NY Green Bank

Metrics, Reporting & Evaluation
Quarterly Report No. 33
(Through September 30, 2022)

Case 13-M-0412

11/30/2022

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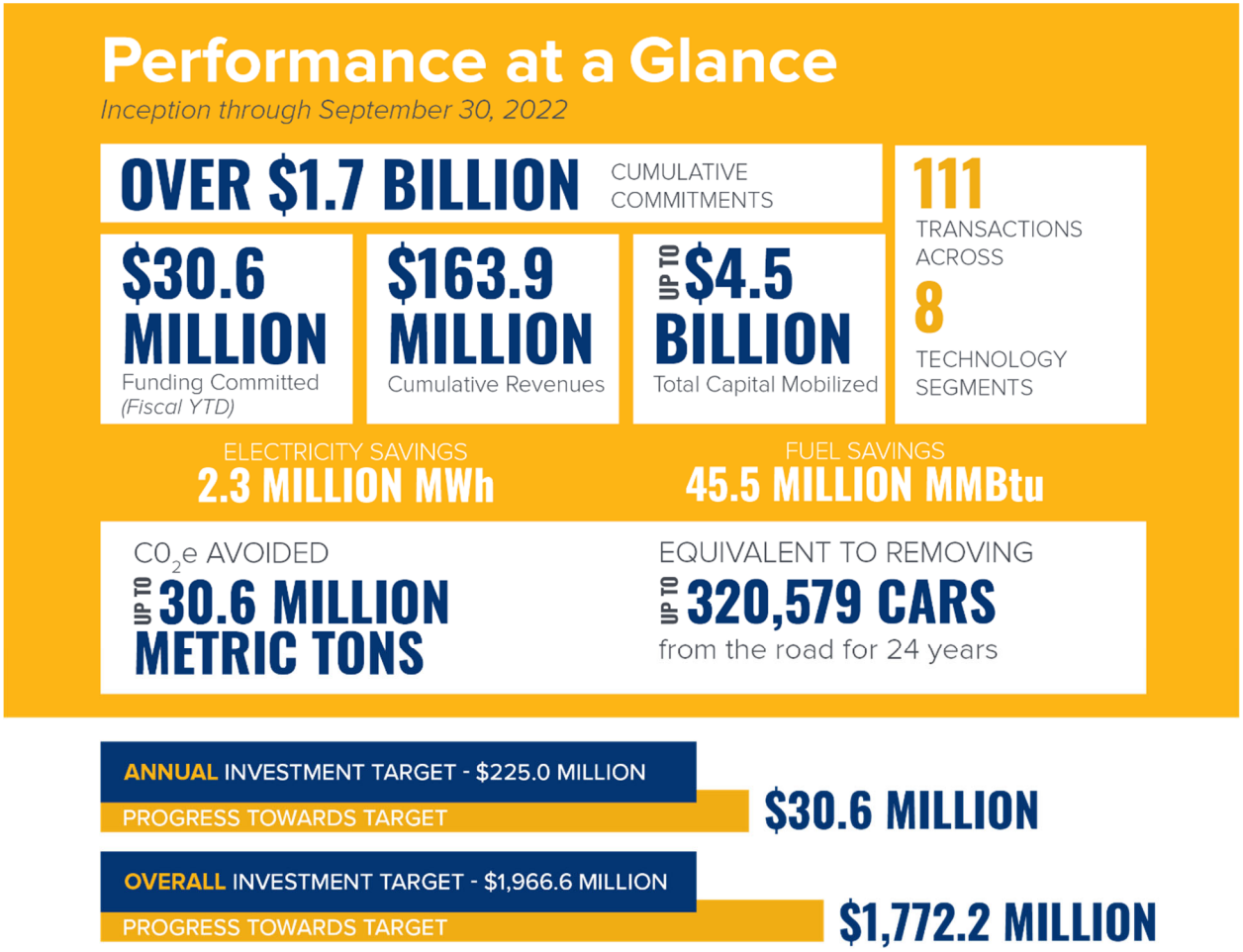
Transaction Profiles:

- Albany Hyatt (Commercial & Industrial – Energy Efficiency)
- CGE Upsize (Utility / Grid-Interconnected – Bioenergy)
- RUDARPA Upsize (Utility / Grid-Interconnected – Bioenergy)

1 Highlights[1]

During the quarter ended September 30, 2022, NY Green Bank ("**NYGB**") committed $18.1 million across three new investments.[2] Since its inception, NYGB has committed more than $1.7 billion to clean energy and sustainable infrastructure projects in New York State ("**NYS**" or the "**State**"). During the quarter, NYGB generated $10.7 million in revenue, bringing its cumulative total since inception to $163.9 million. NYGB's investments continue to mobilize capital in NYS; at quarter end its portfolio was expected to support up to $4.5 billion in project costs for clean energy and sustainable infrastructure projects.

Figure 1: Performance at a Glance[3]



[1] This Quarterly Report ("**Report**") is filed by NYGB with the NYS Public Service Commission (the "**Commission**" or the "**PSC**") pursuant to the Metrics, Reporting & Evaluation Plan developed in consultation with the Department of Public Service ("**DPS**") and filed with the Commission (the "**Metrics Plan**"). Defined terms used in the text of this Report but not separately described have the meanings respectively given to them in the Metrics Plan.

[2] The period April 1, 2022 to March 31, 2023 is referred to as the Plan Year or Fiscal Year ("**FY**") throughout this Report.

[3] Energy and emission values in *Figure 1* are presented as the sum of the lifetime benefits expected to be realized during the operating lives of all the projects supported by NYGB investments.

2 Business Update

NYGB's investment activities fall into two broad categories, which include:

(a) Transactions that have closed, which collectively comprise NYGB's Investment Portfolio, discussed in Section 2.1; and

(b) Transactions that are in process but not yet closed, which collectively comprise NYGB's Active Pipeline, discussed in Section 2.2.

2.1 Investment Portfolio Activity[4]

NYGB's Investment Portfolio was $663.7 million at quarter end. NYGB continued to provide flexible capital to active project developers, owners, service providers and manufacturers of NYS clean energy and sustainable infrastructure projects. *Table 1* summarizes investment activity during the quarter ended September 30, 2022. Transaction Profiles for the investments described in this Section 2.1 are also included in the Schedule – Transaction Profiles to this Report. Additionally, NYGB's Transaction Profiles are publicly available at www.greenbank.ny.gov/Investments/Portfolio.

Table 1: New Investments

New Transactions	Description	NYGB Commitment	Closing Date
Albany Hyatt	In August 2022, NYGB entered into a construction-to-term facility alongside C-PACE to support the construction of an all-electric hotel at a recovered brownfield site in downtown Albany.	$12.0 million	8/2/2022
CGE Upsize	In August 2022, NYGB increased its existing construction-to-term facility with CGE by $2.6 million to support a landfill gas ("LFG") to renewable natural gas ("RNG") project in Chautauqua County.	$2.6 million incremental ($21 million aggregate)	8/26/2022
RUDARPA Upsize	In September 2022, NYGB increased its existing construction-to-term facility with RUDARPA, Inc. by $3.5 million to support the first LFG-to-RNG project in Rudarpa's to-be-built portfolio of projects.	$3.5 million incremental ($33 million aggregate)	9/6/2022
Total		**$18.1 million**	

2.2 Pipeline Activity

Each proposed NYGB investment is categorized by the stage it has reached in NYGB's internal credit underwriting and transaction execution processes. *Figure 2* summarizes NYGB's overall transaction status and Active Pipeline from inception through September 30, 2022.[5] At quarter end NYGB was managing an Active Pipeline of $542.7 million.

