New York Green Bank

Business Plan

Case 13-M-0412

June 2014

Contents

Exhibits

1.0 **Introduction & Background**

1.1 Objectives of this Business Plan

The New York Green Bank ("**NYGB**") has been established as a public-private partnership. It is a state-sponsored specialized financial entity designed to address gaps in clean energy financing to transform those markets as part of an integrated strategic statewide energy plan. NYGB's establishment was informed by extensive market interactions, interviews, advocacy and outreach with public and private stakeholders to derive a view on current clean energy markets within New York State. The objective of this initial Business Plan (the "**Plan**") is to build upon the market analysis and strategic evaluations completed to date and to reflect management's plan for successfully establishing, growing and operating NYGB consistent with its mandate.

This Plan comprises the road map for NYGB's first operating period through June 2015 and addresses all key components of the business including mandate, market-size, product strategy and offerings, positioning and origination, capital deployment, risk management and oversight, metrics and evaluation, organization and resource requirements, external environment, and Plan implementation and milestones. This Plan is dynamic in nature and will continue to develop as NYGB moves forward. In particular, given NYGB's mission to address clean energy financing market gaps and barriers, the Plan will evolve as certain gaps and barriers are addressed while others remain or newly emerge.

In seeking to partner closely with the private sector and to leverage private capital, NYGB represents a new business model as an instrument of government policy, consistent with the developing trend toward comparable institutions internationally and increasingly within the United States. The balance of this Section 1.0 describes the background and context of NYGB's establishment.

1.2 Governor Cuomo's $1 Billion NYGB Initiative

In January 2013, Governor Andrew M. Cuomo introduced a key energy priority for New York State: to create a $1 billion green bank capable of using limited public dollars to mobilize multiples of private capital investment in New York's attractive and growing clean energy markets. "The economy of tomorrow is the clean tech economy. We all know it, it's a foot race — whatever state, whatever region gets there first wins the prize, and we want it to be New York," Governor Cuomo announced. He added: "New York State needs an expanded and diversified supply of clean energy to move ahead in the 21st century … a $1 billion New York Green Bank offers a cost-effective market mechanism to capitalize on this opportunity, unleashing green technologies and the many benefits that will come with them."

New York State spends around $1.4 billion each year to promote and advance renewable energy and energy efficiency. Nearly 80% of this annual budget is currently provided in the form of one-time subsidies and grants, which has been effective in kindling New York State's clean energy market. The current overall energy strategy in New York State (of which NYGB is a key component) is aimed at taking this market to the next level in achieving significant scale and momentum. Using a portion of the State's annual clean energy funding to fully capitalize NYGB over a defined period, NYGB will deploy these monies working with private sector clients and partners in areas where financing gaps exist, stimulating market growth. As NYGB will work where client demand is constrained by the lack of available financing, NYGB has the ability to charge for its capital and so generate assets that earn market rates of return. Since NYGB provides financial products with defined repayment and projected holding periods, NYGB also has the ability to recycle its capital – all as part of an integrated plan to provide better returns to ratepayers in the transformation of New York State's energy assets.

NYGB has been created as a cost-effective and complementary addition to New York State's evolving portfolio of clean energy programs. NYGB uses existing and demonstrated financing tools to accelerate deployment of proven technologies, leverage private capital, and promote self-sustaining markets by alleviating financial barriers and harnessing capital markets. NYGB will enable private sector financing to reach markets currently

on the frontier of commercial clean energy opportunities at scale, further increasing the penetration of proven clean energy technologies in New York State.

1.3 NYGB Establishment & "Open for Business"

To implement the Governor's NYGB initiative, the New York State Energy Research and Development Authority ("**NYSERDA**") retained international consulting firm Booz & Co. ("**Booz**") in June 2013 to perform a market assessment of existing financing gaps, identify potential financial products to address those gaps, analyze the potential impacts of the deployment of NYGB financing, and to make recommendations on the organizational structure of NYGB. NYSERDA staff worked with Booz to complete the research and analysis, contributing information and expertise with respect to New York State energy policies, programs, and markets. This resulted in the publicly released Final Report dated September 3, 2013 (the "**Market Study**").

The Market Study identifies and analyzes financing gaps and market barriers that NYGB is uniquely positioned to address in order to accelerate the development of clean energy capital markets. The Market Study highlights that the NYGB financing model provides key advantages, including improved leverage of private investments, and the ability to redeploy capital as NYGB's finance offerings generate fees and interest and as principal is repaid. Booz's large market sizing estimates support the reallocation and repurposing of funds to NYGB. The Market Study finally concludes that "[a]fter conducting market interviews, concept testing workshops, industry research, and financial modeling, Booz has found that the New York Green Bank is a viable endeavor that will … add significant value to New York State's clean energy portfolio."

Supported by the conclusions of the market assessment, NYSERDA filed a petition with the New York State Public Service Commission (the "**PSC**") on September 9, 2013 (the "**NYGB Petition**")[1]. During fall 2013, NYSERDA engaged stakeholders about the proposed creation of NYGB. NYSERDA and the PSC received numerous public comments from New York's business community, financial institutions, environmental advocates, public sector institutions and other parties in support of NYGB.

The PSC approved the initial capitalization of NYGB in an order issued on December 19, 2013 (the "**PSC Order**")[2]. NYGB officially opened for business on February 5, 2014, with the release of a broad market solicitation for investment proposals (the "**RFP**")[3]. The online solicitation is ongoing and intended as a primary intake mechanism for NYGB to source qualifying transactions. It encourages private sector capital providers and other clean energy industry participants to propose clean energy investments that, with the participation of NYGB, would facilitate greater deployment of qualifying technologies in projects across New York State than might otherwise be feasible in current commercial markets.

Since summer 2013, NYGB has hired senior leadership with deep experience in banking, energy finance and project development and continued to build out the team with critical transaction and support personnel. In addition to preparing and issuing the RFP, NYGB staff is increasingly active engaging with an expansive array of clean energy market participants for transaction, client and partner origination as well as for market awareness.

[1] "Petition of the New York State Energy Research and Development Authority to Provide Initial Capitalization for the New York Green Bank", Case 13-M-0412.
[2] "Order Establishing New York Green Bank and Providing Initial Capitalization", issued and effective December 19, 2013.
[3] "Clean Energy Financing Arrangements – Request for Proposals (RFP) No. 1".

2.0 **Mandate & Market Size**

2.1 NYGB Mission

To accelerate clean energy deployment in New York State by working in partnership with the private sector to transform financing markets.

The key elements of NYGB's mission are partnering with private sector participants, implementing structures that overcome barriers and address gaps in current clean energy financing markets, and transforming those markets by enabling greater scale, new and expanded asset classes and liquidity. These factors should combine to motivate faster and more extensive implementation of clean energy assets within New York State, fostering greater energy choices, reduced environmental impacts and more green energy advantages per public dollar spent for the benefit of all New Yorkers.

2.2 Market Barriers

A number of barriers constrain clean energy financing markets, including lack of transaction standardization, deficient scale and volume, less understood or familiar project sponsors and counterparty credits, federal policy uncertainty, insufficient data on underlying loan and technology performance, and underdeveloped or nonexistent publicly-traded capital markets for clean energy. Working closely with private sector incumbents, NYGB has identified the key capital barriers to more efficiently functioning clean energy markets in Exhibit 1, classified by degree of severity.

Exhibit 1. Barriers to Clean Energy Finance

	Barrier	Description
High Severity Barriers	Undeveloped secondary market	▪ Non-conformity of existing energy financial products and limited track record for rating agencies ▪ Low volume of transactions makes it challenging to securitize loans
	Large upfront costs	▪ End users not willing to incur large pre-development costs in order to determine whether energy benefits are net positive ▪ Energy projects require large initial capital outlay
	De-prioritization of energy projects	▪ Energy projects compete for funding with other capital-intensive projects
	Unsecured energy efficiency loans	▪ Energy efficiency loans typically lack a collateral asset
	Insufficient understanding of value proposition	▪ Outside of large, sophisticated commercial and industrial customers, clean energy project savings are not well understood
	Split incentives	▪ Split incentives arise from the situation where landlords pay for energy upgrades while tenants reap savings on energy bills
Medium Severity Barriers	Inability to scale underwriting process	▪ Energy projects frequently necessitate custom loan structures ▪ Limited availability of information with respect to energy savings and vendor quality, together with lack of standardized documentation burdens underwriters, resulting in high upfront transaction costs
	Limited track record of performance and payments history	▪ Direct energy savings are site-specific and can be difficult to cost-effectively quantify and measure at most sites ▪ Performance and payments data is decentralized, oftentimes proprietary and of limited duration vis-à-vis tenor of lease/loan transactions
	Tax credit uncertainty	▪ Federal Production Tax Credit expired at the end of 2013; Investment Tax Credit falls from 30% to 10% at end of 2016
	Existing debt burden of potential energy customer	▪ Restrictive debt covenants/mortgage lender limitations on external financing ▪ High loan-to-value leaves little/no room for additional debt ▪ Inability/unwillingness of end-users to add additional debt to balance sheet
Low Severity Barriers	Fragmented vendor landscape	▪ Uncertainty of vendor quality/reputation results in lower demand for energy efficiency
	Risk aversion of lenders in the current regulatory environment	▪ Existing regulations curtail ability of banks to lend on balance sheet

Source: Market Study

These barriers limit private sector capital flows into otherwise attractive renewable energy and energy efficiency projects.

