



**NY Green Bank**  
A Division of NYSERDA



**Quarterly Metrics Report No. 9 (September 30)**  
**Webinar | November 29, 2016**

**Note: All data included in this quarterly update is current as of September 30, 2016, unless otherwise indicated**

- Overview of Performance
  - Performance at a Glance – As of September 30, 2016
  - Transaction Status & Active Pipeline
  
- Investments
  - Current Portfolio
  - End-Users, Geography & Technology
  
- Objectives, Milestones & Deliverables
  - Overarching Goals, KPIs & Metrics
  - FY 2016 – 2017 Objectives
  - Progress Against Plan Deliverables
  
- Quarterly Metrics
  
- Trends
  - Pipeline of Investment Opportunities
  - Investment Portfolio
  - Estimated Lifetime GHG Reductions
  - Revenues & Expenses

# Overview of Performance

# Performance at a Glance – As of September 30, 2016

Over the past two years, NYGB has made significant contributions to the Governor’s clean energy initiatives and the energy financing market in NYS

## Stimulating New Clean Energy Proposals in the State

Proposals received for **\$1.6 billion** in NYGB investment, representing total proposed clean energy investment in NYS > **\$5.3 billion**

## Strong Active Pipeline

Active pipeline of transactions moving towards closing is **\$638.7 million**

## Portfolio Driving Material Clean Energy Investments Across NYS

Investments support total clean energy project costs of up to **\$953.0 million**, with a current NYGB portfolio of **\$198.5 million** across technologies, end-users and geographies

## Mobilizing Private Capital

NYGB’s current portfolio represents expected mobilization ratio of up to **~5:1**

## Revenue Growth Paving the Way to Self-Sufficiency

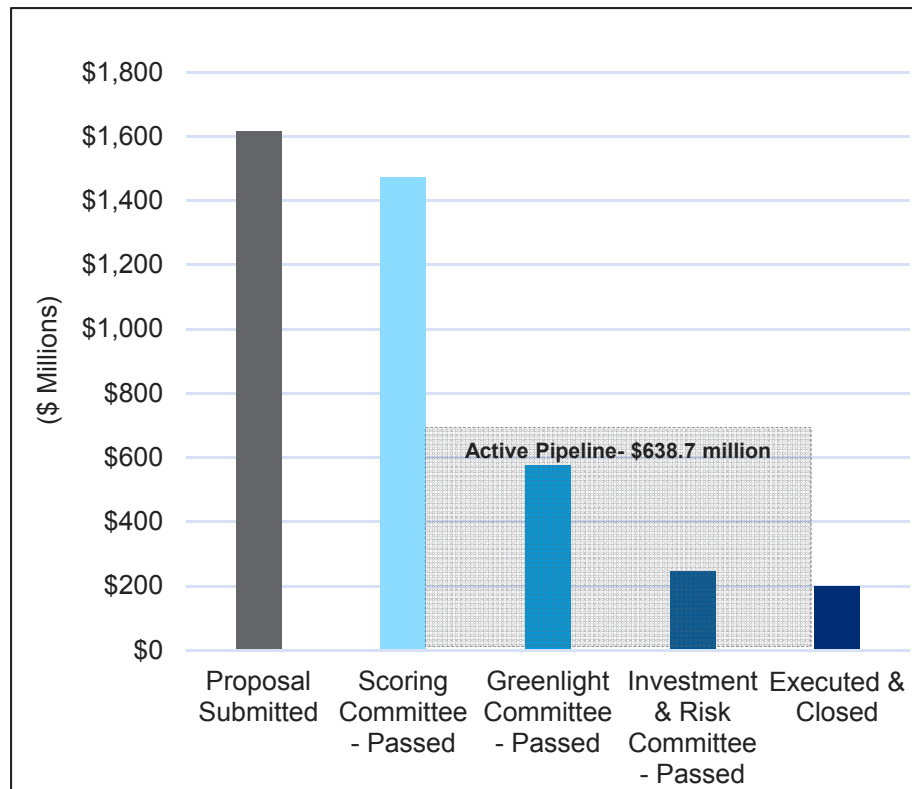
Over **\$6.7 million** in revenues generated

## Contributing to REV, the CEF & CES Objectives

Estimated lifetime GHG reductions up to **4.2 million metric tons**, equivalent to removing over **49,000 cars** for **19 years**