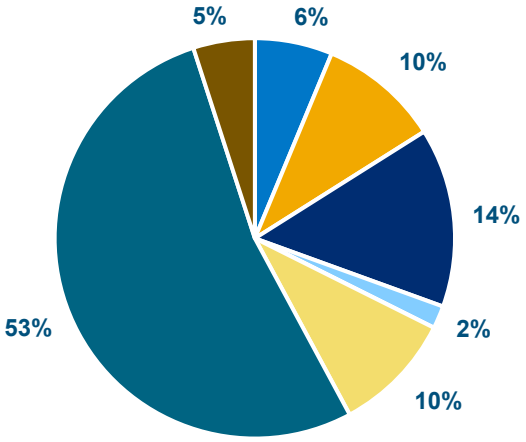
Figure 2: Cumulative Pipeline Activity

[4] 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.

[5] "**IRC**" takes the meaning Investment and Risk Committee.

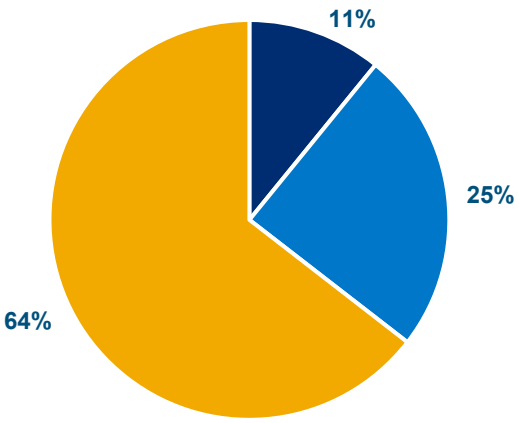
Figure 3: Distribution of Active Pipeline by Investment Stage

Figure 4: End-Use Segment Distribution of Active Pipeline
($542.7 million)



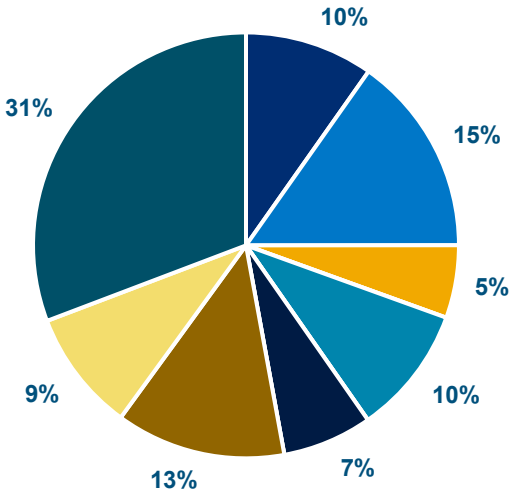
- Commercial & Industrial
- Housing
- Residential
- Transportation
- Community Distributed Generation
- Multiple End-User
- Utility-Scale/Grid Interconnected

Figure 5: Geographic Distribution of Active Pipeline
($542.7 million)



- Upstate
- Downstate
- Statewide

Figure 6: Technology Distribution of Active Pipeline
($542.7 million)



- Bioenergy
- Energy Efficiency
- Multiple Technologies
- Solar
- Clean Transportation
- Energy Storage
- Solar; Energy Storage
- Port Infrastructure

2.3 Additional Achievements and Activities

In the quarter ended September 30, 2022, in addition to those matters referenced elsewhere in this report and ongoing "business as usual" activities (e.g., origination, execution and routine outreach), NYGB's achievements include:

(a) Continuing Stakeholder Outreach and Communications:

NYGB hosted and participated in a variety of events this quarter, including:

i. On September 7, 2022, NYGB participated in the Advanced Energy Conference in New York City hosted by the Advanced Energy Research and Technology Center at Stonybrook University.

ii. On September 8, 2022, NYGB participated in ESG in Structured Financing, a conference hosted by IMN in New York City.

iii. On September 15, 2022, NYGB participated in BuildingEnergy NYC, hosted by the Northeast Sustainable Energy Association (NESEA).

iv. On September 20, 2022, NYGB participated in a green bank summit hosted by the Green Bank Network for New York Climate Week (NYCW) in New York City.

v. On September 21, 2022, NYGB attended Energy Day at the Hill, hosted by the Embassy of Denmark, in Washington, D.C.

vi. On September 21, 2022, NYGB participated in Building City Resilience, a NYCW event hosted by The Climate Group in New York City.

vii. From September 21-23, 2022, NYGB attended the Global Clean Energy Action Forum (GCEAF) hosted by the Department of Energy (DOE) in Pittsburgh, PA. Specifically, NYGB participated in the GCEAF Business Forum, hosted by the DOE Loan Programs Office.

viii. On September 22, 2022, NYGB participated in the NYCHA Electrification Summit, a NYCW event hosted by the Advanced Energy Group in New York City.

ix. On September 22, 2022, NYGB participated in the New York Municipal Investor Conference hosted by Bank of America in New York City.

x. On September 28, 2022, NYGB participated in the American Green Bank Consortium's annual green bank summit in Washington, D.C.

xi. On September 30, 2022, NYGB participated in the New York Real Estate Chamber's fall roundtable to inform members about NYGB financing options for building decarbonization in the State.

(b) Public Reporting and Metrics:

All NYGB Reporting and metrics are available at www.greenbank.ny.gov/Resources/Public-Filings.

i. Q2 Quarterly Report: On August 31, 2022, NYGB filed its Quarterly Report for the period ended June 30, 2022.

ii. Q3 Quarterly Webinar: NYGB will host its regular Quarterly Review Webinar for this Report in December 2022, including discussion of activities during the quarter ended September 30, 2022.

3 Regulatory Framework

3.1 Purpose

As a steward of considerable public capital, NYGB periodically reports its progress and performance to allow all stakeholders, including the Commission and the public, to assess NYGB's achievement of its overall mission.

3.2 NYGB Mission and Operating Principles

NYGB's mission is to work in collaboration with the private sector to transform financing markets in ways that accelerate clean energy investments to combat climate change and deliver benefits equitably to all.

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

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

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

3.3 Relationship to NYS Clean Energy Policy

NYGB contributes to the primary Clean Energy Fund ("**CEF**") objectives of GHG emissions reductions, customer bill savings, energy efficiency, clean energy generation and mobilization of private sector capital.[6] In turn, the CEF objectives support the State's clean energy targets, including under the Green New Deal, which mandates a significant increase in the State's Clean Energy Standard ("**CES**") with a goal of 70% energy generation from renewable sources by 2030 and 100% carbon-free electricity by 2040.[7] The CEF objectives also support the Climate Leadership and Community Protection Act of 2019 (the "**Climate Act**"),[8] which puts NYS on a road to economy-wide carbon neutrality, through a target of reducing GHG emissions from all anthropogenic sources 85% over 1990 levels by the year 2050, a plan to offset remaining emissions, and an interim mandate of 40% GHG emission reductions by 2030.[9] Additionally, the Climate Act required a Climate Action Council be formed and policy roadmap developed

[6] As set out in the CEF Order (Cases 14-M-0094 etc.) issued and effective on January 21, 2016, page 40.
[7] Announced in the 2019 State of the State.
See www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/2019StateoftheStateBook.pdf.
[8] Senate Bill S6599 was signed into law on July 18, 2019. See legislation.nysenate.gov/pdf/bills/2019/a8429.
[9] The Climate Act codified and expanded New York's Green New Deal and other nation-leading clean energy and climate targets for the State, including: (a) 9,000 MW of offshore wind by 2035; (b) 6,000 MW of distributed solar deployment by 2025; (c) 3,000 MW of energy storage deployment by 2030; (d) more than doubling new large-scale land-based wind and solar resources through the CES; (e) maximizing the contributions and potential of New York's existing renewable resources; (f) expanding and enhancing the Solar For All Program to increase access to affordable and clean energy for low-income, environmental justice and other underserved communities; and (g) initiatives to achieve carbon neutral building stock statewide, including through the energy efficiency target to reduce energy consumption by 185 trillion Btus below forecasted energy use in 2025. In 2022, Governor Hochul doubled the 2030 energy storage target, increasing the deployment total from 3,000 MW to 6,000 MW. Additionally, Governor Hochul increased the distributed solar target by 4,000 MW, moving the target from 6,000 MW to 10,000 MW, while extending the achievement year from 2025 to 2030.

to ensure that at least 35%, with a target of 40%, 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.