2.3 Financing Gaps

Financing gaps describe circumstances where otherwise attractive clean energy investment opportunities are unable to secure financing from the private sector. NYGB works to eliminate market barriers and bridge financing gaps by offering various forms of financial support, enabling a much larger supply of private capital to finance clean energy projects. NYGB works with the private markets to facilitate the flow of capital through risk mitigation strategies, aggregation and other tools.

By way of illustration, Exhibit 2 represents a sampling of known market inefficiencies where NYGB expects significant opportunity to act as a bridge to more effective private sector capital markets in clean energy.

Exhibit 2. Illustrative Financing Gaps

Financing Gap	Description
Medium Credit Quality Financing	▪ Financing for customers with sub-optimal FICO scores or Class 3 businesses
Small Scale Financing	▪ Financing for projects $2 million or less in size as part of a structured larger, aggregated pipeline of similar projects
Financing for Commercially Viable Technologies yet to Achieve Scale	▪ Financing for technologies with limited deployment to date (e.g., biomass, microgrids, anaerobic digesters, fuel cells, battery storage and electric vehicle charging stations)
Tax Equity Funding	▪ Financing for projects eligible for tax credits
Long Tenor Financing	▪ Financing for projects with a tenor longer than 5 - 7 years

Source: Market Study

2.4 Market Size & NYGB Opportunity

Clean energy investments can provide attractive risk/return profiles. The markets are substantial with significant future growth expectations. The Market Study projected that the total market value of unrealized opportunities for New York-based projects is approximately $85 billion over the next ten years. This analysis excludes potential for utility scale generation, fuel cells, charging stations, energy storage, solar hot water systems, and other emerging clean energy technologies, and it fails to account for further technology improvements. Estimated total market size, allocated across selected technologies, is set out in Exhibit 3.

Exhibit 3. Estimated Market Sizing

Selected Technologies	Est. Market Size ($ Billions) 10-Year Horizon
Energy Efficiency	$55
Solar PV	$13
Combined Heat & Power (CHP)	$8
Biomass	$4
Onshore Wind	$4
Anaerobic Digesters	<$1
Total	**$85**

Source: Market Study

NYGB focuses on scalable mature renewable energy and energy efficiency technologies, and may also offer direct funding or facilitate access to capital for deployable, proven technologies that have yet to achieve broad acceptance in finance markets. In addition to lending vehicles, there are opportunities for NYGB to reduce transaction costs by standardizing documents and procedures, and to reduce capital costs by gathering and making data available on project and investment performance (subject to commercial confidentiality practices and the protection of competitive information). Standardizing contracts and procedures plays an important role in developing capital markets for clean energy assets while tracking energy project performance data, financing/loan payment and performance data enhances transparency.

Reflecting initial private sector leverage and taking into account the recycling of NYGB's capital, the Market Study projects that NYGB's $1 billion capitalization could produce as much as $8 billion of additional private sector investment in clean energy projects over the next ten years. Unlike incentive payments, when ratepayer funds are used for financing products of the type offered by NYGB, those funds are not permanently expended. By expanding the market and developing a track record of project and loan performance, NYGB aims to further mobilize clean energy activity in New York State so that it can thrive without the need for further ratepayer funding as evolving market opportunities prove increasingly attractive

to private sector entities. This transition to a stand-alone, dependable private sector financial market produces the ultimate leverage of ratepayer dollars, at which point NYGB's capital base will be available for investment in the next clean energy frontier.

Given NYGB's position as part of an expansive and integrated energy strategy for New York State, NYGB also has the ability to coordinate and work opportunistically with other State and local agencies including NYSERDA, NYPA, NYSEDC and others to seek to maximize clean energy outcomes. Through agency coordination and inherent synergies, NYGB's ability to play a role in far-reaching and multi-party solutions in addressing clean energy market barriers and gaps may be heightened in certain circumstances. The ideal outcome is for dollars put to work by the State through its various energy and financing initiatives to be coordinated in pursuit of the optimum result: breaking down multiple barriers for a better outcome with more expansive impact.

2.5 NYGB Value Proposition

NYGB's strategy of working on a wholesale basis in partnership with private sector intermediaries is conducive to scale as NYGB is able to mobilize both the capital and institutional capabilities of private market players, building upon existing and extensive private lending platforms. This approach should enable NYGB to develop more quickly and efficiently than if it relied solely upon establishing its own origination, disbursement, and servicing infrastructure. Operating on a wholesale basis also ensures that NYGB is not crowding out the private sector and is operating on the evolving frontier of market gaps and financing barriers.

At the outset, NYGB's focus will be on deploying its initial capital received from public sources, in parallel with private capital deployments. In future, NYGB may manage assets and make investments on behalf of third parties, including private and public pension funds, other fund types and corporate entities. For example, NYGB anticipates that certain market participants may have interest in putting funds to work in clean energy finance markets in New York State, but may be constrained in originating such assets themselves. NYGB could play these asset management and origination roles on behalf of capital partners.

NYGB offers the ability to recycle funds and earnings, to leverage additional private capital, to tap into markets on the frontier and to reduce market inefficiencies impacting the cost of capital for clean energy projects. Upon full deployment of NYGB capital, long-term impact to the financial markets is expected to include reduced energy project costs, overall expansion of the clean energy financing markets through increased coverage and liquidity, and improved transparency and market confidence. The ability to generate fees is evidence that NYGB is adding value to the market and is providing product offerings that are needed. While financing does not itself create demands for renewable energy and energy efficiency projects, financing can properly be viewed as a "utility" – it should be as easy as possible for project developers and service providers of all types to tap into standardized, simple and open architecture financing structures. Clean energy is the only source of energy that effectively gets cheaper the more of it that is generated[4] – so scale matters. However, clean energy markets cannot get to scale without scalability in financing structures, which NYGB actively promotes. Taken together, all these benefits offer attractive outcomes to New York State and result in an expansion of the total funding available for clean energy.

[4] For example, there are no variable fuel costs for certain renewable energy projects such as wind and solar. Sunk capital costs and fixed operating costs for such projects are spread across increasing output (MWh) as more energy is produced, with the cost of each subsequent MWh effectively decreasing.

3.0 **Product Strategy & Offerings**

3.1 NYGB Approaches

Given NYGB's creation as a market-focused and market-responsive entity in identifying and addressing clean energy financing gaps and barriers, retaining flexibility in NYGB strategy and operations is critical. This point is underscored in the Market Study, the NYGB Petition and the PSC Order. Instead of creating NYGB with very specific and tailored product offerings and then using NYGB's internal business development team to effectively sell those offerings into the marketplace, NYGB undertakes in-depth and multi-faceted interactions with participants in its target segments (as outlined in Section 4.1.1 below). This ongoing process is designed to elicit, directly from the marketplace, details of the particular products and transaction structures that would unleash more private capital in, and scale deployment of, clean energy within New York State. This inherently dynamic approach requires NYGB to remain responsive and nimble in accommodating the needs of specific transactions under consideration by NYGB's potential private sector clients and partners.

While NYGB's primary approach is to respond to private sector demand, it is possible that over time, identified financing gaps and market barriers may be determined to be of sufficient scale and scope to warrant a more targeted and programmatic solution. To the extent such an approach is called for, NYGB retains the flexibility to devise and implement specific standardized offerings to further realize its mandate. Equally, as clean energy markets in New York State continue to evolve, opportunities may arise for NYGB to play other roles that are not contemplated today. The context of NYGB's establishment and its mandate clearly support the retention of sufficient strategic flexibility to pivot in the marketplace as and when needed and to adopt new roles and develop additional offerings – all in response to the demand expressed by commercial markets.

3.2 Initial Product Categories

NYGB initially offers four categories of capital solutions: credit enhancements, warehousing/aggregation (short-term facilities), asset lending and investments (long-term facilities) and composite products. These products are described below.

3.2.1 Credit Enhancements

NYGB credit enhancement techniques include loan loss reserves, letters of credit or guarantees provided to private sector lenders and similar strategies funded by a capital reserve dedicated to absorb a portion of losses incurred in project specific loans or leases. These products assist private sector lenders by assuming some of the default risk associated with clean energy loans or leases in return for a risk-appropriate fee. Credit enhancements have been successfully deployed to expand the market where there is demand for financing but supply is lacking due to market inefficiencies reflecting unfamiliarity with reliable performance data from the specific clean energy asset class or insufficient experience with project and loan performance.

One potential credit enhancement solution, for example, would be accelerating expansion of the residential market for clean energy by providing support to a financial institution client in connection with a pool of clean energy loans or leases. This would enable the pool to include high quality consumers whose FICO scores are just below those currently served in the market. A similar credit enhancement strategy could work in the commercial sector by expanding market access for economic clean energy projects for the next-most creditworthy tier of commercial end-users. Other forms of credit enhancements include loan loss risk mitigation products that could be employed to enable the roll-out (for example) of onsite battery storage by effectively supporting minimum coverage ratios required by commercial lenders to participate in the transaction.

