26,902	127,105	(78.8)%
Non-operating expenses:	,	,	(****)**
Capital expansion	44	1,425	(96.9)%
Program evaluation	170	211	(19.4)%
Total non-operating expenses	214	1,636	(86.9)%
Income before transfers	37,939	135,230	(71.9)%
Transfers - capital contributions (redemptions)	-	(52,926)	100.0%

Net Income (Loss) Source: NYGB Financial Statements; NYGB Analysis	\$17,261	\$15,348	12.5%
Net position, end of year	\$606,394	\$568,455	6.7%
Net position, beginning of year	568,455	486,151	16.9%
Change in net position	37,939	82,304	53.9%

As shown in <u>Table 3</u>, Total Operating Revenues increased \$3.1 million (16.7%) from the prior year. While NYGB closed the same number of transactions during the fiscal year as in the prior year, total dollar commitments were lower, which drove a 15.2% decrease in fees. An increase in loans and financing receivables interest of 22.0% reflects the increased number of transactions in NYGB's Investment Portfolio over the prior year.

Total Operating Expenses increased \$1.7 million (18.3%), most significantly driven by increases in Salaries and Benefits; these and other costs are discussed below.

Salaries and Benefits, which include NY Green Bank staff salary expenses (\$3.6 million), NYSERDA allocated administrative salary expenses (\$1.6 million), and allocated fringe benefit expenses (\$2.2 million), increased \$1.1 million (16.6%) from the prior year. This occurred due to an increase in NY Green Bank's staffing consistent with the plan as well as an increase in the overall pool of allocable expenses of which NY Green Bank pays its *pro rata* share (which is calculated based on NY Green Bank'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 12.5% less than the previous year, which generally reflects transaction volumes and counterparty reimbursement rates. Other Operating Costs increased \$0.5 million (66.9%) due to increase 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 \$0.1 million (13.4%) due to an increase in the allocable cost as compared to the prior year, generally as a result of the increase in salary costs. Depreciation and NY State Assessments reflect NY Green Bank's allocable share of NYSERDA's depreciation and NYSERDA's cost recovery fee assessment from NYS, respectively. Depreciation increased and NY State Assessments decreased from the prior year.

Investment Income decreased \$1.0 million (13.8%). This was driven by NYGB's greater deployment of on-hand capital into transactions during the fiscal year, operating income generated, and principal repayments received.

Non-operating expenses decreased \$1.4 million, primarily due to the decrease in capital advisory costs from the prior year.

#### 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 and further aggregate net capital contributions of \$197.3 million in subsequent years. NYGB receives incremental capital contributions through NYSERDA as capital is committed. An additional \$381.2 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 Bill-As-You-Go ("**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.<sup>39</sup>

<sup>&</sup>lt;sup>39</sup> CEF Order, page 108.

<u>Table 4</u> presents NYGB's allocated ratepayer capital position, which reflects the funding of ratepayer capital installments to NYGB pursuant to Commission Orders.<sup>40</sup>

#### Table 4: Allocated Ratepayer Capital Position (\$ thousands)

	March 31, 2020	March 31, 2019	March 31, 2018
Allocated Ratepayer Capital (beginning)	545,163	478,207	\$368,526
Transfers – Capital Contributions (Redemptions)	-	(52,926) <sup>41</sup>	100,152
Capital Contributions	20,678	119,882	9,529
Allocated Ratepayer Capital (end)	565,841	545,163	\$478,207
Source: NYGB Financial Statements, NYGB Analysis			

#### 2.6 Delivered Increasing Impact Benefits for all New Yorkers

At the end of the 2019 – 20 Plan Year, NYGB's Investment Portfolio is estimated to result in between 630.2 and 863.8 MW of clean energy installed capacity and to produce estimated lifetime clean energy generation of between 21.1 and 28.3 million MWh in NYS.

Figure 10 shows NYGB's progress toward CEF goals related to Overall Investments to Date, total project value mobilized by NYGB capital, and reduction of GHG emissions as of March 31, 2020.



#### Figure 10: NYGB Progress Toward CEF Goals as of March 31, 2020

As illustrated in Figure 10 left to right - as of March 31, 2020, 42.5% of the 10-year CEF term had elapsed and

<sup>&</sup>lt;sup>40</sup> NYGB manages one investment that was funded by a U.S. Department of Energy ("DOE") 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.

<sup>&</sup>lt;sup>41</sup> NYGB's initial capitalization included \$52.9 million funded from Regional Greenhouse Gas Initiative revenues. These funds were redeemed by NYSERDA and repurposed to provide funding to support NYSERDA's statewide energy storage initiative.

NYGB had invested \$959.9 million in Overall Investments to Date, representing 50.5% of its goal for the term. Total project value mobilized by NYGB activity as of March 31, 2020 is at least \$2.1 billion (26.4%), which lags the \$3.4 billion level that represents 42.5% of the \$8.0 billion goal. This shortfall 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 <u>Section 3.4</u>). 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 39.2% to 67.6% of the 29.0 million metric tons goal.<sup>42</sup>

NYGB's clean energy and sustainable infrastructure investments in the 2019 - 20 Plan Year translate to an additional 2.3 - 4.4 million metric tons in expected lifetime GHG emissions reductions, a 29.0% increase over the 9.1 - 15.2 million metric tons recorded at the end of the 2018 - 19 Plan Year (based on low estimates).

<u>Figure 11</u> illustrates a year-on-year comparison of the Investment Portfolio's realization of direct Lifetime GHG Emissions Reductions on an installed basis. The Annual benefits of the Investment Portfolio as of March 31, 2020 are expected to be fully realized in the 2021 – 22 fiscal year. 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).





#### 2.7 Performed Evaluation, Measurement & Verification

Pursuant to the CEF Order and Clean Energy Fund Information Supplement,<sup>43</sup> NYGB's portfolio is subject to baseline and ongoing evaluations as the portfolio grows throughout and following the 10-year term of the CEF.

<sup>&</sup>lt;sup>42</sup> For a complete list of NYGB's estimated impact benefits as of March 31, 2020, see Metrics, Reporting & Evaluation, Quarterly Report No. 19 (Through March 31, 2020), available at <u>www.greenbank.ny.gov/Resources/Public-Filings</u>.

<sup>&</sup>lt;sup>43</sup> See: <u>https://greenbank.ny.gov/-/media/greenbanknew/files/2015-NYGB-Clean-Energy-Fund-Information-Supplement.pdf</u>.

#### 2.7.1 Financial Market Transformation

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. The report assessed 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.

NYSERDA and NYGB did not conduct a Financial Market Transformation Evaluation during the 2019 – 20 Plan Year. The Transaction Profiles<sup>44</sup> published for each NYGB investment during the Plan Year outline the planned market characterization baseline and market transformation potential, along with the proposed timeframe and method for outcome evaluation.

#### 2.7.2 Energy & Environmental Impact in NYS

During the 2019 – 20 Plan Year, NYGB supported NYSERDA during the second phase of the Solar Photovoltaic Program Impact Evaluation. This report will be prepared for NYSERDA by DNV GL and is expected to be published during the 2020 – 21 Plan Year. The report will include the energy performance of projects jointly funded by NY-Sun and NYGB.

During the 2019 – 20 Plan Year, NYSERDA completed an energy and environmental evaluation for natural gas and electric savings for a portion of the residential energy efficiency measures financed by NYGB. The study referenced measure-specific savings estimates from NYSERDA's Residential Retrofit Impact Study. The evaluation found that energy efficiency measures supported by NYGB financing resulted in both fuel and electricity savings. Since the systems evaluated were specific to a single counterparty the report will not be published as a stand-alone evaluation.

#### 2.8 Scaled NYGB Team and External Resources to Support Business Growth

#### 2.8.1 Scaled Internal Resources

NYGB added resources to support its growing investment portfolio, including dedicated resources to its investment administration and portfolio support areas to administer and manage many of the ongoing operational aspects of NYGB's growing portfolio. These new resources will help onboard new transactions, prepare fundings, ensure borrower/investee compliance with reporting and other requirements, and perform exit workflows. NYGB also added a new Managing Director to lead the full range of activities across the Strategy, Impact & Investor Relations function. This includes NYGB Strategy, Environmental Impact Assessment & Reporting and Investor Relations & External Affairs.

The NYSERDA Finance and NYGB Operations & Finance teams also streamlined processes related to wire transfers, resulting in an overall reduction in execution time with no change to checks and balances. This effort resulted from an exploration NYGB conducted of its operations that identified opportunities for improvement across the organization. NYGB's operational review also identified expansions to NYGB's use of its CRM(+) platform as a means of creating additional operational efficiencies and streamlining all related activity and reporting. NYGB had previously adopted a marketing solution integrated with its CRM(+) platform to effectively manage its target contacts and present sophisticated and branded communication. During the 2019 – 20 Plan Year, NYGB consolidated all origination, investment and recruiting-related efforts to the CRM(+) platform and scaled its engagement analysis to create a single data source – an operational change NYGB sees as key to long-term operational efficiency.

<sup>&</sup>lt;sup>44</sup> See <u>https://greenbank.ny.gov/Investments/Portfolio</u>.

#### 2.8.2 Secured External Resources

NYGB issued three RFPs during the 2019 – 20 Plan Year to secure various services needed to diligence and close new transactions, and independently review its financial positions.

- <u>RFP 11: Technical & Engineering Support & Market Fundamentals & Analysis Services</u> ("**RFP 11**"): NYGB issued RFP 11 in June 2019 and selected advisors capable of providing advice and representation for NYGB in potential transactions;
- RFP 12: Outside Legal Counsel Services ("RFP 12"): NYGB released RFP 12 on August 30, 2019. Through this solicitation, NYGB sought proposals from law firms interested in serving as outside legal counsel to NYGB in connection with the investment activity of NYGB relative to its financing of clean energy and sustainable infrastructure projects and businesses. NYGB reviewed full proposal submissions and has executed final agreements with selected service providers; and
- RFP 14: Investment Valuation & Financial Advisory Consulting Services ("RFP 14"): NYGB released RFP 14 on March 5, 2020. Through RFP 14, NYGB sought proposals from firms qualified to provide investment valuation and financial advisory services to NY Green Bank in connection with its investments in clean energy projects and businesses and in sustainable infrastructure. The solicitation closed after the end of the 2019 – 20 Plan Year and NYGB plans to review full proposal submissions and execute final agreement(s) with service providers going forward.

#### 2.9 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 2019 – 20 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.

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.

NYGB developed and tested a Disaster Recovery Plan, including verifying that all employees could access NYGB's systems remotely and testing remote contact protocols for all NYGB staff. The plan provides for staff to work remotely in the event that the NY office is unusable, as during the COVID-19 pandemic, and ensures they have the hardware and technology to conduct business in a safe and secure fashion.

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

#### 2.10 Progress Against Plan Deliverables

Each year, NYGB identifies specific deliverables (the "**Plan Deliverables**") that collectively mark its progress in implementing key initiatives during the 2019 – 20 Plan Year. As presented in <u>Table 5</u> NYGB succeeded in meeting nearly all its Plan Deliverables.