4 Tables

4.1 Quarterly Metrics[10]

NYGB monitors its counterparties' clean energy project installations throughout the duration of each investment through the receipt and review of periodic reports and by applying updated impact benefit calculation factors advised by DPS. Based on information received, NYGB regularly assesses the actual and expected energy and environmental impact benefits across its portfolio. As new information becomes available informing NYGB of NYS market uptake of clean energy projects, NYGB may correspondingly adjust (up or down) the overall portfolio's high and low estimated Total Project Costs and energy and environmental metrics (identified at closing of each investment and reflected in Transaction Profiles). Consistently monitoring and refining expected outcomes improves the accuracy of NYGB's portfolio-level estimate of impact benefits as it works toward meeting the CEF objectives to support the State's clean energy goals. Given such periodic adjustments, the aggregate estimated benefits reported in Quarterly Reports are the most up-to-date estimates (and no longer reflect the sum of the low and high estimated benefits specified in the Transaction Profiles at the time of each transaction close).

Table 2 presents required metrics for the period July 1, 2022 through September 30, 2022 and the previous quarter ended June 30, 2022.

Table 2: Quarterly Metrics

Quarterly Metric	Quarter Ended June 30, 2022	Quarter Ended September 30, 2022
Capital Position		
Authorized Capital ($)	$1.0 billion	$1.0 billion
Authorized Administrative Expenses ($)	$17.6 million	$17.6 million
Authorized Evaluation Expenses ($)	$4.0 million	$4.0 million
Operational Matters		
Cumulative Revenues ($)[11]	$153.2 million	$163.9 million
Cumulative Operating Expenses ($)[12]	$77.8 million	$81.5 million
Direct Operating Expenses ($)	$48.9 million	$51.4 million
Allocated Expenses ($)	$28.9 million	$30.1 million
Investment Portfolio		
Undrawn Committed Funds ($)	$165.6 million	$135.0 million
Deployed Funds ($)[13]	$527.4 million	$528.7 million
Current Portfolio ($)[14]	$693.1 million	$663.7 million

[10] Regular reporting of energy and environmental benefits are inclusive of all transactions that receive NYGB funding, regardless of whether these transactions also receive support from ratepayer or other programs. In terms of assessing the extent of overlap and common benefits, NYSERDA will modify intake information received on incentive programs to determine whether NYGB capital is involved for incentive program customers. Evaluation sampling of NYGB clients will also seek to identify transactions that involve funding from both within and outside of NYGB, including other ratepayer-funded programs to the extent possible. These two sources of information will allow NYSERDA to estimate a reasonable overlap value for energy and environmental benefits so they are not double-counted when NYGB impacts are included in CEF or other NYS clean energy program results.

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

[12] Cumulative Operating Expenses currently include $809,294 in evaluation expenses.

[13] Deployed Funds as presented in *Table 2* are net of all capital repaid to the reporting date.

[14] Current Portfolio, means, at any time, the sum of Committed Funds and Deployed Funds and represents the dollar value of the Investment Portfolio. The dollar value of the Current Portfolio is expected to fluctuate from quarter to quarter, including to reflect any increases or decreases in Committed Funds and/or Deployed Funds. Committed Funds increase when new transactions are executed with commitments that have not yet been funded, and/or in connection with existing transactions, where repaid

Quarterly Metric	Quarter Ended June 30, 2022	Quarter Ended September 30, 2022
Investment Pipeline		
Active Pipeline (In the Quarter) ($)	$525.8 million	$542.7 million
Investment Process		
Proposals and Approvals		
Proposals Received – Value (Cumulative) ($)	$5.8 billion	$5.9 billion
Approvals - Scoring Committee (Cumulative) ($)	$5.2 billion	$5.4 billion
Approvals - Greenlight Committee (Cumulative) ($)	$2.6 billion	$2.6 billion
Approvals - IRC (Cumulative) ($)	$1.8 billion	$1.8 billion
Investment Characteristics		
Overall Investments to Date ($)	$1.7 billion	$1.7 billion
Total Project Costs (Cumulative) ($) [15]	In the range of $3.5 billion to $4.5 billion	In the range of $3.5 billion to $4.5 billion
Mobilization Ratio	Tracking at least 3.5:1 on average across portfolio	Tracking at least 3.5:1 on average across portfolio
Portfolio Concentrations (%) [16]	See Figure 11	See Figure 11
Number & Type of NYGB Investments	See Table 3	See Table 3
Number & General Type of NYGB Counterparties [17]	77 – Financial Services, Industry or Other	78 – Financial Services, Industry or Other
Public Commitments		
Percentage of Commitments Benefitting Disadvantaged Communities (%) [18]	19%	20%
$200 million toward energy storage-related investments (%)	24%	24%
$150 million for clean energy improvements in affordable housing properties (%)	12%	12%
$100 million in financing to help clean transportation businesses locate or expand in New York (%)	0%	0%
Up to $100 million in support of port infrastructure projects (%)	0%	0%

amounts may be available to be redrawn pursuant to the terms of investment agreements. Deployed Funds increase where the total dollars funded into investments exceed amounts repaid in the same period. Decreases in Committed Funds occur, for example, in connection with the release of undrawn funds at the end of an availability period or otherwise consistent with the terms of an investment, while decreases in Deployed Funds occur primarily when NYGB investments are repaid from time to time, allowing those monies to be recycled into new clean energy investments in the State, generating further benefits for ratepayers. Note that due to rounding for the purposes of presentation in this Report, the sum of Committed Funds and Deployed Funds may not be identical to Current Portfolio. In addition, Current Portfolio is always stated net of any portfolio losses.

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

[16] Based on executed transactions and reflecting dollar values invested by NYGB in renewable energy and energy efficiency transactions, each as a proportion of the Current Portfolio, the sum of Committed Funds and Deployed Funds and represents the dollar value of the Investment Portfolio.

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

[18] NYGB's goal is to commit at least 35% of capital to projects benefitting DACs from January 1, 2020 to the end of the CEF period.