3.2.2 Warehousing/Aggregation (Short-Term)

NYGB warehousing is the direct provision of short-term lending with the intention of aggregating loans for placement/sale in the secondary markets. Under a warehousing strategy, NYGB works through private sector origination partners to provide funds to originators for periods of generally two years or less to acquire or build a portfolio of qualifying clean energy projects. Warehouse facility amounts will be drawn down by the originator during a defined availability period and for projects that fit the specific and agreed investment criteria. These facilities will be advanced in circumstances where the originator and NYGB have a high degree of confidence that a private sector capital provider will step forward to purchase or monetize the entire portfolio of projects once aggregation reaches the stipulated threshold. At that point, NYGB is effectively taken out of the warehouse facility and its capital repaid in full. For example, NYGB, potentially in partnership with one or more private financial institutions, may purchase small commercial and industrial energy efficiency loans from intermediaries and warehouse those loans until the pool reaches a size that is of interest to the secondary markets. Once the portfolio is monetized, the replenished funds would then be available for NYGB to redeploy into a new pool of clean energy projects.

3.2.3 Asset Loans & Investments (Long-Term)

Asset loans and investments involve the longer-term provision of capital to NYGB clients, which may be in the form of direct investments into projects or related funds through senior, mezzanine or subordinated debt facilities and/or in certain cases, equity. NYGB asset loans and investments will be undertaken together with private sector capital providers. An example of an asset loan strategy is providing subordinated debt for a solar loan fund. In this case, NYGB could provide a subordinated debt tranche into a solar fund, alongside senior debt holders (i.e., as a co-lender), and assume the position of first loss (or second loss after any required sponsor equity) upon default. This offering would attract senior debt investors into new markets and/or enable the rating of senior tranches, both of which currently don't occur when the long-term payment performance records that investors and rating agencies typically require are lacking. A similar asset lending strategy could involve NYGB loans (together with private sector co-lender(s)) to fund combined heat and power projects, fuel cells, biomass, anaerobic digesters, or similar project types that presently have difficulty attracting financing due to competition with more mainstream clean energy projects.

As part of its portfolio management and with respect to longer loan tenors on NYGB's books, NYGB may periodically execute debt securitizations or other forms of placement or monetization through which term investors (e.g., pension funds) could invest in longer-term securities while banks and other capital providers preferring shorter-term exposures would be able to exit their investments earlier. NYGB would recycle proceeds from any such placements into its business, including redeployment in additional projects.

3.2.4 Composite Products

More complex structured investments involve NYGB in delivering composite products – potentially playing multiple roles in a single, tailored financial arrangement. For example, a NYGB investment including subordinated debt, an equity investment and a loan loss reserve may be combined to create a tax equity fund to attract senior debt and tax equity investments by one or more private sector entities. In the case of small wind projects, for example, NYGB could consider providing equity as well as subordinated debt into a fund to attract additional and necessary funding from tax equity and debt providers. Composite products may include combinations of other NYGB offerings described in this Section 3.2 and/or other types of structured arrangements that evolve over time in response to demonstrated private capital market needs.

4.0 **Positioning & Origination**

4.1 Objective & Approach

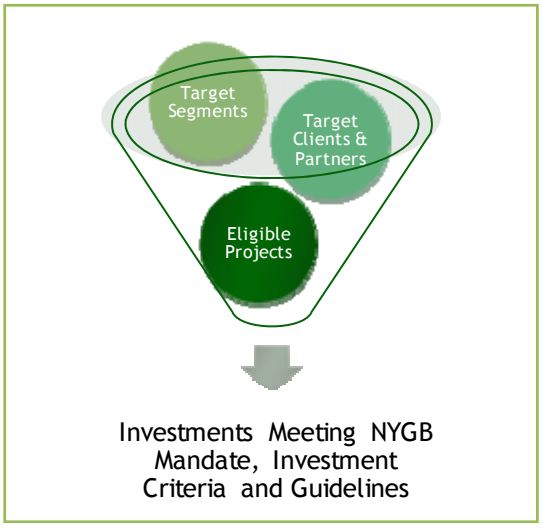
NYGB's positioning and origination strategy defines how NYGB places itself and its offerings in the marketplace and how it identifies, prioritizes and faces counterparties and stakeholders. Successful positioning underpins a robust and effective origination plan that involves periodically evaluating and defining the market in which NYGB operates. NYGB has segmented the clean energy universe (as to industries, clients, partners and project types) with as much specificity as possible so that:

(a) The attributes of potential clients, partners or transactions which fit within NYGB's mandate and area of operations are clear and these parties and opportunities can be efficiently identified; and
(b) NYGB personnel are able to succinctly, effectively and consistently communicate investment criteria and client and transaction parameters to the marketplace.

As noted in the Market Study, NYGB "will introduce a new business model into the marketplace and in order to maximize its effectiveness needs to carefully position itself". To this end, NYGB has formulated its positioning and origination strategy through a "funnel" approach (represented in Exhibit 4) that sequentially:

(a) Analyzes and categorizes market industry and participant types and identifies the ideal segments in terms of sourcing clients and counterparties within NYGB's mandate;
(b) Identifies specific target organization names and prioritizes them, based on expected likelihood, timing and ease of being able to transact;
(c) Defines the universe of NYGB eligible projects in reasonable detail; and
(d) Uses the outcomes of the three preceding steps to prioritize specific potential client and partner names for tactical outreach over the next 12 months.

Exhibit 4. Key Components of NYGB Positioning & Origination



4.1.1 Target Market Segments

NYGB has divided clean energy participants into two main groups: potential proposers of a transaction to NYGB ("**Transaction Proposers**") and potential sources of transaction leads and other market information ("**Collaborators**"). Transaction Proposers are further bifurcated into sources of capital (the "**Financials**")

and non-financial industry partners ("**Industry**"). Exhibit 5 below outlines NYGB's identification and categorization of its target market segments.

Exhibit 5. NYGB's Target Segments

Transaction Proposers		Collaborators
Financials	**Industry**	
Global Banks **Funds** • Infrastructure • Hedge • Private Equity • Pension • Foundations/Endowments • Family Offices • Sovereign Wealth **Insurance Companies** **Regional Banks**, including • Community Development Financial Institutions ("**CDFIs**") • Community Banks • Credit Unions **Specialty Finance Companies** **Boutique Investment Banks/Advisory**	**Energy Project Developers** **Energy Service Companies ("ESCOs")/Equipment Providers/ Equipment Manufacturers**, including • Installers • Aggregators • System Integrators **Real Property Owners/Developers** • Commercial • Residential **Independent Power Producers** **Utilities**	**Consulting Firms** **Legal Firms** **Rating Agencies** **Government** **Think Tanks, Non-Governmental Organizations ("NGOs") & Non-Profits** **Other**

4.1.2 Target Clients & Partners

Having identified the target segments, NYGB then prioritizes specific companies within each of the target segments that meet the criteria set out in Section 4.2 (the "**Market Targeting Criteria**"). This prioritization informs NYGB business development activities and evolves over time taking into account Market Targeting Criteria, as well as expected likelihood of transaction(s), timing and ease of closing.

4.1.3 Target Project Types

In pursuance of NYGB's mandate and as outlined in the RFP, NYGB has identified and published illustrative guidelines for eligible investment types set out below in Exhibit 6 for renewable energy and Exhibit 7 for energy efficiency. These include a non-prescriptive and non-exhaustive list of technologies included in proposed project(s) – other examples of the types of projects NYGB may invest in are included in Section 4.2.1. NYGB may consider supporting financing arrangements for projects using technologies beyond the scope of the guidelines and other examples given so long as Transaction Proposers demonstrate a potential for increased deployment of clean energy and/or a potential for greenhouse gas ("**GHG**") reductions in New York State[5].

Irrespective of type of client, underlying project or financial product being considered, credit quality is paramount in NYGB's evaluation, structuring and negotiation of its potential investments.

[5] Subject to applicable laws and regulations, including SEQRA.

Exhibit 6. Illustrative Guidelines for Eligible Renewable Energy Investments

Renewable Energy Resources*

- Solar photovoltaics (no minimum/maximum capacity)
- Solar thermal (no minimum/maximum capacity)
- On/offshore wind (no minimum/maximum capacity)
- Fuel cells (continuous duty) – natural gas fuel or hydrogen
- Hydroelectric
  - Upgrades and/or repowering
  - New low-impact run-of-river (30 MW or less with no new storage impoundment)
- Biomass (from eligible biomass feedstock+)
  - Biomass direct combustion
  - Combined heat and power
  - Co-fire with existing fossil fuel (only biomass feedstock portion is eligible)
- Biothermal energy
- Biogas
  - Landfill gas (methane)
  - Sewage gas (methane)
  - Manure digestion
  - Anaerobic digestion
  - Biomass thermo-chemical gasification (syngas from municipal solid waste)
  - Biogas (from eligible biomass feedstock) combined heat and power
  - Biogas (from eligible biomass feedstock) co-fired with existing fossil fuel combustion
- Liquid biofuels – ethanol, biodiesel, methanol, bio-oil, and eligible biomass feedstock
- Tidal/ocean power

*This list specifically excludes nuclear, municipal solid waste combustion, and adulterated biomass or biofuels.
+ General categories include agricultural residue, harvested wood, mill residue, pallet waste, construction and demolition debris, silvicultural waste wood, woody or herbaceous crops, and urban waste wood.