Category	Deliverable	Status in Quarter Ended March 31, 2020
Strong Active Pipeline		
Active Pipeline	<ul> <li>Maintain an Active Pipeline of at least \$450.0 million per quarter on average throughout the 2019 – 20 Plan Year.</li> </ul>	Achieved for the Plan Year: Average Active Pipeline of <b>\$689.5 million</b> during the Plan Year.
Clean Energy for LMI <sup>45</sup>	<ul> <li>Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI<sup>46</sup>/RFP.</li> </ul>	Achieved for the Plan Year: In March 2020, NYGB issued Request for Information: Credit Enhancement Product for Tax Equity Providers in LMI- Inclusive CDG Projects.
	<ul> <li>Convene LMI stakeholders to present NYGB's CDG financing approach on LMI-friendly terms, such as to not require FICO®<sup>47</sup> scores or long-term contracts.</li> </ul>	Achieved for the Plan Year: On July 11, 2019, NYGB hosted the webinar "Financing Community Distributed Generation for Low-to-Moderate Income Communities." The webinar highlighted the ways NYGB continues to facilitate increased opportunities for LMI customers to participate in, and benefit directly from, NYS's growing distributed energy market.
	<ul> <li>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.</li> </ul>	Achieved for the Plan Year: As noted above, on July 11, 2019, NYGB hosted the webinar "Financing Community Distributed Generation for Low-to- Moderate Income Communities." Since then, NYGB has participated in one-on- one meetings with stakeholders as well as in multi-agency meetings at which NYGB discussed its financing approaches for LMI projects. Further convenings and communications are to continue as approaches are developed.
Energy Storage	<ul> <li>Participate in NYSERDA webinar to inform market participants of how NYGB financings can leverage NYSERDA planned bulk and retail storage incentives.</li> </ul>	Achieved for the Plan Year: On May 2 and 3, 2019 NYGB presented on its financing approach to energy storage in NYSERDA's bulk & retail energy storage webinars.
	<ul> <li>Publicly issue new standalone Energy Storage RFP following announcement of planned NYSERDA storage incentives.</li> </ul>	Achieved for the Plan Year: On November 12, 2019, NYGB issued Request for Proposals 13: Financing for Energy Storage Projects.
	<ul> <li>Convene energy storage market participants to present NYGB standalone Energy Storage RFP.</li> </ul>	Achieved for the Plan Year: On November 19, 2019, NYGB hosted the webinar "Financing Energy Storage Projects." In the webinar, NYGB

Table 5: Status of Plan Deliverables (2019 - 2020)

<sup>&</sup>lt;sup>45</sup> "**LMI**" means Low and Moderate Income.

<sup>&</sup>lt;sup>46</sup> "**RFI**" means Request for Information.

<sup>&</sup>lt;sup>47</sup> "FICO®" is an abbreviation for the Fair Isaac Corporation, the first company to offer a credit-risk model with a score.

Category	Deliverable	Status in Quarter Ended March 31, 2020
		highlighted its financing approach for energy storage projects.
Energy Efficiency	<ul> <li>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).</li> </ul>	Achieved for the Plan Year: NYGB provided feedback on the NYSERDA and Con Edison pay-for-performance RFP. NYGB helped draft the Financial Capacity section of the RFP.
	<ul> <li>Participate in NYSERDA residential stakeholder pay-for-performance convening and others with commercial market players around tenant improvement financing models.</li> </ul>	Achieved for the Plan Year: NYGB presented its approach to financing NYSERDA performance-based incentives at the Pay for Performance & National Grid Stakeholder Meeting in Syracuse, NY.
Large-Scale Renewables	<ul> <li>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.</li> </ul>	Achieved for the Plan Year: NYGB contributed to NYSERDA's Land-Based LSR RFP.
	<ul> <li>Participate in May 2019 webinar<sup>48</sup> for NYSERDA's LSR RFP<sup>49</sup> to provide information to potential respondents on NYGB financing options, so that these may be reflected in, and priced into, RFP responses.</li> </ul>	Achieved for the Plan Year: On May 2, 2019, NYGB participated in the Renewable Energy Standard Program RFP19-1 Webinar. In the webinar, NYGB highlighted its financing approach for LSR projects.
	<ul> <li>Participate in NYSERDA convening of LSR market participants to communicate NYGB financing opportunities to NYSERDA RFP respondents.</li> </ul>	Achieved for the Plan Year: As noted above, on May 2, 2019, NYGB participated in the Renewable Energy Standard Program RFP19-1 Webinar. In the webinar, NYGB highlighted its financing approach to LSR projects. Additionally, on May 15, 2019 NYGB hosted a Financing Large-Scale Renewables webinar to further detail how NYGB can be helpful in providing financing to the LSR market.
Community Distributed Generation	<ul> <li>Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI/RFP, as noted above under "Clean Energy for LMI."</li> </ul>	Achieved for the Plan Year: As noted above, in March 2020, NYGB issued Request for Information: Credit Enhancement Product for Tax Equity Providers in LMI-Inclusive CDG Projects.
	<ul> <li>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."</li> </ul>	Achieved for the Plan Year: As noted above, on July 11, 2019, NYGB hosted the webinar "Financing Community Distributed Generation for Low-to- Moderate Income Communities." The webinar highlighted the ways in which NYGB continues to facilitate increased opportunities for LMI customers to participate in, and benefit directly from, NYS's growing distributed energy market.

<sup>&</sup>lt;sup>48</sup> See:

www.nyserda.ny.gov/All%20Programs/Programs/Clean%20Energy%20Standard/Renewable%20Generators%20and%20Developers/RES

 %20Tier%20One%20Eligibility/Solicitations%20for%20Long%20term%20Contracts.

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 Issued April 23, 2019. See: <a href="http://portal.nyserda.ny.gov/servlet/servlet/FileDownload?file=00Pt000000ED99VEAT">http://portal.nyserda.ny.gov/servlet/servlet/servlet/FileDownload?file=00Pt000000ED99VEAT</a>.
Category	Deliverable	Status in Quarter Ended March 31, 2020
Clean Transportation	<ul> <li>Convene market participants and clean transportation innovators to identify specific market needs or gaps and advance NYGB financing product development and offerings.</li> </ul>	Achieved for the Plan Year: On March 6, 2020, NYGB, NECEC, & NYSERDA convened over 130 clean transportation market participants for the "Clean Transportation Forum" at Con Edison.
Bio Energy	<ul> <li>Convene market participants to identify specific market needs and advance product development and potential offerings.</li> </ul>	Achieved for the Plan Year: On March 27, 2020, NYGB hosted the webinar <i>Financing Biogas Projects in</i> <i>NYS</i> with over 200 industry participants registered. The webinar focused on the latest market trends in the biogas industry and NYGB's approach to financing biogas projects.
Portfolio Driving Material	Clean Energy Investments Across NYS	
Committed Funds	<ul> <li>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).</li> </ul>	Not Achieved for the Plan Year: \$959.9 million Overall Investments to Date. NYGB Closed \$222.3 million in transactions in the quarter. NYGB averaged \$55.6 million in closed transactions per quarter in the fiscal year.
Mobilizing Capital		
<ul> <li>Mobilization Ratio</li> </ul>	<ul> <li>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.</li> </ul>	✓ Ongoing & On Track: Current NYGB investments are expected to mobilize up to \$2.6 billion in estimated project costs. NYGB's participation in LSR, OSW, energy storage and other segments with typically larger project sizes should result in greater notional deployment in NYS, enabling NYGB to catch up in progressing toward the \$8.0 billion goal. <sup>50</sup>
	<ul> <li>Collaborate with NYSERDA and other relevant stakeholders to continue to explore the viability of a public private partnership to effectuate NYGB's third- party capital raise and national expansion, which will deliver the same or greater benefits to all New Yorkers using less ratepayer capital, as directed by Governor Cuomo in the 2019 State of the State/Executive Budget package.</li> </ul>	✓ Ongoing & On Track: NYGB/NYSERDA continues to work with relevant parties. During the Plan Year, NYGB assessed the range of vehicles through which it might raise private capital, in particular comparing the economics, risks and constraints of raising capital for co-investment versus a bond issuance or bank facility.
Maintaining Self-Sufficient	cy by Strengthening Operations	
<ul> <li>Legal &amp; Technical Services</li> </ul>	<ul> <li>Issue new RFP for technical service providers to NYGB and select slate of approved providers by September 2019.</li> </ul>	✓ Ongoing & On Track: Issued Technical RFP in June 2019. NYGB selected service providers by the end of 2019 and is executing agreements.
	<ul> <li>Issue new RFP for legal service providers to NYGB and select slate of approved providers by December 2019.</li> </ul>	Achieved for the Plan Year: Issued Legal RFP in September 2019. NYGB selected service providers at the end of 2019.

<sup>&</sup>lt;sup>50</sup> During the 2020 – 21 Plan Year, NYGB will reassess its mobilization goals as part of the CEF Triennial Review.

# Part III

# Annual Business Plan 2020 – 21

### 3 Annual Business Plan 2019 – 20

NYGB is preparing this 2020 – 21 Plan during an unprecedented global pandemic. The COVID-19 crisis has its U.S. epicenter in NYS and has impacted people and businesses across the U.S. in ways that were previously unimagined. In response to Governor Cuomo's PAUSE Order, on March 16, 2020 NYGB instituted a remote work plan just two weeks before the start of the 2020 – 21 Plan Year. In addition to the transactions and new fundings NYGB completed during the last two weeks of the 2019 – 20 Plan Year (as described in <u>Part II</u>), NYGB has continued to close transactions at a business-as-usual pace as of the time of this Review and Plan. Nonetheless, the COVID-19 crisis and recovery loom large as NYGB commences its current Plan Year.

The COVID-19 outbreak is disrupting supply chains and affecting operations and financial conditions across a range of industries, including the clean energy sector. The extent of the impact of COVID-19 on NYGB's operational and financial performance will depend on certain developments, including but not limited to the duration and spread of the outbreak, impact on NYGB employees, impact on program partners and contractors, State policy directives, and actions by the Commission that may impact current program activities, all of which are uncertain and cannot be predicted. The extent to which COVID-19 may impact NYGB's future programmatic activities and accomplishments is uncertain, and is likely to impact future financial performance, but is not likely to have a material adverse impact on NYGB's financial condition.

NYGB's typical counterparties – small to mid-sized project developers in the State – find themselves with reduced access to capital, but increased liquidity needs given COVID-19. Now more than ever is the time for public sector actors like NYGB to demonstrate their ability to stimulate economic activity as the State's recovery begins. The State's ambitious goals for clean energy and sustainable infrastructure deployment as outlined in the CLCPA remain. And with its outsize ability to create high quality jobs,<sup>51</sup> the clean energy sector can play an important role in the post-COVID-19 recovery. As NYGB enters its fiscal year, it remains focused on supporting the State's energy transition by closing, funding and providing term sheets and commitments to NYS clean energy participants for transactions expected to reduce GHGs in NYS. By clearly signaling to markets that this type of deployment/asset finance is and will remain available, NYGB's actions will spur operating company equity providers to continue to fund the operations of businesses with the confidence that NYGB's deployment capital stands ready. NYGB is leaning into nascent segments such as energy storage and bioenergy as a flexible and creative source of project liquidity.

