

NY Green Bank

Metrics, Reporting & Evaluation Plan

Case 13-M-0412

February 22, 2016

Version 2.0

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1.0 Introduction

1.1 New York Green Bank Background

New York Green Bank (“**NY Green Bank**”) is a state-sponsored specialized financial entity dedicated to overcoming current obstacles in clean energy financing markets and increasing overall capital availability through various forms of financial products including credit enhancement, warehousing/aggregation (short-term) and asset loans and investments (long-term). NY Green Bank partners closely with the private sector to mobilize and leverage private capital. NY Green Bank is a part of Governor Andrew M. Cuomo’s strategic statewide plan to scale up clean energy, enhance New York State’s competitiveness for clean energy businesses, and make energy systems more resilient and reliable.

NY Green Bank offers a new model to address perceived market failures and limitations to advance the scale adoption and implementation of clean energy in a number of ways. NY Green Bank adopts a flexible approach in its commitment to being market responsive. Private sector market participants work with NY Green Bank to identify financing market barriers and gaps for otherwise economically feasible projects, and then structure related arrangements to make viable transactions that would not otherwise be possible in current commercial markets.

NY Green Bank partners with private sector industry participants — including financial institutions and other third party capital providers, as well as developers, energy service companies (“**ESCOs**”), project and property owners/operators, equipment manufacturers, and others — to support clean energy projects. NY Green Bank’s target clients and partners are entities that are experienced and achieving success in clean energy markets but whose ability to accelerate clean energy deployment is effectively limited by capital constraints for the type of projects being considered. NY Green Bank will work with project sponsors and financial institutions to deploy proven technologies and projects in renewable energy and energy efficiency. These are technologies and applications in projects that are in demand by clients and their respective customers, are economically viable, and can support a commercial cost of debt, but for which debt capital is not readily provided by the markets due to existing barriers.

1.2 Background to this Version of the Plan

As required by, and consistent with, the Public Service Commission (the “**PSC**”) “Order Authorizing the Clean Energy Fund Framework”¹ (the “**CEF Order**”), NY Green Bank will be updating this Plan over the coming months. Specifically:

- (a) Within 30 days of the date of the CEF Order, an updated version of the Metrics, Reporting & Evaluation Plan (the “**Plan**”) is to be filed with the PSC “which shall include first year energy savings, in addition to lifetime energy savings, in all Transaction Profiles and Quarterly Reports²; and
- (b) In consultation with Department of Public Service (“**DPS**”) staff, NY Green Bank and the New York State Energy Research and Development Authority (“**NYSERDA**”) “shall review the [Plan] to determine if other revisions are needed to properly track and assess NY Green Bank progress on an ongoing basis”.³ This review is to include input from stakeholders with a further revised version of this Plan being filed concurrent with NY Green Bank’s annual business plan on June 19, 2016.⁴

This version 2.0 of the Plan is filed in satisfaction of the requirement described in Section 1.2(a) above.⁵

It should be noted that since the original Plan was filed in June 2014, there have been numerous additions to, and clarifications of, the information that NY Green Bank periodically provides in its public filings under the Plan — particularly in Quarterly Reports (as defined in Section 4.1). Such changes have been made in response to input from both DPS and stakeholders, in addition to improvements suggested by NY Green Bank. The revised version

¹ Cases 14-M-0094 *et al.*, issued and effective on January 21, 2016.

² *Ibid.*, Ordering Clause 35, page 112.

³ *Ibid.* Ordering Clause 36, page 112.

⁴ *Ibid.*

⁵ See in particular Table 2, “Energy & Environmental Metrics”, in the description of the corresponding Metrics contained in the first two bullets.

of the Plan that will be filed in satisfaction of the requirement referenced in Section 1.2(b) is being designed to, among other things, bring the Plan up-to-date with the actual structure and content of periodic metrics filings as they have evolved since June 2014.