Exhibit 7. Illustrative Guidelines for Eligible Energy Efficiency Investments

Energy Efficiency Resources

- Commercial & industrial - Comprehensive efficiency improvements to new and existing facilities that save energy, including:
  - Industrial process efficiency improvements, including without limitation: data center, information technology, communications, water/wastewater, pipeline, mining/extraction, and similar end-use processes, facilities, buildings, and infrastructure
  - Lighting and control systems
  - Heating, ventilation and air conditioning systems
  - Building envelope
  - Energy management and/or control systems, including continuous commissioning
  - Occupant plug load management systems
- Load Reduction
  - Thermal and electric energy storage
  - Demand response programs
- Residential - Comprehensive energy efficiency improvement projects in existing residential buildings, including:
  - Primary heating and cooling systems: Furnaces, boilers, duct sealing, pipe insulation, central air conditioners, heat pumps (including air-source and geothermal), water heaters, and programmable thermostats
  - Building envelope: Insulation, air sealing, windows and doors
  - Other required health and safety measures and related accessories
- Multifamily housing - Comprehensive improvement projects to multifamily housing facilities, including systems that affect the entire building, the common area, and/or the resident spaces and the following potential measures:
  - Lighting and control systems, including exterior, security, and safety lighting systems
  - Heating, ventilation and air conditioning systems, including boilers (hydronic and steam), furnaces, chillers, room air conditioners, supporting pumps, fans, motors and other auxiliary systems
  - Building envelope, including air sealing, weather-stripping, and insulation
  - Energy management and/or control systems, including continuous commissioning
  - Resident plug load management systems, including home energy monitors and smart strips
  - Appliances, including common area laundry, refrigerators, and dishwashers, both commercial and residential sizes
  - Advanced metering systems to support conversion of master-metered buildings to sub-metering
  - Domestic hot water systems, including generation and distribution
  - Fuel conversion projects that include upgrades to system energy efficiency
  - Water conservation improvements

4.2 Market Targeting Criteria & Additionality

NYGB's market targeting criteria stem directly from its mandate as set out in the PSC Order, including the specific minimum investment requirements that are described in Exhibit 10. Based on these criteria, NYGB has identified eligible investments, eligible financing arrangements and acceptable terms, all as outlined in the following Sections. In addition, NYGB has identified (as part of the 2014 Draft State Energy Plan and elsewhere) other guiding principles for its business development efforts that are also included below, together with the consideration of additionality in the context of NYGB action.

4.2.1 Eligible Investments

NYGB participation in financing arrangements supports clean energy projects using proven technologies. NYGB generally targets projects using the same technologies that drive carbon reduction and other public benefits contemplated under existing New York State clean energy policies. In constructing its portfolio, NYGB also includes consideration of scalable, mature renewable energy and energy efficiency technologies that are yet to be broadly deployed in commercial markets (e.g., electric vehicle infrastructure (including charging stations), biomass, anaerobic digester gas systems (farm and non-farm), offshore wind, and fuel cells). In regard to potential energy efficiency measures, NYGB seeks to finance projects that result in a comprehensive improvement to a facility's overall energy consumption, although it does consider compelling single-measure efficiency projects. NYGB also considers investments in CHP projects, including those fired with natural gas.

NYGB does not expect to provide capital directly to companies to fund their general business operations or project (pre-construction phase) development capital.

4.2.2 Additionality

Part of NYGB's positioning and origination strategy is considering additionality in proposed investments. The simplest additionality criterion connotes that a NYGB 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 NYGB further away from the market frontier in areas where, as a consequence, NYGB will be less able to attract (and get leverage from) private sector capital. As a result, NYGB adopts a broader view in evaluating the additionality of qualifying investment opportunities by considering:

(a) The unique benefit NYGB 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, NYGB. Clean energy financing market gaps exist and these allow NYGB 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).

4.2.3 Business Development Principles

In defining its strategy and business plan for the next year NYGB has adopted some guiding principles to aid both internally and externally in maintaining the correct focus for the business. These are set out in Exhibit 8.

Exhibit 8. Business Development Principles

What NYGB Does	What NYGB Does Not Do
• Analyzes, accepts and prices credit and project risks in a similar manner to the private markets, but takes a view on liquidity risk and premia that may be more flexible than commercial markets (where a solid case for market development and/or NYGB take-out exist) • Provides a bridge to a sustainable and efficient private sector clean energy financing market, including: o Supporting development of liquidity in markets o Being creative in supporting creditworthy transactions o Developing and incubating new structures o Supporting standardization and aggregation for distribution • Is guided in its product offerings and types of clients and partners by the market and what the market needs • Addresses the market barriers and inefficiencies impeding the growth of clean energy financing • Partners, not competes, with financial institutions and other private sector entities, leveraging both private sector capital and institutional capabilities • Focuses on projects using proven technologies that are economically viable but in respect of which financing barriers exist • Works with counterparties possessing demonstrated abilities to deliver a pipeline of projects • Facilitates the development of clean energy capital markets (with a focus on bond markets) • Enhances market confidence in clean energy investing by compiling and publishing aggregated/anonymized loan payment and project performance data on NYGB financed clean energy transactions where possible • Maintains the flexibility needed to adapt to movements in the markets and to focus on a constantly evolving frontier where NYGB's credit products can unlock new sectors of clean energy finance	• Take deposits • Provide loans directly to consumers (wholesale market only) • Support transactions without private capital involvement at closing (or reasonably anticipated in the case of warehouse/aggregation facilities) • Take unproven technology risks • Take development risks • Pursue one-off transactions without the ability to replicate or scale • Provide subsidized capital or grants • Fund manufacturing facilities • Fund assets or projects located outside New York State • Be the sole long-term credit/capital party to a transaction • Be anchor capital in long term financings (i.e., other private capital partners must be part of a proposed transaction or project) • Provide stand-alone advisory services

NYGB also assesses the following attributes of proposed transactions:

(a) Contribution to financial market transformation through:
   i. Mobilization of private capital as evidenced by a leverage ratio of private capital to NYGB investment and the introduction of capital providers to new sectors;
   ii. An ability to scale or replicate (i.e., transaction receiving NYGB capital support shows potential to drive volume that can transform markets);
   iii. Increasing awareness of, and confidence in, clean energy investments;
   iv. Evolution of private sector institutional underwriting; and
   v. Progress toward capital markets solution(s) for:
      - Contract standardization;
      - Aggregation; and
      - Data harvesting;

(b) Contribution to expected clean energy outcomes determined by:
   i. Estimated energy savings, peak load reduction and/or clean energy generation; and
   ii. Other GHG reduction benefits to the extent included in proposed project(s) (outside those achieved through direct energy savings and/or clean energy generation);
   iii. The cost effectiveness of proposed project(s); and
   iv. The strength of the plan pursuant to which the Transaction Proposer (or designated third-party) will track, record, and report performance data.

4.3 Transaction Sponsor Commitment

Projects and transactions that are eligible for NYGB investment are not precluded from separately seeking and obtaining grants, subsidies or other available incentives for which they may be independently qualified from state or federal sources. However, a key aspect of NYGB transaction diligence and analysis is the amount of sponsor capital at risk (i.e., excluding identified grants and other private capital).

4.4 Communications & Marketing Plans

Since the PSC Order was issued, NYGB has been working to produce internal marketing and communications plans for the business. Communications efforts articulate NYGB's mission and promote NYGB's role in the clean energy financing marketplace, while marketing efforts establish and maintain NYGB's brand through the development of consistent messaging and marketing materials. NYGB marketing and communications efforts are both distinct and complementary, working in tandem to support client-facing NYGB outreach efforts and external affairs.

4.4.1 Communications

The communications mission is two-fold:

(a) To drive client and partner engagement and participation with NYGB in order to effectively and efficiently execute on NYGB's mandate; and
(b) To create awareness and understanding of NYGB and the benefits it will deliver through its contributions to growing the clean energy economy in New York State.

The NYGB communications plan is focused on building NYGB's profile and third-party credible endorsements. Client-oriented communications focus on industry participants that have been impacted by market barriers and ensure potential partners are informed about NYGB's capabilities, mandate and approach to supporting their businesses. In addition, communications will also promote NYGB successes, educate the general public and other stakeholder audiences about NYGB value and benefits, and support NYGB's positioning as an innovative and efficient use of ratepayer dollars to leverage private capital and expand clean energy financing markets in New York State.

4.4.2 Marketing

NYGB marketing efforts will establish and maintain NYGB's brand through the development of consistent messaging and marketing materials. The overall marketing strategy is built to support and enable attainment of NYGB's goals and mandates by establishing and reinforcing a consistent brand identity.

NYGB's marketing framework is represented in Exhibit 9 and reflects three key components: business input and planning, market strategic planning and implementation.

Exhibit 9. Marketing Strategy Framework

The NYGB marketing plan involves devising and implementing messaging that clearly communicates NYGB themes. Messages are segmented by audience – between Transaction Proposers and Collaborators on one side and the general public and other stakeholders on the other – and are built as part of an integrated package. Each "message bundle" focuses on a specific intended audience, delivers a clear positioning statement and articulates how NYGB delivers benefits to those audiences.