Figure 7: Cumulative Investments, Current Portfolio & Current Deployed Funds ($MM)

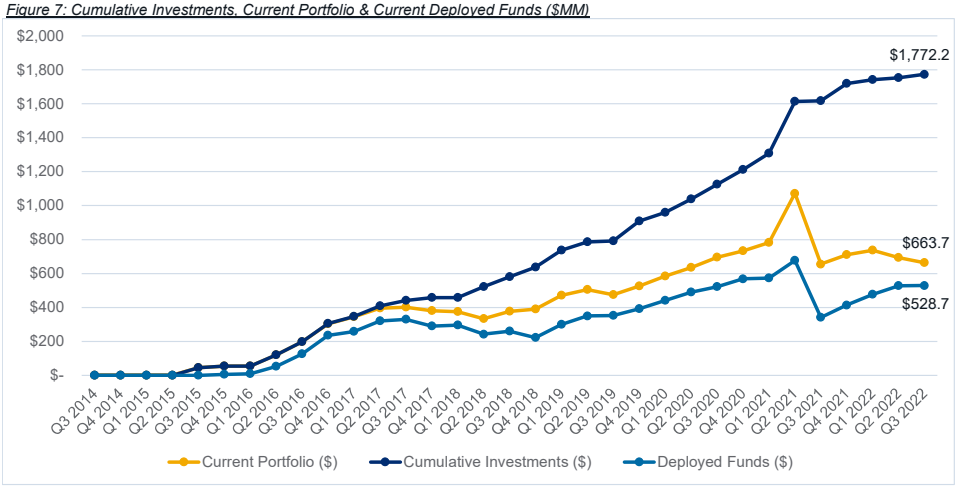


Figure 8: NYGB Pipeline of Proposals & Approvals ($MM)

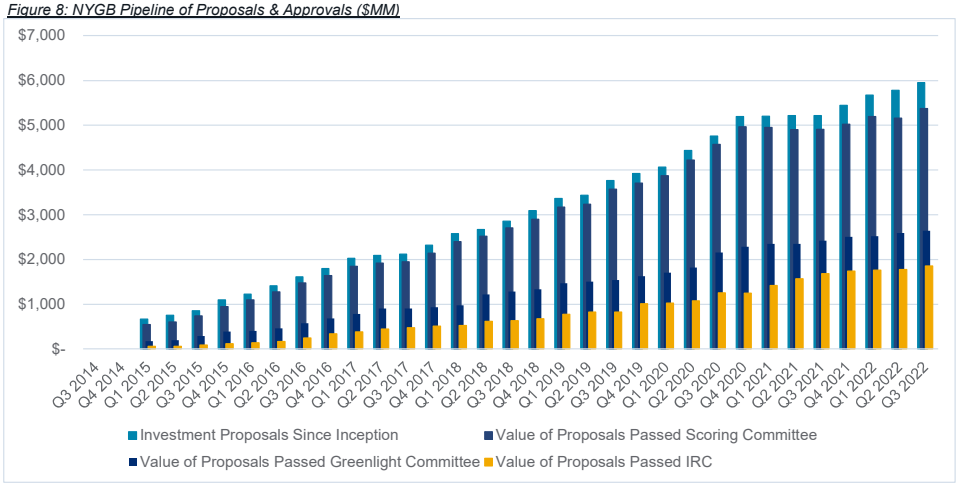


Figure 9: Cumulative Revenues vs. Expenses ($MM)

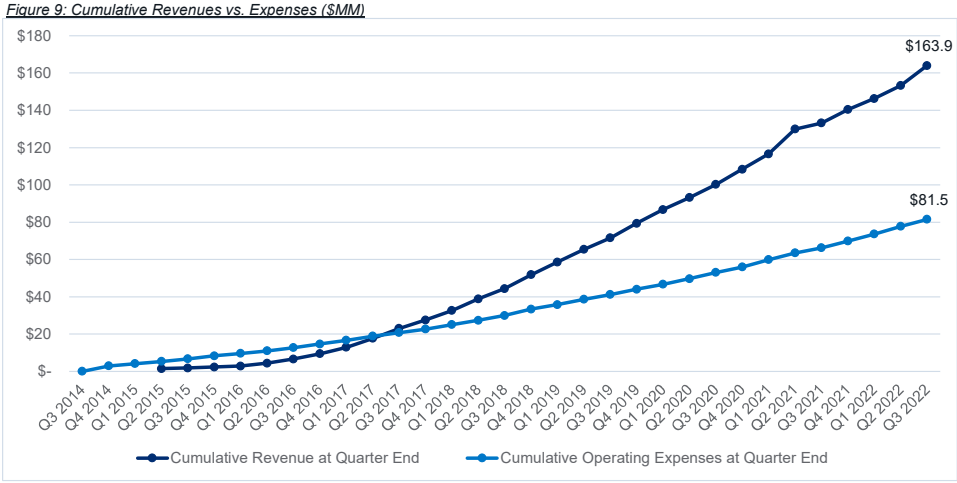


Figure 10: Quarterly Revenues vs. Expenses ($MM)

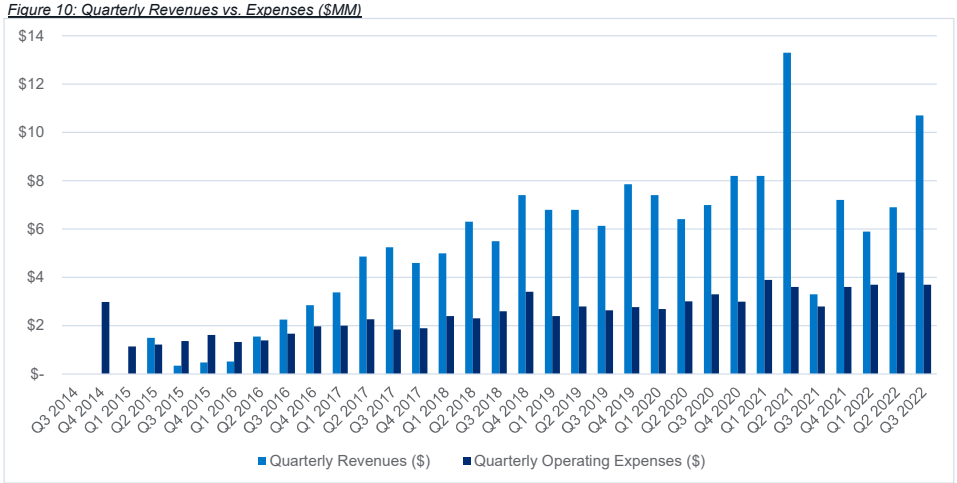
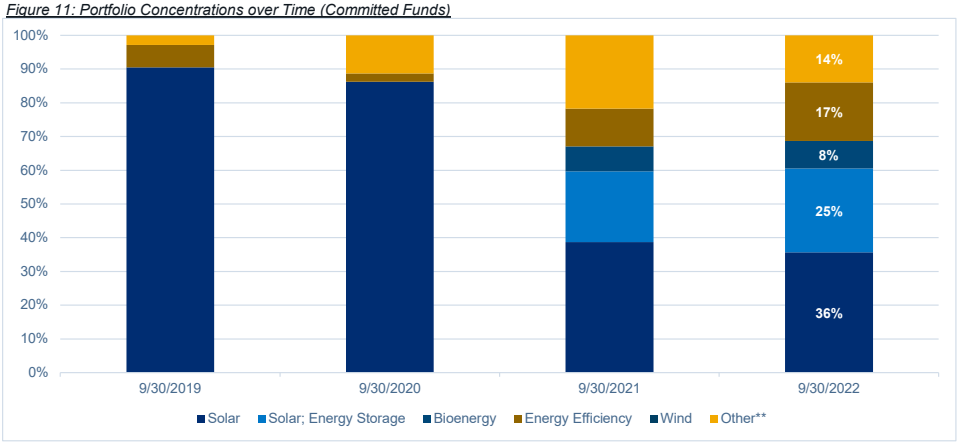


Figure 11: Portfolio Concentrations over Time (Committed Funds)



**Other includes Fuel Cell and Sustainable Agriculture.

Table 3: Number and Type of NYGB Investments Since Inception

Technology	Count	Percentage
Bioenergy	4	4%
Energy Efficiency	20	18%
Multiple Technologies	9	8%
Other**	12	11%
Solar	59	53%
Sustainable Transportation	2	2%
Wind	5	5%

