



NY Green Bank
A Division of NYSERDA



Quarterly Metrics Report No. 10 (December 31)
Webinar | March 7, 2017

Note: All data included in this quarterly update is current as of December 31, 2016, unless otherwise indicated

- Overview of Performance
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Overview of Performance

Performance at a Glance – As of December 31, 2016

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Strong quarter, closing out very strong year of clean energy investment in NYS. NYGB closed over **\$250.0 million** of investments in 2016 – a four-fold increase year-on-year – resulting in a portfolio of **\$305.0 million**.

Stimulating New Clean Energy Proposals in the State

Proposals received for **\$1.8 billion** in NYGB investment

Strong Active Pipeline

Active pipeline of transactions moving towards closing is **\$597.7 million**

Portfolio Driving Material Clean Energy Investments Across NYS

Investments support total clean energy project costs of up to **~\$1.3 billion**, based on overall investments to date of **\$304.7 million**

Mobilizing Private Capital

NYGB's current portfolio represents expected mobilization ratio on track at or above **3:1**; over 10 years on track to meet or exceed **8:1**

Revenue Growth Paving the Way to Self-Sufficiency

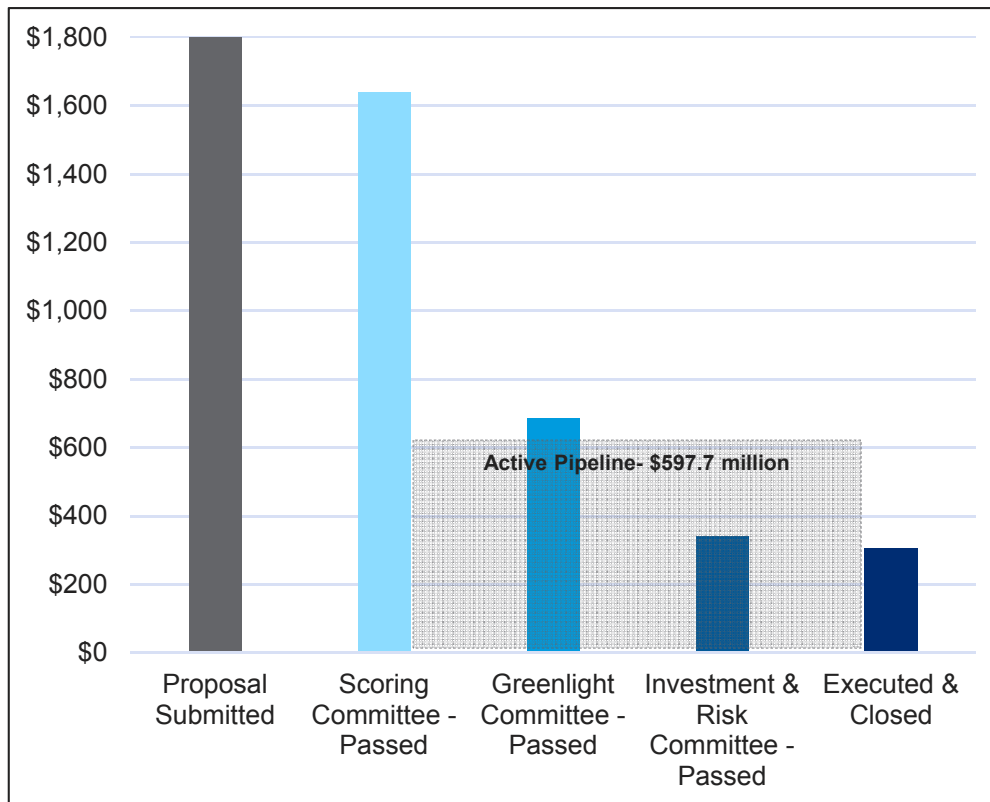
\$9.6 million in cumulative revenues generated

Contributing to REV, the CEF & CES Objectives

Estimated lifetime GHG reductions up to **5.4 million metric tons**, equivalent to removing over **60,000 cars** for **19 years**

Q3 Metrics Report was filed February 15, 2017, pursuant to the Metrics, Reporting & Evaluation Plan v3.0 and is available at www.greenbank.ny.gov/About/Public-Filings

Transaction Status & Active Pipeline



Since inception through December 31, 2016:

- **\$1.8 billion** of proposals received and evaluated by NYGB’s Scoring Committee
- **\$1.6 billion** of proposals passed Scoring Committee evaluation – representing potential investments that meet NYGB’s mandate and proposal evaluation criteria
- **\$686.1 million** of proposals received Greenlight Committee recommendation for advancement
- **\$342.1 million** of proposals vetted by the Investment & Risk Committee (IRC) and approved by NYSERDA’s President & CEO
- **\$304.7 million** of transactions closed - comprising the Current Portfolio - mobilizing public and private investments to support up to **~\$1.3 billion** in total project costs for new clean energy deployment in the State
- Active pipeline currently **\$597.7 million**

Investments

In Q4 2016, six new transactions were closed, totaling **\$106.2 million**. Details of all NYGB investments can be found in Transaction Profiles available at www.greenbank.ny.gov/Investments/Transaction-Profiles. Press releases can be accessed at www.greenbank.ny.gov/News/In-The-News.