Q3 Metrics Report was filed November 15, 2016, pursuant to the Metrics, Reporting & Evaluation Plan v3.0 and is available at [www.greenbank.ny.gov/About/Public-Filings](http://www.greenbank.ny.gov/About/Public-Filings)

# Transaction Status & Active Pipeline



Since inception through September 30, 2016:

- **\$1.6 billion** of proposals received and evaluated by NYGB’s Scoring Committee
- **\$1.5 billion** of proposals passed Scoring Committee evaluation – representing potential investments that meet NYGB’s mandate and proposal evaluation criteria
- **\$576.4 million** of proposals received Greenlight Committee recommendation for advancement
- **\$245.9 million** of proposals vetted by the Investment & Risk Committee (IRC) and approved by NYSERDA’s President & CEO
- **\$198.5 million** of transactions closed - comprising the Current Portfolio - mobilizing public and private investments to support up to **\$953.0 million** in total project costs for new clean energy deployment in the State

# Investments

### Renew Fund Finance

- EE and RE retrofits for up to 12,000 NYS homeowners
- \$20.0 million subordinated capital from NYGB

### Level Solar

- Residential solar (PPA offering) for up to 6,000 NYS homeowners
- \$25.0 million warehouse/aggregation facility from NYGB

### United Wind

- Small wind (PPA offering) involving installation of up to 160 turbines
- \$4.0 million revolving construction loan facility from NYGB

### EIC/Energize NY

- EE retrofits for commercial, multifamily and non-profit buildings
- \$5.5 million letters of credit support provided pursuant to two transactions

### BQ Energy

- 1.4 MW commercial solar on brownfield site – first of 8 planned installations
- \$1.5 million senior debt provided by NYGB as first in expected \$30.0 million facility

### Solar Mosaic

- Residential solar (loan offering) for up to 9,000 NYS homeowners
- \$50.0 million warehouse/aggregation facility from NYGB as part of \$200.0 million national facility, and pursuant to two transactions

### Sealed

- EE retrofits pursuant to an innovative “pay out of savings” model for up to 400 NYS homeowners
- \$5.0 million warehouse/aggregation facility from NYGB

### Sunrun

- Residential solar (PPA offering) for up to 5,000 NYS homeowners
- \$25.0 million construction and \$25.0 million warehouse/aggregation facility from NYGB as part of national facilities, and pursuant to two transactions

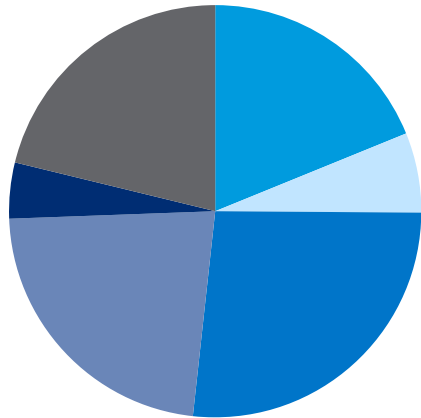
### Vivint

- Residential solar (PPA offering) for up to 5,000 NYS homeowners
- \$37.5 million warehouse/aggregation facility from NYGB as part of \$313.0 million national facility

In Q3 2016, two new transactions were closed – one with Vivint and the other with Solar Mosaic (an upsizing of an existing investment). Details of all NYGB investments can be found in Transaction Profiles available at [www.greenbank.ny.gov/Investments/Transaction-Profiles](http://www.greenbank.ny.gov/Investments/Transaction-Profiles). Press releases can be accessed at [www.greenbank.ny.gov/News/In-The-News](http://www.greenbank.ny.gov/News/In-The-News).

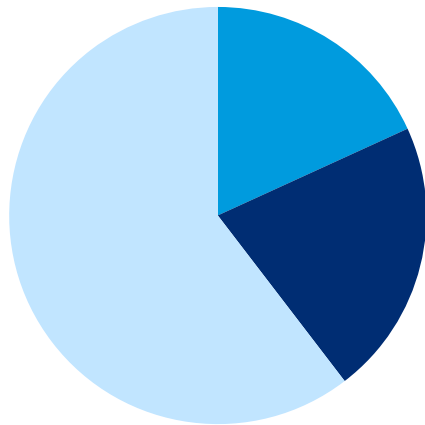
# End Users, Geography & Technology

End-Use Customer Segment Distribution of Active Pipeline (\$638.7 million)