**Other includes Fuel Cell and Sustainable Agriculture.

4.3 Direct and Indirect Metrics Benefits

NYGB's activities have the potential to generate both direct and indirect impact benefits for NYS residents. While the Metrics Plan was designed with an initial focus on direct impact benefits, NYGB differentiates between Direct and Indirect Impact Metrics, tracking both to more comprehensively quantify the estimated impact of each NYGB investment on the NYS clean energy and sustainable infrastructure market. This is consistent with the CEF Order, which specifically recognizes the importance of catalyzing markets and generating indirect benefits as part of CEF initiatives, including over longer time horizons.[19]

The quantification of indirect impact benefits is intended to capture the market transformational effects of NYGB investment activity. Many other CEF initiatives also anticipate accruing indirect benefits related to longer-term effects from follow-on market activity. These indirect impacts are grounded in a theory of change developed for each initiative, and NYSERDA will use market evaluation approaches, consistent with the rest of the CEF, to verify the indirect impacts as they accrue. Estimated indirect benefits are reflected in NYGB progress reporting, in general and toward meeting NYGB's CEF goals. The realization and evaluation of NYGB indirect benefits over time will also be reflected in periodic reporting as appropriate. Both direct and indirect metrics contribute to the reduction of GHGs in the State from NYGB activity.

For NYGB, Direct and Indirect Impact Metrics are further defined as follows:

(a) *Direct Impact Metrics:* Direct Impact Metrics quantify the estimated impact of a counterparty's project development or business-building activity. The types of Direct Impact Metrics that NYGB tracks are those outlined in the Metrics Plan (and publicly reported quarterly), in aggregate on a path to achieving the impact benefit objectives by the end of the CEF in December 2025. Benefits are tracked on an estimated and actual basis (with actuals reported annually for NYGB's Investment Portfolio in each calendar year). NYGB investments typically involve terms that limit or incentivize the use of NYGB investment proceeds to new or incremental project development in NYS.

(b) *Indirect Impact Metrics:* Indirect Impact Metrics seek to measure the effect of NYGB investment for projects, pipelines, or other counterparty structures that wholly or in part catalyze other developments in the clean energy and sustainable infrastructure market beyond that in which NYGB directly invests (e.g., providing liquidity in the secondary markets and in relation to large-scale renewables with merchant exposure). While NYGB investments might not fund new project development, material indirect benefits are nevertheless expected to accrue to the State over time as a result of this type of NYGB activity. NYGB tracks such estimated benefits (which can be in MWs, MWh, MMBtus, or metric tons of GHG reduced/avoided) on a lifetime basis. The realization of indirect impact benefits is expected over time. To confirm the nature and extent of indirect impact benefits that are in fact realized by the State, periodic market assessments will occur as needed to verify that new development activity has in fact happened, validating NYGB's estimated indirect impact benefits.

[19] 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 toward market development, while they have the potential to create the greatest benefits for ratepayers in the long run, will have more indirect and less easily calculated clean energy benefits as compared to resource acquisition programs. We require NYSERDA to take a broad view of these indirect benefits when considering whether an initiative is eligible for CEF funding and to also take into account other benefits of the initiative, including its contribution to all of the CEF goals and its economic development benefits. Funding market-based projects with an indirect impact on clean energy is wholly consistent with the Commission's historic approach to clean energy programs. For example, the Commission approved workforce development programs, designed to achieve both indirect clean energy benefits and economic development benefits, as part of both [the energy efficiency performance standard] and [the renewable portfolio standard]. Holistic consideration of these benefits will best support the SEP, the goals described in the New York State Energy Law, and the interests of ratepayers".

Table 4: Estimated Energy & Environmental Benefits

Quarterly Metric	Quarter Ended June 30, 2022	Quarter Ended September 30, 2022
Direct Impact Benefits[20]		
Lifetime		
Total Energy Savings (MMBtu equivalent)	Up to 33,361,000 MMBtu	Up to 33,403,000 MMBtu
Electricity Savings (MWh)	2,093,000 - 2,296,000 MWh	2,093,000 - 2,296,000 MWh
Natural Gas Fuel Savings (MMBtu)	30.4 - 45.4 million MMBtu	30.5 - 45.5 million MMBtu
Other Fuel Savings (MMBtu)	0 MMBtu	0 MMBtu
Distributed Solar Capacity (Renewable MW)	1,064 - 1,400 MW	1,064 - 1,400 MW
Annual		
Total Energy Savings (MMBtu equivalent)	Up to 1,432,000 MMBtu	Up to 1,434,000 MMBtu
Electricity Savings (MWh)	188,000 - 204,000 MWh	188,000 - 204,000 MWh
Natural Gas Fuel Savings (MMBtu)	1,878,000 - 2,734,000 MMBtu	1,879,000 - 2,736,000 MMBtu
Other Fuel Savings (MMBtu)	0 MMBtu	0 MMBtu
Indirect Impact Benefits[21]		
Lifetime		
Total Energy Savings (MMBtu equivalent)	0 MMBtu	0 MMBtu
Electricity Savings (MWh)	0 MWh	0 MWh
Natural Gas Fuel Savings (MMBtu)	0 MMBtu	0 MMBtu
Other Fuel Savings (MMBtu)	0 MMBtu	0 MMBtu
Distributed Solar Capacity (Renewable MW)	9 - 26 MW	9 - 26 MW
Annual		
Total Energy Savings (MMBtu equivalent)	0 MMBtu	0 MMBtu
Electricity Savings (MWh)	0 MWh	0 MWh
Natural Gas Fuel Savings (MMBtu)	0 MMBtu	0 MMBtu
Other Fuel Savings (MMBtu)	0 MMBtu	0 MMBtu
Lifetime Emission Reductions		
Direct (metric tons CO_{2e})	18.8 - 26.1 million metric tons	18.8 - 26.1 million metric tons
Indirect (metric tons CO_{2e})	2.2 - 4.5 million metric tons	2.2 - 4.5 million metric tons

5 Progress Against Plan Deliverables

In its Annual Plan 2022 – 2023, filed on July 1, 2022, NYGB identified deliverables (the "**Plan Deliverables**") that collectively mark its progress toward key initiatives in the period April 1, 2022 through March 31, 2023.

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

Table 5 summarizes NYGB's performance against the Plan Deliverables as of September 30, 2022.

[20] For Committed and Deployed Funds.

[21] NYGB reports and tracks indirect impact benefits to reflect the contribution to NYS clean energy goals made by NYGB activities and related incremental value for all NYS consumers.