NYGB is credibly positioned to accelerate its model during this time of instability in the clean energy economy. NYGB believes that no other investment manager in the U.S. with an exclusively sustainable infrastructure credit focus has closed as many transactions and committed as much capital as NYGB. With \$959.9 million in Overall Investments to Date as of March 31, 2020 across a range of investment products and clean energy and sustainable infrastructure market segments, NYGB remains one of the leading green banks in the world and the largest in the U.S. Since its inception, NYGB has operated 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 will continue 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 addresses 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:

- Respond to evolving clean energy market needs including those at the "near frontier" of sustainable infrastructure investment in the 2020 – 21 Plan Year;
- Encourage developers to seek NYGB capital for NYS clean energy projects and progress investments in the Active Pipeline toward close to the maximum possible extent under NYGB control; and
- Manage its existing Investment Portfolio to deliver the expected clean energy outcomes.

In the 2020 – 21 Plan Year, NYGB's key objectives are to aid in the State's post-COVID-19 crisis recovery by

<sup>&</sup>lt;sup>51</sup> See <u>https://www.nyserda.ny.gov/-/media/Files/Publications/Clean-energy-industry/2019-ny-clean-energy-industry-report.pdf</u>.

stimulating clean energy investment and economic activity; effectively manage a strong and growing portfolio of clean energy and sustainable infrastructure investments – including by developing a dedicated initiative to expand the end users served by NYGB projects (i.e., to LMI and disadvantaged communities); advance efforts to further mobilize capital into NYS sustainable infrastructure; and maintain its financial position. These 2020 – 21 Plan Objectives (the "**Plan Objectives**") are summarized in <u>Figure 12</u>.

### Figure 12: 2020 – 21 Plan Objectives

- Support the NYS clean energy market in its recovery from economic disruption due to the COVID-19 crisis
- Effectively manage a strong and growing portfolio of clean energy and sustainable infrastructure investments across a number of targeted market segments, including those that can benefit LMI communities.
  - Put ratepayer money to work, prudently: Target \$1.2 billion (cumulative) in NYGB investments over the fiscal year ending March 31, 2021, involving at least an additional \$225.0 million for the year (with an average of at least \$56.25 million in closed transactions per quarter).
  - In addition, and consistent with the goals of the CLCPA, launch a new initiative to invest in projects that benefit the State's disadvantaged communities.
- Mobilize capital: Reassess capital mobilization goals per CEF Triennial Review and continue to mobilize capital into clean energy projects through NYGB activity by the end of the CEF term in 2025.
- Maintain NYGB financial position: Continue to strengthen NYGB operations, grow revenues and manage expenses to maintain self-sufficiency and generate net income.

The remainder of this <u>Part III</u> describes the activities NYGB will undertake to meet its Plan Objectives, including specific deliverables presented in <u>Section 3.7</u> that NYGB will track and report in its Quarterly Metrics Reports.

### 3.1 Support the NYS Clean Energy Market Recovery Following the COVID-19 Crisis

In early April 2020, NYGB issued a survey to obtain feedback from stakeholders about the COVID-19 crisis and its effect on their businesses. NYGB received over 140 responses, including over 80 responses from clean energy project developers and operators. Developers expressed concern over missing construction and financing milestones and, to a lesser degree, permitting and interconnection milestones. More than any other supply chain issue, developers and operators identified disruption in labor and contractors needed to get their projects built as affecting their businesses. Most developers cited reduced sales and business development activity and inability to complete projects and commence billing as factors affecting their anticipated revenues. Over one-third of respondents said they had already experienced or observed changes in credit terms as a result of the COVID-19 crisis, including higher interest rates, increased debt service coverage ratios and lender reluctance to sign new loans or advance cash under existing facilities. While market participants do not expect to refinance existing debt, over two-thirds of developers anticipated new financing needs, including bridge loans and construction-to-term loans.

NYGB's mission includes filling clean energy financing gaps for economically viable projects and business models where private capital is unavailable. The COVID-19 crisis has exacerbated financing market gaps; less capital is expected to be available for many clean energy projects and business models, resulting in even greater dependence by market participants on NYGB financing than before the COVID-19 crisis. NYGB is actively working with market participants to better understand how NYGB can be most helpful in a prudent way to support the clean energy markets during the COVID-19 crisis and beyond. NYGB continues to make clear to the marketplace that capital is available for transactions meeting NYGB investment criteria, which is a critical market signal during times of liquidity disruptions such as the clean energy financing markets are experiencing because of COVID-19. NYGB not only continues to close and fund new transactions but continues to add new transactions to its pipeline of future clean energy financing opportunities. Providing clarity that NYGB can provide

asset/deployment capital will result in greater willingness of businesses and their investors to continue to invest in and fund their business operations with the confidence that they will have access to project deployment capital on a going forward basis. In addition, NYGB is taking specific actions to help NYS clean energy and sustainable infrastructure businesses recover following the COVID-19 crisis as the State's economy gradually reopens under the NY Forward plan. NYGB will support its existing counterparties and transactions through COVID-19 related disruptions to projects and forecasts.

Specifically, in response to developer feedback, NYGB will develop product offerings to support new market needs and opportunities, such as

- Paycheck Protection Program Loans: NYGB has been approved by the U.S. Small Business
   Administration ("SBA") to provide loans under the SBA's Paycheck Protection Program ("PPP") to small
   businesses and other eligible borrowers. At the timing of this filing, NYGB intends to activate lending
   under the PPP to small businesses and other eligible borrowers in the State's clean energy industry that
   have been impacted by the COVID-19 outbreak if the PPP program is extended beyond June 30, 2020;
- Safe Harbor Equipment Financing: As a result of the COVID-19 crisis, construction timelines have been pushed out. NYGB can offer safe harbor financing to preserve the 26% equipment ITC for projects delayed into 2021;
- Debt Service Sculpting: To drive near-term activity in allowable regions pursuant to NY Forward, NYGB
  may be able to sculpt its debt service to support counterparty consumer marketing programs offering
  higher near-term savings to motivate homeowners;<sup>52</sup>
- Interconnection Financing: NYGB will continue to provide financing for interconnection costs for LSR and CDG projects to enhance developer liquidity;
- Asset-Backed Financing: NYGB will offer asset-backed financing (e.g., monetization of receivables) for operating capital; and
- Other Support: NYGB will make referrals, as appropriate, to other NYSERDA programs (e.g., to Innovation team for clean energy market participants seeking early state support).

NYGB will convene clean energy project developers, operators and other interested stakeholders via webinar to communicate these and other relevant offerings.

### 3.2 Build and Actively Manage the NYGB Portfolio

At the time of this Review and Plan, NYGB has committed more than \$1.0 billion to clean energy and sustainable infrastructure projects in NYS across 67 transactions and 7 technology segments since Inception.<sup>53</sup> Having reached this milestone, NYGB remains committed to continuing to grow its Investment Portfolio at a pace consistent with prior periods. During the 2020 – 21 Plan Year, NYGB will aim to commit \$1.2 billion (cumulative) to NYGB investments by March 31, 2021, including at least \$225.0 million of incremental commitments in the 2020 – 21 Plan Year (at an average rate of \$56.25 million in closed transactions per quarter). Originating, structuring and closing investments at this pace requires deep market knowledge, creativity and discipline – which NYGB's professionals apply to each transaction.

A large and growing portfolio demands that NYGB develop its portfolio administration to accommodate a growing number of daily activities, including the nearly 300 individual funding events that NYGB managed in the last fiscal year. During the 2020 – 21 Plan Year, NYGB will continue to leverage the systems and reporting tools available to it to continue to ensure that closings, fundings, counterparty reports, modifications and other portfolio management activities are timely and accurately completed.

The quality, depth and breadth of the Active Pipeline remain strong drivers of NYGB's continued success. NYGB will work to maintain a strong Active Pipeline of at least \$450.0 million on average this 2020 – 21 Plan Year to correspond with its target of \$1.2 billion (cumulative) Overall Investments to Date by March 31, 2021. NYGB will

<sup>&</sup>lt;sup>52</sup> See: <u>https://forward.ny.gov/</u>.

<sup>&</sup>lt;sup>53</sup> As of June 30, 2020.

seek to originate transactions that meet its investment criteria and, where applicable, also coordinate with or leverage 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 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 audiences.

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 segment 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.

Developing new markets takes creativity, time and significant effort. With prior demonstrated successes, NYGB is well-positioned to address more challenging markets, such as clean energy for disadvantaged communities and port infrastructure to support OSW, in its 2020 – 21 Plan Year.

In support of its priorities, NYGB will focus on each of the following, as described in detail in Section 3.6:

- Replicating and scaling markets where NYGB has developed competitive solutions: LSR (including Land-Based LSR and OSW) and CDG Solar;
- Expanding in segments where NYGB has demonstrated early successes: Energy Efficiency (including LMI Multifamily and Commercial Tenant Improvement Financing) and Clean Transportation; and
- Preparing to serve nascent markets as they develop: Energy Storage (including Solar-Plus-Storage) and Bioenergy.

### 3.3 Launch New Initiative to Support Clean Energy for Disadvantaged and LMI Communities

As discussed in <u>Section 2.2.2</u>, NYGB has gained traction in its LMI-focused financing efforts, including through a \$25.0 million transaction with IPC. Nonetheless, significant investment must be made to reach the 42% of the State's population residing in LMI census areas. The CLCPA, which took effect on January 1, 2020, mandates that disadvantaged communities receive at least 35% of overall benefits from NYS climate programs. To support this critical environmental justice goal, during the 2020 – 21 Plan Year NYGB will launch a new initiative that positions NYGB to achieve the requirements of the CLCPA as they pertain to disadvantaged communities.

NYGB's new initiative will focus on advancing projects, solutions, and related financing structures for energy efficiency, battery storage, EVs (including transit electrification) and other clean energy and sustainable infrastructure technologies benefitting LMI and disadvantaged communities. This initiative is established with the distinct purpose of advancing NYS objectives as they relate to supporting disadvantaged communities and, as such, its narrative and mission are expected to evolve over time along with CLCPA and other regulatory mandates.

NYGB will determine ways to scale the types of financing solutions – such as the \$25.0 million transaction with IPC – that have already shown traction and will innovate and develop new solutions to financing barriers that constrain clean energy and sustainable infrastructure projects aimed at this market segment. NYGB's approach will be attentive to the injustices that have long affected the State's disadvantaged communities.

The CLCPA broadly defines disadvantaged communities as "communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate- income households."<sup>54</sup> The CLCPA-established Climate Justice Working Group, which includes representatives from NYSERDA, will develop criteria for identifying such disadvantaged communities.<sup>55</sup> NYGB will adapt its market approach over time to be inclusive of disadvantaged communities as the Climate Justice Working Group finalizes the criteria by the end of 2021.

<sup>&</sup>lt;sup>54</sup> See <u>https://nyassembly.gov/leg/?default\_fid=&leg\_video=&bn=A08429&term=2019&Summary=Y&Text=Y</u>.

<sup>&</sup>lt;sup>55</sup> See <u>https://www.nrdc.org/experts/miles-farmer/unpacking-new-yorks-big-new-climate-bill-primer-0.</u>

While the work is underway to plan and launch the new initiative, NYGB will also take tangible steps during the 2020 – 21 Plan Year to lay a strong foundation to advance clean energy solutions for LMI and disadvantaged communities, as further described in <u>Section 3.6.1</u>.

### 3.4 Mobilize Capital

To meet the State's ambitious clean energy and climate goals, and particularly in the wake of the ongoing COVID-19 crisis and the financial uncertainty it brings, considerably more private investment is needed across clean energy and sustainable infrastructure segments.