1.3 Purpose & Organization of this Plan

The order providing initial capitalization for NY Green Bank issued by the PSC and effective on December 19, 2013 (the “**Initial Capitalization Order**”)⁶ directed NYSERDA to collaborate with DPS staff to develop metrics for evaluation of NY Green Bank and to provide an opportunity for other parties to offer input. Specifically, the Initial Capitalization Order directed:

“NYSERDA shall collaborate with DPS Staff to develop metrics for the evaluation of the Green Bank’s performance in meeting the State’s clean energy and energy efficiency goals, as well as metrics for evaluating operational performance, risk management, and financial and market metrics, and a proposal for reporting the Green Bank’s performance against those metrics. NYSERDA and Department of Public Service Staff should also provide an opportunity for other parties to offer input. NYSERDA shall file these metrics no later than six months after the date of this Order.”

This Plan was developed as a result of the DPS-NYSERDA collaboration and public input process. The remainder of this Plan includes the following:

- Section 2.0 - Process for Developing Metrics, Reporting & Evaluation Plan;
- Section 3.0 - Metrics & Data Collection;
- Section 4.0 - Reporting Plan;
- Section 5.0 - Evaluation Plan;
- Section 6.0 - Process for Updates to this Plan; and
- Section 7.0 – Glossary.

2.0 Process for Developing Metrics, Reporting & Evaluation Plan

Following the Initial Capitalization Order, NYSERDA, together with NY Green Bank personnel, has developed this Plan in collaboration with DPS staff.

The metrics reflected in this Plan have been devised taking into account a number of factors, including:

- (a) NY Green Bank’s particular mandate and specific goals and objectives within New York State;
- (b) Needs of stakeholders;
- (c) The diversity of private sector counterparties with which NY Green Bank will be dealing – from large public companies, to smaller, private ones;
- (d) The experience of NY Green Bank’s staff in its target markets;
- (e) Disclosures made by comparable private sector organizations; and
- (f) Usual and customary commercial practices.

In particular, NY Green Bank is focused on the requirement that to be effective and engage its private sector clients and partners, it cannot be an overly burdensome counterparty. This means that dealing with NY Green Bank must:

- (a) Be no more bureaucratic than dealing with a comparable specialty finance company or investment fund;
- (b) Occur on time frames that are comparable to doing business with private sector participants accustomed to fast turnarounds and decisions; and
- (c) Require only disclosures, reporting and other conditions that are usual, customary and commercial in the normal course of similar private market transactions and which don’t compromise proprietary or confidential information.

⁶ Case 13-M-0412.

Striking a reasonable balance between accountability and transparency and the principles outlined above has been a priority in the creation of this Plan.

NYSERDA and NY Green Bank have also based the Plan on research of other best practices related to measuring effectiveness of public financing initiatives and analogous public-private partnership models. These include investment funds led by the UK Green Investment Bank (“**UK-GIB**”), the Australian Clean Energy Finance Corporation (“**CEFC**”), the Connecticut Green Bank (“**CTGB**”) and the New York Power Authority (“**NYPA**”)’s energy efficiency and distributed generation finance offerings.

Finally, public input has been sought and incorporated into this Plan, as required by the Initial Capitalization Order. Public input was gathered through a Technical Conference held on May 29, 2014. Prior to the Technical Conference, notice was sent directly to the party list in PSC Case 13-M-0412 and was also made publicly available on the PSC website for the case. Materials were posted on the PSC website for interested individuals to review as a way of preparing questions and input for the Technical Conference. These materials consisted of a draft of the metrics included as Table 1 (Operational & Risk Management Milestones) (collectively, the “**Milestones**”) and Table 2 (Metrics & Data Collection) (collectively, the “**Metrics**”) in this Plan, together with a draft of the key definitions included in Section 3.2.