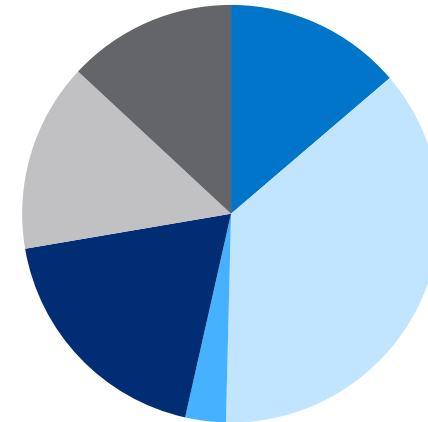
- MUSH/Government
- Commercial
- Agriculture
- Utility-scale/Grid Interconnected
- Residential
- Multiple End-User Customers

Geographic Distribution of Active Pipeline (\$638.7 million)



- Upstate
- Downstate
- Statewide

Technology Distribution of Active Pipeline (\$638.7 million)



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



# Objectives, Milestones & Deliverables

# Overarching Goals, KPIs & Metrics

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

## 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 by 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
<b>Put ratepayer funds to work:</b>	Commit \$200.0 million in new investments each year	NYGB has committed <b>\$143.5 million (~70% of goal)</b> this year, with new transactions moving towards close. Current Portfolio is <b>\$198.5 million</b>
<b>Mobilize private capital:</b>	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 is <b>~5:1</b> and on track to achieve an <b>8:1 mobilization ratio</b> by 2025, including through <b>recycling capital</b> for investment in new transactions
<b>Drive towards sustainability:</b>	Continue to grow revenues and manage expenses to reach self-sufficiency by 2018	Over <b>\$6.7 million</b> in revenues has been generated since NYGB's inception
<b>Strong Active Pipeline:</b>	Maintain an Active Pipeline of at least \$300.0 million	Active pipeline of potential investments proceeding to close is <b>\$638.7 million</b>
<b>Reduce GHG Emissions:</b>	Contribute to CEF objectives and in turn REV & the CES	Current Portfolio represents up to: <b>217 MW</b> of clean energy built in NYS, <b>6.0 million MWh</b> generated, <b>1.0 million MWh</b> saved, <b>1.0 billion MMBtus</b> saved, and estimated lifetime GHG reductions up to <b>4.2 million metric tons</b>

# Progress Against Plan Deliverables (cont.)

Category	Deliverable	Status in Quarter Ending September 30, 2016
<b>Strong Active Pipeline</b>		
<ul style="list-style-type: none"> <li>Active Pipeline</li> </ul>	<ul style="list-style-type: none"> <li>Maintain an Active Pipeline of at least \$300.0 million.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved for this Quarter: Active Pipeline \$638.7 million.</li> </ul>
<ul style="list-style-type: none"> <li>CRM, Transaction Pipeline &amp; Portfolio Management Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of third-party platform, full "go-live".</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing &amp; On Track: Following execution of the contract with the preferred platform provider in mid-June 2016, the past quarter's activities have comprised detailed implementation planning and creation of the system blueprint, platform design and system build-out, including commencing the upload of NYGB historic data and the creation and customization of platform features and reporting. These efforts are continuing.</li> </ul>
<b>Portfolio Driving Material Clean Energy Investments Across NYS</b>		
<ul style="list-style-type: none"> <li>Committed Funds</li> </ul>	<ul style="list-style-type: none"> <li>Commit \$200.0 million to NYGB investments per year, equating to an average of \$50.0 million in closed transactions per quarter.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved for this Quarter: \$77.5 million of closed transactions in the quarter.</li> </ul>
<ul style="list-style-type: none"> <li>Financing Commercial Real Estate &amp; Multi-Family Solar System &amp;/or Energy Efficiency Purchases</li> </ul>	<ul style="list-style-type: none"> <li>Publicly issue RFP.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing &amp; On Track: Taking into account the input received from respondents to each of the previously-issued RFIs, NYGB convened a roundtable discussion on September 22, 2016, including developers and capital providers to further advance the relevant issues. Roundtable and all other feedback is currently being incorporated in the drafting of the proposed RFPs to structure offerings to motivate increased solar system and energy efficiency investments in the target end-user groups.</li> </ul>
<ul style="list-style-type: none"> <li>Financing Ground-Mounted Solar Systems Targeting Corporate &amp; Industrial End-Users</li> </ul>	<ul style="list-style-type: none"> <li>Publicly issue RFP.</li> </ul>	
<ul style="list-style-type: none"> <li>Fund Administration &amp; Loan/Investment Servicing Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of third-party platform, full "go-live".</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing &amp; On Track: Completed negotiations and executed Fund Administration &amp; Loan/Investment Servicing Agreement with preferred provider on August 12, 2016. Detailed system design and implementation to accommodate all NYGB processes and procedures, including inter-agency and counterparty interactions, commenced.</li> </ul>
<ul style="list-style-type: none"> <li>Available Capital</li> </ul>	<ul style="list-style-type: none"> <li>Satisfy the Cash Release Trigger pursuant to the 2015 Capitalization Order through achieving a portfolio size of \$150.0 million.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved for the Plan Year: Portfolio size at September 30, 2016 was \$198.5 million.</li> </ul>
<b>Mobilizing Private Capital</b>		
<ul style="list-style-type: none"> <li>Mobilization Ratio</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved for this Quarter: Current quarter Mobilization Ratio is up to 5:1.</li> </ul>

