

## Expanding Energy Efficiency Opportunities for Small & Medium Sized Commercial Customers in New York State

### NYCEEC / Ecosave Inc.

*NY Green Bank (“NYGB”) is committing up to \$2.0 million to participate in a construction-to-term loan for Ecosave Inc. to finance the installation of energy efficiency improvements at a senior care facility in New York State (“NYS”). As a co-lender with the New York City Energy Efficiency Corporation (“NYCEEC”), NYGB’s participation in this transaction supports at least 12,230 MWh of electricity savings, and 38,170 MMBtu of fuel savings to the customer. The transaction also establishes greater performance history for energy efficiency projects with small-to-medium-sized, unrated commercial customers.*

### Transaction Description

Ecosave Inc. is an energy efficiency services company providing turnkey design, engineering, construction, management, and maintenance services for mid-sized commercial customers through an energy services agreement (“ESA”) model. NYGB is committing \$2.0 million alongside capital from NYCEEC to finance an ESA between Ecosave and the Hebrew Home at Riverdale, a senior care facility in the Bronx. Using NYGB capital, energy efficiency improvements including LED lighting retrofits and Heating, Ventilation and Air Conditioning (“HVAC”) upgrades will be installed at no upfront cost to the customer, and a portion of the resulting energy savings will be used to repay the lenders over time.

This transaction establishes greater performance history for energy efficiency projects with medium-sized, unrated, commercial and industrial (“C&I”) customers, an asset class that historically has reduced access to commercial capital. The installation is expected to reduce at least 560 metric tons of greenhouse gas (“GHG”) emissions annually or 8,460 metric tons of GHG emissions over the 15-year project life. The transaction will help to demonstrate viability of the ESA model, drawing new investors and financial institutions into the marketplace. This fits within NYGB’s strategy to increase liquidity and drive additional volume in the NYS energy efficiency sector, ultimately lowering the cost of capital for energy efficiency retrofits.

This Transaction Profile is provided pursuant to the updated “NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.0” (the “Metrics Plan”) developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the “Commission”) on June 20, 2016.<sup>1</sup> This Transaction Profile contains specific information in connection with the NYCEEC/Ecosave transaction entered into on September 28, 2018, as required by the Metrics Plan.<sup>2</sup>

### Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
<b>Asset Loan &amp; Investment</b>	Construction-to-Term Loan	\$2.0 million

### Location(s) of Underlying Project(s)

New York City. The project is located in New York City.

<sup>1</sup> Case 13-M-0412.

<sup>2</sup> See Section 4.0, page 8 and Schedule 3.

## Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
<b>Client</b>	Ecosave	Energy Project Developer
<b>Counterparties (current)</b>	NYCEEC Hebrew Home at Riverdale	Specialty Financial Institution Healthcare Provider

## Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
<b>Capital Market Participants</b>	On an individual basis, there is limited private capital support for small to mid-sized energy efficiency transactions. However, insurance companies and funds are more likely to participate on an aggregated basis once a portfolio of projects has achieved meaningful scale.	NYGB's participation in this and other small to mid-sized energy efficiency transactions enables the aggregation of portfolios that private capital providers can participate in at scale. NYGB's role as an aggregator enables larger institutions to participate in portfolios of small to mid-sized transactions that individually might not meet scale thresholds.
<b>Commercial and/or Non-Profit Customers</b>	Commercial and/or non-profit entities often require low upfront costs and immediate savings to justify undertaking energy improvement projects. They are also often looking for an off-balance sheet solution. To offer this type of solution, developers must have access to financing to cover the upfront costs associated with an ESA.	NYGB and NYCEEC are providing capital for an energy efficiency developer to offer an off-balance sheet solution that is cash flow positive for the customer from day one. NYGB's involvement helps to grow the market for this type of transaction, which can be replicated for other commercial and non-profit customers, resulting in energy and cost savings for more small and medium-sized businesses in NYS.

## Technologies Involved

Technology	Measures
<b>Energy Efficiency</b>	LED lighting, HVAC, variable frequency drives, energy recovery wheel (i.e., rotary heat exchanger), building automation system

## 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 reductions in support of New York's energy policies".<sup>3</sup> In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on:<sup>4</sup>

- Estimated gross lifetime and first-year electricity savings from efficiency measures (MWh);
- Estimated gross lifetime and first-year fuel savings from efficiency measures (MMBtu); and
- Estimated gross lifetime and first-year GHG emission reductions (metric tons).

<sup>3</sup> 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.

<sup>4</sup> See Metrics Plan, Section 2.0, pages 2 - 6.

The estimated gross lifetime and first-year energy and environmental impacts of the term loan are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Electricity savings (MWh)	12,230	15,300	820	1,020
Energy savings (fuel) (MMBtu)	38,170	47,710	2,540	3,200
GHG emission reductions (metric tons)	8,460	10,580	560	705

## Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation will occur when a critical mass of NYGB financing and investment arrangements are put in place. Market evaluation activities commenced in 2018 on sectors such as this, that NYGB has supported since inception, consistent with the requirement for such assessments approximately three to five years following initial NYGB capital deployments.<sup>5</sup> Baseline data is being collected in 2018 and will be updated in 2019 to include indicators specific to this transaction. Baseline data on indicators will be used as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, mid and long-terms.

Output indicators will identify early activity levels and will be regularly tracked for the duration of the transaction. These include, but are not limited to:

- Number and type of projects in development and completed;
- Average and aggregate dollar value of projects;
- Number and location of projects;
- Size of projects; and
- Energy savings and GHG emission reductions.

Outcome indicators will be expected to show progress through program tracking or market evaluation over time. These include, but are not limited to:

- Favorable financial performance data;
- Favorable technology performance data;
- Increased awareness of energy efficiency benefits amongst financing entities as a result of favorable technology performance data;
- Market volume of energy efficiency projects increases;
- Investment risk/default rates become increasingly attractive to investors, as a result of positive financial performance data;
- Increasingly positive view of banks and institutional investors on investment value of energy efficiency receivables;
- Scale of energy efficiency investment increases, due to increased end-use market demand;
- Replication of finance model by other developers;
- Decreased project technology costs;
- Decreased financing costs;
- Increased number of energy efficiency financings;
- Increased number of financial participants providing similar capital structures;
- Increased financial market volume for energy efficiency projects; and
- Reduced time to execute energy efficiency financings.

<sup>5</sup> See Metrics Plan, Section 3.3 at page 7.

## **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 delivered by this transaction.

**Market evaluation** will address the short, mid, and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants (customers, developers, financial community) to track information including but not limited to: project scale information, interest in energy efficiency financing, and influence of NYGB's participation on financial markets. As noted, baseline data is being collected on most key indicators in 2018 and later follow-up studies will assess progress against baseline levels. The specific timing of these efforts may be revised based on experience or other factors as the investment evolves.

**Impact evaluation** will use actual performance data to understand energy and environmental outcomes. Impact evaluation is expected to include annual review and analysis of actual energy savings data collected by Ecosave. Actual energy savings performance will be monitored and documented against expected performance. Impact evaluation will help provide verification of performance, in turn aiding the clean energy finance community in understanding risk in this technology area.

As with all NYGB investments, Ecosave projects that receive an incentive or funding from other entities (e.g., utility, other NYSERDA program) will, in accordance with the Metrics Plan, be tracked in order 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 these projects that receive support from multiple sources in order to maximize the efficiency of data collection and avoid participant survey fatigue.