NYGB's mobilization of capital may occur in several ways:

- Recommitting capital that has been repaid by NYGB counterparties. Though NYGB has committed \$962.6 million to NYGB investments on a cumulative basis as of March 31, 2020, NYGB's portfolio has never exceeded \$616.9 million at any one time since NYGB's inception. This demonstrates that NYGB can mobilize more private investment with less ratepayer capital by recommitting or recycling repayments;
- Collaboration with other market participants and leveraging their capital during the lifecycle of NYGB transactions, which has historically driven NYGB's average Mobilization Ratio. NYGB has closed transactions that provide funding to other third-party lenders/specialty finance companies where proceeds can fund loans for clean energy and energy efficiency projects underwritten and financed by those lenders consistent with agreed credit approaches and underwriting standards. This also represents a viable path to deploying capital into LMI-related transactions and, as such, may prove an important channel for NYGB's new initiative described in <u>Section 3.3</u>; and
- Investing private capital on a portfolio basis to deliver more per dollar of ratepayer capital. As described in <u>Section 2.2.4</u> and <u>Section 3.6.3</u>, in the 2020 – 21 Plan Year, NYGB will continue to explore monetization of the NYGB portfolio via a debt financing.

### 3.5 Maintain NYGB Financial Position

NYGB seeks to maintain its financial position in the 2020 – 21 Plan Year, which entails remaining self-sufficient, growing its capital base (i.e., generating net income to be recycled into new investments) and being capitalefficient (i.e., calling capital only as needed under the "Bill-As-You-Go" approach). As such, and in keeping with the first of its three key investment criteria, NYGB will continue to price transactions such that NYGB revenues on a portfolio basis are expected to exceed portfolio losses. Moreover, by actively managing its operating expenses, NYGB expects to continue generating positive net income, as it has done since the 2017 – 18 Plan Year.

Interest rates have decreased substantially as NYGB enters its 2020 – 21 Plan Year, which exerts downward pressure on investment-related revenues. Although activity remains strong, it is possible that COVID-related construction delays might delay closings and fundings, resulting in a negative impact on revenue. NYGB must maintain its expense profile and be as capital-efficient as possible. NYGB has forecasted its 2020 – 21 fiscal year Net Income using assumptions such as applying the current historically-low three-month forward London Interbank Offering Rate ("LIBOR") curve as the base rate of its floating-rate notes and projecting only 0.1% yield on minimal balances of cash and liquid instruments. The resultant forecast of NYGB 2020 – 21 fiscal year Revenues, Expenses and Net Income is presented in <u>Table 6</u>, alongside the past three years of actual results.<sup>56</sup>

	Actual	Actual	Actual	Forecast
	FY 2017 - 18	FY 2018 - 19	FY 2019 - 20	FY 2020 – 21
Revenues	\$19.7	\$26.0	\$28.2	\$22.0

#### Table 6: Actual & Forecast Revenues, Expenses & Net Income (Loss) (\$ millions)

<sup>&</sup>lt;sup>56</sup> Forecast has been updated from the NYSERDA budget in January 2020 to reflect Q1 2020 activity in the Investment Portfolio and recent market interest rates.

Operating Expenses				
Direct Expenses <sup>57</sup>	5.5	5.5	6.9	7.5
Indirect Expenses <sup>58</sup>	3.0	3.6	3.8	3.8
Total Operating Expenses	8.5	9.1	10.7	11.3
Net Income, Prior to Non-Operating Expenses	11.2	16.9	7.5	10.7
Non-Operating Expenses <sup>59</sup>	0.0	1.6	0.2	0.6
Total Expenses	8.5	10.7	10.9	11.9
Net Income	\$11.2	\$15.3	\$17.2	\$10.1

NYGB forecasts its 2020 – 21 fiscal year Net Income to be lower than actual Net Income in each of the two prior years. Despite a larger current portfolio as the forecast's starting point and projected new investments of \$225.0 million (with subsequently increasing amounts of deployed capital), NYGB's lower forecasted Revenues result from less gross interest from floating-rate notes in its investment portfolio and less non-operating revenue from minimal cash balances paired with historically low yields on liquid instruments. To preserve its self-sufficiency (i.e., generating positive Net Income), NYGB seeks to control operating expenses and to minimize portfolio losses by monitoring, mitigating, managing and transferring portfolio risks inherent in its investments. NYGB performs scenario analysis to understand the impact on its Net Income of varying key assumptions in its forecasting model and believes that it can remain self-sufficient during the current Plan Year.

NYGB anticipates significant capital deployment (keeping pace with the \$200.0+ million deployed in the 2019 – 20 fiscal year), which provides needed liquidity to NYS clean energy markets.

### 3.6 2020 – 21 Activities to Meet Objectives & Deliverables

During the 2020 – 21 Plan Year, NYGB will seek to commit at least an additional \$225.0 million (targeting \$1.2 billion on a cumulative basis) to priority areas such as port infrastructure, energy storage, distributed generation, clean transportation, 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. As described in <u>Section 3</u>, the extent to which COVID-19 may impact NYGB's accomplishments, including meeting its capital deployment target, is uncertain.

NYGB will also continue to support the State's ambitious energy and climate agenda<sup>60</sup> 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:

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

The remainder of this <u>Section 3.6</u> describes NYGB's 2020 – 21 Plan Year activities across a range of priority areas.

<sup>&</sup>lt;sup>57</sup> Direct Expenses include: Salaries & Direct Benefits; Transaction Expenses; Sales, General & Administrative.

<sup>&</sup>lt;sup>58</sup> Indirect Expenses include: NYSERDA allocations.

<sup>&</sup>lt;sup>59</sup> Non-Operating Expenses include: Evaluation, Third-Party Capital Legal & Strategic Advisory Services.

<sup>&</sup>lt;sup>60</sup> See: www.governor.ny.gov/news/governor-cuomo-announces-green-new-deal-included-2019-executive-budget.

### 3.6.1 Focus on Clean Energy for Disadvantaged Communities

As described in <u>Section 3.3</u>, during the 2020 – 21 Plan Year, NYGB will launch a new initiative that seeks to expand the end-user segments served by NYGB-financed projects. Specifically, NYGB will focus on opportunities that benefit LMI stakeholders and disadvantaged communities within the State.

While NYGB is determining the structures and products most likely to address current financing gaps in the LMI sector, NYGB will concurrently pursue known opportunities across a range of segments on which NYGB focuses, including energy efficiency, CDG solar, clean transportation and others. NYGB will continue to work to provide financing to LMI projects through CDFIs, housing authorities, specialty finance institutions, non-profits and other aggregators focusing on LMI and disadvantaged communities. With its recent \$25.0 million financing of IPC, NYGB has developed a model it hopes to replicate with other aggregators of LMI-targeted projects.

In parallel with defining the new initiative's target segments, financing products and relevant investment criteria, NYGB will also put the required resources in place to ensure operational excellence. This includes:

- Selecting Legal Counsel with Expertise in Affordable Housing Transactions. To support an Active
  Pipeline transaction in the Affordable Housing sector and future LMI-focused transactions, NYGB will
  conduct a mini-bid to qualify and select law firms with expertise in affordable housing transactions; and
- Identifying and Establishing Channel Partnerships. NYGB will seek to establish channel partnerships including, as appropriate, specialty finance companies targeting LMI projects, CDFIs and non-profits.

### 3.6.2 Focus on Clean Energy and Sustainable Infrastructure Technology Segments

NYGB's ability to be market responsive and to adapt its financing approach and investment structures to help scale new opportunities have been drivers of its successful commitment of over \$1.0 billion as of the date of this Review and Plan. While some sectors have specific idiosyncratic characteristics that NYGB considers in its evaluation of financing proposals, NYGB's success lies with its ability to cast a wide net across market segments and apply rigorous investment theses and an underwriting approach that is broadly applicable. NYGB offers a range of project finance structures, including project equity (e.g., preferred equity), project debt (senior/subordinated, secured/unsecured, short-term/long-term, etc.), aggregation warehouse facilities and others that are generally relevant across technology segments. NYGB has identified the following segments as targets for 2020 – 21 Plan Year focus.

#### 3.6.2.1 Large-Scale Renewables

NYGB will seek to support financing opportunities across LSR sub-segments, with a focus during the 2020 – 21 Plan Year on land-based LSR and port infrastructure to support OSW. Specifically:

- In the 2020 21 Plan Year, NYGB will assist NYSERDA in evaluating OSW port infrastructure projects to help achieve the State's \$200.0 million goal of supporting port infrastructure investment needed to serve the State's nascent OSW market. NYGB financing will also be available for port infrastructure projects selected through the process; and
- To help achieve the State's expanded goal of 70.0% of its electricity from renewable sources by 2030, in March 2020 NYSERDA announced \$1.0 billion in competitive awards to 21 LSR projects, including 17 solar farms (two of which include storage), three wind farm repowering upgrades and one new wind farm.<sup>61</sup> During the 2020 21 Plan Year, NYGB will conduct outreach to the awardees to make them aware of NYGB's ability to fund LSR projects. Due to the COVID-19 crisis, NYSERDA has postponed its 2020 LSR solicitation. Nonetheless, NYGB will contribute content related to NYGB financing opportunities to NYSERDA's public solicitation when its launch is rescheduled.

<sup>&</sup>lt;sup>61</sup> See <u>https://www.nyserda.ny.gov/-/media/Files/Programs/LSR/RES-Solicitation-Fact-Sheet.pdf</u>.

### 3.6.2.2 Distributed Generation

Over the past several years, NYGB has built upon its strong foundation for financing distributed solar projects including CDG solar, residential solar, brownfield/landfill solar, and other distributed solar projects with MUSH or C&I offtakers or hosts. Specifically, NYGB has engaged with key market participants; developed relevant financing structures; publicly issued RFP 7 and RFP 10; issued term sheets to multiple developers; prepared loan documentation; and executed transactions. Through this activity, NYGB has committed \$209.0 million across 14 distributed solar projects as of March 31, 2020, including through interconnection bridge loans, term loans, development capital and other financing structures.

Building on NYGB's successful financing of distributed solar projects, NYGB has expanded its distributed energy pipeline beyond solar to include CDG fuel cell and paired solar-plus-storage transactions that it expects to close during the 2020 – 21 Plan Year.

### 3.6.2.3 Energy Storage

The State's Green New Deal calls for 3,000 MW of energy storage in NYS by 2030. To help achieve this deployment target, NYGB has committed to provide at least \$200.0 million for storage-related investments in NYS.<sup>62</sup> To deliver on this commitment, NYGB will work with partner agencies, financial intermediaries, new and existing developers, operators, and utilities to identify and close energy storage transactions. \$405.0 million of bridge incentives are available to energy storage project developers through NYSERDA-managed programs. In addition, investor-owned utilities have led procurements of energy storage resources and should announce the winners during NYGB's 2020 – 21 Plan Year. NYGB will target winners of those offtake contracts and attempt to fill financing gaps. NYGB has also identified pipeline opportunities for developers occupying the State's interconnection queues, equipment manufacturers that may wish to provide financing to customers, deal clubs and syndicates with which NYGB can partner, and recipients of NYSERDA incentives.

Through extensive market outreach, NYGB identified market barriers to financing of storage projects, summarized in <u>Table 7</u>, which NYGB has taken into consideration in developing its market approach.