3.0 Metrics & Data Collection

3.1 General

In the Initial Capitalization Order, the PSC “require[s] NYSERDA to ... design appropriate metrics for judging the Green Bank’s effectiveness, as well as data collection and reporting requirements that will support [the PSC’s] ability to assess, in the future, New Yorkers’ return on this investment.” The PSC further directed that “NYSERDA should design ... metrics to help the Commission and the public evaluate how well the Green Bank is achieving our clean energy goals, including the objectives of market transformation and reducing the need for future ratepayer collections.” Table 1 (Operational & Risk Management Milestones) and Table 2 (Metrics & Data Collection) indicate respectively the Milestones and Metrics developed according to the process outlined in Section 2.0 of this Plan. Milestones and Metrics directly mentioned in the Initial Capitalization Order are included along with others identified as important as a result of the process outlined in Section 2.0.

The Milestones are important early indicators of progress in terms of establishing NY Green Bank’s operations. Completion of each Milestone is documented as it occurs and reported as required in the Initial Capitalization Order.

The Metrics constitute the ongoing key success measures that will be regularly tracked and publicly reported to gauge NY Green Bank achievements. Table 2 also indicates the timing contemplated for the outputs and outcomes relevant to each Metric. While most of the Metrics are quantitative in nature, some have inherently more qualitative aspects including, for example, market transformation and additionality considerations. It is expected that NY Green Bank quantitative performance targets will be established in 2015 by NY Green Bank and tracked beginning in 2016 for Energy Saved, Clean Energy Generated and Greenhouse Gas Emission Reductions. Key definitions relating to the Metrics are set out in Section 3.2 of this Plan.

In addition to the Milestones and Metrics that will be externally reported, NY Green Bank will also internally track types of financial products and instruments, length of investments as well as other important factors identified by the Initial Capitalization Order such as geographic, technology, type of consumer segment and fuel diversity in the projects to which it provides financing.

NY Green Bank’s transaction vetting process includes consideration of additionality. The simplest additionality criterion connotes that a NY Green Bank investment will only be undertaken if the underlying project or transaction would likely not otherwise happen in an efficient or scalable manner in commercial markets. Such a strict additionality requirement would put NY Green Bank further away from the market frontier in areas where, as a consequence, NY Green Bank will be less able to attract (and get leverage from) private sector capital. As a

result, NY Green Bank adopts a broader view in evaluating the additionality of qualifying investment opportunities by considering:

- (a) The unique benefit NY Green Bank brings to the proposed financing arrangement; and
- (b) If any proposed project:
 - i. Would likely not occur given the current state of the private markets; or
 - ii. Might occur in the private markets but:
 - Would likely involve less favorable terms as to tenor, cost, fees and other key transaction attributes; or
 - Would likely not happen at the market breadth needed to scale the sector.

This broader view of additionality is inherent in the justification for, and strategy of, NY Green Bank. Clean energy financing market gaps exist and these allow NY Green Bank to work with private sector entities on “near frontier” opportunities (i.e., those opportunities which are effectively one standard deviation away from where financing markets are today).

It is important to note that NY Green Bank clients will also remain eligible to receive funding or grants for their projects from state and other programs, including the ratepayer funded Energy Efficiency Portfolio Standard (“**EEPS**”), Renewable Portfolio Standard (“**RPS**”), and Technology and Market Development (“**T&MD**”, formerly referred to as the Systems Benefit Charge) programs, as well as those funded with Regional Greenhouse Gas Initiative (“**RGGI**”) proceeds. Regular reporting of energy and environmental metrics will be inclusive of all projects that receive NY Green Bank funding, regardless of whether these projects also receive support from ratepayer or other funded programs. In terms of assessing the extent of overlap and common benefits, NYSERDA will modify intake information received on incentive programs to determine whether NY Green Bank financing is involved for incentive program customers. Evaluation sampling of NY Green Bank clients will also seek to identify transactions that involved financing from both within and outside of NY Green Bank, including other ratepayer funded programs to the extent possible. These two sources of information will allow NYSERDA to estimate a reasonable overlap value for energy and environmental metrics so they are not double-counted when NY Green Bank impacts are included in statewide results.

