

Providing New Yorkers with Greater Access to Solar Opportunities

SolarCity Corp. & Bank of America Merrill Lynch

NY Green Bank (“NYGB”) has entered into two transactions with SolarCity Corporation (“SolarCity”) to accelerate the deployment of solar projects across New York State (“NYS”). The two transactions fund, respectively, a static pool of SolarCity’s existing solar assets, and new solar projects – as one provides a five-year non-recourse term loan, and the other provides construction financing for SolarCity’s upcoming solar projects in New York. The post-construction term loan facility was arranged by Bank of America Merrill Lynch (“BofA Merrill Lynch”), a global corporate and investment bank engaged by SolarCity. NYGB expects that approximately 54.0 megawatts (“MW”) of projects will be financed as a result of these two transactions, representing approximately 7,000 solar systems in NYS.

Transaction Description

SolarCity is the largest residential and commercial solar energy provider in the US and has installed solar systems in 27 states. SolarCity is also the largest residential solar provider in New York.

Revolving Credit Facility

On December 30, 2016, NYGB committed \$20.0 million to SolarCity’s existing Revolving Credit Facility (the “RCF”). The RCF is used by SolarCity to build new solar projects, of which a significant portion are to be located in NYS. NYGB’s participation accelerates SolarCity’s ability to develop NYS projects and broadens the availability of construction financing for distributed energy projects across the State.

It is estimated that NYGB’s participation in the RCF will lead to approximately 54 MW of new installed generation capacity, or approximately 7,000 residential solar systems across the State. This is anticipated to result in greenhouse gas (“GHG”) emissions reductions of 30,100 - 36,800 metric tons per year or 753,000 – 920,000 metric tons over the assumed 25-year useful life of the equipment. The credit facility also delivers a market rate return to NYS.

Term Loan Facility

SolarCity engaged BofA Merrill Lynch as Mandated Lead Arranger and Sole Bookrunner for a senior secured Term Loan Facility (the “TLF”) to finance a static pool of solar assets. The TLF originally closed in January 2016 with three lenders. On December 9, 2016, NYGB committed \$30.0 million (“NYGB Term Loan”) to upsize the TLF, as the facility was expanded to add new solar assets.

NYGB’s participation provides SolarCity additional financial flexibility, and helps to strengthen the medium-term lending market as an alternative to refinancing through the traditional asset-backed security market or private placement market. This transaction demonstrates NYGB’s continued success in enhancing liquidity, decreasing the cost of capital for solar developers and installers, and helping reduce the cost of solar power to customers.

NYGB’s commitment to the TLF will finance an existing portfolio of up to 13.0 MW of solar assets in NYS, or approximately 1,800 residential solar systems. This is anticipated to result in the reduction of up to 8,000 - 10,000

¹ Refer to the Summary of Changes document for details of updates, available at www.greenbank.ny.gov/Investments/Transaction-Profiles.

metric tons of GHG emissions annually or 170,000 - 200,000 metric tons of GHG emissions over a 25-year useful life of the equipment.

Overall Context

SolarCity sought NYGB’s participation in the RCF and the TLF to provide additional capital to support SolarCity’s solar development efforts and lower its cost of financing for solar energy systems, including in NYS. The two transactions are both successful replications of NYGB’s participation in similar loan structures, consistent with a key NYGB goal to scale up market volume and improve private sector participation and confidence in clean energy investments. Since the TLF is financing already-operational solar systems, the new solar systems deployed in NYS overlap with the new solar systems constructed via the RCF. In aggregate, GHG emissions reductions are expected to be 30,100-36,800 metric tons per year or 753,000 – 920,000 metric tons over a 25-year useful life of the equipment. As both the TLF and RCF have similar effects on new solar asset construction, projects that are built from the backlog on NYS projects are only counted once for NYGB’s impact metrics.

This Transaction Profile is provided pursuant to the “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, 2016.² This Transaction Profile contains specific information in connection with the RCF (entered into on December 30, 2016), and the TLF (entered into on December 9, 2016) as required by the Metrics Plan.³

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Construction Financing Revolver	\$20.0 million
Asset Loan & Investment	Medium Term Loan	\$30.0 million

Location(s) of Underlying Project(s)

Statewide.⁴ Solar assets with leases or PPA structures in regions across NYS.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	SolarCity	Energy Project Developer
Counterparties (current)	BofA Merrill Lynch	Global Corporate & Investment Bank
Financiers (current)	Various tax equity providers and commercial banks	Global Corporate & Investment Banks, Commercial/Regional Banks

² Case 13-M-0412.