### Table 7: Market Barriers to Financing of Energy Storage

Market Barriers		
Uncertainty of Revenue	Energy storage revenue streams may include:	
Streams	<ul> <li>Power Purchase Agreements – capacity; and</li> </ul>	
	<ul> <li>Value stacking – frequency regulation, voltage control, spinning reserves;</li> </ul>	
	defined by the commercial terms and liquidity of underlying market.	
Limited Number of	Traditional lenders may not be willing to finance against structures or projects in	
Financing Partners	market segments with limited track records. Lender unfamiliarity with Value of	
	Distributed Energy Resources ("VDER") methodologies limits the availability of	
	capital to the segment.	
Finding Capital for	Interconnection deposits are typically funded with sponsor equity, an expensive	
Interconnection Deposits	source of capital that becomes "locked" and unavailable for alternate use.	
Technology	To date, there have been a limited number of operating hours for these	
	technologies in NYS. This undermines investor confidence in the ability of the	
	technologies to produce revenue and operate within warranted use parameters.	
	It is also difficult to predict longevity of resources.	

As adding energy storage to distributed energy projects is a nascent market, NYGB understands that tax equity providers may not be familiar or comfortable investing. During the 2020 – 21 Plan Year, NYGB will convene tax equity providers and other lenders interested in providing capital to distributed energy projects that include energy storage. NYGB will explain its financing approach and demonstrate how tax equity providers could access projects and will provide an update around the market opportunity and policy that will affect energy storage project lenders and tax equity providers.

<sup>&</sup>lt;sup>62</sup> See www.governor.ny.gov/news/governor-cuomo-announces-new-york-energy-storage-roadmap-achieve-nation-leading-target-1500.

As of the time of this Review and Plan, NYGB has closed on the first energy storage deal in its pipeline. NYGB will aim to close additional storage-related transactions during the 2020 – 21 Plan Year.

### 3.6.2.4 Energy Efficiency Markets

Energy efficiency is a significant and growing part of the clean energy economy in NYS. The segment is characterized by technological innovation, public-sector support and demand driven by increasingly stringent energy performance standards. 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 represented \$72.4 million in Overall Investments to Date and \$63.0 million in Active Pipeline projects as of March 31, 2020. NYGB continues to view the segment as attractive, but its representation in NYGB's portfolio has lagged other clean energy and sustainable infrastructure segments. NYGB needs to make up ground to help the State meet its aggressive targets under the CLCPA. Energy efficiency projects, which generally involve interior building work, have been particularly hard hit by the COVID-19 crisis, which necessitated a moratorium on all such construction projects. As the State's economy reopens under the NY Forward plan, NYGB will seek to support NYS energy efficiency businesses with a range of financing structures.

Specifically, NYGB will target the following energy efficiency opportunities:

- Empire Building Challenge: NYGB will support NYSERDA's Empire Building Challenge to raise awareness in the commercial office market that NYGB stands ready to finance energy efficiency upgrades in commercial buildings. The Empire Building Challenge aims to establish partnerships with commercial office and multifamily portfolio owners and developers that wish to find solutions for deep energy efficiency in high rise buildings. NYGB will work with its NYSERDA colleagues to develop and promote financing structures that will support these energy efficiency projects. This may include structuring debt service payments to be lower than anticipated energy savings and developing standardized contracts to promote adoption and scale, which would ultimately attract other private sector capital providers. The timing for the Empire Building Challenge will depend on post-COVID-19 building owner appetite for deep energy retrofit projects;
- Tenant Improvement Finance: Prior to the COVID-19 crisis and PAUSE Order, NYGB was working
  closely with a large portfolio owner of commercial office properties in NYC to develop and pilot a
  replicable model for tenant improvement financing. However, the project is currently on hold because of
  COVID-19-related market uncertainty. Nonetheless, during the 2020 21 Plan Year, NYGB will continue
  to work with market participants on on-lease commercial tenant financing and will seek to close its first
  related transaction;
- Supplementing Green Jobs Green New York Subsidized Financing: Green Jobs Green New York ("GJGNY") provides incentives for homeowners to make energy upgrades to their homes. During the 2020 – 21 Plan Year, NYGB will explore combining its financing with GJGNY financing in a manner that extends the maturity of consumer loans and allows for larger loans that exceed the GJGNY cap. NYGB will seek to pilot a facility with a counterparty offering consumer finance for residential energy upgrades; and
- Controlled Environment Agriculture: Indoor growing operations can be extremely energy intensive. However, state-of-the-art agriculture 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 closed its first controlled environment agriculture ("CEA") transaction during the 2019 – 20 Plan Year. To promote further energy efficiency in the agricultural sector, NYGB will seek to replicate its financing solutions in the CEA segment, including financing for CHP and other energy efficient upgrades to NYS greenhouse operations for both hydroponic and "in the ground" operations. NYGB will leverage its CEA financing experience to start to scale this new asset class.

#### 3.6.2.5 Clean Transportation

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.<sup>63</sup> Subsequently, in January 2020, Governor Cuomo announced that NYGB would make up to \$100.0 million in financing available to help clean transportation business locate or expand their operations in NYS.<sup>64</sup> Just prior to the PAUSE Order, NYGB cohosted the Clean Transportation Forum, which brought together industry participants to discuss the clean transportation market, policy environment, and financing structures and opportunities. NYGB communicated its ability to provide a range of financing for the clean transportation segment, including fleet, battery and charging infrastructure financing, among others.

During the 2020 – 21 Plan Year, NYGB will continue to engage with industry participants, as well as 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 <u>RFP 1: Clean Energy</u> <u>Financing Arrangements</u> ("**RFP 1**")). NYGB will participate in a webinar with EV100 to raise awareness of NYGB's clean transportation financing approach and outline the financing structures it has developed to address the challenges associated with EV and EV infrastructure financing. EV100 is a global initiative bringing together forward-looking companies committed to accelerating the transition to electric vehicles.

### 3.6.2.6 Bioenergy

NYGB hosted a widely-attended webinar at the end of March 2020 on the topic of Financing Biomass Projects in NYS. The webinar attracted over 120 participants, demonstrating that bioenergy remains a topic of considerable interest in the State.

However, NYS policy around bioenergy is fluid. While biomass was excluded from the CLCPA, NYSERDA is supporting biogas projects through its \$16.0 million 2019 Demonstration of New Business Models, Marketplace Development and Refurbishment of Existing Qualified Historically Farm-Related Anaerobic Digester Gas-to-Electricity PON 3739.<sup>65</sup> Biogas is not eligible for VDER, which replaces net energy metering, but renewable energy credits ("**RECs**") are available for eligible biomass power projects under the State's Renewable Energy Standard ("**RES**").<sup>66</sup> NYS is reviewing whether to support Low Carbon Fuel Standards ("**LCFS**"), which would reduce the carbon intensity of vehicles by requiring oil refineries and distributors to ensure that the mixes of fuels they sell are aligned with the State's emissions targets.

After determining 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 has adopted an opportunistic approach to financing within the bioenergy segment. During the 2020 – 21 Plan Year, NYGB will continue to explore pathways to close on several NYS opportunities in its Active Pipeline and facilitate the activities required to attract third-party capital to invest in and develop this asset class. In particular, NYGB will engage with developers already in the Active Pipeline and with those whose refurbishment projects have been awarded through NYSERDA's incentive programs (i.e., PON 3739).

### 3.6.2.7 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. During the 2020 – 21 Plan Year, NYGB will assess an energy resiliency project in the State to determine how NYGB capital can be used to incorporate key elements of energy efficiency and clean energy.

Available-to-Dramatically-expand-Electric-Vehicle-Usage <sup>65</sup> "PON" means Program Opportunity Notice.

<sup>&</sup>lt;sup>63</sup> See: <u>www.governor.ny.gov/news/governor-cuomo-announces-316-million-funding-available-dramatically-expand-electric-vehicle.</u>

<sup>&</sup>lt;sup>64</sup> See: https://www.nyserda.ny.gov/About/Newsroom/2019-Announcements/2019-02-08-Governor-Cuomo-Announces-Millions-in-Funding-

<sup>&</sup>lt;sup>66</sup> See <u>https://www.nyserda.ny.gov/-/media/Files/Programs/Clean-Energy-Standard/2018-June-Biomass-Power-Guide.pdf.</u>

### 3.6.3 Monetize the NYGB Portfolio via a Secondary Market Transaction

As described in <u>Section 3.2</u>, with over \$1.0 billion committed, a total portfolio of \$616.9 million as of the filing date of this Review and Plan, and a robust pipeline of projects proceeding to close, NYGB now expects to monetize the NYGB portfolio via a debt financing to catalyze the larger pool of capital that exists in the secondary marketplace. This transaction will further demonstrate that NYGB's assets, which initially faced financing challenges, are attractive to the wider marketplace. Moreover, this transaction will also allow NYGB to supplement its ratepayer capital with additional private capital as needed to deliver the same or greater benefits to all New Yorkers per dollar of ratepayer support.

As such, in the 2020 – 21 Plan Year, NYGB will explore executing a secondary market transaction that monetizes NYGB's portfolio via a debt financing. In so doing, NYGB may accelerate its progress toward meeting the ambitious goals of the CLCPA while also achieving NYGB's goals of (i) promoting NYGB's financial sustainability; (ii) accelerating clean energy financing market transformation; and (iii) expecting to reduce GHGs in NYS. NYGB anticipates the initial transaction would be a bank facility and/or bond issuance. NYGB anticipates that financing costs of the debt facility will be funded from portfolio revenues and continue to allow annual operating revenues to exceed operating expenses and anticipated losses. NYGB will obtain approval for the transaction from the NYSERDA Board and any other necessary NYS approvals. NYGB will use prudent business decision-making on when to complete the debt financing to delay incurring fees and interest costs on the debt financing, taking into consideration the pace of its commitments and the time needed to complete the transaction, to ensure it is completed prior to exhausting the commitment of its Initial Capitalization.

- 3.6.4 Focus on Impact, Metrics & Reporting
- 3.6.4.1 Continue to Assess Financial Market Transformation & NYGB Impact

Pursuant to the CEF Order and CEF Information Supplement,<sup>67</sup> NYGB and NYSERDA perform baseline evaluation and ongoing evaluations on NYGB's portfolio 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 it reports publicly both quarterly and annually. As discussed in <u>Section 1.6</u>, metrics continue to evolve to include a range of Impact Benefits (which can be direct and/or indirect).

NYSERDA prepares an annual review of its entire portfolio every year. In addition, the Commission requires a comprehensive review of CEF performance once every three years. Starting in the last quarter of the 2019 – 20 Plan Year, and continuing into the first quarter of the 2020 – 21 Plan Year, NYGB is contributing content to the CEF Triennial Review, including an Investment Plan & Portfolio Review ("**IPPR**"), which includes a summary of NYGB's contribution to the performance of the CEF. As part of the CEF Triennial review, NYGB will reassess the capital mobilization and GHG reduction goals established at its Inception. In light of NYGB's plan to launch an initiative focused on delivering clean energy benefits to disadvantaged communities (see <u>Section 3.3</u>), and incorporating five years of NYGB operating experience, NYSERDA and NYGB will reevaluate the CEF goals and determine modifications as appropriate during the 2020 – 21 Plan Year to be proposed for Commission consideration.