Table 1. Operational & Risk Management Milestones

Milestone Type	Milestone
Operational Milestones	<ul style="list-style-type: none"> ▪ Organizational structure established/plan filed ▪ Establishment of Advisory Committee ▪ Establishment of Investment & Risk Committee ▪ Leadership and staff of NY Green Bank hired ▪ Initial Business Plan filed
Risk Management Milestones	<ul style="list-style-type: none"> ▪ Risk framework, mitigation principles and oversight in place

Table 2. Metrics & Data Collection

Metric Type	Metric	Data Collection	Timing
Risk Management Metrics ⁷	<ul style="list-style-type: none"> ▪ Total Capital available ▪ Committed Funds ▪ Deployed Funds ▪ Overall portfolio size and concentrations⁸ 	NY Green Bank records ⁹	Reported quarterly (within 45 days after the end of each quarter) as NY Green Bank financing agreements are signed and closed. First quarterly report will be filed within 45 days after the third quarter 2014
	<ul style="list-style-type: none"> ▪ Portfolio Impairment (percent currently Impaired and projected recoveries) 	NY Green Bank records	Reported annually, consistent with NY Green Bank's fiscal year (April 1 – March 31). First annual report will be filed within 90 days after March 31, 2015 ¹⁰
Financial & Market Metrics	<ul style="list-style-type: none"> ▪ Number and type of NY Green Bank-supported projects financed ▪ Number and general type of NY Green Bank clients and partners 	NY Green Bank records	Reported quarterly (within 45 days after the end of each quarter) as NY Green Bank financing agreements are signed and closed. First quarterly report will be filed within 45 days after the third quarter 2014
	<ul style="list-style-type: none"> ▪ Audited Financials ▪ Mobilization Ratio ▪ Return on Investment ▪ Capital Redeployment Cycle Time 	NY Green Bank records	Reported annually, consistent with NY Green Bank's fiscal year (April 1 – March 31). First annual report will be filed within 90 days after March 31, 2015 ¹¹
	<ul style="list-style-type: none"> ▪ Level of awareness, knowledge and confidence of financial institutions and market intermediaries in clean energy investments¹² 	Market evaluation ¹³	Long-term outcome: Baseline and time series data to be reported as available from periodic evaluation

⁷ The Initial Capitalization Order defines risk management metrics as those that assist in defining acceptable capital deployment opportunities.

⁸ NY Green Bank's risk management protocols include portfolio construction principles, which in turn address diversification and concentration. In particular, these principles require NY Green Bank to identify and monitor concentration risk and exposures including as to technologies, product offerings and clients and counterparties.

⁹ NY Green Bank records include information obtained from clients and partners consistent with usual and customary commercial practice, including with respect to confidentiality determined necessary on a deal-by-deal basis.

¹⁰ Timing takes into account the period required for Audited Financials to be prepared and reviewed ahead of being available for public filing.

¹¹ Timing takes into account the period required for Audited Financials to be prepared and reviewed ahead of being available for public filing.

¹² Over time, as financing agreements are signed and closed, NY Green Bank will give consideration to the development of specific barriers and market transformation indicators.

¹³ As set out in [Section 5.2](#) (Market Evaluation) the reporting cycle for this Metric will be tied to the timing of the required evaluations.

Metric Type	Metric	Data Collection	Timing
Energy & Environmental Metrics	<ul style="list-style-type: none"> ▪ Estimated lifetime and first year¹⁴ energy saved by fuel type from efficiency projects (MWh/MMBtu)¹⁵ and/or estimated lifetime and first year clean energy generated (MWh)¹⁶ ▪ Estimated lifetime and first year primary energy saved from CHP (Btu) ▪ Estimated clean energy generation installed capacity (MW), if applicable ▪ Estimated lifetime greenhouse gas emission reductions (metric tons) 	NY Green Bank records Impact evaluation	Long-term outcomes: Estimates reported quarterly (within 45 days after the end of each quarter) for Committed Funds and Deployed Funds as NY Green Bank financing agreements are signed and closed, later verified by impact evaluation. First quarterly report will be filed within 45 days after the third quarter 2014

3.2 Key Definitions

For the purposes of calculating and reporting the Metrics, the following terms have the meanings indicated:

“Audited Financials” means annual audited financial statements prepared in accordance with applicable accounting standards by an experienced, credible and independent accounting firm, in consultation with NY Green Bank and NYSERDA staff.