In 2016:

- NYGB closed **13 transactions**
- Committed more than **\$250.0 million** to clean energy
- Expected to stimulate additional private sector clean energy investment in NYS exceeding **\$677.0 million**

Northport School District

- EE retrofits for 9 school and administrative buildings, saving ~\$1.1 million/year
- \$8.7 million leasing facility from NYGB, arranged with Bank of America Merrill Lynch

Solar City

- Residential solar financing facilities for ~7,000 new installations across NYS
- \$50.0 million revolving and term debt facilities from NYGB provided in two separate transactions

Plug Power

- Financing deployment of fuel cell systems powering forklifts in distribution centers across NYS
- \$25.0 million senior debt provided by NYGB

New York City Housing Authority

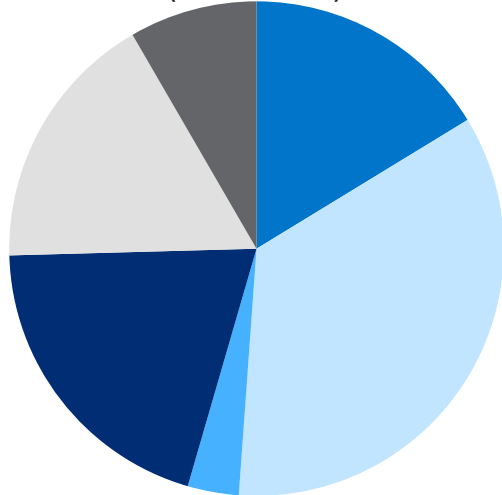
- EE retrofits for 18 multi-family/LMI housing developments
- \$11.0 million bridge loan commitment

Hebrew Home for the Aged in Riverdale

- Installation of CHP system at aged care facility, saving more than \$1.6 million/year
- ~\$14.0 million leasing facility from NYGB, arranged with Bank of America Merrill Lynch

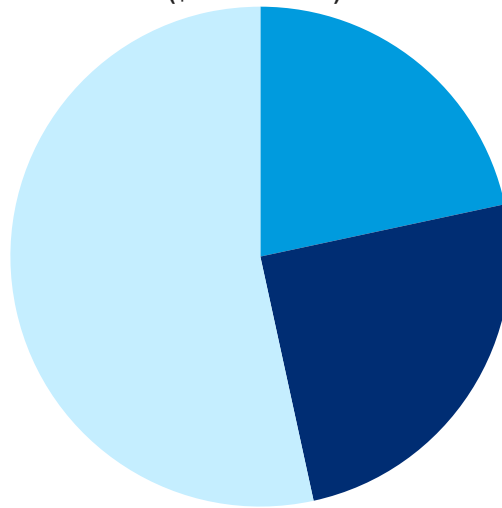
Technology, Geography & End-Users (Active Pipeline)

Technology Distribution of Active Pipeline (\$597.7 million)



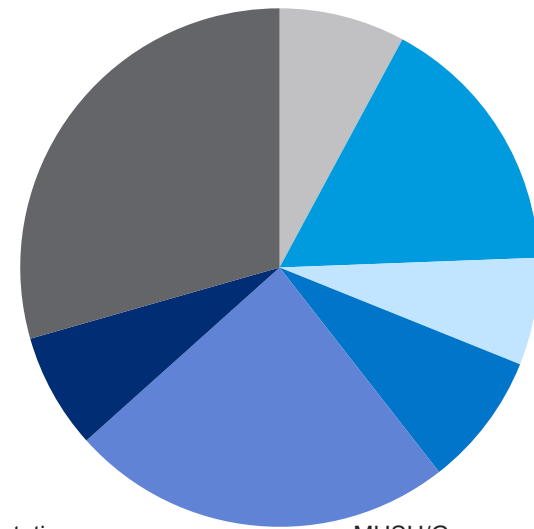
■ Energy Efficiency ■ Solar ■ Wind ■ Bioenergy ■ Other ■ Multiple Technologies

Geographic Distribution of Active Pipeline (\$597.7 million)



■ Upstate ■ Downstate ■ Statewide

End-Use Customer Segment Distribution of Active Pipeline (\$597.7 million)



■ Transportation ■ MUSH/Government
 ■ Utility-scale/Grid Interconnected ■ Commercial
 ■ Residential ■ Agriculture
 ■ Multiple End-User Customers

Objectives, Milestones & Deliverables

Overarching Goals, KPIs & Metrics

NYGB Goals	Key Performance Indicators	Metrics
Attract Private Sector Capital into Clean Energy Capital Markets in NYS	<ul style="list-style-type: none"> Mobilizing private capital 	<ul style="list-style-type: none"> Mobilization ratio of total project costs to NYGB funds, reported quarterly
	<ul style="list-style-type: none"> Portfolio driving material clean energy investments across NYS 	<ul style="list-style-type: none"> Total project costs enabled by NYGB (cumulative) (\$)
	<ul style="list-style-type: none"> Growing portfolio 	<ul style="list-style-type: none"> Total committed funds (cumulative) (\$)
	<ul style="list-style-type: none"> Strong Active Pipeline 	<ul style="list-style-type: none"> Active Pipeline (\$)
	<ul style="list-style-type: none"> Stimulating new clean energy proposals in NYS 	<ul style="list-style-type: none"> Investment proposals received (cumulative) (\$)
Be Self-Sustaining	<ul style="list-style-type: none"> Revenue growth paving the way to self-sufficiency 	<ul style="list-style-type: none"> Revenues (cumulative) (\$) Operating expenses (cumulative) (\$)
Reduce GHG Emissions	<ul style="list-style-type: none"> Contributing to CEF objectives and in turn REV & the CES (by supporting increased deployment of renewable energy, distributed energy & energy efficiency) 	<ul style="list-style-type: none"> Current portfolio estimated gross lifetime GHG emissions reductions, reported quarterly (metric tons) Installed energy and environmental benefits, reported annually: <ul style="list-style-type: none"> Energy saved by fuel type from energy efficiency projects (MWh/MMBtu) and/or actual clean energy generated (MWh) Primary energy saved from CHP (Btu) Clean energy generation installed capacity (MW), if applicable GHG emissions reductions (metric tons)