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 in terms of 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 <u>Section 2.7.1</u>, the first NYGB financial market transformation study was completed by independent consultant DNV GL at the end of March 2019 and subsequently filed with DPS. During the 2020 – 21 Plan Year NYSERDA and NYGB will:

<sup>&</sup>lt;sup>67</sup> Case 14-M-0094, submitted by NYSERDA on June 25, 2015, available at <u>www.nyserda.ny.gov/About/Funding/Clean-Energy-Fund</u>.

- Financial Market Evaluation: Develop a work plan for the next phase of evaluation during the first half of the Plan Year. The work plan will incorporate lessons learned from the first phase of the financial market transformation study delivered during the 2018 – 19 Plan Year. NYSERDA and NYGB will select an independent consultant to perform the evaluation from the pool of NYSERDA's prequalified contractors by the third quarter of the 2019 – 20 Plan Year; and
- Impact Evaluations: For NYSERDA programs with impact evaluations planned to commence in 2020 or early 2021, NYGB will work with NYSERDA to ensure evaluations are scoped to include projects and technologies supported by NYGB investments.

### 3.6.4.2 Ongoing Impact – Metrics, Data Collection & Reporting

Consistent with core goals of maximizing transparency of NYGB's activities and impact, during the 2020 – 21 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 burdens and streamlining data collection and analysis. This may ultimately necessitate the modification of some metrics and includes the following 2020 – 21 Plan Year activities:

- Complete Integration with CEF Online Dashboard: The CEF Order requires creation and implementation of an online dashboard (the "CEF Dashboard")<sup>68</sup> 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 to provide additional transparency to stakeholders. NYGB will work during the 2020 21 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;
- Expand Benefits Tracking: Prompted by the passage of the CLCPA, NYGB will use the 2020 21 Plan Year to assess its readiness to monitor and report on the benefits the CLCPA targets. NYGB developed standard practices to monitor and assess its current Impact Benefits to comply with reporting requirements set forth in the CEF order. NYGB expects to comply with the CLCPA reporting requirements through a similar approach. NYGB will focus on understanding metrics it can use to monitor the geographic, public health, climate resiliency, and socioeconomic benefits of its investments. NYGB will subsequently implement appropriate data collection practices into its investment process; and
- Restructure Quarterly Report: During the 2020 21 Plan Year, NYGB will update the format and structure of its Quarterly Report. Readers should expect more visual aids and additional graphics when they review NYGB's performance in future Quarterly Reports. NYGB expects these updates to better reflect the performance of its large and growing Portfolio.

### 3.6.4.3 Maintain Transparency

NYGB will continue to communicate with 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.<sup>69</sup> 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.

- 3.6.5 Focus on Operations and Finance
- 3.6.5.1 Strengthening NYGB Operations

NYGB continuously optimizes and leverages its established investment and asset management platform to ensure operational excellence and sustained financial strength. During the 2020 – 21 Plan Year, NYGB will undertake activities designed to minimize risk, improve operations, and reduce costs, including:

<sup>&</sup>lt;sup>68</sup> Cases 14-M-0094 et al at page 36.

<sup>&</sup>lt;sup>69</sup> See: <u>www.greenbank.ny.gov/Resources/Public-Filings</u> and <u>www.greenbank.ny.gov/Investments/Portfolio</u>.

- Continued Emphasis on Active Management Consistent with NYS Requirements & Commercial Principles: NYGB approached \$1.0 billion in overall commitments at the end of the 2019 20 Plan Year and has achieved the milestone as of the time of this Review and Plan. As NYGB's investment volumes have increased, NYGB has identified additional ways to streamline its investment and portfolio management processes. During the 2020 21 Plan Year, NYGB is making certain enhancements to its funding processes and documentation to streamline portfolio management activities and ensure that NYGB's funding mechanics support best practices in portfolio administration. As in previous years, 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;
- 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 examines their scope and deliverables to ensure ongoing alignment of the services being provided with the needs of NYGB's business. In the 2020 21 Plan Year, NYGB will be selecting providers of investment valuation and financial advisory services pursuant to RFP 14, which was launched at the end of the 2019 20 Fiscal Year. In addition, as described in Section 3.3 NYGB will be selecting a slate of approved legal counsel for LMI-focused transactions through a mini-bid process;
- Continue Best-Practice Risk Management: Effective risk management efforts ultimately result in higher return on investments and greater public benefits. NYGB will continue efforts to prioritize excellence in its risk and compliance methodologies and frameworks and its internal operations and procedures. NYGB's Risk & Compliance function ("Risk") works with the Investment & Portfolio Management team to develop reporting methodologies and templates that span the portfolio and highlight transaction/portfolio risks. Risk also leads NYGB's monthly and quarterly reviews to monitor performance, identify and address risks and other issues that may arise. In the 2020 –21 Plan Year, now that NYGB has developed a large investment pipeline and portfolio, Risk will be focused on ensuring process efficiency as well as identifying software tools and applications that could improve NYGB's speed and analytic accuracy (e.g., by standardizing the evaluation and shadow rating of unrated transaction counterparties, or facilitating the efficient/transparent exchange of complex progress reports and data sets with counterparties while a project is being financed). NYGB also monitors third-party vendor risk practices. For example, NYGB's third-party administrator undergoes an annual SOC 1 audit to validate the internal controls and risk mitigating procedures that safeguard NYGB's financial information;
- Streamline Business Processes: Following a comprehensive review of key business processes and systems at the end of the 2019 – 20 Plan Year, NYGB identified opportunities to leverage existing software platforms for improved origination and transaction management. During the 2020 – 21 Plan Year, NYGB will implement enhancements to its systems and will provide training for its business development, investment and portfolio management professionals in using NYGB's software platforms to streamline key processes; and
- Implement Processes and Procedures to Support NYGB's COVID-19 Crisis Response: NYGB's
  Operations & Finance team has procedures and controls in place to respond to and meet the demand of
  NYGB's borrowers during the COVID-19 crisis. NYGB's third-party administrator, SS&C, will be involved
  in modifications to NYGB's existing loans as well as in servicing new PPP loans, as applicable. NYGB
  will follow accounting guidance set forth by applicable governing bodies to ensure proper accounting for
  any loans.

As in previous years, NYGB will continue to develop standardized business-level and form legal documentation to streamline the investment process and reduce transaction costs. 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 continue to 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.

### 3.6.5.2 Managing LIBOR Transition

The United Kingdom's Financial Conduct Authority, which is responsible for regulating LIBOR, has stated that publication of LIBOR is not guaranteed after 2021. NYGB is therefore taking steps necessary to ensure that it is ready for LIBOR to become permanently unavailable as a reference rate for loans after 2021, consistent with best market practices and the recommendations of the Alternative Reference Rates Committee, a private-sector organization sponsored by the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York.

### 3.6.5.3 Staff Recruitment, Development, Diversity & Inclusion

NYGB has 35 full time employees planned for the 2020 – 21 Plan Year. Adequate staffing is a fundamental prerequisite to NYGB's ability to fully and successfully execute on this Plan during the 2020 – 21 Plan Year. At the end of the 2019 – 20 Plan Year, NYGB made key hiring offers to senior strategy, investment and portfolio management professionals. Among others, NYGB welcomes a new Managing Director and Co-Head of its Investment & Portfolio Management team, a new Managing Director responsible for Strategy, Impact & Investor Relations, and a new Director of Investment Administration & Portfolio Support. 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 remain areas of focus for the 2020 – 21 Plan Year. 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 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.

### 3.7 Plan Deliverables

Each year, NYGB identifies specific measurable activities it can execute to achieve its Plan Objectives. NYGB's 2020 – 21 Plan Deliverables are presented in <u>Table 8</u>.

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.

Category	Deliverable			
Support Post-COVID-19 Crisis Economic Recovery				
Market Engagement	<ul> <li>Develop and implement survey to understand COVID-19 impact and post-PAUSE stakeholder financing needs. Convene market participants via Webinar to communicate NYGB's specific approaches to provide liquidity to clean energy financing markets.</li> </ul>			
Liquidity Solutions	<ul> <li>Develop and implement financing structures to provide liquidity to clean energy market participants during and following the NY Forward reopening of the State's economy.</li> </ul>			
Strong and Growing Portfolio Driving Material Clean Energy Investments Across NYS				
Committed Funds	<ul> <li>Deliver at least \$225.0 million of incremental commitments in the 2020 – 21 Plan Year</li> </ul>			

### Table 8: 2020 – 21 Plan Deliverables

Category	Deliverable
- category	(at an average rate of \$56.25 million in closed transactions per quarter). <sup>70</sup>
Active Pipeline	<ul> <li>Maintain an Active Pipeline of at least \$450.0 million per quarter on average throughout the 2020 – 21 Plan Year.</li> </ul>
Clean Energy for Disadvantaged Communities	<ul> <li>Design and launch an initiative to deploy capital at scale into LMI and other disadvantaged communities including as appropriate, modified goals, metrics and investment criteria.</li> </ul>
Large-Scale Renewables	<ul> <li>Assist NYSERDA in evaluating OSW port infrastructure projects to help achieve the State's \$200.0 million goal of supporting port infrastructure investment.</li> </ul>
	<ul> <li>Coordinate outreach to awardees of the NYSERDA approved land-based renewable projects to communicate NYGB's financing approach.</li> </ul>
Energy Storage	<ul> <li>Convene tax equity providers and other lenders interested in providing capital to projects that include energy storage to explain NYGB's financing approach and demonstrate how tax equity providers could access projects.</li> </ul>
Energy Efficiency	<ul> <li>Contribute to NYSERDA's Advanced Efficiency Solutions Program's initiatives as applicable to describe NYGB's approach to financing energy efficiency projects in commercial buildings.</li> </ul>
Clean Transportation	<ul> <li>Participate in a webinar with EV100 to raise awareness of NYGB's clean transportation financing approach and outline the financing structures NYGB has developed to address the challenges associated with EV and EV infrastructure financing.</li> </ul>
Technology & Business Innovation	<ul> <li>Host a webinar in conjunction with NYSERDA's Technology to Business Innovation Program to articulate how NYGB can help finance emerging business models at the commercial deployment stage.</li> </ul>
Mobilizing Capital	in Support of CEF and CLCPA Goals
Mobilization Ratio	<ul> <li>Continue progress toward mobilizing capital into clean energy and sustainable infrastructure projects in the State through NYGB activity by the end of the CEF in 2025. Reassess original CEF \$8.0 billion capital mobilization target as part of CEF triennial review.</li> </ul>
Debt Facility	<ul> <li>Put in place a debt financing (e.g., bank facility, bond issuance or other structure) if prudent decision-making supports, taking into consideration the pace of capital commitment and the time expected to complete the debt financing, to ensure the ability to continue funding clean energy assets at the point that investments are expected to exceed NYGB's current capitalization.</li> </ul>
LMI Initiative	<ul> <li>Develop mobilization and impact goals related to dedicated commitment to transactions supporting LMI and disadvantaged communities to meet the goals of the CLCPA.</li> </ul>
Strengthening Ope	erations
Legal Services for LMI Transactions	<ul> <li>Identify approved law firms with practice groups dedicated to LMI-focused transactions.</li> </ul>
Valuation Services	<ul> <li>Evaluate and select slate of approved valuation services providers pursuant to RFP 14.</li> </ul>
Investment Proposal Submission Process	<ul> <li>Review and revise RFP 1 to clarify NYGB's investment criteria and streamline the proposal submission process.</li> </ul>

<sup>&</sup>lt;sup>70</sup> As noted in <u>Section 3</u>, the extent to which COVID-19 may impact NYGB's accomplishments, including meeting its capital deployment target, is uncertain.