“Capital” means the aggregate capital allocated to NY Green Bank from all public sources at the relevant time, including time-weighted adjustments to account for changes in NY Green Bank’s capitalization, expressed in dollars.

“Capital Gains” mean, in any year, all increases in the capital available to be Deployed by NY Green Bank in its investments derived from realized gains, expressed in dollars.

“Capital Losses” mean, in any year, the aggregate amount of funding that has been Deployed as principal by NY Green Bank and become due and payable but that has not been repaid to, or recovered by, NY Green Bank pursuant to the terms of the relevant transaction documents, expressed in dollars, and in respect of which NY Green Bank has undertaken commercially reasonable legal remedies and other means of recovery.

“Capital Redeployment Cycle Time” means the average period of time it takes for a dollar of Committed Funds or Deployed Funds to be advanced to, and repaid from, one NY Green Bank investment and further Committed and/or Deployed to a subsequent NY Green Bank investment, measured across NY Green Bank’s entire portfolio.

“Committed Funds” means, in any period, the aggregate funds to be provided by NY Green Bank pursuant to fully negotiated client and partner financing agreements executed in that period, without such funds having yet been Deployed, expressed in dollars. **“Committed”** has a corresponding meaning.

“Deployed Funds” means, in any period, the aggregate funds that have been advanced by NY Green Bank subject to the terms of fully negotiated client and partner financing agreements executed in that period, expressed in dollars. **“Deployed”** has a corresponding meaning.

“Gross ROI” for any period is calculated for NY Green Bank as follows:

¹⁴ First year energy savings refer to the first year of estimated energy savings once a measure is installed and as such savings will not necessarily correspond to the first year of the investment term. The majority of NY Green Bank’s investments have a two to three-year development cycle in which projects are originated, installed and placed into commercial operation.

¹⁵ Energy impacts will generally be based on full savings compared against the baseline of the existing condition and will be reported quarterly based on NY Green Bank results. As these Metrics are verified through impact evaluation, those results will be included in quarterly reporting following completion of corresponding evaluations.

¹⁶ This Metric category will include energy impacts from on-site fuel cells and bio-heat applications.

$$\frac{\text{Income} - \text{Capital Losses} + \text{Capital Gains}}{\text{Capital}}$$

“**Impaired**” refers to any NY Green Bank asset where:

- (a) That asset has become non-performing, such that NY Green Bank is no longer receiving all principal, interest and fees due in connection with that asset in accordance with the terms of the applicable transaction documentation; and
- (b) NY Green Bank reasonably expects to incur a Capital Loss on recovery of the amount of Deployed Funds representing that investment asset and has reserved in its accounts accordingly.

“**Income**” during any period means all fees, interest and other receivables related to Committed Funds and Deployed Funds (including, without limitation, such amounts as may be capitalized, accrued or paid-in-kind) due to NY Green Bank during that period as remuneration for providing financial facilities in transactions and also includes interest received on cash held by NY Green Bank¹⁷, all expressed in dollars.

“**Mobilization Ratio**” means the aggregate amount of private sector capital committed or invested (or expected to be committed or invested in the case of warehouse aggregation financings) across transactions for every dollar of Committed Funds or Deployed Funds in those transactions.

“**Net ROI**” for any period is calculated for NY Green Bank as follows:

$$\frac{\text{Income} - \text{Capital Losses} + \text{Capital Gains} - \text{Operating Expenses}}{\text{Capital}}$$

“**Operating Expenses**” mean, during any period, the costs involved in operating NY Green Bank on a day-to-day basis including all business development, transaction, and general and administrative expenses, expressed in dollars.