4.5 Transaction Generation Process

Since February 5, 2014 when NYGB officially opened for business, the team has aggressively focused on market outreach, awareness-raising and business development among Transaction Proposers and Collaborators. As of June 2014, the team has reached out directly to around 300 contacts in NYGB's target segments and team members typically participate in many meetings and conference calls per week as part of continuing business development activities. Since inception, team members have presented on NYGB's mission and scope at dozens of conferences across New York State (including many keynote addresses, panel presentations, roundtables and webinars). In addition, over 50 articles focused on NYGB have been published nationally and internationally from February through June 2014. In aggregate, these ongoing and multi-faceted business development activities produce a growing pipeline of transaction opportunities.

NYGB's origination of clients, partners and potential transactions results from interactions with market participants who submit proposals that either:

(a) Respond to a NYGB-specific solicitation and/or other publication of NYGB's investment criteria (a "**Competitive Opportunity**"); or

(b) Identify a NYGB role consistent with its mandate, but which does not strictly fall within the definition of "Competitive Opportunity" (a **"Strategic Opportunity"**).

While open and public competitive processes are favored in the origination of NYGB partners, clients and transactions, it is nevertheless recognized that there may be circumstances in which the strategic mission of NYGB is best served by undertaking one or more Strategic Opportunities. Strategic selection methods may be utilized if it is determined by NYGB management, with approval from NYGB's Investment & Risk Committee (**"IRC"**), that one or more of the following characteristics are present and are of predominant importance to NYGB:

(a) Special Capabilities: The Strategic Opportunity is presented by a private sector party with exceptional, relevant experience and expertise;

(b) Uniqueness: The Strategic Opportunity is one-of-a-kind by virtue of location, high visibility, probability of a successful closing or leverage with other already committed private or public funding or possesses other unique attributes;

(c) Strategic Importance: The Strategic Opportunity has exceptionally strong compatibility with the strategic objectives and mandate of NYGB as well as the other energy priorities of New York State;

(d) Urgency and Timeliness: There is an urgent need to act on the Strategic Opportunity as a result of public exigency or emergency, or a strategically important opportunity would become unavailable as a result of delay, or it would take an unacceptable length of time for a similar opportunity to reach the same level of readiness; and/or

(e) Multiphase Project/Follow-on Investment: The Strategic Opportunity relates to the next phase of a multiphase proposal or the expenditure is necessary to support or protect an existing NYGB investment or initiative.

Any Strategic Opportunity involving NYGB funding that will exceed $1 million may be subject to approval pursuant to the Office of State Comptroller Rules (Part 206 to NYCRR Title 2) and will be managed by NYGB to support all requisite compliance in that regard.

All potential transactions go through an internal, standardized evaluation process as part of NYGB reaching a decision whether or not to proceed. Initial due diligence then leads to a "greenlighting" review process if opportunities progress to that point. Greenlight go-ahead effectively moves a potential transaction into a full due diligence and negotiation phase. Before any transaction terms are agreed upon or committed to by NYGB, they will be fully reviewed by the IRC pursuant to a specific "Transaction Approval Memorandum" ("**TAM**") process. Each TAM includes the following information:

(a) With respect to the proposed transaction/investment:

i. Transaction summary;
ii. Summary of terms and conditions;
iii. Compliance with investment criteria;
iv. Key counterparties;
v. Management team and qualifications;
vi. Operational analysis (including ongoing funding mechanics, roles and responsibilities, etc.);
vii. Credit/investment analysis (including leverage and coverage ratios, base and downside cases, sensitivity analyses, key risks and mitigants, etc.);
viii. Accounting, tax, regulatory and legal analyses;
ix. SEQRA determination and summary of environmental issues;
x. Description of all local, state and federal incentives that will be utilized in the proposed project;
xi. Technological analysis;
xii. Energy-related impacts and corresponding monitoring plan; and
xiii. GHG impacts and related monitoring plan.

(b) With respect to NYGB impact:

i. NYGB returns, financial and risk metrics and pricing analysis;
ii. Portfolio impact analysis;
iii. Summary of strategic fit (including in respect of additionality, market transformation, scalability, replicability, etc.); and
iv. A draft of the Transaction Profile.

The IRC may reject, approve, make recommendations, or require contingencies for any proposed transaction. Once approved, a commitment letter may be issued to the Transaction Proposer and definitive documentation negotiated[6].

4.6 Data Collection, Analysis & Use

In considering the NYGB Petition, the PSC devoted time and attention (reflected in the PSC Order) to the existence of market barriers that frequently prevent economically viable clean energy projects from achieving the scale necessary to attract the financing required for commercial deployment. It was specifically noted that one contribution to these barriers was a lack of information, especially relating to project and payment performance data as well as return on investment. These information gaps can in turn underpin misperceptions of risk with negative consequences for capital availability and transaction pricing.

Among NYGB's goals is the promotion of standardization of material contract terms and structures, and the collection of project performance data across NYGB transactions. NYGB believes it has an important role to play in facilitating growth in capital markets by increasing transparency and confidence, for example, by aggregating/anonymizing data and developing conformity standards. Increased transparency would support private sector understanding of new asset classes and ideally encourage more willingness to invest. Greater understanding should also lead to more efficient pricing of clean energy project financing, effectively reducing the levelized cost of energy for eligible technologies. However, there is a balance to be struck in this area. Commercial markets and their incumbents value confidentiality extremely highly – to protect transaction terms and other competitive information. As NYGB seeks to make its contribution to increased transparency and availability of useful data in the marketplace, it must remain highly sensitized to usual and customary confidentiality practices. To the extent that NYGB is required to obtain disclosures from its clients and partners that are perceived to go beyond commercial norms, NYGB expects that the willingness of private market participants to engage with NYGB will be materially reduced.

Given NYGB's market-responsive (compared with preset and programmatic) approach to product strategy and offerings (as described in Section 3.0), it is not possible in this first Plan to outline with specificity what type of information will be collected. The make-up of NYGB's investment portfolio will be determined by actual market demand. Subject to counterparty confidentiality concerns, NYGB's hope is to be able to aggregate and anonymize relevant information across underlying technologies in its investment portfolio and periodically make data available to the market. Expected NYGB informational solutions may include tracking and analyzing not only energy project performance data, but also financing/loan payment and performance data for projects supported by NYGB financial products.

NYGB expects to be able to be more specific about the nature of its data collection and dissemination and the frequency of reporting once the investment portfolio has reached an initial critical mass, which is anticipated to be in the June 2016 (third) edition of this Plan for planning year 2016 – 2017.

[6] Engagement or mandate letters may be issued upon approval of the relevant transaction by NYGB's Greenlight Committee – non-binding other than with respect to terms like reimbursement of third party costs, confidentiality, etc. Non-binding letters of intent may be issued before Greenlight Committee review, but only after Scoring Committee review concludes with an intention to proceed with due diligence, etc. for the particular transaction.

5.0 **Capital Deployment**

5.1 Investment Objectives & Criteria

NYGB's mandate and broad investment objectives are set out in a myriad of public documents including the PSC Order, announcements from the Administration and strategy documents issued by NYSERDA and New York State. This mandate and the objectives are referenced throughout this Plan and are discussed in detail in Sections 1.0 and 2.0. In summary, NYGB operates to overcome current obstacles in clean energy financing markets and increase overall capital availability through its market-responsive financial product offerings. Through collaboration with private sector financiers and experienced developers, NYGB leverages its funds with private capital to expand the scale and scope of clean energy within New York State as an integral part of a strategic statewide energy plan.

NYGB's minimum investment criteria, by which it evaluates all its potential transactions, are set out in the PSC Order and are reproduced in Exhibit 10. These investment criteria are supplemented by the principles set out in Section 4.0 underlying NYGB's positioning and origination strategies, including the credit quality of any proposed transaction.

Exhibit 10. PSC Order - NYGB Investment Criteria

- Transactions shall have expected financial returns such that the revenues of NYGB on a portfolio basis will be in excess of expected portfolio losses;
- Transactions will be expected to contribute to financial market transformation in terms of:
  - Scale;
  - Improved private sector participation;
  - Level of awareness and confidence in clean energy investments; and/or
  - Other aspects of market transformation; and
- 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 clean energy policies.

5.2 Eligible Financing Arrangements

NYGB enters into transactions that are consistent with its objectives and operating principles. As a prerequisite to NYGB participation, transactions must include private sector financial parties and capital. Participation by the private sector financial entity (or entities) can be structured in various ways, including as debt and/or equity financing or as the expected takeout of a NYGB-sponsored warehouse facility at the agreed aggregation level. NYGB requires that all investment submissions provide clarity as to proposed capitalization amounts and be specific as to the respective roles for, and relationship between, NYGB and the other capital providers involved.

Given the specific mandate of NYGB, eligible financing arrangements must also address considerations relating to financial market transformation, expected clean energy outcomes and other portfolio construction tenets (e.g., concentration risks).

NYGB considers various transaction sizes and NYGB participation levels, but largely expects its participation in any individual transaction to fall within the range of $5 - $50 million or ~1% - 5% of its expected $1 billion capitalization. NYGB generally does not expect any individual investment to exceed 10% of its expected $1 billion capitalization.

