

## Bridge Loan to Support the Deployment of Community Solar Projects

### Cypress Creek Renewables, LLC

*In August 2017, NY Green Bank (“NYGB”) provided a 12-month senior secured bridge loan facility of up to \$11.5 million (the “Bridge Loan”) to Cypress Creek Renewables, LLC (“CCR”), a California-based integrated utility-scale solar provider. In December 2017, NYGB increased the Bridge Loan size by \$13.5 million and extended the maturity date to December 2019. In December 2018, NYGB increased the Bridge Loan size by a further \$20.0 million and extended the maturity date to April 2021. The Bridge Loan proceeds will finance project interconnection payments to utilities across New York State (“NYS”) for up to 72 community distributed generation (“Community DG”) solar projects, and will support CCR’s development of its NYS solar assets. The overall \$45.0 million financing facility is expected to support the deployment of up to 228.0 megawatts (“MW”) of photovoltaic (“PV”) solar in NYS, providing residents and businesses with a greater variety of energy choices and, ultimately, lower-cost clean energy options.*

### Transaction Description

CCR is developing a portfolio of Community DG solar projects in NYS. Under the New York State Public Service Commission Standardized Interconnection Requirements and Application Process, developers seeking interconnections for their projects are required to make a deposit of 25.0% of the interconnection upgrade estimates followed by full payment 120 business days later. In August 2017, NYGB and CCR closed a Bridge Loan for up to \$11.5 million to finance those interconnection deposit payments to NYS utilities, which will be used for as many as 72 Community DG solar projects.<sup>2</sup> In December 2017, the Bridge Loan was increased by \$13.5 million and extended until December 2019 to finance a portion of the balance of the estimated interconnection upgrade payments. In December 2018, the Bridge Loan was further increased by \$20.0 million to a total \$45.0 million facility, and extended until April 2021, to finance interconnection deposit payments and support CCR’s development of its NYS solar assets.

This transaction is estimated to support the deployment of as much as 228.0 MW of solar assets in the State which is expected to: (i) provide commercial and residential project subscribers access to reliable, clean, low-cost energy; and (ii) reduce up to 141,500 metric tons of greenhouse gas (“GHG”) emissions annually and up to 3,540,000 metric tons of GHG emissions over a 25-year project life. As there is an increasingly strong demand for Community DG throughout NYS, capital providers are, and will continue to be, expected to provide financing to enable the deployment of these projects, including through covering the up-front interconnection payments, and products like NYGB’s Bridge Loan are expected to ultimately be offered by private capital providers in future.

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>3</sup> This Transaction Profile contains specific information in connection with the CCR transactions as required by the Metrics Plan.<sup>4</sup>

<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> Under the revised NYS Standardized Interconnection Requirements, within 60 business days of receiving the Coordinated Electric System Interconnection Review results (“CESIR”), interconnection applicants must pay the respective utility 25.0% of the interconnection upgrade estimates.

<sup>3</sup> Case 13-M-0412.

<sup>4</sup> See Section 4.0, page 8 and Schedule 3.

## Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Bridge Loan	Up to \$45.0 million

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

Statewide.<sup>5</sup> CCR's Community DG solar projects are in regions across NYS.

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

	Name	Participant Type
<b>Client</b>	CCR	Energy Project Developer
<b>Counterparties (current)</b>	New York State Electric & Gas Corporation National Grid Orange and Rockland Utilities Rochester Gas & Electric Central Hudson Gas & Electric	Electric Utility

## Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
<b>Solar Project Developers</b>	Project sponsors are often expected to pay for interconnection upgrade expenses with equity funds as they finalize construction financing arrangements. This results in a relatively inefficient use of sponsor equity, limiting project deployment efforts and effectively restricting the amount of Community DG being deployed in NYS.	This transaction encourages a more efficient use of sponsor equity and greater potential project development in NYS by providing leverage that bridges the time period between completion of the CESIR process and finalization of project financing arrangements. NYGB's participation creates an easier pathway forward for developers and enables greater deployment of Community DG along with other distributed generation assets throughout the State.
<b>Capital Market Participants</b>	As a relatively new form of clean energy distribution and therefore lesser known business model, Community DG lacks a large volume of financing precedents and has a limited performance history in NYS. As such, it is difficult for private sector capital providers to assess and price the underlying risk exposures associated with Community DG project investments.	This transaction will generate project and customer performance data, which will help draw new investors and financial institutions into the marketplace by demonstrating that competitive risk-return profiles can be achieved by Community DG enabled business models.
<b>Community DG Subscribers</b>	Due to project siting, property ownership, and consumer preference issues, on-site solar project installations may not be viable for a number NYS homeowners, renters, and businesses. This currently limits the number of solar projects with the potential of getting done to those with perfectly sited homes or businesses.	This transaction supports the deployment of Community DG solar projects, which provide those who are not otherwise able to install solar energy generation systems on their property (e.g., homeowners whose rooftops cannot support solar systems, renters and those who cannot afford solar systems, etc.), with voluntary access to clean, low-cost energy, regardless of their home or business location.

<sup>5</sup> Defined as projects located in four or more regions of the State.

## Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic 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”.<sup>6</sup> In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on:<sup>7</sup>

- 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 Bridge 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)	5,072,000	6,725,000	202,900	269,000
Estimated clean energy generation installed capacity (MW) <sup>8</sup>	172.0	228.0	Not Applicable	
Estimated GHG emission reductions (metric tons)	2,670,000	3,537,000	106,700	141,500

### 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 that NYGB has supported since inception, consistent with the requirement for such assessments approximately three to five years following initial NYGB capital deployments.<sup>9</sup> Baseline data is being collected for the solar sector in 2018 and will be updated in going forward 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:

- Size (generation capacity and dollar value) of acquired projects;
- Average and aggregate dollar value of acquired projects;
- Number and type of acquired projects in development and completed; and
- Number and location of acquired projects (by zip code).

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

- Increased awareness in benefits among financing entities as a result of favorable technology performance data;

<sup>6</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>7</sup> See Metrics Plan, Section 2.0, pages 2 - 6.

<sup>8</sup> Installed clean energy generation capacity at full deployment of funds is the same for first-year and lifetime duration.

<sup>9</sup> See Metrics Plan, Section 3.3 at page 7.

- Favorable financial performance data;
- Favorable technology performance data;
- Market volume of CCR projects increases;
- Investments become increasingly attractive to investors, based on positive financial performance data and acceptable risk/default rates;
- Increased financial market volume for clean energy projects;
- Decreased project technology costs;
- Scale of clean energy investment increases, due to increased end-use market demand;
- Reduced time to execute clean energy financings; and
- Increased number of financial participants providing similar capital structures.

### **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 outcome indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants (project subscribers, financial community) to track information including but not limited to: participation rates, project scale information, interest in solar financing (generally and with regard to Community DG specifically), and influence of NYGB's participation on financial markets. As noted, baseline data is being collected on most key indicators starting 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 assess the performance of the projects funded under the Bridge Loan to verify that arrays are generating clean energy benefits within the estimated ranges set out in this Transaction Profile.

As with all NYGB investments, CCR 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.