“**Portfolio Impairment**” means, at any time with respect to all assets within NY Green Bank’s investment portfolio, the dollar value that is recorded in NY Green Bank’s books of all such assets that are Impaired, expressed as a percentage of the total of all Committed Funds and Deployed Funds at that time.

“**Return on Investment**” or “**ROI**” represents stakeholders’ return on investment in NY Green Bank and measures return on Capital, expressed as a percentage, including Gross ROI and Net ROI. Both Gross ROI and Net ROI will be calculated on a fiscal year basis and include:

- (a) ROI for the relevant year (gross and net of Operating Expenses); and
- (b) Cumulative ROI (gross and net of Operating Expenses) commencing with the third quarter of 2014.

4.0 Reporting Plan

4.1 Content

In accordance with the Initial Capitalization Order, NYSEERDA will “file a quarterly Green Bank status report within 45 days of the end of each quarter that reports on its progress in carrying out the organization and business plans provided” (the “**Quarterly Report**”). The Quarterly Report will also include NY Green Bank’s performance quarter-over-quarter against tracked Metrics identified for quarterly reporting in [Table 2 \(Metrics & Data Collection\)](#). Metrics data either derived from (i.e., relating to market) or verified by (i.e., in connection with energy and environmental outputs) the evaluation efforts specified in [Table 2 \(Metrics & Data Collection\)](#) will be reported based on the frequency of evaluation (see [Section 5.0](#)).

¹⁷ It is NY Green Bank’s practice to invest cash balances in low risk instruments.

4.2 Schedule & Frequency

In satisfaction of NYSEDA's obligation under the Initial Capitalization Order, NY Green Bank will file a quarterly report 45 days after the end of each calendar quarter. The first report will contain Metrics through September 30, 2014 and will be filed on or before November 14, 2014.

Reflecting this Plan, [Table 3](#) summarizes the overall NY Green Bank reporting plan as to content and frequency.

Table 3. Summary of Reporting Plan

Quarterly Reports	Annual Reports	Long-Term Outcomes of NY Green Bank Impact to the Market
<ul style="list-style-type: none"> ▪ Filed within 45 days after the end of each calendar quarter as NY Green Bank financing agreements are signed and closed ▪ First quarterly report will be filed within 45 days after the third quarter 2014 (reflecting data through September 30, 2014) ▪ Include the following Metrics and Information: <ul style="list-style-type: none"> ▪ Total Capital available ▪ Committed Funds ▪ Deployed Funds ▪ Overall portfolio size and concentrations ▪ Number and type of NY Green Bank-supported projects financed ▪ Number and general type of NY Green Bank clients and partners ▪ Estimates of Energy & Environmental metrics ▪ Transaction Profiles 	<ul style="list-style-type: none"> ▪ Filed yearly consistent with NY Green Bank's fiscal year (April 1 – March 31) ▪ First annual report will be filed within 90 days after March 31, 2015 ▪ Include the following metrics: <ul style="list-style-type: none"> ▪ Portfolio Impairment (percent currently Impaired and projected recoveries) ▪ Audited Financials ▪ Mobilization Ratio ▪ Return on Investment ▪ Capital Redeployment Cycle Time 	<ul style="list-style-type: none"> ▪ Periodic market evaluations with data reported as available ▪ Impact evaluation of estimates of the following Energy & Environmental Metrics (reported quarterly): <ul style="list-style-type: none"> ▪ Lifetime and first year energy saved by fuel type from efficiency projects (MWh/MMBtu) and/or lifetime and first year clean energy generated (MWh) ▪ Lifetime and first year primary energy saved from CHP (Btu) ▪ Clean energy generation installed capacity (MW), if applicable ▪ Lifetime greenhouse gas emission reductions (metric tons)

5.0 Evaluation Plan

The primary goals of NY Green Bank evaluation will be to:

- (a) Assess and verify energy, environmental and economic impacts;
- (b) Assess the overall progress of NY Green Bank toward meeting its market transformation goals, including increasing investor confidence and achieving scale in clean energy financing; and
- (c) Provide information to help enhance the uptake, deployment and effectiveness of NY Green Bank's product offerings.