5.3 Capitalization

NYGB is currently capitalized by public funds that are collected pursuant to existing programs administered by NYSERDA and New York State's investor-owned utilities, including the Energy Efficiency Portfolio Standard

("**EEPS**"), Renewable Portfolio Standard ("**RPS**") and Technology and Market Development ("**T&MD**", formerly referred to as the Systems Benefit Charge ("**SBC**"))[7]. Additional funding was allocated from auction proceeds under the Regional Greenhouse Gas Initiative ("**RGGI**"), which is also administered by NYSERDA pursuant to regulations of the New York State Department of Environmental Conservation ("**NYSDEC**") and NYSERDA. NYSDEC oversees New York State's participation in RGGI.

To date, there have been two methods of allocating funds to NYGB. For EEPS, RPS and T&MD/SBC uncommitted proceeds, allocation is initiated by a petition to the PSC, which is evaluated, considered, made open to public review and comment, and ordered in accordance with the PSC's usual procedures. For RGGI proceeds, NYSERDA is the authorized party to receive and disburse proceeds in accordance with regulations promulgated by NYSDEC and NYSERDA. NYSERDA allocates RGGI proceeds to various qualifying programs through its Annual RGGI Operating Plan, approved by NYSERDA's board.

5.3.1 Timing

Governor Cuomo announced the creation of NYGB in January 2013 with total capitalization of $1 billion. On December 19, 2013, the PSC Order granted the NYGB Petition and provided NYGB with $165.6 million initial capitalization of ratepayer funds. Added to this figure are RGGI funds in the amount of $52.9 million for a total initial NYGB capitalization of $218.5 million.

The application for the balance of NYGB's capitalization, $781.5 million to aggregate to the full $1 billion capital, is targeted for submission before the end of 2014. This balance may come from "clean energy funds" (although no final decision has been reached in New York State on this), RGGI proceeds or from funds allocated to, or invested in, NYGB from other public sources. In future, it is possible that additional capital is contributed to NYGB from private sources.

5.3.2 Pricing of Products

NYGB operates as a self-sustaining entity, pricing its products to cover its operating expenses and portfolio default risk, and to gradually grow its capital base. In so doing, NYGB serves as both a prudent fiduciary of ratepayer funds and as an agent for greater private investment in clean energy sectors.

Pricing for all NYGB funding reflects market pricing for comparable transactions. NYGB investment terms are determined by credit risk and exposure assumed by NYGB and other investment participants, adopting a usual and customary private sector approach to identifying and valuing risk. For certain products, ongoing or upfront fees may be charged. Although NYGB must be appropriately compensated for the underlying credit risk in all transactions, NYGB will, in certain circumstances, consider receiving a lower than market liquidity premium if its involvement is expected to provide material benefits to market expansion and future liquidity.

Specific NYGB product pricing for any proposed transaction is set at a level comparable to the reasonable commercial expectation for similar efficient private sector funding. In particular, this means that in pricing its products, NYGB takes into account current market rates as well as commercial expectations of rates at a point when the market for the relevant investment is expected to be more liquid.

5.4 Asset Allocation Principles

Since NYGB's business model is based on overcoming market barriers and bridging gaps, it is necessarily responsive to identified market needs. As those market needs are expressed and evolve on an ongoing basis, NYGB will be in a better position to predict the likely makeup of its investment portfolio and have an indication of actual allocations relating to product, sector, client type, technology and geographical concentrations.

[7] Initial NYGB funding consisted of $3.5 million in uncommitted NYSERDA EEPS I funds; $22.1 million in uncommitted NYSERDA T&MD/SBC funds; $50.0 million in NYSERDA RPS funds; and $90.0 million in uncommitted utility EEPS I funds.

While NYGB does not prescribe any specific asset allocation rules at the outset or as part of its Risk Management & Oversight (addressed in Section 6.0), NYGB adopts portfolio construction, diversification, evaluation, monitoring and management approaches which are similar to those employed by comparable private and public sector investment funds and specialty finance companies. These are discussed in greater detail in Section 6.0.

5.5 Capital Redeployment Cycle

Fundamental to the establishment of NYGB is that it be self-sustaining beyond its $1 billion capitalization and provide greater leverage for public dollars in the deployment of clean energy in New York State, with all the corresponding benefits. Central to achievement of these objectives is NYGB's ability to efficiently recycle funds. Unlike a pool of public funds that is dispensed once to qualifying projects as non-refundable grants or subsidies, funds entrusted to NYGB are disbursed under commercial arrangements generating investment income and requiring repayment in accordance with agreed terms for each product and client/partner project. This means that as each dollar from NYGB cycles through successive investments, benefits generated will be compounding and not just referable to funds advanced to a single clean energy project. The effective rate of accumulation of these benefits will be directly tied to the weighted average holding period of the financial products that NYGB provides to its clients. Further, as the commercial markets expand into and increasingly accommodate clean energy finance needs previously supported by NYGB, the multiplier effect on NYGB's investments will continue.

Available product tenors and mixes are not preset by NYGB, in line with its market responsive approach. As described in Section 3.0, the initial product suite offered by NYGB includes credit enhancements, warehousing/aggregation (short-term), asset loans and investments (long-term) and composite products. The average tenor of investments involved varies both across each product type and within a product line, depending on the needs of each specific transaction. Generally, for the type of products that NYGB is offering, tenors can be from less than a year to 15 - 20 years. However, any capital recycling calculations need to reflect expected amortization schedules for particular products as well as the likelihood of NYGB's ability to sell down or monetize its longer-term positions as the secondary market appetite develops for the classes of assets which NYGB holds. The combination of these factors means that weighted average holding periods for NYGB investments across a fully deployed capital base, and the corresponding capital redeployment cycle, could reasonably be projected to be in the range of three to five years.

5.6 Investment Decision-Making Process

NYGB employs various organizational layers and bodies in the origination, evaluation and response to investment opportunities. In addition to NYGB bringing to bear the experience of its staff and management, input, review and approvals are required at prescribed points in the investment cycle from internal committees that evaluate and "greenlight" proposals, as well as from the IRC. The IRC is made up of senior NYSERDA officers who each possess financial and investment capabilities and experience, as well as senior NYGB personnel. The initial IRC comprises:

(a) Chairman of NYSERDA;
(b) President and Chief Executive Officer of NYSERDA;
(c) Treasurer of NYSERDA;
(d) President of NYGB; and
(e) One or more NYGB Managing Directors, provided that they are not responsible for the origination or execution of the transaction being considered.

No transaction is entered into without prior input and approval from the IRC, including taking into account information provided in a TAM as summarized in Section 4.5 above.

6.0 **Risk Management & Oversight**

6.1 Introduction

Effective management of NYGB risk is the cornerstone of NYGB's ability to be self-sustaining and meet its mandate of generating returns in excess of outgoings and being a responsible steward of the public funds with which it is entrusted. While throughout this Plan it has been emphasized that realizing its market-responsive mandate requires NYGB to retain flexibility in its decision-making, investments and operations, NYGB is acutely aware that such flexibility must be subject to rigorous processes and accountabilities.

Risk-taking is an intrinsic part of all investment businesses, including NYGB. The term "risk" is broadly used in many ways. It can be narrowly defined as the possibility of loss or a bad outcome on an investment or across a portfolio. NYGB adopts a more expansive view of risk in its business as a measure of the degree to which uncertainty exists about the outcome of an action. In broadening the definition of risk in its business, NYGB enlarges the nature, scope and occurrence of potential risks that are identified, requiring a more comprehensive and pervasive risk management approach. At NYGB, risk management is not only important in minimizing and controlling loss, it also plays a role in the strategic planning, portfolio construction and investment management processes.

Risk management is the process for identifying, assessing and controlling both enterprise and portfolio risks in order to minimize unanticipated losses and uncompensated risks and optimize the reward/risk ratio[8]. At NYGB, risk management principles are applied at both the enterprise and investment portfolio levels and are both quantitative and qualitative in nature. This means that risk management is viewed not just as the duty of one individual or department but also as the responsibility of all NYGB personnel as a fundamental part of organizational culture.

This Section 6.0 outlines the key risks in NYGB's business, risk management policies, mitigants and risk management oversight.

6.2 Risk Framework & Identification

At NYGB, all risks arising in the business are classified into two main categories: investment risks and enterprise risks. Investment risks refer to all the risks involved in investment selection and asset management; enterprise risks reflect the balance of largely operational risks related to NYGB's business. Investment risks are further segmented into investment selection and portfolio management, reflecting that the nature of risks that arise in connection with the deployment of funds differs depending on whether NYGB is making a particular investment or managing its overall portfolio. Exhibit 11 sets out the key business risks to be managed by NYGB.

[8] "Risk Principles for Asset Managers", February 2008, Prepared by the Buy Side Risk Managers Forum and Capital Market Risk Advisors.

