TRANSACTION PROFILE

March 2019

Supporting Large Scale Onshore Wind in New York State

BlackRock – Rock Wind Holdings

*NY Green Bank ("**NYGB**") has committed $31.25 million to the recapitalization of a portfolio of wind farms by BlackRock Global Renewable Power Fund II, including a 55.35 MW project in New York State ("**NYS**" or the "**State**"). NYGB's participation in this transaction – alongside other commercial banks – supports the long-term financing of a large scale renewable project in NYS that has merchant exposure, as well as the secondary market for assets of this type.[1] The existence of a robust secondary market supports even greater development of large scale renewables through the availability of greater sources of capital interested in investing in this asset class. In addition, NYGB's involvement in this transaction contributes to ratepayers' greater energy choices, and ultimately, lower-cost clean energy opportunities.*

Transaction Description

Black Rock Renewable Assets, the dedicated renewables investment team of BlackRock Real Assets, recently acquired a portfolio of five operating wind farms located in New York, Pennsylvania, and Illinois totaling 539.0 MW. NYGB has committed $31.25 million alongside capital from commercial banks to support the long-term financing of these quasi-merchant assets, which include a 55.35 MW project in Steuben County, NYS.

Commercial banks are becoming more comfortable with merchant exposure for thermal facilities, but the market is less developed for merchant renewable projects. NYGB's participation signals that long-term financings of NYS wind projects with merchant tails are possible, which in turn is expected to encourage more primary wind development in the State. This transaction supports the secondary market for wind projects in NYS at a time when long-term offtake contracts are increasingly scarce. This is NYGB's second large-scale renewable transaction.

The 55.35 MW project will continue to generate renewable wind energy for the State. NYGB participation in this secondary market transaction is expected to spur further private investment in this type of asset, delivering even more renewable generation options and benefits to ratepayers. The anticipated growth of large scale renewables in the State (including onshore wind) can be expected to be maximized in a market where there is ample capital available for both project developments and the subsequent recapitalization and/or sale of operating assets. Many benefits of Clean Energy Fund initiatives in the State (including NYGB investments consistent with its mission, like this Rock Wind transaction) comprise follow-on market activity as part of quantifying overall impact. In this instance, the provision of secondary financing of operating wind assets is expected to provide confidence to developers and future financiers that there is increasing liquidity in merchant renewable project asset classes, across project lives, spurring even greater interest and activity. NYGB expects to see material indirect benefits from transactions like this one in the form of more large-scale renewable projects for NYS and specific estimated indirect impact benefits associated with this transaction are set out in the "Metrics & Evaluation Plan" section of this Transaction Profile, below.

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.[2] This Transaction Profile contains

[1] Merchant power plants are non-utility owned or independent power generation facilities where energy output is sold into competitive wholesale power markets. Merchant plants may contract for the sale of some of their output, but such arrangements tend to be shorter-term arrangements, rather than longer term power purchase agreements ("**PPAs**").

[2] Case 13-M-0412.

specific information in connection with the BlackRock – Rock Wind Holdings transaction entered into on March 29, 2019, as required by the Metrics Plan.[3]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Term Loan	$31.25 million

Location(s) of Underlying Project(s)

Steuben County, NY. The project is located in NYISO, Zone C.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	Rock Wind Holdings, LLC	Project Holding Company
Counterparties (current)	BlackRock Real Assets Other Lenders	Sponsor Commercial Banks

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Wind Project Developers	Wind developers can face difficulties refinancing assets exposed to merchant revenue risk. To date, the majority of wind financings have been supported by long-term PPAs or hedges with creditworthy offtakers and terms of over 10 years. However, such long-term contracts are becoming increasingly scarce.	NYGB's participation encourages more efficient use of project developer equity. Ideally, there should be a more liquid market for operating projects, where merchant risks are increasingly better understood and managed. NYGB's willingness to support these assets helps to demonstrate to the broader market lender comfort with NYISO merchant exposure.
Capital Market Participants	Many capital market participants are not yet comfortable underwriting merchant revenue from renewable energy assets. The debt financing community has become increasingly familiar with generation assets supported by 5 – 7-year hedges, but principally with thermal generating facilities.	NYGB's participation provides an important market signal that long-term financings of NYS wind projects with merchant tails are possible. Supporting operating assets allows lenders an opportunity to better asses the technology using asset-specific operating data as well as increasing experience of wholesale power markets.
New Yorkers	While renewed interest and activity in wind projects are increasing rapidly in NYS, many are expected to rely on a combination of merchant and REC revenue streams.	By bridging financing gaps in the secondary marketplace, NYGB is encouraging more primary wind development in the State. Ultimately this is expected to provide New Yorkers with greater choices and access to clean energy at a lower cost.

Technologies Involved

Technology	Measures
Renewable Energy	Onshore wind systems

[3] See Section 4.0, page 8 and Schedule 3.

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".[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).

Since this transaction involves the secondary market financing of existing wind assets, there are no claimed direct incremental impact benefits. However, material indirect impact benefits are expected to result for the State from NYGB investments of this nature.[6] The estimated additional gross lifetime and first-year energy and environmental impacts of the Rock Wind projects are as follows:

Energy/Environmental Indirect Impact	Lifetime Estimate
Estimated clean energy generation installed capacity (MW)	17.6 - 35.1
Estimated clean energy generated (MWh)	1,306,915 - 2,613,831
Estimated GHG emission reductions (metric tons)	687,539 - 1,375,077

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occurs when a critical mass of NYGB financing and investment arrangements are put in place, approximately three to five years following initial NYGB capital deployments. Market evaluation activities commenced in 2018 to collect baseline data on key market indicators for the sectors that have been supported by NYGB since its inception, and the dataset will be updated going forward to include indicators specific to this and other transactions. Baseline data 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 at least for the duration of the transaction. These include, but are not limited to:

- Number of new large scale renewable projects in development and completed;
- Average and aggregate dollar value of projects;
- Location of projects;
- Size of projects (i.e., installed capacity in MW);
- Renewable energy generated (in MWh); and
- GHG emission reductions (in metric tons).

Outcome indicators are 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;
- Increasing market volume of large scale renewable projects (both developments and primary/secondary financings);

[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] Details with respect to the methodologies and key assumptions for the indirect benefits attribution will be included in NYGB's future Quarterly Metrics & Evaluation Report, with the next such report due to be filed on May 15, 2019.

- 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 merchant renewables;
- Amount and scale of onshore wind investment increases, together with increased end-use market demand;
- Replication of finance model by other developers;
- Decreased project technology costs/increasing output and efficiency;
- Decreased financing costs;
- Increased number of financial participants providing similar capital structures; and
- Reduced time to execute large scale renewable financings.

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

NYSERDA will evaluate the direct and indirect impacts that this transaction has 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 to track information including but not limited to: project scale information, interest in wind financing, and influence of NYGB's participation on primary and secondary financial markets. As noted, baseline data is being collected on key indicators in the first phase evaluation during 2018 – 19. Later follow-up studies will assess progress against baseline levels for other market segments as those evolve. The specific timing of these efforts may be revised based on experience or other factors as NYGB's investment portfolio further develops and evolves.

Impact evaluation will assess the performance of the projects funded to verify that the wind systems are generating clean energy and impact benefits within the estimated ranges set out in this Transaction Profile.

As with all NYGB investments, 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.