# Quarterly Metrics

\* Quarterly Metrics are reproduced below, but without all footnotes. For complete Metrics and relevant narrative, please see the full Report filed on November 15, 2016 available at [www.greenbank.ny.gov/About/Public-Filings](http://www.greenbank.ny.gov/About/Public-Filings)

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 (\$)		\$159.0 million	\$236.6 million
Operational Matters			
▪ Cumulative Revenues (\$)		\$4.4 million	\$6.7 million
▪ Cumulative Operating Expenses (\$)		\$11.0 million	\$12.7 million
▪ Direct Operating Expenses (\$)		\$6.0 million	\$7.0 million
▪ Allocated Expenses (\$)		\$5.0 million	\$5.7 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) (\$)		\$68.2 million	\$72.7 million
▪ Deployed Funds (Cumulative) (\$)		\$52.8 million	\$125.8 million
▪ Current Portfolio (\$)		\$121.0 million	\$198.5 million
▪ Overall Investments to Date (\$)		\$121.0 million	\$198.5 million
▪ Total Project Costs (Cumulative) (\$)		Up to \$518.3 million	Up to \$953.0 million

# Quarterly Metrics (cont.)

	Up to 4:1	Up to 5:1
▪ <b>Mobilization Ratio</b>		
▪ <b>Commitment Ratio (%)</b>	55.0%	54.0%
▪ <b>Portfolio Concentrations (%)</b>	75.0% Renewable Energy	85.0% Renewable Energy
	25.0% Energy Efficiency	15.0% Energy Efficiency
▪ <b>Number &amp; Type of NYGB Investments</b>	6 – Renewable Energy	7 – Renewable Energy
	4 – Energy Efficiency	4 – Energy Efficiency
▪ <b>Number &amp; General Type of NYGB Counterparties</b>	24 – Local Development Corporation, Global Corporate & Investment Banks, Commercial/Regional Banks, Specialty Finance Company, Energy Project Developers	28 – Local Development Corporation, Global Corporate & Investment Banks, Commercial/Regional Banks, Specialty Finance Company, Energy Project Developers
▪ <b>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 &amp; Deployed Funds</b>	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):  960,000 – 1.0 million MWh; and  9.0 – 9.9 million MMBtu
	Estimated Gross Lifetime Clean Energy Generated:  1.8 – 3.4 million MWh	Estimated Gross Lifetime Clean Energy Generated:  3.2 – 6.1 million MWh
▪ <b>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 &amp; Deployed Funds</b>	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):  78,000 – 82,000 MWh; and  780,000 – 850,000 MMBtu
	Estimated Gross First Year Clean Energy Generated:  88,000 – 160,000 MWh	Estimated Gross First Year Clean Energy Generated:  141,000 – 260,000 MWh