Impact, market and process evaluation activities, described below, will support these goals.

5.1 Impact Evaluation

Impact Evaluation will validate the overall energy, environmental and economic impacts attained through investment of NY Green Bank funds. Impact Evaluation will ensure appropriate accountability for these key metrics and will use the most cost effective and least burdensome methods (for both NY Green Bank and its clients and partners)¹⁸. Where data need to be collected on NY Green Bank projects and business to fulfill the objectives of Impact Evaluation, sampling will be used, especially regarding distributed projects.

¹⁸ Where NY Green Bank projects are also utilizing EEPS incentive programs, there may be no need for additional evaluation. Likewise, where meter data is readily available for renewable energy installations, such data may be relied upon to verify impact.

5.2 Market Evaluation

Market Evaluation will establish baseline levels for key indicators of market change (e.g., awareness, knowledge, and investor confidence related to financing clean energy projects) in the rollout of NY Green Bank. A Market Evaluation will occur when a critical mass of financing arrangements are put in place and will help inform the initial areas of financial product and clean energy project emphasis¹⁹. A follow-up study will focus on measuring changes to those indicators in market sectors where NY Green Bank has been active for some time. Market Evaluation will help identify the effect of NY Green Bank on transforming the clean energy finance market and will provide data to inform decisions about future NY Green Bank product offerings. Market Evaluation will employ a social science approach to address additional effects of NY Green Bank above and beyond changes that would have independently occurred. Market Evaluation will be conducted on sectors that NY Green Bank has supported and will occur approximately three to five years following initial NY Green Bank capital deployments. Market Evaluation may also seek to characterize any lasting, post-intervention impact of NY Green Bank on key market sectors. This will be done through continued, longitudinal data collection via interviews and other sources.

5.3 Process Evaluation

Process Evaluation will be undertaken periodically to gain insights from systematic interviews with NY Green Bank clients, partners and other relevant parties. Process Evaluation will be designed on an as-needed basis, in consultation with NY Green Bank staff.

5.4 Defining Evaluation Elements

While general evaluation areas and objectives can be identified, it is not possible at this time to outline specific approaches and schedules for all elements of future evaluations. Evaluation plans must align to the specific NY Green Bank investment activities and pace, and will therefore be further developed as more information becomes available on specific financial products provided and investments made.

To support evaluation design and other information needs, as NY Green Bank financing agreements are signed and closed, a standard profile (the “**Transaction Profile**”) will be populated with summary information, plans and methods about each transaction including:

- (a) Market objectives and barriers being addressed;
- (b) Most useful energy and environmental metrics;
- (c) Plan for collecting associated requisite data; and
- (d) Proposed method of outcome/impact evaluation by NYSERDA.

The Transaction Profile will serve a number of purposes including:

- (a) Helping align market evaluation to address the most pertinent indicators of market change in baseline and follow-up studies;
- (b) Providing an early indication of the types of market change/transformation anticipated prior to actual market evaluation;
- (c) Helping assess the level of expected outcome/impact evaluation that will be needed and possible approaches; and
- (d) Helping to operationalize the necessary data collection/tracking at NY Green Bank consistent with usual and customary investor/lender practices.

Information collected in Transaction Profiles (generalized and/or anonymized as needed to avoid putting NY Green Bank clients and partners at a competitive disadvantage)²⁰ will be included in Quarterly Reports. [Appendix A](#) includes the template for Transaction Profiles.

¹⁹ Market evaluation activities will begin in the range 2017 - 2019 and will be informed by the initial market research by Booz & Co. and the business experience of NY Green Bank in its first years of full operations.