NYGB's 2016 Business Plan defined **three primary objectives**:

Put Ratepayer Money to Work

Committing at least \$200.0 million per year towards clean energy transactions driving greater deployment in NYS

Mobilize Private Capital

On a portfolio basis over a 10-year period, achieve an 8:1 ratio when looking at total project value vs. NYGB capital

Drive Toward Self-Sustainability

NYGB continues to work diligently towards achieving breakeven in 2018

These primary objectives are being accomplished by discrete activities & deliverables:

Focus Interest of Syndicates on New York State Clean Energy Development

Streamline Proposal Intake Process

Cultivate Opportunities Related to New State Programs & Initiatives

Build Upon & Capture Benefits of Prior Business Development Activities

Attract & Retain Quality Staff

Continuously Improve Business Practices

Product Development & Issuing Targeted Solicitations

Implement Maintain & Optimize Critical Infrastructure & Platforms

Progress Against Plan Deliverables

	Goal	Progress
Put ratepayer funds to work:	Commit \$200.0 million in new investments each year	NYGB has committed ~ \$250.0 million (~125% of goal) in FY16-17 ending March 31, with new transactions moving towards close. Current Portfolio is \$304.1 million (\$304.7 million overall investments to date)
Mobilize private capital:	Achieve average mobilization ratio of 3:1, and 8:1 across portfolio by end of CEF in 2025	NYGB's current portfolio-wide mobilization ratio meets the required 3:1 and is on track to achieve an 8:1 mobilization ratio by 2025, including through recycling capital for investment in new transactions
Drive towards sustainability:	Continue to grow revenues and manage expenses to reach self-sufficiency by 2018	Over \$9.6 million in revenues has been generated since NYGB's inception
Strong Active Pipeline:	Maintain an Active Pipeline of at least \$300.0 million	Active pipeline of potential investments proceeding to close is \$597.7 million
Reduce GHG Emissions:	Contribute to CEF objectives and in turn REV & the CES	Current Portfolio represents up to: 280.8 MW of clean energy built in NYS, 7.9 million MWh of clean energy generation, 1.2 million MWh saved, 10.3 million MMBtus saved, and estimated lifetime GHG reductions up to 5.4 million metric tons over the life of underlying projects

Progress Against Plan Deliverables (cont.)

Category	Deliverable	Status in Quarter Ending December 31, 2016
Strong Active Pipeline		
▪ Active Pipeline	▪ Maintain an Active Pipeline of at least \$300.0 million.	✓ Achieved for this Quarter: Active Pipeline \$597.7 million .
▪ CRM, Transaction Pipeline & Portfolio Management Infrastructure	▪ Implementation of third-party platform, full “go-live”.	✓ Achieved : In December 2016 NYGB and DealCloud, Inc. launched this customized system and achieved “go live”. NYGB continues to work with DealCloud to fully optimize the system for NYGB’s growing business and evolving needs.
Portfolio Driving Material Clean Energy Investments Across NYS		
▪ Committed Funds	▪ Commit \$200.0 million to NYGB investments per year, equating to an average of \$50.0 million in closed transactions per quarter.	✓ Achieved for this Quarter: \$106.2 million of closed transactions in the quarter. ✓ Achieved for 2016 since NYGB committed in excess of \$250.0 million to new investments.
▪ Financing Commercial Real Estate & Multi-Family Solar System &/or Energy Efficiency Purchases	▪ Publicly issue RFP.	✓ Ongoing & On Track : RFP documents currently being drafted and are scheduled for public release in the first part of 2017.
▪ Financing Ground-Mounted Solar Systems Targeting Corporate & Industrial End-Users	▪ Publicly issue RFP.	
▪ Fund Administration & Loan/Investment Servicing Infrastructure	▪ Implementation of third-party platform, full “go-live”.	✓ Ongoing & On Track : Detailed system design and implementation to accommodate all NYGB processes and procedures – as well as reflect all historic data and transactions since inception - continuing, including inter-agency and counterparty interactions.
▪ Available Capital	▪ Satisfy the Cash Release Trigger pursuant to the 2015 Capitalization Order through achieving a portfolio size of \$150.0 million.	✓ Achieved for the Business Plan year in the third calendar quarter of 2016.

Progress Against Plan Deliverables (cont.)

Category	Deliverable	Status in Quarter Ending December 31, 2016
Mobilizing Private Capital		
▪ Mobilization Ratio	▪ Achieve an average, portfolio-wide mobilization ratio of at least 3:1, driving towards a ratio of 8:1 across all NYGB investments by the end of the CEF term in 2025.	✓ Achieved for this Quarter: Current quarter Mobilization Ratio on track at at least 3:1.

