



## Providing Energy-Saving Home Improvements for New York State Residents

### Sealed, Inc.

A \$5.0 million senior-secured revolving credit facility provided by NY Green Bank (“NYGB”) will allow Sealed Inc. (“Sealed”), an energy software company, to offer an innovative financing option to its customers to cover the costs of home energy efficiency measures. This transaction will allow Sealed to expand its current operations by completing energy-saving improvements for up to 400 homes in New York State (“NYS”).

### Transaction Description

Sealed is a NYS-based energy software company that provides home efficiency upgrades – from new insulation, to sealing air leaks, to installing new boilers and furnaces – utilizing a first-of-kind, user friendly financing solution. NYGB’s \$5.0 million revolving credit facility will enable Sealed to introduce a new financial product for homeowners interested in making their residences more comfortable as well as more energy efficient.

To date, most energy efficiency financing products are loans where the homeowner is obligated to make a predetermined payment regardless of actual savings. Sealed’s offering allows homeowners to make payments derived from actual energy savings. Sealed’s signature analytics software enables accurate and reliable calculations of expected energy savings which translates into a user-friendly billing process. In addition, the installations include health and safety improvements that are recommended or required by the Building Performance Institute.

This transaction type is replicable for other participants in the energy efficiency market in NYS – specifically smaller developers with early marketplace success but limited scale to date – providing precedent for further expansion of residential energy efficiency financing products.

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>2</sup> This Transaction Profile contains specific information in connection with the Sealed transaction (which was entered into on May 6, 2016), as required by the Metrics Plan.<sup>3</sup>

### Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Warehousing/Aggregation	Revolving Credit	\$5.0 million

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

Long Island & Westchester. Sealed’s residential home energy improvement program will be offered to homeowners primarily throughout Long Island and Westchester. NYGB’s \$5.0 million revolving credit will enhance Sealed’s ability to expand to other regions in NYS.

<sup>1</sup> Refer to the Summary of Changes document for details of updates, available at [www.greenbank.ny.gov/Investments/Transaction-Profiles](http://www.greenbank.ny.gov/Investments/Transaction-Profiles).

<sup>2</sup> Case 13-M-0412.

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

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

	Name	Participant Type
<b>Client</b>	Sealed	Specialty Finance Company
<b>Partners (current)</b>	Sealed's Approved Contractors	Home Improvement Contractors
<b>Partners (future)</b>	To be Identified	Institutional Investor(s)

## Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
NYS Homeowners	Homeowners are increasingly aware of the monetary benefits to be gained from making home efficiency upgrades. However, high upfront costs and limited financing options can make this already complex effort seem overly burdensome.	This transaction provides homeowners with a new financing model to pay for efficiency upgrades. Rather than have only one primary financing option – where homeowners sign on to a pre-determined fixed monthly payment – Sealed allows homeowners to use an innovative financing mechanism, which is directly correlated to the guaranteed energy savings. In addition, as Sealed's financing opportunity expands throughout the State, project costs for Sealed are expected to decline due to increased experience and economies of scale. This should ultimately translate into reduced costs for customers.
Capital Market Participants	While residential energy efficiency financing services are becoming more prevalent in the marketplace, private sector capital providers are hesitant to provide financing until the success of these types of projects –in terms of origination, deployment, performance and ongoing management – has been better demonstrated.	NYGB's early financial investment will help establish a track record for residential energy efficiency financings, and demonstrate the strong risk/return profile associated with these individual efficiency measures. Many private capital providers today prefer to purchase a large pool of existing assets, and because NYGB's \$5.0 million will allow Sealed to facilitate up to 400 individual home upgrades, this will ultimately become a portfolio that is of sufficient size to be sold to private capital providers. NYGB's financing enables Sealed to expand its current business operations while simultaneously introducing new private sector capital providers into this emerging asset class.

## Technologies Involved

Technology	Measures
<b>Energy Efficiency</b>	Boiler replacement, air sealing, duct sealing, insulation, LED lighting, and smart thermostats.

## Metrics & Evaluation Plan

### Planned Energy & Environmental Metrics

NYGB’s minimum investment criteria specifically require that “transactions will have the potential for energy savings that will contribute to greenhouse gas [(‘GHG’)] reductions in support of New York’s energy policies”.<sup>4</sup> In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on<sup>5</sup>:

- Estimated lifetime and first-year energy saved by fuel type (MWh/MMBtu); and
- Estimated lifetime GHG emission reductions (metric tons).

The estimated lifetime and first-year energy and environmental impacts of Sealed’s activity in NYS are as follows:

Energy/Environmental Impacts	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
<b>Estimated electricity savings (MWh)</b>	3,560	4,360	178	218
<b>Estimated energy savings from efficiency measures (fuel) (MMBtu)</b>	392,000	479,000	19,600	23,900
<b>Estimated GHG emission reductions (metric tons)<sup>6</sup></b>	28,000	34,200	1,400	1,710

### 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. This market evaluation will be conducted on sectors that NYGB has supported and will occur approximately three to five years following initial NYGB capital deployments.<sup>7</sup> Baseline data will be collected in 2017 for most indicators 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.

Short-term progress 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 of projects in development and completed;
- Average and aggregate dollar value of projects in development and completed;
- Location of projects;
- Number of small service providers (contractors);
- Consumer payment defaults;
- Number and types of measures installed;
- Market volume of energy efficiency projects increases;
- Favorable financial performance data; and
- Favorable technology performance data.

<sup>4</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>5</sup> See Metrics Plan, Section 2.0, page 2 - 6.

<sup>6</sup> As of January 1, 2016, NYSERDA utilizes a 1,160 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the CEF. NYSERDA previously utilized a 625 lbs/MWh conversion factor.

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

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

- Decreased project cost for Sealed due to increased experience;
- Geographic coverage of Sealed activities extends beyond Long Island;
- General understanding of energy efficiency benefits increases among homeowners and financial institutions;
- Demonstration of competitive risk/return profiles;
- Increased awareness and use of financial performance data by financing entities;
- Increased awareness and use of technology performance data by financing entities;
- Financing entities emerge to assume NYGB's position in transaction;
- Instances of similar financing models emerge;
- Residential homeowner financing costs for energy efficiency improvements decrease;
- Scale of energy efficiency investment by NYS homeowners increases;
- Number of residential energy efficiency refinancings increase;
- Number of banks offering similar warehouse lines of credit increases; and
- Increased energy savings and emissions reductions.

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

**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 (e.g., homeowners, financial community) to track information including but not limited to: participation rates, project scale information, interest in residential energy efficiency financing, and influence of NYGB's participation on financial markets. As noted, baseline data will be collected on most key indicators in 2017 and subsequent 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** is expected to include retail electric and gas utility billing analysis to verify initial consumption estimates and assess impacts related to installation of energy efficient measures. Releases for billing data will be requested of all financing recipients at closing allowing NYSERDA and third party evaluators access to utility data prior to and following measure installation. Billing analysis will be conducted beginning in 2018 and be updated annually to align initial estimates of energy savings with actual savings. On-site verification of measure installations and performance may be conducted as resources allow. This is expected to occur on a less frequent basis to support ongoing billing analyses over time, as greater experience is gained. Billing analysis is a generally accepted and cost-effective method to validate energy savings on projects involving several measures and aggregate savings levels. Should the Project makeup indicate that billing analysis is not a viable method for certain segments of the participants, other methods will be considered. All customer data will be anonymized and/or aggregated prior to being reported or published.

As with all NYGB investments, Sealed Projects that receive an incentive or funding from other entities (e.g., utility or other NYSERDA program) will, in accordance with the Metrics Plan, ideally 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 also 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.