³ See Section 4.0, page 8 and Schedule 3.

⁴ Defined as projects located in four or more regions of the State.

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Capital Market Participants	There is a limited (but growing) number of lenders actively financing solar projects.	NYGB's role as a specialty clean energy lender in both transaction facilities provides other financing parties with greater confidence, making it a key component to drawing in other private sector financiers.
	Today's capital markets are largely focused on broadly syndicated term securitizations. There is a need for additional sources of liquidity.	NYGB participation in the TLF helps to strengthen the medium term lending market as an alternative to refinancing through the securitization market or private placement market. This transaction is expected to draw new investors and financial institutions into the marketplace, resulting in enhanced liquidity.
	The solar financing market remains in the growth stage of its development when compared to the breadth and depth of the capital markets for other products and forms of financing.	NYGB's participation in both facilities is expected to help further demonstrate that competitive risk-return profiles can be achieved for solar investments.
Solar Project Developers	Due to strong customer demand, solar developers constantly need to access the capital markets to fund growth and deploy project backlog.	NYGB's participation in both facilities provides additional needed liquidity to support SolarCity's growing demand from customers. Both facilities enable SolarCity to use its capital to process project backlog.
Customers	Customers want to maximize cost savings from "going solar" but can face complex financing options that deter them from taking advantage of this opportunity.	Enhanced financing can result in lower capital costs for developers to further reduce solar costs for NYS customers.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic ("PV") systems

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 greenhouse gas [{"GHG"}] reductions in support of New York's energy policies".⁵ In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on⁶:

- Estimated gross lifetime and first-year clean energy generated (MWh);
- Estimated gross clean energy generation installed capacity (MW); and
- Estimated gross lifetime and first-year GHG emission reductions (metric tons).

NYGB estimates that the two transactions will finance approximately 54 MW of solar assets in NYS. The estimated gross lifetime and first-year energy and environmental impacts of those financed solar assets are as follows:

⁵ 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.

⁶ See Metrics Plan, Section 2.0, pages 2 – 6.

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated clean energy generated (MWh)	1,430,000	1,750,000	57,200	69,900
Estimated clean energy generation installed capacity (MW) ⁷	49.0	59.0	Not Applicable	
Estimated GHG emission reductions (metric tons) ⁸	753,000	920,000	30,100	36,800

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.⁹ 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:

- Size (i.e., generation capacity and dollar value) and location of existing projects financed by the term loan; and
- Performance of the underlying customer agreements for existing projects financed by the term loan.

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:

- Market volume of SolarCity projects increases;
- General understanding of renewable energy benefits by financial community increases;
- Increased awareness and use of PPA performance data by financing entities;
- Increased awareness and use of project/technology performance data by financing entities;
- Demonstration of competitive risk-return profiles for solar investment;
- Decreased project costs;
- Replication of the medium term loan financing structure;
- Volume of secondary market financing of solar assets; and
- Number of new lending participants.

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 (customers, financial community) to track information including but not limited to: participation rates, project scale information, interest in solar financing (generally and with regard to residential specifically), and influence of NYGB's participation on financial markets. As noted, baseline data will be collected on most key indicators in 2017 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 system performance data to understand energy and environmental outcomes. Impact evaluation is expected to include quarterly review and analysis of actual PV portfolio production data collected by SolarCity. Actual PV portfolio performance will be monitored and documented against expected performance.

⁷ Installed clean energy generation capacity at full deployment of funds is the same for first-year and lifetime duration.

⁸ As of January 1, 2016, the New York State Energy Research and Development Authority ("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 Clean Energy Fund. NYSERDA previously utilized a 625 lbs/MWh conversion factor.

⁹ See Metrics Plan, Section 3.3 at page 7.

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, SolarCity projects that receive an incentive or funding from other entities (e.g., utility, 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 be made 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.