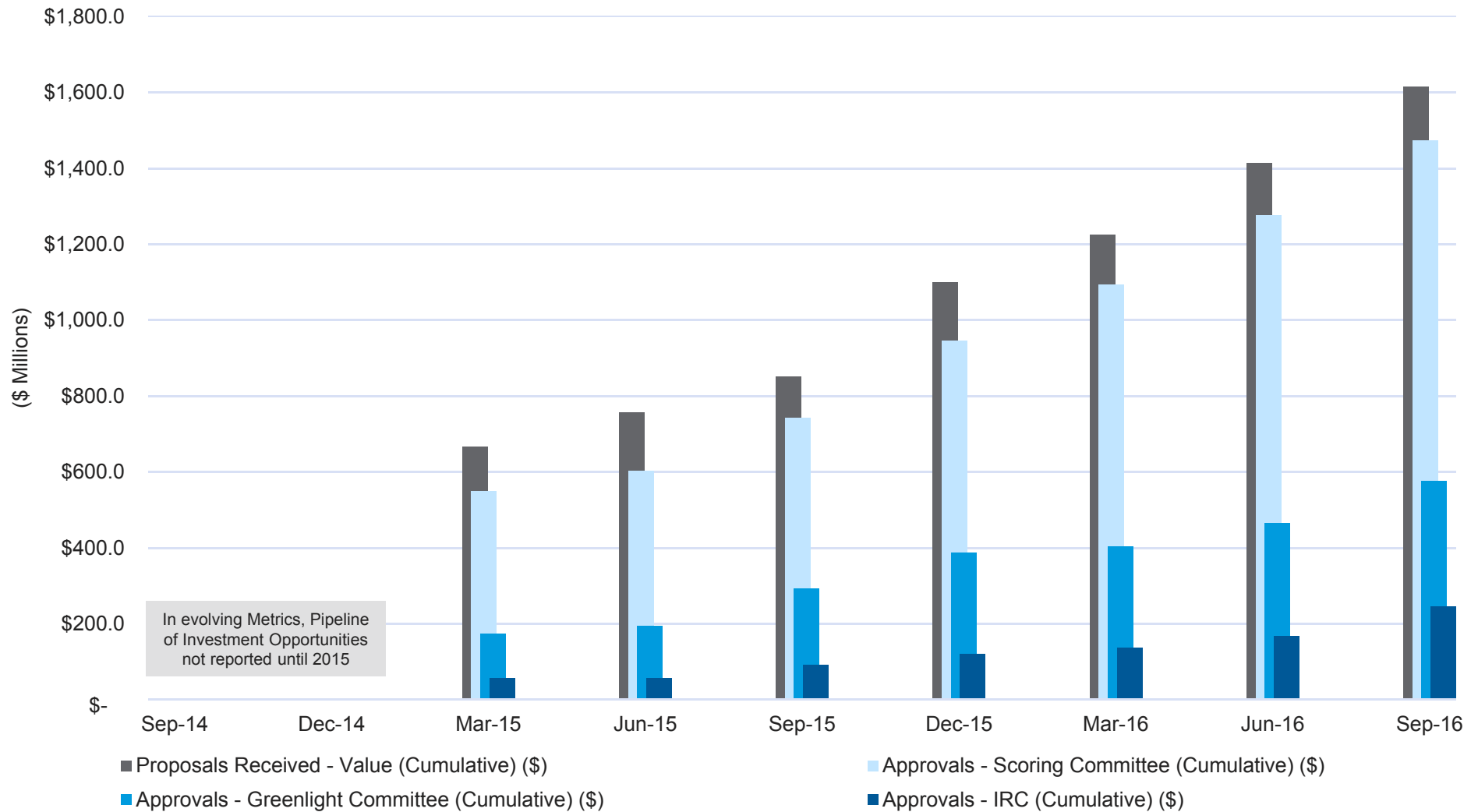


# Quarterly Metrics (cont.)

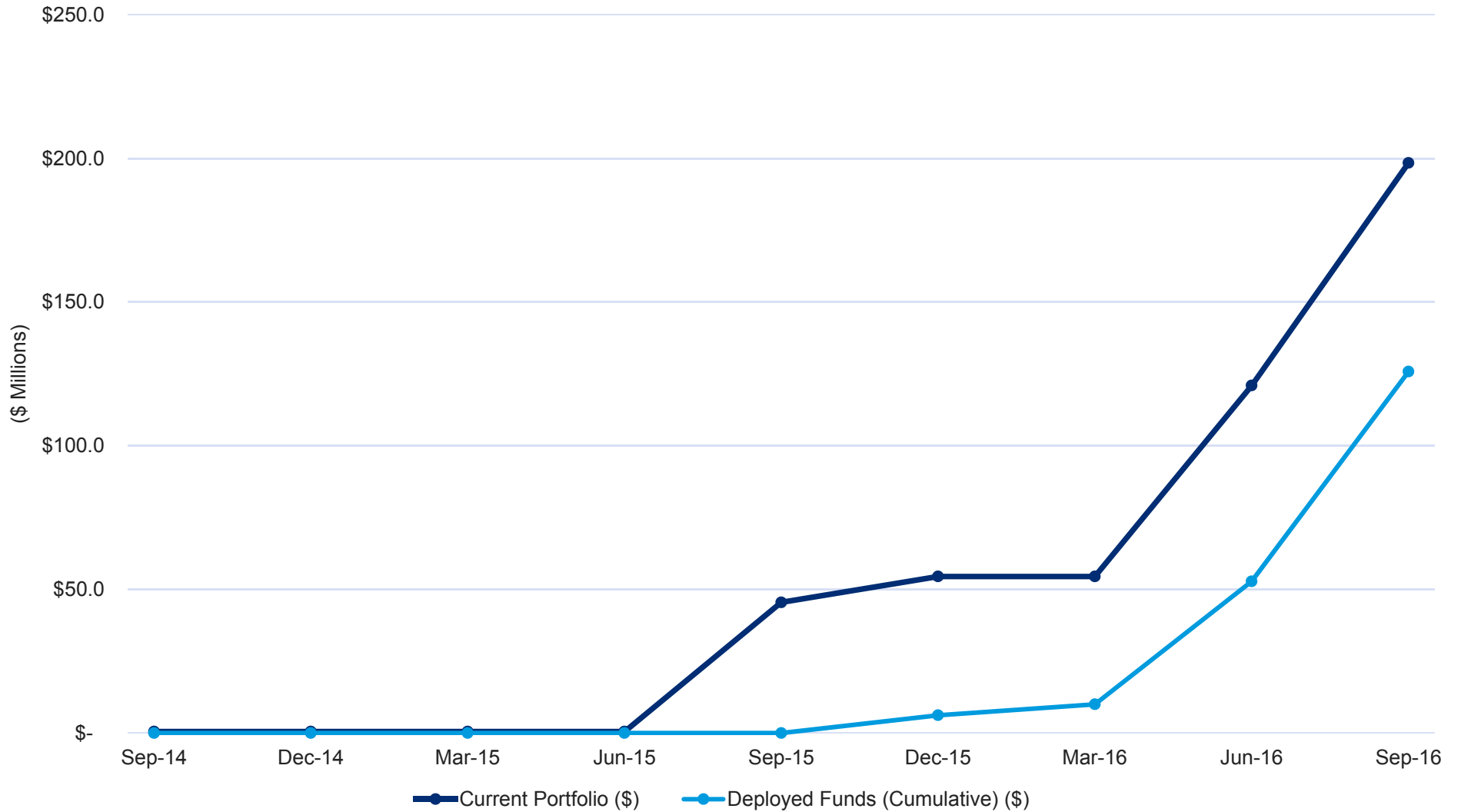
▪ Estimated Gross Lifetime Primary Energy Saved from CHP (Btu) for Committed Funds & Deployed Funds	Not Applicable	Not Applicable
▪ Estimated Gross First Year Primary Energy Saved from CHP (Btu) for Committed Funds & Deployed Funds	Not Applicable	Not Applicable
▪ Estimated Gross Clean Energy Generation Installed Capacity (MW), if applicable, for Committed Funds & Deployed Funds	77.0 – 130.0 MW	122.3 – 217.3 MW
▪ Estimated Gross Lifetime GHG Emission Reductions (metric tons) for Committed Funds & Deployed Funds	2.0 – 2.9 million metric tons	2.6 – 4.2 million metric tons
<b>Investment Pipeline</b>		
▪ Active Pipeline (In the Quarter) (\$)	\$524.3 million	\$638.7 million
<b>Investment Process</b>		
▪ Proposals Received – Value (Cumulative) (\$)	\$1.4 billion	\$1.6 billion
▪ Proposals Received - Total Project Cost (Cumulative) (\$)	\$5.1 billion	\$5.3 billion
▪ Approvals - Scoring Committee (Cumulative) (\$)	\$1.3 billion	\$1.5 billion
▪ Approvals - Greenlight Committee (Cumulative) (\$)	\$464.4 million	\$576.4 million
▪ Approvals - IRC (Cumulative) (\$)	\$168.4 million	\$245.9 million