Exhibit 11. NYGB Key Business Risks

Investment Risks		Enterprise Risks	
Investment Selection		Capitalization Risk	Risk that the balance of the $1 billion capitalization does not occur; and/or that uncommitted funds from time to time are targeted for redeployment by New York State. Failure to reach and maintain full capitalization will impact NYGB's concentration risk and result in a portfolio that is overweight in individual transaction types versus plan
Technology Risk	The risk that the technology employed in a potential investment will not function as and when intended, including to assumed performance levels		
Operating Risk	Operational risks related to potential investments, including construction, fuel/renewable resource, input prices, servicing, maintenance and billing/collections arrangements, management, performance of other debt, equity and project participants	Liquidity/ Balance Sheet Risk	Risk that NYGB is unable to sell-down assets, tying up capital and slowing the capital recycle rate
Legal & Capital Structure Risk	Risks of inadequate contractual terms and documentation to properly structure the relevant project and protect NYGB's interests; risks inherent in proposed capital structure and contractual risk allocations between capital providers	Capital Deployment Risk	Risk that capital is not deployed at a sufficient rate to generate the revenues necessary for self-sufficiency, or the benefits expected to the clean energy sector in New York and to the leveraging of public funds
Counterparty & Credit Risk	Risk of default by a project and/or direct NYGB counterparty in a proposed investment	Execution Risk	Risk of not having the right skills, in the needed amounts available to execute on NYGB business as intended (applies to internal capabilities and external partnerships)
Refinancing Risk	Risk of market development and condition such that project can be refinanced as needed and not be in default	Operational Risks	Risks affecting NYGB's "license to operate" potentially arising in these areas: • Legal • Regulatory (incl. PSC) • Environmental (e.g., SEQRA) • Intra-Agency integration (e.g., NYSERDA) • Inter-Agency integration (e.g., DPS) • State Comptroller/NYSERDA audit deficiency
Market/Price Risk	Risk that energy prices do not sustain the investment/project as modeled and proposed over its expected life	Political Risk	Risks relating to NYGB, as a state-sponsored specialized financial entity, being perceived as a target to provide special treatment to particular constituencies or suffering from changed political priorities with respect to clean energy within New York
Portfolio Management		Reputation Risk	Risks which can arise in every aspect of NYGB's business and operations that an event occurs relating to a transaction, counterparty or business practice which detrimentally impacts NYGB and therefore the regard in which it is held in the marketplace and among all stakeholders. Diminished reputation can materially undercut NYGB's ability to operate and achieve success
Concentration Exposures	Risks posed by lack of sufficient diversification among portfolio investments		
Non-Performance	Risk that during the course of an investment it begins to under-perform and/or becomes non-performing		

6.3 Risk Mitigation Principles

Addressing the risks that arise across NYGB's business occurs through the application of key risk management principles in combination with a system of specific risk mitigation measures. NYGB's investment risks will be identified, managed and monitored through application of the practices outlined in the balance of this

Section 6.3 in the context of investment analysis and review, portfolio construction, ongoing portfolio monitoring and management, and organizational risk culture. NYGB's risk management reflects the principles set out below.

6.3.1 Investment Analysis & Review Principles

(a) Structured and comprehensive due diligence for all potential investments, addressing all identified transaction risk categories consistent with usual and customary commercial approaches;
(b) Creating the most appropriate transaction structure, including financial terms (e.g., covenants, ratios, leverage, reporting requirements, etc.) for the particular asset class;
(c) Implementing a comprehensive set of contractual risk mitigants (e.g., representations, warranties and covenants, indemnities, defaults, penalties, etc.);
(d) Adhering to internal procedures for investment decision-making, including Scoring Committee, Greenlight Committee and IRC reviews, input and approvals; and
(e) Leveraging internal and external expertise as required by a particular opportunity, including technical and legal.

6.3.2 Portfolio Construction Principles

(a) Apply prudent diversification principles to the extent possible taking into account NYGB's market-responsive approach, including with respect to:
    i. Any one transaction;
    ii. Particular sub-sectors (e.g., solar, wind, storage, efficiency etc.);
    iii. Types of projects (e.g., technology, generation etc.);
    iv. Target segment representation;
    v. Particular clients and partners;
    vi. Types of product offerings; and
    vii. Geographic distribution;
(b) Identify and monitor concentration risk and exposures (e.g., companies, technologies, asset classes, products etc.), also taking into account NYGB's market-responsive approach;
(c) In the context of NYGB's demand-driven approach, evaluate and revise as needed minimum and maximum indicative single investment amounts;
(d) Use recognized commercial benchmarks for comparable asset classes to assess NYGB relative performance once the portfolio has reached sufficient size; and
(e) Manage returns from individual investments as well as across the entire portfolio, ensuring such returns exceed minimum hurdle rates.

6.3.3 Ongoing Portfolio Monitoring & Management Principles

(a) Regular and periodic evaluation of each investment against its investment case;
(b) Identify early signs of potential/actual under-performance and/or non-performance;
(c) Proactive management of recoveries and maximization of recovery in line with sound commercial principles; and
(d) Regular reporting to the IRC.

6.3.4 Organizational Risk Culture Principles

(a) NYGB has adopted and will maintain an organizational culture in which understanding and managing risk is everyone's responsibility. Risk mitigation and management is not just about policing and enforcing limits. NYGB personnel at all levels must be cognizant of risks and willing to do their part to make sure that those risks within their sphere of responsibility are managed in a manner

consistent with NYGB's policies and disclosures to clients, partners and broader stakeholders. Implementation and compliance with NYGB risk parameters, principles, policies and procedures will form part of personnel performance assessments;
(b) Ongoing NYGB emphasis on communications, transparency and consistent updates in connection with investment opportunities, clients, partners and key stakeholders;
(c) Organizational checks and balances will be established and maintained, including appropriate segregation of front/back office functions. Risk function will be housed in an independent control group with a single point of responsibility and having access to NYGB's President and the IRC;
(d) NYGB organizational structure in which risk management roles and responsibilities are clearly defined, including written policies and other procedures identifying the specific people within the organization who are authorized to approve various actions, etc.;
(e) Senior management and the IRC will be responsible to fully understand NYGB risks, define risk tolerances and set the risk management and ethical tone throughout the organization. This is critical to NYGB achieving its mandate and protecting its reputation in the marketplace;
(f) NYGB will acquire and maintain technology to support risk functions, including appropriate software platforms and other tools for portfolio management, performance analysis and monitoring (as described in Section 8.2);
(g) NYGB will implement and maintain effective record keeping and management of all documents and records pursuant to commercial and appropriate protocols;
(h) NYGB will ensure adequate backup and disaster recovery support;
(i) NYGB will ensure the existence of an effective system of security to protect the interests of NYGB employees, clients and partners;
(j) Financial statements will be prepared quarterly (unaudited) and annually (audited) in accordance with all applicable accounting standards;
(k) An experienced and credible accounting firm will audit NYGB financial statements annually; and
(l) NYGB, as a division of NYSERDA, remains subject to NYSERDA internal controls, policies and procedures and internal audits, as applicable.

6.4 Risk Management Oversight

The IRC ultimately provides risk management oversight at NYGB, with respect to both investment and enterprise risks. The IRC meets regularly to consider, review, provide recommendations and approve the following items as needed, taking into account NYGB's mandate, asset allocation, exposures and all NYGB risk parameters and policies:

(a) NYGB strategy and business plans;
(b) Overall capital deployment plans and strategies;
(c) Risk management practices and framework;
(d) Financial and economic performance metrics and reporting;
(e) Key NYGB procedures;
(f) The Metrics Plan;
(g) Any other material documents required to be filed with the PSC or other State agency (including periodic reporting);
(h) Transaction Approval Memoranda;
(i) Quarterly Investment Reports;
(j) Proposed material waivers, amendments, restructurings and/or dispositions of existing NYGB investments; and
(k) Quarterly Management Reports.

The IRC will meet at least quarterly to review NYGB's overall business, positions, portfolio construction and performance, including flagging any actual or potential issues with NYGB investment assets or portfolio.

In addition to the IRC, other key committees at NYGB include the Advisory Committee, Scoring Committee and Greenlight Committee. The Advisory Committee is comprised of a diverse group of senior professionals, prominent in their fields, which delivers guidance on an ongoing basis to the NYGB President and management team regarding matters pertinent to NYGB's business. Advisory Committee members are

appointed by the NYGB President and represent a range of backgrounds that may include energy and environmental issues (preferably focused on the clean energy sector), project development and finance, banking, capital/financial markets, portfolio management, new venture management/business development, utility and related infrastructure, engineering/technology and real estate. The Advisory Committee meets at least twice a year.

When NYGB receives proposals in response to an investment solicitation, those proposals are reviewed by the NYGB Scoring Committee, the members of which are designated by the NYGB President. The purpose of the Scoring Committee is to review and evaluate all competitive proposals received by NYGB against NYGB selection criteria as described in the solicitation documents. This process is designed to ensure efficiency and standardization in NYGB's approach to evaluating investment opportunities.

No potential investment proceeds to full-scale diligence and negotiation of terms without approval by the Greenlight Committee. This committee is made up of a majority of the IRC members and has the authority to reject, approve, make recommendations or require contingencies with regard to a proposed transaction. Before any potential transaction is submitted to the IRC for review, all prior issues raised by the Greenlight Committee must be addressed. The "greenlighting" requirement adds another check and balance on potential investments in NYGB's pipeline to ensure that individual transactions meet credit quality standards and all other applicable investment criteria, are consistent with NYGB's mandate and are appropriate from a risk perspective.