Quarterly Metrics

Quarterly Metrics*

* Quarterly Metrics are set out below, without footnotes. For complete Metrics and narrative, please see the full Report filed on November 15, 2016 available at www.greenbank.ny.gov/About/Public-Filings

Quarterly Metric	Prior Quarter	Current Quarter
Capital Position		
▪ Authorized Capital (\$)	\$1.0 billion	\$1.0 billion
▪ Authorized Administrative Expenses (\$)	\$17.5 million	\$17.5 million
▪ Authorized Evaluation Expenses (\$)	\$4.0 million	\$4.0 million
▪ Available Capital (\$)	\$236.6 million	\$127.7 million
Operational Matters		
▪ Cumulative Revenues (\$)	\$6.7 million	\$9.6 million
▪ Cumulative Operating Expenses (\$)	\$12.7 million	\$14.7 million
▪ Direct Operating Expenses (\$)	\$7.0 million	\$8.3 million
▪ Allocated Expenses (\$)	\$5.7 million	\$6.4 million
▪ Credit Facility (if in place)		
▪ Credit Facility Amount (\$)	Not Applicable	Not Applicable
▪ Credit Facility Drawn Amount (\$)	Not Applicable	Not Applicable
▪ Credit Facility Fees & Interest (Cumulative) (\$)	Not Applicable	Not Applicable
Investment Portfolio		
▪ Committed Funds (Cumulative) (\$)	\$72.7 million	\$68.4 million
▪ Deployed Funds (Cumulative) (\$)	\$125.8 million	\$235.7 million
▪ Current Portfolio (\$)	\$198.5 million	\$304.1 million
▪ Overall Investments to Date (\$)	\$198.5 million	\$304.7 million
▪ Total Project Costs (Cumulative) (\$)	Up to \$953.0 million	Up to ~\$1.3 billion
▪ Mobilization Ratio	At least 3:1	At least 3:1
▪ Commitment Ratio (%)	54.0%	82.5%
▪ Portfolio Concentrations (%)	85.0% Renewable Energy 15.0% Energy Efficiency 0.0% Other	72.0% Renewable Energy 17.0% Energy Efficiency 12.0% Other

Quarterly Metrics (cont.)

Quarterly Metric	Prior Quarter	Current Quarter
▪ Number & Type of NYGB Investments	7 – Renewable Energy	10 – Renewable Energy
	4 – Energy Efficiency	6 – Energy Efficiency
	0 – Other	2 – Other
▪ Number & General Type of NYGB Counterparties	28 – Local Development Corporation; Global Corporate & Investment Banks; Commercial/Regional Banks; Specialty Finance Company; Energy Project Developers	41 – Local Development Corporation; Global Corporate & Investment Banks; Commercial/Regional Banks; Specialty Finance Company; Energy Project Developers; Municipal, University, Schools & Hospitals; Energy Technology Provider & Vendors; Government Authority
▪ Estimated Gross Lifetime Energy Saved by Fuel Type from Energy Efficiency Projects (MWh/MMBtu) and/or Estimated Gross Lifetime Clean Energy Generated (MWh) for Committed Funds & Deployed Funds	Estimated Gross Lifetime Energy Saved by Fuel Type (Energy Efficiency): 960,000 – 1.0 million MWh; and 9.0 – 9.9 million MMBtu	Estimated Gross Lifetime Energy Saved by Fuel Type (Energy Efficiency): 1.1 – 1.2 million MWh; and 9.4 – 10.3 million MMBtu
	Estimated Gross Lifetime Clean Energy Generated: 3.2 – 6.1 million MWh	Estimated Gross Lifetime Clean Energy Generated: 4.7 – 7.9 million MWh
▪ Estimated Gross First Year Energy Saved by Fuel Type from Energy Efficiency Projects (MWh/MMBtu) and/or Estimated Gross First Year Clean Energy Generated (MWh) for Committed Funds & Deployed Funds	Estimated Gross First Year Energy Saved by Fuel Type (Energy Efficiency): 78,000 – 82,000 MWh; and 780,000 – 850,000 MMBtu	Estimated Gross First Year Energy Saved by Fuel Type (Energy Efficiency): 90,000 – 97,000 MWh; and 800,000 – 870,000 MMBtu
	Estimated Gross First Year Clean Energy Generated: 141,000 – 260,000 MWh	Estimated Gross First Year Clean Energy Generated: 210,000 – 340,000 MWh
▪ Estimated Gross Lifetime Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds	Not Applicable	Estimated Gross Lifetime Energy Saved from CHP: 7,100 – 8,600 MWh
▪ Estimated Gross First Year Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds	Not Applicable	Estimated Gross First Year Energy Saved from CHP: 290 - 360 MWh

Quarterly Metrics (cont.)

Quarterly Metric	Prior Quarter	Current Quarter
▪ Estimated Gross Lifetime Energy Savings from CHP (MMBtu) for Committed Funds & Deployed Funds	Not Applicable	Estimated Gross Lifetime Energy Savings from CHP: -(41,000 – 50,000) MMBtu
▪ Estimated Gross First Year Energy Savings from CHP (MMBtu) for Committed Funds & Deployed Funds	Not Applicable	Estimated Gross First Year Energy Savings from CHP: -(1,700 – 2,100) MMBtu
▪ Estimated Gross Clean Energy Generation Installed Capacity (MW), if applicable, for Committed Funds & Deployed Funds	Not Applicable	1.6 MW
▪ Estimated Gross Clean Energy Generation Installed Capacity (MW), if applicable, for Committed Funds & Deployed Funds	122.3 – 217.3 MW	173.2 – 279.2 MW
▪ Estimated Gross Lifetime GHG Emission Reductions (metric tons) for Committed Funds & Deployed Funds	2.6 – 4.2 million metric tons	3.5 – 5.4 million metric tons
Investment Pipeline		
▪ Active Pipeline (In the Quarter) (\$)	\$638.7 million	\$597.7 million
Investment Process		
▪ Proposals Received – Value (Cumulative) (\$)	\$1.6 billion	\$1.8 billion
▪ Approvals - Scoring Committee (Cumulative) (\$)	\$1.5 billion	\$1.6 billion
▪ Approvals - Greenlight Committee (Cumulative) (\$)	\$576.4 million	\$686.1 million
▪ Approvals - IRC (Cumulative) (\$)	\$245.9 million	\$342.1 million