# Part IV

**Glossary & Definitions** 

### 4 Glossary & Definitions

"2019 Plan" has the meaning given to that term in Section 2.

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

"2020 – 21 Plan Year" has the meaning given to that term in Section 1.1.

# Α

"Active Pipeline" has the meaning given to that term in footnote 13.

"Actual(s)" has the meaning given to that term in footnote 19.

"Additionality" has the meaning given to that term in Section 1.4.1.

"AES DE" has the meaning given to that term in <u>Table 2</u>.

"Annual" has the meaning given to that term in <u>Table 1</u>.

"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.

# В

"BAYG" has the meaning given to that term in Section 2.5.2.

"**BQ**" has the meaning given to that term in <u>Table 2</u>.

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

# С

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

"CDFIs" has the meaning given to that term in <u>Section 2.2.2</u>.

"CDG" has the meaning given to that term in Section 2.2.2.

"CEA" has the meaning given to that term in Section 3.6.2.4.

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

"CEF Dashboard" has the meaning given to that term in Section 3.6.4.2.

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

"CES" has the meaning given to that term in <u>Section 1.1</u>.

"CHP" has the meaning given to that term in <u>Table 1</u>.

"CLCPA" has the meaning given to that term in <u>Section 1.1</u>.

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

"CO2eq" has the meaning given to that term in footnote 29.

"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.

"CPC" has the meaning given to that term in Section 2.2.2.

"CRF" has the meaning given to that term in Section 2.5.1.

# D

"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.

"DOE" has the meaning given to that term in footnote 40.

"DPS" has the meaning given to that term in Section 2.2.2.

### Ε

"EEFA" has the meaning given to that term in Section 2.2.2.

"ESG" has the meaning given to that term in Section 2.2.4.

"EV" has the meaning given to that term in Section 2.2.3.

"**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

"FCA" has the meaning given to that term in Section 3.6.5.2.

"FICO" has the meaning given to that term in footnote 47.

# G

"GBN" has the meaning given to that term in Section 2.4.3.

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

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

"GJGNY" has the meaning given to that term in Section 3.6.2.4.

"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 Error! Bookmark not defined.

"Indirect Impact Metrics" has the meaning given to that term in Section 1.6.

"Initial Capitalization Order" has the meaning given to that term in footnote Error! Bookmark not defined..

"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.

"IPC" has the meaning given to that term in Section 2.2.2.

"IPPR" has the meaning given to that term in Section 3.6.4.1.

"IRC" has the meaning given to that term in Section 2.9.

"ITC" has the meaning given to that term in <u>Table 2</u>.

# Κ

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

"kW" has the meaning given to that term in Schedule 4.

# L

"LCFS" has the meaning given to that term in Section 3.6.2.6.

"LEED" has the meaning given to that term in Section 2.2.3.

"LIBOR" has the meaning given to that term in <u>Section 3.5</u>.

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

"LMI" has the meaning given to that term in Section 2.

"Lodge" has the meaning given to that term in Section 2.2.3.

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

### Μ

"Metrics Plan" has the meaning given to that term in <u>Section 1.5</u>.
"MMBtu" has the meaning given to that term in <u>footnote 14</u>.
"Mobilization Ratio" has the meaning given to that term in <u>footnote 10</u>.
"Moelis" has the meaning given to that term in <u>Section 2.2.4</u>.
"MW" has the meaning given to that term in <u>footnote 15</u>.
"MWh" has the meaning given to that term in footnote 14.

### Ν

"NECEC" has the meaning given to that term in <u>Section 2.4.1</u>.
"Net Income" means, in any period, Revenues less Expenses with a positive result.
"Nomura" has the meaning given to that term in <u>Schedule 1</u>.
"NRDC" has the meaning given to that term in <u>Section 2.2.2</u>.
"NYC" has the meaning given to that term in <u>Section 2.2.2</u>.
"NYCEEC" has the meaning given to that term in <u>Section 2.2.2</u>.
"NYCHA" has the meaning given to that term in <u>Section 2.2.2</u>.
"NYGB" has the meaning given to that term in <u>Section 2.2.2</u>.
"NYGB" has the meaning given to that term in <u>Section 1</u>.
"NY Performs" has the meaning given to that term in <u>Schedule 4</u>.
"NYSEG" has the meaning given to that term in <u>Section 1</u>.
"NYSEG" has the meaning given to that term in <u>Section 1</u>.
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### 0

"OSW" has the meaning given to that term in <u>Section 1.1</u>.

"Overall Investments to Date" has the meaning given to that term in footnote 12.

### Ρ

"PAUSE Order" has the meaning given to that term in Section 2.

"Plan Deliverables" has the meaning given to that term in Section 2.10.

"Plan Objectives" has the meaning given to that term in <u>Section 3</u>.

"**PON**" has the meaning given to that term in <u>footnote 65</u>.

"PPP" has the meaning given to that term in Section 3.1.

"Project" has the meaning given to that term in <u>Table 2</u>.

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

# 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

"RECs" has the meaning given to that term in Section 3.6.2.6.

"RES" has the meaning given to that term in Section 3.6.2.6.

"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,<sup>71</sup> 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 Section 2.2.2.

"RFI 7" has the meaning given to that term in Section 2.2.2.

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

"RFP 1" has the meaning given to that term in Section 3.6.2.5.

"**RFP 11**" has the meaning given to that term in <u>Section 2.8.2</u>.

"RFP 12" has the meaning given to that term in Section 2.8.2.

"RFP 13" has the meaning given to that term in Section 2.2.3.

"RFP 14" has the meaning given to that term in Section 2.8.2.

"RG&E" has the meaning given to that term in Table 2.

<sup>&</sup>lt;sup>71</sup> It is NYGB's practice to invest cash balances in low risk instruments.

"RGGI" has the meaning given to that term in Schedule 4.

"Risk" has the meaning given to that term in <u>Section 3.6.5.1</u>.

# S

"SBA" has the meaning given to the term in Section 3.1.

"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.

# Т

"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 footnote 26.

"True-Up" has the meaning given to that term in Figure 16.

### U

"U.S." has the meaning given to that term in Schedule 1.

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

"USGBC LI" has the meaning given to that term in Section 2.4.1.

### V

"VDER" has the meaning given to that term in <u>Table 7</u>.

# **Schedules**

1. 2019 – 20 Plan Year Investments

2. Risk Management & Oversight Framework

3. Investment Process

4. Impact Measurement & Reporting

### 2019 – 20 Plan Year Investments

Each transaction NYGB closed in the 2019 – 20 Plan Year is described in this <u>Schedule 1</u>. All descriptions are derived from information included in Transaction Profiles.

### Distributed Sun SUNEIGHT 2019 – Bridge Loan to Support the Deployment of Community Solar Projects

- Reduces GHG emissions by up to 662,556 metric tons from the underlying projects
- Generates at least 662,256 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 22.5 MW

Distributed Sun and EWT Americas Inc. are developing a portfolio of community distributed generation solar projects in NYS and requested NYGB to provide a \$1.0 million Bridge Loan to finance interconnection advance deposits to NYSEG and RG&E for such projects, due under the Commission's Standardized Interconnection Requirements and Application Process.

This transaction is expected to support up to 45.0 MW of solar assets in the State which in turn are expected to: (i) provide commercial and residential project subscribers access to reliable, clean, low-cost energy; and (ii) reduce up to 26,500 metric tons of GHG emissions annually in NYS. As there has been an increasingly strong demand for CDG solar throughout NYS, capital providers are recognizing, and will continue to recognize, the value in providing financing to enable the deployment of these projects. As a result, NYGB expects its Bridge Loan product to continue to serve as a template for capital providers to assess and replicate in the future. Capital providers are expected to increasingly recognize the value in providing financing at various phases to enable the deployment of these projects.

### Agbotic, Inc. - Supporting Deployment of Controlled Environment Agricultural Assets in NYS

- Introduces CEA to NYGB's portfolio
- Reduces GHG emissions by up to 70,504 metric tons from the underlying energy efficiency measures installed
- Reduces electricity use by at least 65,223 MWh from the underlying energy efficiency measures installed
- Achieves energy savings from fuel of up to 231,876 MMBtu over the average life of the underlying energy efficiency measures

Agbotic is a NYS based CEA agritech company that builds Smart Farms with robotic greenhouse automation to make local and organic food with an ecologically restorative model for farming. Agbotic produces a mix of specialty root crop, herb, leafy green, and industrial hemp products to distribute directly to retailers, food service companies, restaurants and consumers within a one-day delivery of its greenhouses. The company focuses on growing organic plants for healthy nutrition and in a manner that improves the environment.

NYGB's \$6.0 million construction-to-term loan facility will enable Agbotic to complete the construction of a cluster of six greenhouses and related infrastructure located in Sackets Harbor, NY. The greenhouses will grow and sell certified organic produce to businesses and retailers/grocers. The greenhouses will be equipped with various energy efficiency measures, including LED lights and heat sinks, and benefit from efficient on-site power generation.

### Ecosave Inc. – Supporting Commercial Energy Efficiency in NYS

- Reduces GHG emissions by up to 131,393 metric tons from the underlying projects
- Reduces electricity use by at least 468,110 MWh over the average life of the underlying projects

• Achieves energy savings from fuel of up to 607,640 MMBtu over the average life of the underlying projects

Ecosave is a Philadelphia-based energy services company that provides turnkey design, engineering, procurement, construction, utility management and maintenance solutions for building energy efficiency and distributed energy resources projects. NYGB established a financing relationship with Ecosave through NYGB's previous \$2.0 million participation in a construction-to-term loan for the Hebrew Home project with NYCEEC. The company opened a New York office in April 2019 with the goal of developing and completing \$30.0 million or more in energy efficiency and distributed energy resources projects in New York by 2029.

NYGB has provided a \$15.0 million term loan credit facility against receivables from energy efficiency projects completed under energy savings agreements and energy performance contracts. Ecosave is expected to use the term loan to support at least five new energy efficiency or distributed energy resources projects in New York.

### Saranac Lake Resort - Supporting Energy Efficient New Building Construction in NYS

- NYGB's first Preferred Equity investment
- Reduces GHG emissions by up to 744 metric tons from the underlying energy efficiency measures installed
- Reduces electricity use by at least 777 MWh from the underlying energy efficiency measures installed
- Achieves energy savings from fuel of up to 5,754 MMBtu over the average life of the underlying energy efficiency measures

Saranac Waterfront Lodge will be the first LEED Certified hotel in the Adirondack Park, located on the shores of Lake Flower and partially located on a former Superfund site, remediated in 2018 under the guidance of the NYS Department of Environmental Conservation. The project will incorporate energy efficiency measures including efficient HVAC equipment and insulation, advanced lighting, and improved building controls, in addition to storm water management improvements and electric vehicle charging stations.

