TRANSACTION PROFILE

Revised May 2017[1]

Long-Term Financing for Solar Projects Supplying Clean Energy to Cornell University

Odyssey Solar

*NY Green Bank ("**NYGB**") is providing 15-year financing for four solar projects ("**Odyssey**") located in and around Ithaca, NY. These projects have a total installed capacity of 7.76 MW and provide Cornell University clean energy under separate 20-year power purchase agreements ("**PPAs**"). Odyssey is part of NYGB's objective to bring scale and standardization to the Municipal, University, Schools, and Hospitals ("**MUSH**") and Commercial and Industrial ("**C&I**") solar sectors.*

Transaction Description

Building Energy Holding US LLC (as sponsor), and Distributed Sun ("**DSUN**"), partnered to develop, finance, build, and operate four solar energy systems (Snyder Road, Harford, Musgrave East, and Musgrave West) located in and around Ithaca, NY. NYGB has provided a term loan of $10.5 million in connection with these developments. Each project provides up to 2.0 MW (AC) of installed capacity and has a separate 20-year PPA with Cornell University. Snyder Road commenced operations in 2014, and the other three projects began operations in 2016. Each project is owned through an inverted lease tax equity structure with Building Energy Holding US and Distributed Sun as the owners and the tax equity investor providing private capital.

The clean energy generated by Odyssey is estimated to result in up to 4,330 metric tons of greenhouse gas ("**GHG**") emissions reductions annually or 108,000 metric tons of GHG emissions reductions in NYS over a 25-year project life.

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 DSUN transaction entered into on February 23, 2017, as required by the Metrics Plan.[3]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Term Loan	$10.5 million

Location(s) of Underlying Project(s)

Southern Tier and Finger Lakes Regions: Projects are located in Tompkins, Cortland, and Cayuga Counties.

[1] Refer to the Summary of Changes document for details of updates, available at www.greenbank.ny.gov/Investments/Transaction-Profiles.
[2] Case 13-M-0412.
[3] See Section 4.0, page 8 and Schedule 3.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Clients	Distributed Sun	Energy Project Developer
	Building Energy Holding US	Independent Power Producer, Sponsor
Counterparties	Cornell University	Power Purchaser

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Solar Project Developers	Project sponsors find it difficult to get long-term debt financing for one-off or small portfolios of solar projects.	This transaction aims to drive growth in the small to mid-sized solar sector by encouraging the standardization of contractors, contracts, and equipment thereby increasing underwriting efficiency and reducing overall transaction costs. Developing standardized projects within a portfolio makes the overall financing opportunity more attractive to a larger potential investor group, ultimately providing more funding options and influencing financing costs.
Capital Market Participants	Underwriting the credit of a one-off or small portfolio of solar projects is often too expensive for large financial institutions and is not typically done by the smaller or more localized financial institutions.	A standardized approach to project development will enable developers to establish a track record within their portfolio as well as create scale to appeal more broadly to traditional private capital providers. This in turn will create additional familiarity with the asset class and greater scale, resulting in increasing refinancing options and liquidity.
Clean Energy Purchasers	Uncertainty in connection with the long-term financeability of small solar projects limits the volume and speed of deployment of such projects and therefore the options available to clean energy purchasers in managing their energy supply, cost and footprint.	This transaction provides long-term financing to four projects and signals to the market that long-term financing is possible. This type of growing track record will enhance the confidence of power purchasers in entering long-term PPAs for clean energy.

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 [GHG] reductions in support of New York's energy policies".[4] In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on[5]:

- 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).

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
Estimated clean energy generated (MWh)	206,000	251,000	8,220	10,000
Estimated clean energy generation installed capacity (MW)[6]	7.76	7.76	Not Applicable	
Estimated GHG emission reductions (metric tons)[7]	108,000	132,000	4,330	5,290

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 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.[8] 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 aggregate energy generation for all projects.

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:

- Additional one-off or small portfolios receive long-term financing;
- General understanding of renewable energy benefits by financial community increases;
- Increased awareness and use of project/technology performance data by financing entities;
- Demonstration of competitive risk-return profiles for solar PV investment with MUSH/C&I offtakers;
- Decreased project costs;
- Volume of secondary market financing of MUSH/C&I solar assets; and
- Number of secondary capital markets participants.

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 which it delivers.

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 (developers, power purchasers, financial community) to track information including but not limited to: development rates, project scale information, interest in solar financing (generally and with regard to the MUSH/C&I sectors specifically), and influence of NYGB's participation

[4] 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.
[5] See Metrics Plan, Section 2.0, pages 2 - 6.
[6] Installed clean energy generation capacity at full deployment of funds is the same for first-year and lifetime duration.
[7] 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.
[8] See Metrics Plan, Section 3.3 at page 7.

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 Odyssey. Actual PV portfolio 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 better understanding risk in this technology area.

As with all NYGB investments, Odyssey 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 of activity or benefits on a consolidated basis. Pursuant to 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 projects that receive support from multiple sources in order to maximize the efficiency of data collection and avoid participant survey fatigue.