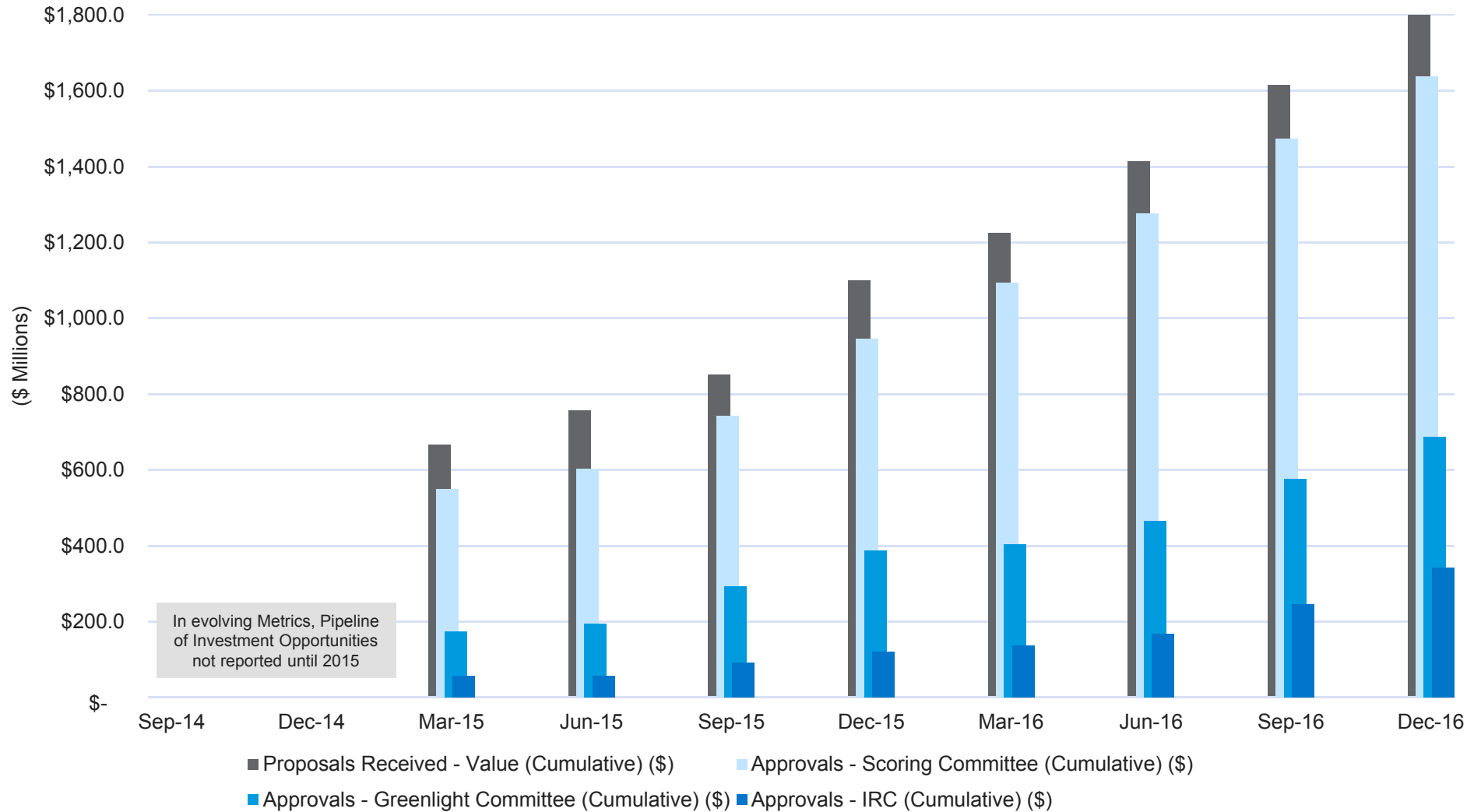
Annual Installed Energy & Environmental Benefits

Annual Installed Benefits (Calendar Year 2016)