NYGB's \$5.0 million preferred equity investment diversifies NYGB's portfolio and presents an opportunity to increase market awareness of energy efficiency in the new construction space. NYGB's investment signals to the market that NYGB capital is available to finance new construction projects pursuing energy efficiency upgrades, increasing primary building efficiency deployment in NYS. This investment also supports economic development and job creation in the downtown Saranac Lake region and demonstrates the viability of financing a sustainable new build in a tertiary market like the North Country. In addition to seasonal and part-time positions, the project is expected to create approximately 71 full-time jobs upon opening and 116 jobs from construction.

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

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

NY Green Bank provided \$50.0 million to participate in a syndicated term loan facility to a portfolio of distributed solar projects to be developed by AES DE. The financing was led by Nomura Holding Inc. AES DE is an experienced project developer, owner, and operator of renewable energy projects and is actively managing a project portfolio that consists of community solar, utility scale, and municipal solar projects. The loan proceeds are anticipated to finance 41 distributed generation solar projects in three northeastern states. The loan syndicate is expected to support 14 distributed NYS solar projects – totaling 46.1 MW or \$97.0 million in project costs. In addition, three of the projects in the AES DE portfolio currently under construction will support clean energy generation in NYS parks. This transaction is expected to provide NYS residents and businesses a greater variety of energy choices and, ultimately, lower-cost clean energy opportunities. All of these projects will be undertaken in support of corporate goals set by AES DE's parent company, AES Corp. (NYSE: AES) which aims to decrease

its carbon intensity 70% by 2030.

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

### Generate Capital – Accelerating Clean Energy Investment in NYS

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

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

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

### BQ Energy – Supporting the Deployment of Solar Projects in NYS

- Reduces GHG emissions by up to 424,978 metric tons from the underlying projects
- Generates at least 414,637 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 14.3 MW

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

### True Green Capital – Continued Support of Distributed Generation in NYS

- Reduces GHG emissions by up to 1,017,902 metric tons from the underlying projects
- Generates at least 1,933,138 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by up to 70.2 MW

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

True Green is a specialized energy infrastructure asset management firm based in Westport, CT with over 550.0 MW of solar power plants operating or under construction across the U.S. This transaction provides liquidity to a

sponsor active in the NYS community solar market. Additionally, this transaction will help NYGB continue to demonstrate the viability of distributed generation in the State, draw new investors and financial institutions into the marketplace, and lower the cost of capital related to CDG. Increased solar deployment will continue to drive activity in the State, which will help NYS meet its 6.0 GW solar target by 2025. Consumers are expected to be the ultimate beneficiaries in the form of broader access to lower-cost clean energy generation, with corresponding resiliency, affordability, choice, and environmental benefits.

# *Sunrun, Inc. – Increasing Opportunities for NY Residents to Go Solar, Expanding Market Liquidity*

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

On February 5, 2020, NYGB closed a \$10.0 million commitment to participate in a transaction facilitating the purchase of and directly secured by solar materials (panels and inverters). This transaction was part of an \$84.0 million financing arrangement by Key and ING. This facility allows Sunrun to take advantage of the IRS's safe harbor program with respect to the 2019 commercial investment tax credit, and ultimately, supports Sunrun's continued growth in NYS and nationally and its continued ability to deliver attractive economics to residential homeowners.

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

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

### Spruce Finance – Supporting Residential Solar in New York State

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

In March 2020, NYGB upsized its existing participation in the Spruce credit facility to \$40.0 MM in support of the acquisition of two residential solar portfolios totaling approximately 59.0 MW and 9,500 systems. The portfolios contain a diversified mix of seasoned assets previously financed in part by tax equity investors.

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

Since being acquired in 2017 by HPS Investment Partners, Spruce has crystalized its focus on its key business

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

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

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

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

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

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

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

In March 2020, NYGB executed a material amendment to Eden's existing bridge loan. This amendment increased the loan to \$4.3 million and allowed Eden to finance a portion of the balance of the estimated interconnection upgrade payments.

Eden Renewables is developing a portfolio of CDG solar projects in NYS and requested that NYGB provide a bridge loan to finance interconnection deposits to National Grid for such projects, due under the Public Service Commission Standardized Interconnection Requirements and Application Process.

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

### **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 <u>Schedule 2</u> 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 an investment or managing its overall portfolio. <u>Table 9</u> summarizes the key business risks to be managed by NYGB.

### Table 9: Key Business Risks

Investment Risks		Enterprise Risks	
Technology Risk	Investment Selection The risk that the technology employed in a potential investment will not function as and when intended, including to expected and necessary performance levels	Capitalization Risk	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
Operating Risk	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	Liquidity/ Balance Sheet Risk	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
Legal & Capital Structure Risk	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	Capital Deployment Risk	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
Counterparty & Credit Risk	Risk of default by a project and/or direct NYGB counterparty in a proposed investment	Execution Risk	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)
Refinancing Risk	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	Operational Risk	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
Market/Price Risk	Risk that energy prices do not sustain the investment/project as modeled and proposed over its expected life	Political Risk	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
Portfolio Management			
Non-Performance	Risk that during the course of an investment it begins to underperform and/or becomes non-performing		
Concentration Exposures	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	Reputation Risk	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
Investment Servicing & Administration	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		NYGB's ability to operate and achieve success

### 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 <u>Schedule 2</u> 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

- Structured and comprehensive due diligence for all potential investments, addressing all identified investment risk categories consistent with usual and customary commercial approaches;
- 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;
- Creating the most appropriate investment structure, including financial terms (e.g., covenants, ratios, leverage, reporting requirements, etc.) for a particular asset class;
- Implementing a comprehensive set of contractual risk mitigants (e.g., representations, warranties and covenants, indemnities, defaults, penalties, etc.);
- Adhering to internal procedures for investment decision-making, including Scoring Committee, Greenlight Committee and IRC reviews, input and respective approval processes; and
- Leveraging internal and external expertise as required to understand particular opportunity, including technical and legal.

### 3.2 Portfolio Construction

- Apply prudent diversification principles to the extent possible taking into account NYGB's marketresponsive approach, including with respect to:
  - Each investment and how it fits within NYGB's portfolio;
  - Particular clean energy sub-sectors (e.g., solar, wind, storage, efficiency, etc.);
  - Types of projects (e.g., by technology etc.);
  - Target segment representation (including end-use type commercial and industrial, residential, agricultural, etc.);
  - Specific clients and counterparties;
  - Types of product offerings; and
  - Geographic distribution;
- Identify and monitor concentration risk and exposures (e.g., companies, technologies, asset classes, products, etc.), also taking into account NYGB's market-responsive approach;
- In the context of NYGB's demand-driven approach, evaluate and revise as needed minimum and maximum indicative single investment amounts;
- Use recognized commercial benchmarks for comparable asset classes to assess NYGB relative performance once the portfolio has reached sufficient size; and
- 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

- Regular and periodic evaluation of each investment against its investment case;
- Identification of early signs of potential/actual under-performance and/or non-performance;
- Proactive management of recoveries and maximization of recovery in line with sound commercial principles; and
- Regular reporting to the IRC.

### 3.4 Organizational Risk Culture

- 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;
- Ongoing NYGB emphasis on communications, transparency and consistent updates in connection with existing investments, investment opportunities, clients, counterparties and key stakeholders;
- 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;
- 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.;
- 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;
- NYGB acquires and maintains technology to support risk functions, including appropriate software platforms and other tools for portfolio management, performance analysis and monitoring;
- NYGB has implemented and seeks to maintain effective recordkeeping and management of all documents and records pursuant to commercial and appropriate protocols;
- NYGB works with information technology personnel at NYSERDA to ensure:
  - Adequate backup and disaster recovery support; and
  - The existence of an effective system of security to protect the interests of NYGB employees, clients and counterparties;
- Financial statements are prepared quarterly (unaudited) and annually (audited) in accordance with all applicable accounting standards;
- An experienced and credible accounting firm is retained to audit NYGB financial statements annually; and
- 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:

- President & CEO of NYSERDA;
- Treasurer of NYSERDA;
- President of NYGB; and
- NYGB Managing Directors.<sup>72</sup>

<sup>&</sup>lt;sup>72</sup> Provided that no Managing Director who is responsible for the execution of a transaction being considered by the IRC will participate as a

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:

- NYGB strategy and business plans;
- Overall capital deployment plans and strategies;
- Risk management practices and framework;
- Financial and economic performance metrics and reporting;
- Key NYGB procedures;
- The Metrics Plan;
- Any other material documents required to be filed with the Commission or other State agency (including periodic reporting);
- Transaction Approval Memoranda;
- Quarterly Investment Reports;
- Proposed material waivers, amendments, restructurings and/or dispositions of existing NYGB investments; and
- 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 NYGB Investment RFPs. 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.

### 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

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.

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 <u>Figure 14</u>. 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



### **Impact Measurement & Reporting**

### 1. Annual & Lifetime Estimated Impact Benefits

Central to measuring and monitoring impact are the concepts of estimated benefits for both Annual and Lifetime durations. Annual 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.<sup>73</sup> 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. Annual 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.<sup>74</sup>

### 2. 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 <u>Schedule 3</u>), 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.

<u>Figure 15</u> illustrates the steps involved in the calculation of Annual and Lifetime metrics for a typical clean energy technology project such as PV for energy efficiency where there are expected to be direct Impact Benefits. GHG emissions estimation methodologies can vary depending on the technology type, (e.g., a building retrofit that includes the installation of more efficient lighting will be expected to reduce the energy footprint of the building; the electricity saved can be calculated and those savings can be converted into emission reductions).

<sup>&</sup>lt;sup>73</sup> All Annual 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 Annual 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 Annual 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.

<sup>&</sup>lt;sup>74</sup> 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%2 06.1%20-%20January%202019.pdf

### Figure 15: Annual & 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.<sup>75</sup>

### 3. Impact Reporting Process

Once a new investment is closed, NYGB publishes a Transaction Profile on its website.<sup>76</sup> 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.<sup>77</sup> These aggregate estimates inform all interested stakeholders of how NYGB has performed on an incremental quarterly basis and toward overall CEF goals. NYGB will include estimated indirect benefits in aggregate reporting to more fully track the catalytic effect of NYGB activity on the clean energy market in the State and 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:

- 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
- 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 annually each February.<sup>78</sup>

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,

<sup>&</sup>lt;sup>75</sup> Metrics Plan, Section 3.0, pages 6 - 8.

<sup>&</sup>lt;sup>76</sup> 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 <u>www.greenbank.ny.gov/Investments/Portfolio</u>.

<sup>&</sup>lt;sup>77</sup> Quarterly Metrics Reports and webinars can be found at <u>www.greenbank.ny.gov/Resources/Public-Filings</u> and <u>www.greenbank.ny.gov/Resources/Publications-and-Events</u>, respectively.

<sup>&</sup>lt;sup>78</sup> NYGB has reported Actuals in the Quarterly Metrics Report for the years ending December 31, 2016, 2017, 2018 and 2019. Each report is available at <u>www.greenbank.ny.gov/Resources/Public-Filings</u>.

respectively, while RGGI funds are invested by NYGB<sup>79</sup>), the "Operations and Accomplishments and Mission Statement and Performance Measurement Annual Report" (i.e., NY Performs) and other applicable State reporting requirements.

Figure 16 presents an illustrative example of the calculation of direct Impact Benefits.

#### Figure 16: 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 Annual savings are 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 Annual savings of 25,000 metric tons (i.e., 5 systems x 5,000 Annual 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 Annual 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 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.

<sup>&</sup>lt;sup>79</sup> 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.