Table 5: Plan Deliverables

OBJECTIVE CATEGORY	DELIVERABLE	PROGRESS
IDENTIFY AND CLOSE FUNDING GAPS IN ALIGNMENT WITH STATE POLICIES AND PUBLIC COMMITMENTS		
Financing Solutions to Support Disadvantaged Communities	Develop and launch the Community Decarbonization Fund ("CDF"), a concessionary wholesale funding pathway to support financiers in making sustainable infrastructure and decarbonization investments in DACs	☑ **Ongoing and On-track:** NYGB onboarded a third-party consultant to conduct a market assessment to identify financing gaps the CDF can fill. This third-party will ultimately support the design of the CDF. This engagement began in September 2022.
	Simplify existing RFP 18 to reduce the time and cost to affordable housing sponsors seeking NYGB financing	☑ **Ongoing and On-track:** NYGB has reviewed RFP 18 and responses received to date to identify opportunities to streamline. NYGB is working to develop and publish a template response to reduce the time it takes to fill out a proposal.
	Reduce administrative burden for counterparties from DACs, and those seeking to develop or finance such projects	☑ **Ongoing and On-track:** NYGB is working toward addressing specific administrative items identified during its Stakeholder Engagement process.
	Engage directly with service providers (e.g., legal, independent engineers, etc.) with market knowledge and experience within DACs	☑ **Ongoing and On-track:** NYGB is working to develop a database of service providers with market knowledge and experience working within disadvantaged communities to understand where costs or administrative tasks may be reduced or streamlined to support a less cumbersome and expensive underwriting process.
Targeted Business Development	Update business development outreach strategy and materials to reflect NYGB's latest and most informed approaches to supporting all technology segments, and particularly priority areas of clean transportation, energy storage, building electrification and affordable housing	☑ **Ongoing and On-track:** NYGB's business development function continues its integration within the investment team. Ongoing outreach efforts across technology segments are resulting in a strong Active Pipeline.
Enhanced Communications Channels	Implement enhancements to NYGB's web site	☑ **Ongoing and On-track:** NYGB kicked off website redesign and broad scope of work with web team. Routine updates and improvements were made to team page and transaction profiles.
	Develop and implement comprehensive marketing and communications plan to stimulate additional awareness and drive transaction volume	☑ **Ongoing and On-track:** NYGB onboarded a third-party marketing agency to develop a comprehensive marketing and communications plan for NYGB. This engagement kicked off in September 2022.
	Advance ongoing efforts to engage with, and build on feedback from, key stakeholders to establish trust and identify actionable investment opportunities	☑ **Ongoing and On-track:** NYGB team led a series of stakeholder engagement discussions with environmental justice groups across New York State to update them on NYGB's activity in lending to disadvantaged communities and gather feedback on NYGB's financing solutions to support disadvantaged communities.
Committed Funds	Deliver at least $225.0 MM of incremental commitments in the Current Plan Year with a focus on advancing NYGB progress against public commitment goals in clean transportation, energy storage, building electrification and affordable housing	☑ **Ongoing and On-track:** NYGB committed $18.1MM during the quarter, for a total of $30.6MM year-to-date. Even though commitments during the first half of the fiscal year were low, NYGB is managing a strong active pipeline and expects to reach its $225MM annual goal.
MOBILIZE CAPITAL: STRENGTHEN NYGB'S CAPITAL POSITION		
Portfolio Monetization	Evaluate and recommend pathways for additional portfolio monetization(s) to enhance and optimize liquidity	☑ **Achieved for the Plan Year:** Under RFP 21, NYGB approved more than ten qualifying parties into the eligible purchaser pool for potential NYGB loan sales.
Mobilize Capital	Identify opportunities to crowd private sector capital providers into NYGB-led transactions and/or opportunities for NYGB to invest alongside private sector-led transactions in priority market segments	☑ **Ongoing and On-track:** During the quarter, NYGB closed its second loan alongside PACE financing. Projects receiving PACE financing frequently struggle to secure a mortgage lender to provide the remainder of the capital stack. By being willing to step into this role, NYGB demonstrates to conventional mortgage lenders the viability of the financing structure.
CONTINUOUSLY IMPROVE AND ENHANCE NYGB OPERATIONS AND PORTFOLIO MANAGEMENT		
Risk and Impact Monitoring and Reporting	Enhance NYGB's risk evaluation processes by incorporating expanded ESG and resiliency considerations into NYGB's underwriting and portfolio management processes	☑ **Ongoing and On-track:** NYGB developed a detailed scope of work and RFP development is underway to identify a third-party to assess NYGB's portfolio from a climate risk perspective.

OBJECTIVE CATEGORY	DELIVERABLE	PROGRESS
	Update Metrics Plan to reflect management and disclosure of DAC progress	☑ **Ongoing and On-track:** NYGB continues to monitor the criteria being developed by the Climate Justice Working Group to ensure NYGB accurately presents the benefits that its investments provide to frontline and otherwise underserved communities.
Operational Excellence	Issue RFP for third-party fund administration	☑ **Achieved for the Plan Year:** RFP was issued, and a third-party fund administrator was selected by a scoring committee.
	Manage smooth transition of Active Pipeline and Current Portfolio from LIBOR to SOFR reference rate	☑ **Achieved for the Plan Year:** NYGB managed the transition of many deals within its Active Pipeline and Current Portfolio from LIBOR to SOFR. NYGB will continue to manage SOFR transitions moving forward.
	Identify and implement process improvements to enhanced efficiency and productivity	☑ **Ongoing and On-track:** NYGB reorganized its Strategy, Impact, and Investor Relations ("SIIR") team into three separate groups during the quarter to streamline deliverables and allow for deeper focus on priority areas.

Schedule – Transaction Profiles

As required by the Metrics Plan, Transaction Profiles for each of the transactions closed during the quarter to which this Report relates are attached.

TRANSACTION PROFILE

November 2022

Construction-to-term loan alongside C-PACE to support the construction of an all-electric hotel

Hyatt Place Albany Downtown

*In August 2022, NY Green Bank ("**NYGB**") provided a $12.0 million construction-to-term loan to Pioneer Management Group, alongside C-PACE lender Greenworks. Pioneer Management Group will use NYGB's facility to finance the construction and operation of 705 Broadway Hotel, a fully electrified Hyatt-branded hotel located in an Albany Opportunity Zone.*

Transaction Description

NYGB's facility will finance the construction and operation of a fully electrified, 110-key Hyatt Place in Albany, NY, signaling to the current construction lending environment that Carbon Neutral-ready[1] design hotels are financeable. The full electrification represents a higher standard of decarbonization than previously considered before NYGB's entrance into the Project. This transaction represents NYGB's first transaction alongside Greenworks, a noted C-PACE Lender, and demonstrates senior lender comfort with C-PACE financing with a hotel franchise.

This Transaction Profile is provided pursuant to the updated NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.1 (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on May 2, 2022.[2] This Transaction Profile contains specific information in connection with the Albany Hyatt transaction entered into in August 2022, as required by the Metrics Plan.[3]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Construction-to-Term Loan	$12.0 million

Location(s) of Underlying Project(s)

Upstate. The Project is located in Albany, NY.

[1] In accordance with NYSERDA, a project that excludes all fossil fuels from the building systems and equipment qualifies as Carbon Neutral-ready. Building systems and equipment at a minimum refers to building heating, ventilating and air conditioning (HVAC), domestic hot water (DHW), kitchen, laundry, and other appliances. Projects that rely on a fossil fuel-fired generator for emergency use only, or projects which are served by an off-site fossil fuel-fired central heating plant, may at NYSERDA's sole discretion qualify as Carbon Neutral-ready if fossil fuel use is excluded from all other building systems and equipment. NYSERDA, at its sole discretion, will consider exemptions to the carbon neutral rule for process and other unregulated loads on the site on a case-by-case basis.

[2] Case 13-M-0412.

[3] See Section 4.0 at page 8 - 9 and Schedule 3.

Types of Organizations that are Transaction Participants

	Name	Participant Type
Counterparty	Pioneer Management Group	Project Borrower
Counterparty	Greenworks	C-PACE Lender

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Owners and developers	Owners and developers of New Construction projects are not always able to secure appropriately priced capital based on projected energy savings and cost-benefit analysis.	NYGB's facility demonstrates senior lender comfort in investing in all-electric, new building projects with C-PACE financing.

Technologies Involved

Technology	Measures
Energy Efficiency / Building Decarbonization	E.g., High performance building envelope; lighting; HVAC system; hot water system, etc.