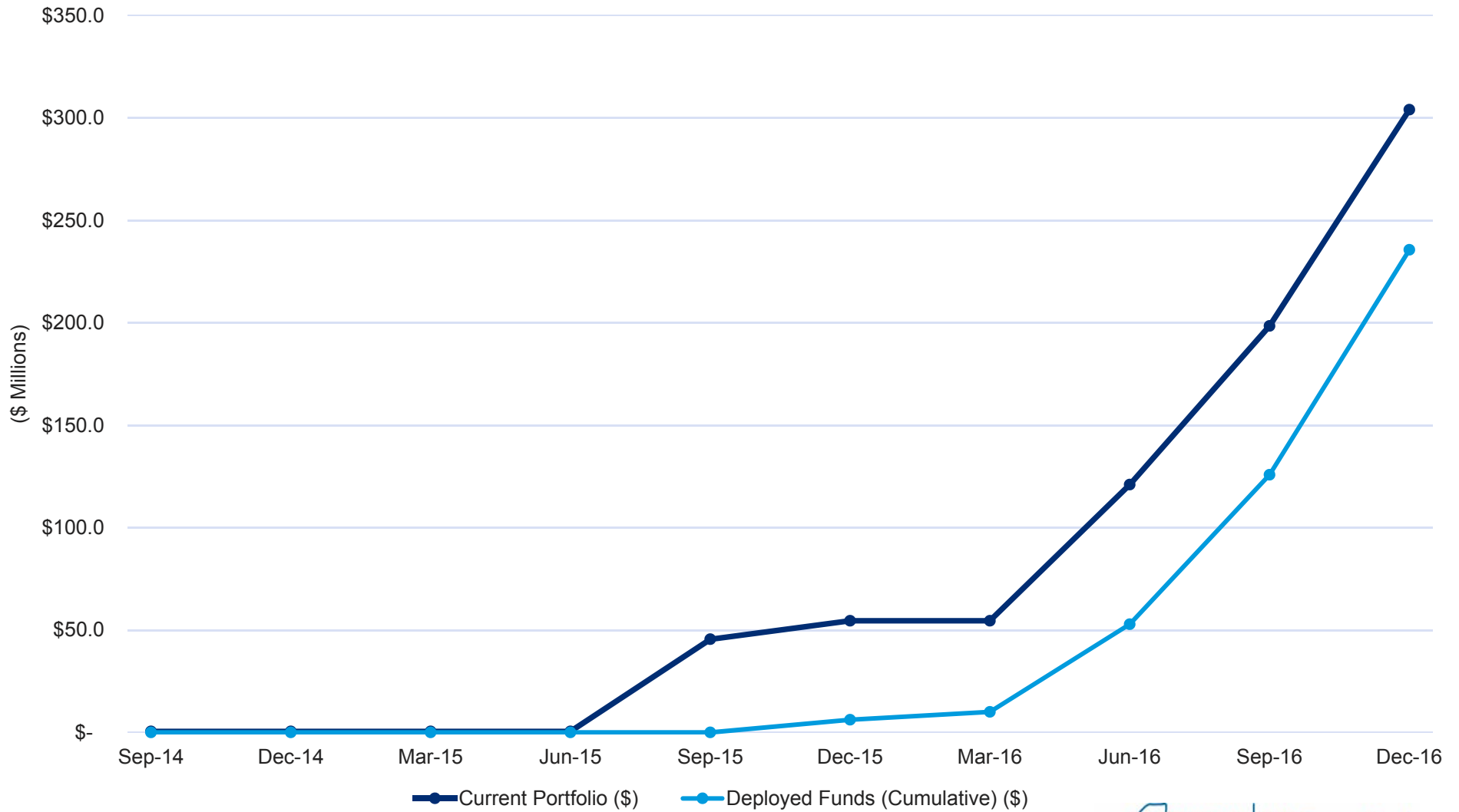
Energy & Environmental Benefit	Prior Year Increment	Prior Year Cumulative	Current Year Increment	Current Year Cumulative
<ul style="list-style-type: none"> Installed energy saved by fuel type from energy efficiency projects (MWh/MMBtu) and/or installed clean energy generated (MWh) 	Energy Saved by Fuel Type (Energy Efficiency): 0 MWh; and 0 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 0 MWh; and 0 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 678 MWh; and 9,265 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 678 MWh; and 9,265 MMBtu
	Clean Energy Generated: 0 MWh	Clean Energy Generated: 0 MWh	Clean Energy Generated: 56,676 MWh	Clean Energy Generated: 56,676 MWh
<ul style="list-style-type: none"> Installed energy savings from CHP (MWh) 	0 MWh	0 MWh	0 MWh	0 MWh
<ul style="list-style-type: none"> Installed energy savings from CHP (MMBtu) 	0 MMBtu	0 MMBtu	0 MMBtu	0 MMBtu
<ul style="list-style-type: none"> Installed CHP capacity (MW), if applicable 	0 MW	0 MW	0 MW	0 MW
<ul style="list-style-type: none"> Installed clean energy generation capacity (MW), if applicable 	0 MW	0 MW	48.1 MW	48.1 MW
<ul style="list-style-type: none"> Installed GHG emission reductions (metric tons) 	0 metric tons	0 metric tons	30,276 metric tons	30,276 metric tons