# Trends

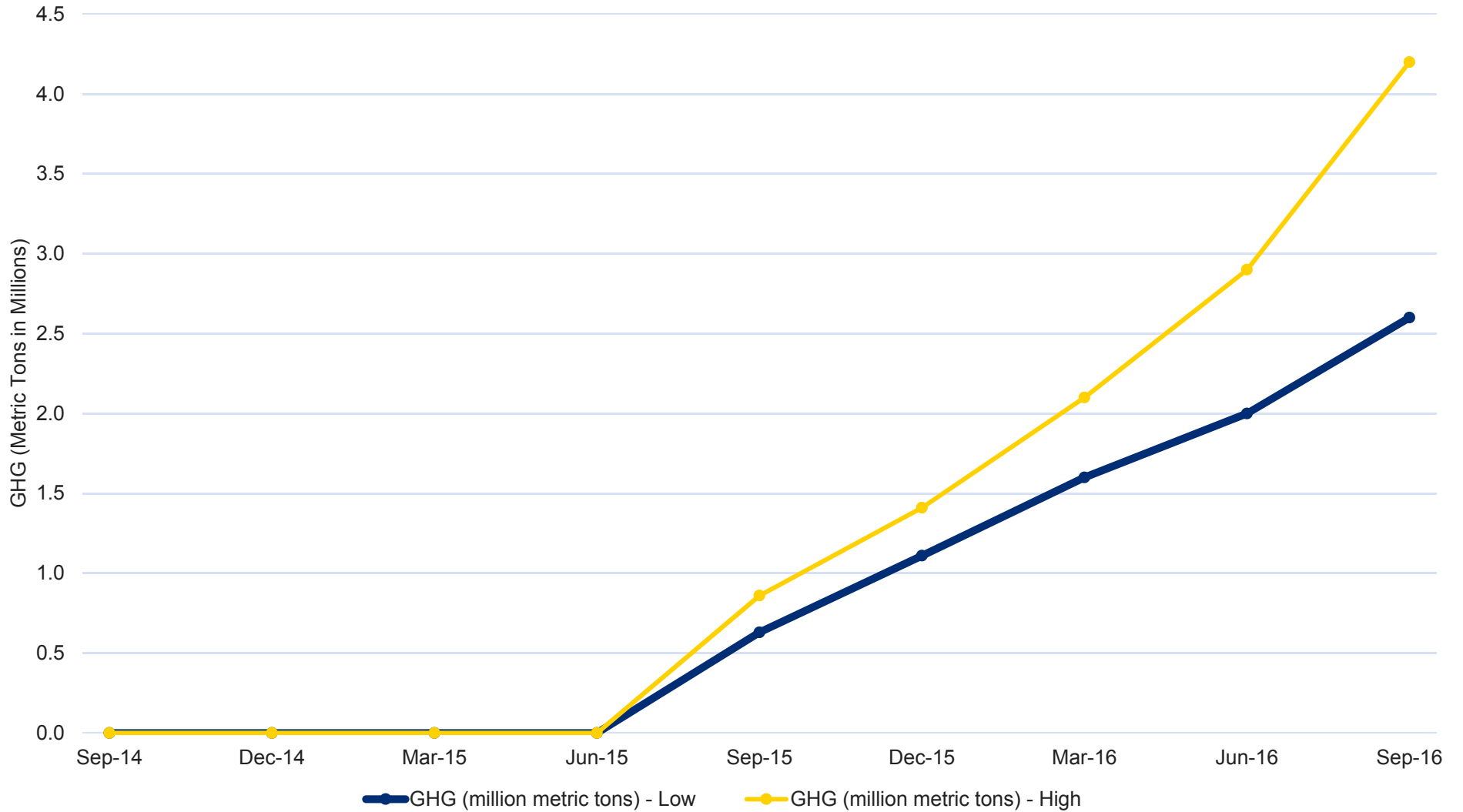
# Pipeline of Investment Opportunities



# Investment Portfolio



# Estimated Lifetime GHG Reductions



# Revenues & Expenses