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to greenhouse gas ("**GHG**") emission reductions in support of New York's energy policies".[4] In addition, the Metrics Plan requires that the following energy and environmental measures applicable to this transaction be reported:[5]

- Estimated lifetime and annual total energy savings (MMBtu equivalent)
- Estimated lifetime and annual natural gas fuel savings (MMBtu)

The estimated gross lifetime and annual energy and environmental impacts of the investment are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	Annual Low Estimate	Annual High Estimate
Estimated total energy savings (MMBtu equivalent)	1,784	1,784	42,827	42,827
Estimated natural gas fuel savings (MMBtu)	Same as above			
Estimated GHG emission reductions (metric tons)	95	95	2,273	2,273

[4] Case 13-M-0412, "Order Establishing New York Green Bank and Providing Initial Capitalization" issued and effective December 19, 2013 of the Commission, Ordering Clause 6 at pages 24 – 25.
[5] See Metrics Plan, Section 2.0 at pages 2 - 6.

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occur when a critical mass of NYGB financing and investment arrangements are in place. Market evaluation activities commenced in 2018 on sectors that NYGB has supported since inception, consistent with the requirement for such assessments approximately three to five years following initial NYGB capital deployments.[6] NYSERDA collected baseline data for the NYGB portfolio in 2019 and will update the data to include indicators specific to this transaction. NYSERDA will use baseline data collected for indicators as a comparison point against which to assess market progress in later studies. Progress indicators are defined below for the short, medium and long terms.

NYGB expects that program and/or future market evaluation will demonstrate progress across short-term indicators, including:

- Size and location of projects financed by the investment;
- Aggregate expected energy savings for projects financed by the investment.

NYGB expects that program tracking and/or future market evaluation will demonstrate progress across medium- and long-term indicators, including:

- Increase in market volume of energy efficient new construction;
- Increase in general understanding of energy efficient new construction project benefits by the financial community;
- Increase in general understanding of lending alongside PACE financing by financial community;
- Increased awareness and use of energy efficiency investment performance data by financing entities;
- Demonstration of competitive risk-return profiles for energy efficient properties;
- Decreased operating costs of energy efficient properties; and
- Increased number of new lending participants.

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

NYSERDA will evaluate the impact this transaction has had on the clean energy finance markets and the energy/environmental benefits it delivers.

Market evaluation will assess the short, medium and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants (e.g., financial community) to track information including but not limited to: project scale information and influence of NYGB's participation on financial markets. As noted, NYSERDA collected baseline data on key indicators in its first phase evaluation during 2018 – 19. Later follow-up studies will assess progress against baseline levels for other market segments as those evolve. The specific timing of these efforts may be revised based on experience or other factors as NYGB's investment portfolio further develops and evolves.

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

In accordance with the Metrics Plan, NYGB will track Hyatt projects that receive incentives or funding from other entities (e.g., utility, other NYSERDA programs) to minimize any double-counting activity on a consolidated basis. As set out in the Metrics Plan, evaluation sampling approaches will also be used as a mechanism to estimate overlap and minimize double counting. NYSERDA and NYGB will attempt to coordinate market and impact evaluation activities for projects that receive support from multiple sources in order to maximize the efficiency of data collection and avoid participant survey fatigue.

[6] See Metrics Plan, Section 3.3 at page 7 - 8.

TRANSACTION PROFILE

Revised November 2022

Renewable Natural Gas Project in Chautauqua County, New York

Chautauqua Green Energy, LLC

*In January 2021, NY Green Bank ("**NYGB**") provided an up to $17.4 million construction-to-term loan and $1.0 million letter of credit to Chautauqua Green Energy, LLC ("**CGE**"), a subsidiary of CGE Ventures, LLC a joint venture of Vireo Energy, LLC, Emkey Gathering, LLC and Sumiya Investment Management. In August 2022, NYGB increased its investment by $2.6 million. Loan proceeds will be used to secure long-term rights to landfill gas at the Chautauqua Landfill in Jamestown, NY (the "**Landfill**") and construct improvements at the Landfill that will upgrade the gas for transportation and sale as renewable natural gas ("**RNG**").*

Transaction Description

Construction-to-Term Loan Facility

In January 2021, NYGB entered into an agreement with CGE to provide an up to $17.4 million construction-to-term loan and $1.0 million letter of credit to CGE to secure long-term rights to landfill gas at the Chautauqua Landfill in Jamestown, NY and construct improvements at the Landfill that will upgrade the gas for transportation and sale as renewable natural gas (the "**Project**"). CGE was approved by the New York State Public Service Commission (the "**Commission**") to own and operate a seventy-mile natural gas pipeline, and will construct, own, and operate a three-mile pipeline connecting the project to the Little Valley Pipeline. Through the pipelines, the Project will connect to the interstate pipeline grid for delivery and sale of the RNG. In August 2022, NYGB increased its investment by $2.6 million, bringing the total facility to $21.0 million.

This transaction demonstrates NYGB's commitment to renewable natural gas and is NYGB's first financing of a landfill gas project. This Project will help reduce landfill emissions, which account for 5% of greenhouse gas ("**GHG**") emissions in New York State ("**NYS**"), by capturing and processing methane, NYGB's investment will demonstrate the viability of landfill gas projects in NYS and serve as a catalyst for future financings of this sector.

This Transaction Profile is provided pursuant to the updated NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.1 (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on May 2, 2022.[1] This Transaction Profile contains specific information in connection with the CGE transaction entered into in January 2021, as required by the Metrics Plan.[2]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Construction-to-Term Loan and Letter of Credit	$21.0 million

[1] Case 13-M-0412.

[2] See Section 4.0 at page 8 - 9 and Schedule 3.

Location(s) of Underlying Project(s)

Western New York. The project is located in Jamestown, NY.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Counterparty	CGE Ventures, LLC	Sponsor
Counterparty	Chautauqua Green Energy, LLC	Borrower
Participant	Chautauqua County	Landfill Owner

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
LFG-to-RNG Developers	Efficient construction-to-term financing is necessary for developers' project deployment efforts. Additionally, financing post-construction can be an inefficient use of sponsor equity that limits the pace and scale of new project deployment efforts in NYS.	This transaction encourages efficient use of capital and supports project development efforts in NYS by providing debt to the project developer. NYGB's role demonstrates the availability of capital to develop LFG-to-RNG projects throughout New York State.
Landfill Owners	Owners may not have the capital or expertise to operate an RNG facility; it is outside of the core competency of running a landfill.	This transaction provides capital to RNG developers and operators to enable landfills to use LFG more efficiently and curtail flaring or electricity generation. It allows landfill owners to comply with environmental regulations while maximizing energy potential and reducing GHG emissions.

Technologies Involved

Technology	Measures
Renewable Energy	LFG-to-RNG Technology

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to GHG emission reductions in support of New York's energy policies".[3] In addition, the Metrics Plan requires NYGB to report on the following energy and environmental measures, which are applicable to this transaction:[4]

- Estimated lifetime and annual total energy savings (MMBtu)
- Estimated lifetime and annual natural gas fuel savings (MMBtu equivalent)

The estimated lifetime and annual energy and environmental impacts of the Investment, facilitated by NYGB's financial participation in this transaction, are as follows:

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

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

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	Annual Low Estimate	Annual High Estimate
Estimated total energy savings (MMBtu equivalent)	5,486,535	10,371,991	274,327	518,600
Estimated natural gas fuel savings (MMBtu)	Same as above			
GHG emission reductions (metric tons)[5]	285,299	539,342	14,265	26,967

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occur when a critical mass of NYGB financing and investment arrangements have been put in place. Market evaluation activities commenced in 2018 on sectors that NYGB has supported since inception, consistent with the requirement for such assessments approximately three to five years following initial NYGB capital deployments.[6] NYSERDA collected baseline data for the solar sector in 2019 and will update the data to include indicators specific to this transaction. NYSERDA will use baseline data collected for indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, medium and long terms.