²⁰ Commercial markets and their incumbents value confidentiality extremely highly – to protect transaction terms and other competitive information (including project know-how, progress and performance). NY Green Bank must remain highly sensitized to usual and customary

Up to \$4.0 million has been allocated at this time for NY Green Bank evaluations, including both internal (NYSERDA) and external costs, a budget for which is, in each case, subject to the prior approval of the President of NY Green Bank before any engagement is entered into or work commenced. To ensure independent review and accountability, evaluation activities will be largely undertaken by expert, third party contractors in consultation with NYSEERDA, NY Green Bank staff and DPS.

6.0 Process for Updates to this Plan

NYSEERDA, together with NY Green Bank, has made a best effort to compile appropriate metrics, reporting and evaluation plans as NY Green Bank is being launched. It is expected that this Plan will evolve over time. Any significant changes will be made in consultation with DPS and will be documented as updates to this Plan.

confidentiality practices. To the extent that NY Green Bank is required to obtain disclosures from its clients and partners that are perceived to go beyond commercial norms, NY Green Bank expects that the willingness of private market participants to engage with NY Green Bank will be materially reduced.

7.0 Glossary

“**Btu**” means British thermal unit, a measure of heat energy in fuels.

“**CEFC**” means the Clean Energy Finance Corporation of Australia.

“**CEF Order**” has the meaning given to that term in Section 1.2.

“**CHP**” means combined heat and power.

“**CTGB**” means the Connecticut Green Bank.

“**DPS**” means the New York State Department of Public Service.

“**EEPS**” means the Energy Efficiency Portfolio Standard in New York State.

“**ESCO**” means Energy Service Company.

“**Initial Capitalization Order**” has the meaning given to that term in Section 1.3.

“**Metrics**” has the meaning given to that term in Section 2.0.

“**Milestones**” has the meaning given to that term in Section 2.0.

“**MMBtu**” means million Btus.

“**MW**” means megawatt, a measure of installed energy generation capacity.

“**MWh**” means megawatt hour, a measure of energy production.

“**NY Green Bank**” means the New York Green Bank, a division of NYSERDA.

“**NYPA**” means the New York Power Authority.

“**NYSERDA**” means the New York State Energy Research and Development Authority.

“**Plan**” means this NY Green Bank/NYSERDA Metrics, Reporting & Evaluation Plan as amended and in effect from time to time.

“**PSC**” means the New York Public Service Commission.

“**Quarterly Report**” has the meaning given to that term in Section 4.1.

“**RGGI**” means the Regional Greenhouse Gas Initiative.

“**RPS**” means the Renewable Portfolio Standard in New York State.

“**T&MD**” means Technology and Market Development in New York State, a ratepayer-funded program (formerly referred to as the Systems Benefit Charge).

“**Transaction Profile**” has the meaning given to that term in Section 5.4.

“**UK-GIB**” means the Green Investment Bank of the United Kingdom.

Transaction Profile Template

1. Form of Investment (e.g., NY Green Bank Financial Product provided).
2. Location(s) of Underlying Project(s).
3. Types of Client and Partner Organizations that are Transaction Participants (e.g., Financial Institution, Developer, ESCO etc.).
4. Summary of Financing Market Objectives and Barriers Addressed.
5. Technologies Involved (e.g., Renewable Energy, Energy Efficiency, CHP).
6. Planned Energy & Environmental Metrics (e.g., estimated lifetime and first year clean energy generation or savings resulting from energy efficiency, and estimated lifetime greenhouse gas emissions reductions as proposed by transaction sponsors).
7. Planned Market Characterization Baseline and Market Transformation Potential.
8. Proposed Method of Outcome/Impact Evaluation (by NYSERDA) and Timeframe.

[This template will be modified from time to time as needed to reflect the nature of transactions in which NY Green Bank is involved as it responds to market needs and demands, with a view to providing comparable information to the greatest extent possible, but taking into account evolving transaction structures and forms, as well as usual and customary commercial practice surrounding confidentiality and the treatment of competitive data].