Trends

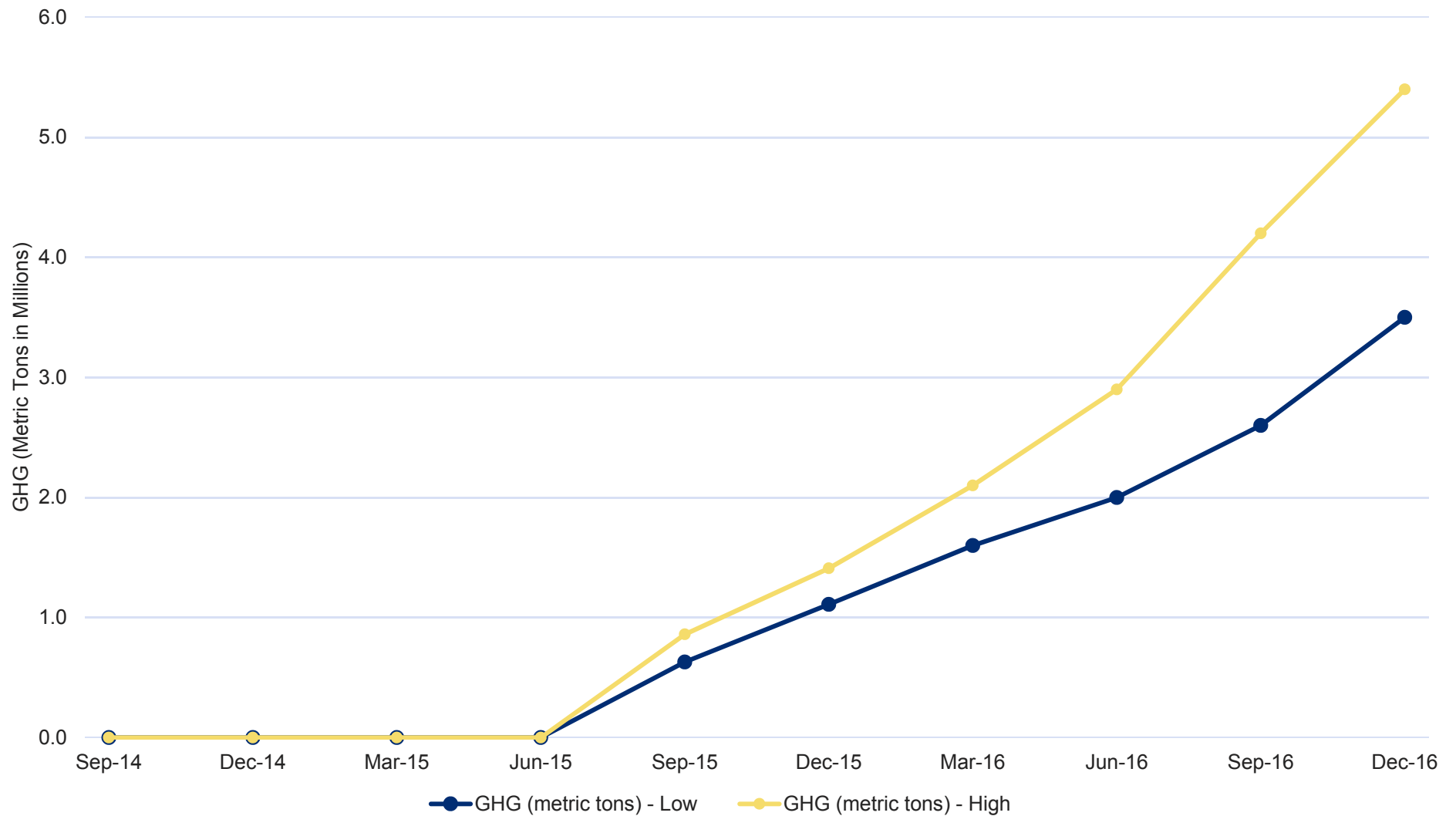
Pipeline of Investment Opportunities



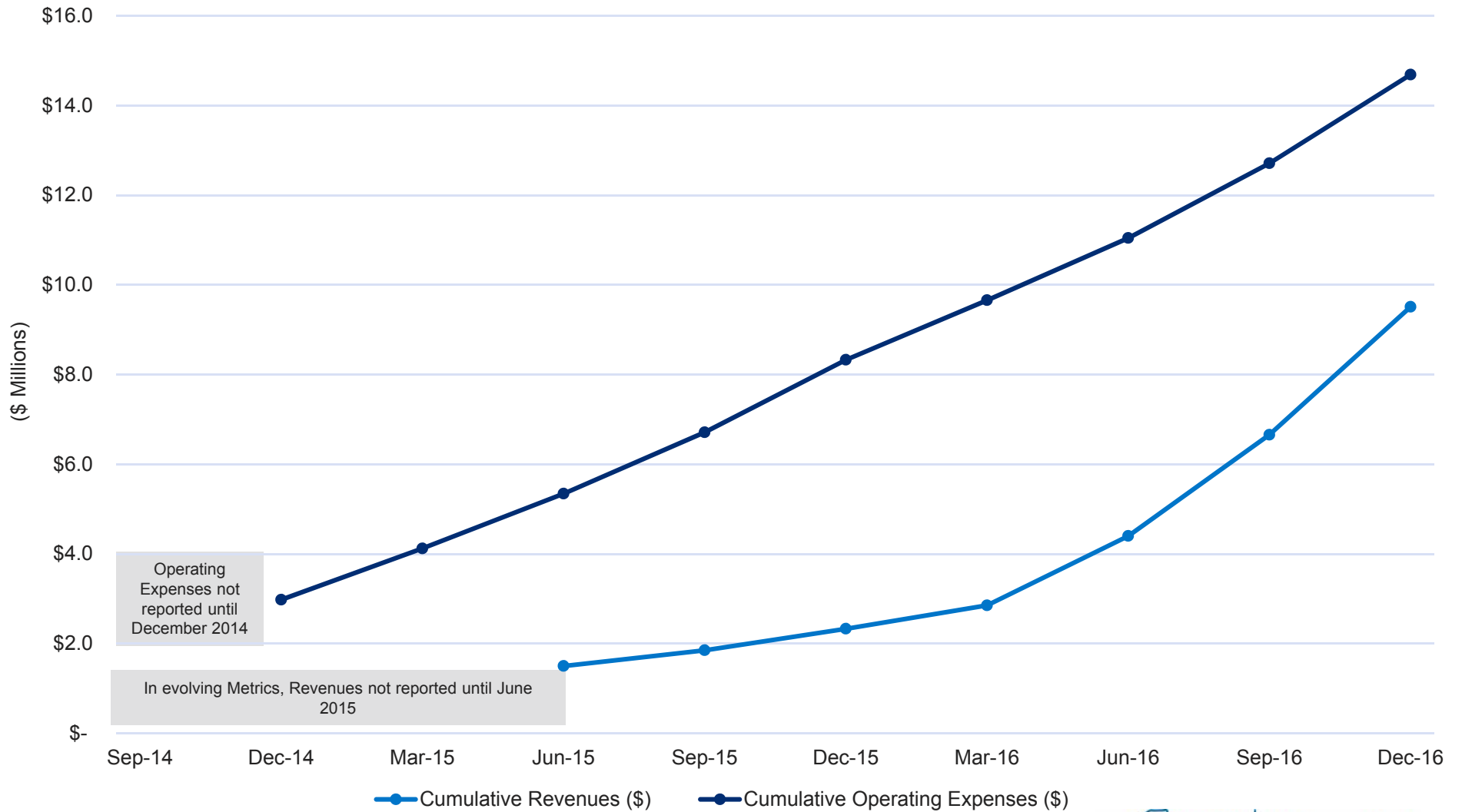
Investment Portfolio



Estimated Lifetime GHG Reductions



Revenues & Expenses



Stay In Touch with NY Green Bank

All information available on the website: www.greenbank.ny.gov



- Overview
- Mission
- Team
- Advisory Committee
- Public Filings

Public Filings

Organizational Documents

- August 5, 2016 - [Capital Compliance Filing for S](#)
- June 27, 2016 - [NY Green Bank 2016 Business](#)
- January 21, 2016 - [Public Service Commission Including Full \\$1 Billion Capitalization for NY Gr](#)
- July 16, 2015 - [Public Service Commission Order Modification for NY Green Bank \(PDF\)](#)
- June 25, 2015 - [Clean Energy Fund Information](#)



Portfolio & Pipeline

Transaction Profiles

As NY Green Bank signs and closes documentation will be made available (both on this page and in NY Green Bank's Transaction Profiles provide key data in connection with Bank investments demonstrating a particular transaction as well as estimated energy and environmental benefits approaches. Part I of each Transaction Profile provide posted on NY Green Bank's website within a few weeks investment agreements. Part II of each Transaction Profile and will be added on to each new Transaction Profile Quarterly Reports will include full Transaction Profiles. Transaction Profiles for each of NY Green Bank's inv

Transaction Profiles



In the News

In The News

2017

- 1-18-2017: [NY Green Bank Announces the Thousands of Clean Energy P](#)
- From its inception through transactions, committing \$ billion in total clean energy portfolio is expected to require tons – equivalent to years – helping the State by 2030.