NYGB expects that program and/or future market evaluation will demonstrate progress across short-term indicators; including:

- Size (i.e., generation capacity and expected dollar value) and location of projects financed by the investment; and
- Aggregate expected energy generation for projects financed by the investment.

NYGB expects that program tracking and/or future market evaluation will demonstrate progress across medium- and long-term indicators; including:

- Increased general understanding of environmental benefits of LFG-to-RNG projects by financial community;
- Increased awareness and use of loan performance data by financing entities;
- Increased awareness and use of project/technology performance data by financing entities;
- Decreased costs of future LFG-to-RNG projects; and
- Presence and number of new lending participants.

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

NYSERDA will evaluate the impact this transaction has had on sustainable infrastructure finance markets and the energy/environmental benefits delivered by this transaction.

Market evaluation will address the short, medium and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants (e.g., financial community) to track information including but not limited to: project scale information and influence of NYGB's participation on financial markets. As noted, NYSERDA collected baseline data on key indicators in its first phase evaluation during 2018 - 2019. Follow-up studies will assess progress against baseline levels for other market segments as those evolve. The specific timing of these efforts may be revised based on experience or other factors as NYGB's investment portfolio further develops and evolves.

Impact evaluation will assess the projects funded under the investment that will have raised construction financing and will have been completed, commissioned, and placed in service.

[5] Per conversion coefficient factors provided by the U.S. Environmental Protection Agency, NYGB assumed that each MMBtu of RNG processed by the facility will result in 0.12037 pounds of carbon dioxide.

[6] See Metrics Plan, Section 3.3 at page 7 - 8.

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

TRANSACTION PROFILE

Revised November 2022

Catalyzing the Development of Renewable Natural Gas Projects in New York

Rudarpa, Inc.

*In January 2021, NY Green Bank ("**NYGB**") entered into an agreement with Rudarpa North Country, LLC ("**RNC**"), an indirect subsidiary wholly owned by Rudarpa, Inc. ("**Rudarpa**"), to provide a $29.5 million construction-to-term loan ("**Investment**") for the first Landfill Gas ("**LFG**") to Renewable Natural Gas ("**RNG**") project in Rudarpa's to-be-built portfolio of LFG-to-RNG projects. In September 2022, NYGB increased its investment by $3.5 million. RNC will be Rudarpa's first project and is located in Bethlehem, NH. Rudarpa is expected to deploy at least $29.5 million for LFG-to-RNG projects in New York State ("**NYS**").*

Transaction Description

In January 2021, NYGB entered into an agreement with RNC, indirectly wholly owned subsidiary of Rudarpa, to provide a $29.5 million construction-to-term loan for the first LFG-to-RNG project in Rudarpa's to-be-built portfolio of projects. Rudarpa's first project is located in Bethlehem, NH and Rudarpa is obligated to deploy at least $29.5 million into NYS projects within 36 months under the terms of this Investment. In September 2022, NYGB increased its investment by $3.5 million, bringing the total facility to $33.0 million.

Pursuant to the terms of the Investment, Rudarpa is incentivized to develop projects throughout NYS. These future LFG-to-RNG projects are expected to reduce up to 599,000 metric tons of greenhouse gas ("**GHG**") emissions in NYS annually or up to 8,987,000 metric tons of GHG lifetime emissions. These transactions will help to demonstrate the viability of LFG-to-RNG in NYS and draw new investors and financial institutions into the marketplace.

This Transaction Profile is provided pursuant to the updated NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.1 (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on May 2, 2022.[1] This Transaction Profile contains specific information in connection with the Rudarpa, Inc. transaction entered into in January 2021, as required by the Metrics Plan.[2]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Construction-to-Term Loan	$33.0 million

Location(s) of Underlying Project(s)

Statewide.[3] Rudarpa is incentivized by this loan to develop projects throughout NYS.

[1] Case 13-M-0412.

[2] See Section 4.0 at page 8 - 9 and Schedule 3.

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

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Counterparty	Rudarpa, Inc.	Sponsor, O&M Provider
Counterparty	Rudarpa North Country, LLC	Borrower

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
LFG-to-RNG Developers	Securing long term financing for an asset after it is constructed can be an inefficient use of sponsor equity that limits the pace and scale of new project deployment efforts in NYS.	This transaction encourages efficient use of capital and supports project development efforts in NYS by providing debt to the project developer. NYGB's role demonstrates the availability of capital to develop LFG-to-RNG projects throughout NYS.
Landfill Owners	Owners may not have the capital or expertise to operate an RNG facility; it is outside of the core competency of running a landfill.	This transaction provides capital to RNG developers and operators to enable landfills to use LFG more efficiently and curtail flaring or electricity generation. It allows landfill owners to comply with environmental regulations while maximizing energy potential and reducing GHG emissions.

Technologies Involved

Technology	Measures
Renewable Energy	LFG-to-RNG Technology

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to GHG emission reductions in support of New York's energy policies."[4] In addition, the Metrics Plan requires NYGB to report on the following energy and environmental measures, which are applicable to this transaction:[5]

- Estimated lifetime and annual total energy savings (MMBtu)
- Estimated lifetime and annual natural gas fuel savings (MMBtu equivalent)

The estimated lifetime and annual energy and environmental impacts of the Investment, facilitated by NYGB's financial participation in this transaction, are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	Annual Low Estimate	Annual High Estimate
Estimated total energy savings (MMBtu equivalent)	9,510,900	17,088,343	634,060	1,139,223
Estimated natural gas fuel savings (MMBtu)	Same as above			

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

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

GHG emission reductions (metric tons)	494,565	888,591	32,971	59,239

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occur when a critical mass of NYGB financing and investment arrangements have been put in place. Market evaluation activities commenced in 2018 on sectors that NYGB has supported since inception, consistent with the requirement for such assessments approximately three to five years following initial NYGB capital deployments.[6] NYSERDA collected baseline data for the solar sector in 2019 and will update the data to include indicators specific to this transaction. NYSERDA will use baseline data collected for indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, medium and long terms.

NYGB expects that program and/or future market evaluation will demonstrate progress across short-term indicators; including:

- Size (i.e., generation capacity and expected dollar value) and location of projects financed by the Investment; and
- Aggregate expected energy generation for projects financed by the Investment.

NYGB expects that program tracking and/or future market evaluation will demonstrate progress across medium- and long-term indicators, including:

- Increased general understanding of environmental benefits of LFG-to-RNG projects by financial community;
- Increased awareness and use of loan performance data by financing entities;
- Increased awareness and use of project/technology performance data by financing entities;
- Decreased costs of future LFG-to-RNG projects; and
- Presence and number of new lending participants.

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

NYSERDA will evaluate the impact this transaction has had on sustainable infrastructure finance markets and the energy/environmental benefits delivered by this transaction.

Market evaluation will address the short, medium and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants (e.g. financial community) to track information including but not limited to: project scale information and influence of NYGB's participation on financial markets. As noted, NYSERDA collected baseline data on key indicators in its first phase evaluation during 2018 - 2019. Follow-up studies will assess progress against baseline levels for other market segments as those evolve. The specific timing of these efforts may be revised based on experience or other factors as NYGB's investment portfolio further develops and evolves.

Impact evaluation will assess the projects funded under the Investment that will have raised construction financing and will have been completed, commissioned, and placed in service.

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

[6] See Metrics Plan, Section 3.3 at page 7 - 8.