Publications & Events

Publications & Events

- 11-29-2016: [NY Green Bank Webinar: Quarterly Report Review \(PDF\)](#)
- 11-16-2016: [NY Green Bank Fall 2016 Newsletter](#)
- 03-01-2016: [NY Green Bank Spring 2016 Newsletter](#)



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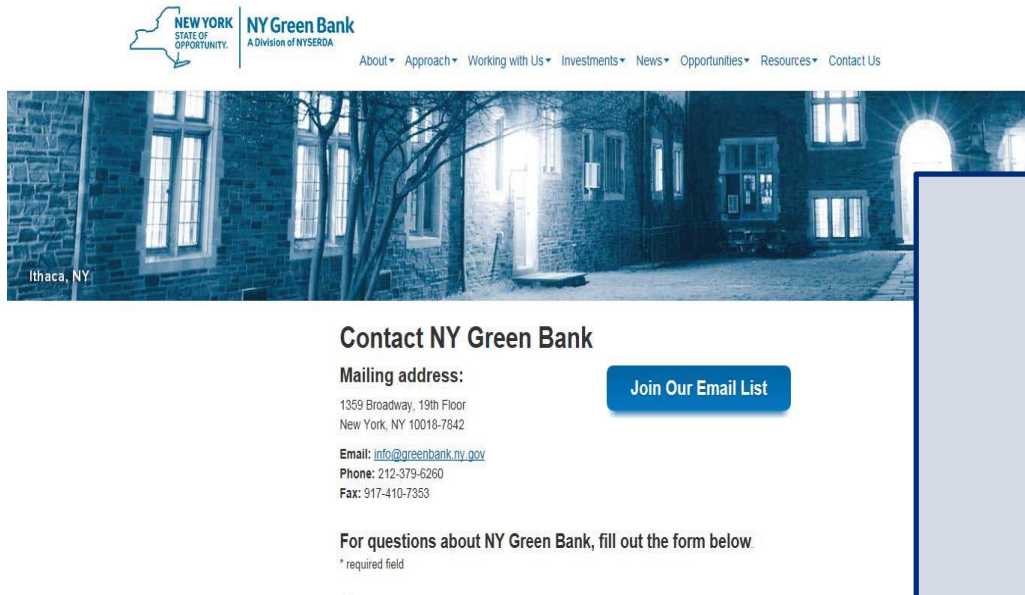
Advancing New York's clean energy investment opportunities



Stay In Touch with NY Green Bank (cont.)

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- Contact us at any time
- Sign up for our mailing list for periodic updates



The screenshot shows the top of the NY Green Bank website. It features the logo for the New York State of Opportunity and NY Green Bank, which is a division of NYSERDA. A navigation menu includes links for About, Approach, Working with Us, Investments, News, Opportunities, Resources, and Contact Us. Below the menu is a photograph of a stone building at night with illuminated windows and an arched entrance. The text 'Ithaca, NY' is visible in the bottom left corner of the photo. To the right of the photo is a blue button that says 'Join Our Email List'. Below the photo, the text reads 'Contact NY Green Bank' followed by 'Mailing address:' and the address '1359 Broadway, 19th Floor, New York, NY 10018-7842'. It also lists 'Email: info@greenbank.ny.gov', 'Phone: 212-379-6260', and 'Fax: 917-410-7353'. At the bottom, it says 'For questions about NY Green Bank, fill out the form below' and '* required field'.

1359 Broadway
19th Floor
New York, NY 10018

T: (212) 379-6260
E: info@greenbank.ny.gov
www.greenbank.ny.gov

Questions