7.0 **Metrics & Evaluation**

7.1 General

The PSC Order directs NYSERDA to collaborate with New York Department of Public Service (**"DPS"**) staff to develop metrics for evaluation of NYGB. Specifically, the PSC requires the design of appropriate metrics for judging NYGB's effectiveness, as well as data collection and reporting requirements that will support the PSC's ability to assess New Yorkers' return on investment in NYGB. Further, the design of metrics needs to help the PSC and the public evaluate how well NYGB is achieving clean energy goals, including the objectives of market transformation and reducing the need for future ratepayer collections.

A Metrics, Reporting & Evaluation Plan (the **"Metrics Plan"**) has been developed by NYGB and NYSERDA, in collaboration with DPS staff and subject to public review and comment. What is included in this Plan is a summary of the key aspects of the Metrics Plan.

NYGB's publicly reportable measures fall into two categories: operational and risk management milestones (set out in Exhibit 12, collectively, the **"Milestones"**) and metrics and data collection (set out in Exhibit 13, collectively, the **"Metrics"**). The Milestones are important early indicators of progress in terms of establishing NYGB's operations. Completion of each Milestone is documented as it occurs and reported as required in the PSC Order.

The Metrics constitute the ongoing key success measures that will be regularly tracked and publicly reported to gauge NYGB achievements. Exhibit 13 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 NYGB quantitative performance targets will be established in 2015 by NYGB and tracked beginning in 2016 for Energy Saved, Clean Energy Generated, and GHG Emission Reductions. Key definitions relating to the Metrics are set out in Section 7.2.

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

Exhibit 12. Operational & Risk Management Milestones

Milestone Type	Milestone
Operational Milestones	▪ Organizational structure established/plan filed ▪ Establishment of Advisory Committee ▪ Establishment of Investment & Risk Committee ▪ Leadership and staff of NYGB hired ▪ Initial Business Plan filed
Risk Management Milestones	▪ Risk framework, mitigation principles and oversight in place

Exhibit 13. Metrics & Data Collection

Metric Type	Metric	Data Collection	Timing
Risk Management Metrics[9]	▪ Total Capital available ▪ Committed Funds ▪ Deployed Funds ▪ Overall portfolio size and concentrations[10]	NYGB records[11]	Reported quarterly (within 45 days after the end of each quarter) as NYGB financing agreements are signed and closed. First quarterly report will be filed within 45 days after the third quarter 2014
	▪ Portfolio Impairment (percent currently Impaired and projected recoveries)	NYGB records	Reported annually, consistent with NYGB's fiscal year (April 1 – March 31). First annual report will be filed within 90 days after March 31, 2015[12]
Financial & Market Metrics	▪ Number and type of NYGB-supported projects financed ▪ Number and general type of NYGB clients and partners	NYGB records	Reported quarterly (within 45 days after the end of each quarter) as NYGB financing agreements are signed and closed. First quarterly report will be filed within 45 days after the third quarter 2014
	▪ Audited Financials ▪ Mobilization Ratio ▪ Return on Investment ▪ Capital Redeployment Cycle Time	NYGB records	Reported annually, consistent with NYGB's fiscal year (April 1 – March 31). First annual report will be filed within 90 days after March 31, 2015[12]
	▪ Level of awareness, knowledge and confidence of financial institutions and market intermediaries in clean energy investments[13]	Market evaluation[14]	Long-term outcome: Baseline and time series data to be reported as available from periodic evaluation

[9] The PSC Order defines risk management metrics as those that assist in defining acceptable capital deployment opportunities.
[10] NYGB's risk management protocols include portfolio construction principles, which in turn address diversification and concentration. In particular, these principles require NYGB to identify and monitor concentration risk and exposures including as to technologies, product offerings and clients and counterparties.
[11] NYGB 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.
[12] Timing takes into account the period required for Audited Financials to be prepared and reviewed ahead of being available for public filing.
[13] Over time, as financing agreements are signed and closed, NYGB will give consideration to the development of specific barriers and market transformation indicators.
[14] As set out in Section 7.4.2 (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	▪ Lifetime energy saved by fuel type from efficiency projects (MWh/MMBtu)[15] and/or lifetime clean energy generated (MWh)[16] ▪ Lifetime primary energy saved from CHP (Btu) ▪ Clean energy generation installed capacity (MW), if applicable ▪ Lifetime greenhouse gas emission reductions (tons)	NYGB 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 NYGB 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

7.2 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 NYGB and NYSERDA staff.

"**Capital**" means the aggregate capital allocated to NYGB from all public sources at the relevant time, including time-weighted adjustments to account for changes in NYGB's capitalization, expressed in dollars.

"**Capital Gains**" mean, in any year, all increases in the capital available to be Deployed by NYGB 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 NYGB and become due and payable but that has not been repaid to, or recovered by, NYGB pursuant to the terms of the relevant transaction documents, expressed in dollars, and in respect of which NYGB 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 NYGB investment and further Committed and/or Deployed to a subsequent NYGB investment, measured across NYGB's entire portfolio.

"**Committed Funds**" means, in any period, the aggregate funds to be provided by NYGB 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 NYGB 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 NYGB as follows:

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

"**Impaired**" refers to any NYGB asset where:

[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 NYGB 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.

(a) That asset has become non-performing, such that NYGB 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) NYGB 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 NYGB during that period as remuneration for providing financial facilities in transactions and also includes interest received on cash held by NYGB[17], 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 NYGB as follows:

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

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

"**Portfolio Impairment**" means, at any time with respect to all assets within NYGB's investment portfolio, the dollar value that is recorded in NYGB'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 NYGB 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.

7.3 Reporting Plan

NYGB will file reports with the PSC within 45 days of the end of each quarter outlining NYGB's progress in advancing the organization and executing on this Plan. The first report, for the period ending September 30, 2014, is due on or before November 14, 2014. These periodic filings will also include NYGB's performance quarter-over-quarter against tracked Metrics as identified for quarterly reporting listed in Exhibit 13. 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 Exhibit 13 will be reported based on the frequency of evaluation (see Section 7.4).

Reflecting the Metrics Plan, Exhibit 14 summarizes the overall NYGB reporting plan as to content and frequency.

[17] It is NYGB's practice to invest cash balances in low risk instruments.

Exhibit 14. Summary of Reporting Plan

Quarterly Reports	Annual Reports	Long-Term Outcomes of NYGB Impact to the Market

▪ Filed within 45 days after the end of each calendar quarter as NYGB 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:
  ▪ Total Capital available
  ▪ Committed Funds
  ▪ Deployed Funds
  ▪ Overall portfolio size and concentrations
  ▪ Number and type of NYGB-supported projects financed
  ▪ Number and general type of NYGB clients and partners
  ▪ Estimates of Energy & Environmental metrics
  ▪ Aggregated and anonymized Transaction Profile data
	▪ Filed yearly consistent with NYGB's fiscal year (April 1 – March 31)
	▪ First annual report will be filed within 90 days after March 31, 2015
	▪ Include the following metrics:
	  ▪ Portfolio Impairment (percent currently Impaired and projected recoveries)
	  ▪ Audited Financials
	  ▪ Mobilization Ratio
	  ▪ Return on Investment
	  ▪ Capital Redeployment Cycle Time
		▪ Periodic market evaluations with data reported as available
		▪ Impact evaluation of the estimates of the following Energy & Environmental metrics (reported quarterly):
		  ▪ Lifetime energy saved by fuel type from efficiency projects (MWh/MMBtu) and/or lifetime clean energy generated (MWh)
		  ▪ Lifetime primary energy saved from CHP (Btu)
		  ▪ Clean energy generation installed capacity (MW), if applicable
		  ▪ Lifetime greenhouse gas emission reductions (tons)

7.4 Evaluation Plan

The NYGB evaluations will:

(a) Assess and verify NYGB's energy, environmental and economic impacts;
(b) Assess the overall progress of NYGB 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 NYGB product offerings.

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

7.4.1 Impact Evaluation

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

7.4.2 Market Evaluation

Market Evaluation establishes 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 NYGB. A Market Evaluation will occur when a critical mass of financing arrangements are put in place and will help

[18] Where NYGB 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.

inform the initial areas of financial product and clean energy project emphasis[19]. A follow-up study will focus on measuring changes to those indicators in market sectors where NYGB has been active for some time. Market Evaluation will help identify the effect of NYGB on transforming the clean energy finance market and will provide data to inform decisions about future NYGB product offerings. Market Evaluation will employ a social science approach to address additional effects of NYGB above and beyond changes that would have independently occurred. Market Evaluation will be conducted on sectors that NYGB has supported and will occur approximately three to five years following initial NYGB capital deployments. Market Evaluation may also seek to characterize any lasting, post-intervention impact of NYGB on key market sectors. This will be done though continued, longitudinal data collection via interviews and other sources.

7.4.3 Process Evaluation

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

[19] Market evaluation activities will begin in the range 2017 – 2019 and will be informed by the initial market research by Booz and the business experience of NYGB in its first years of full operations.

8.0 **Organization & Resource Requirements**

8.1 Structure & Staffing

In order to create a scalable and sustainable business, it is essential that NYGB acquires and retains the necessary human capital in terms of skills, experience and number of personnel in place to achieve the goals of this Plan. The NYGB strategy depends on:

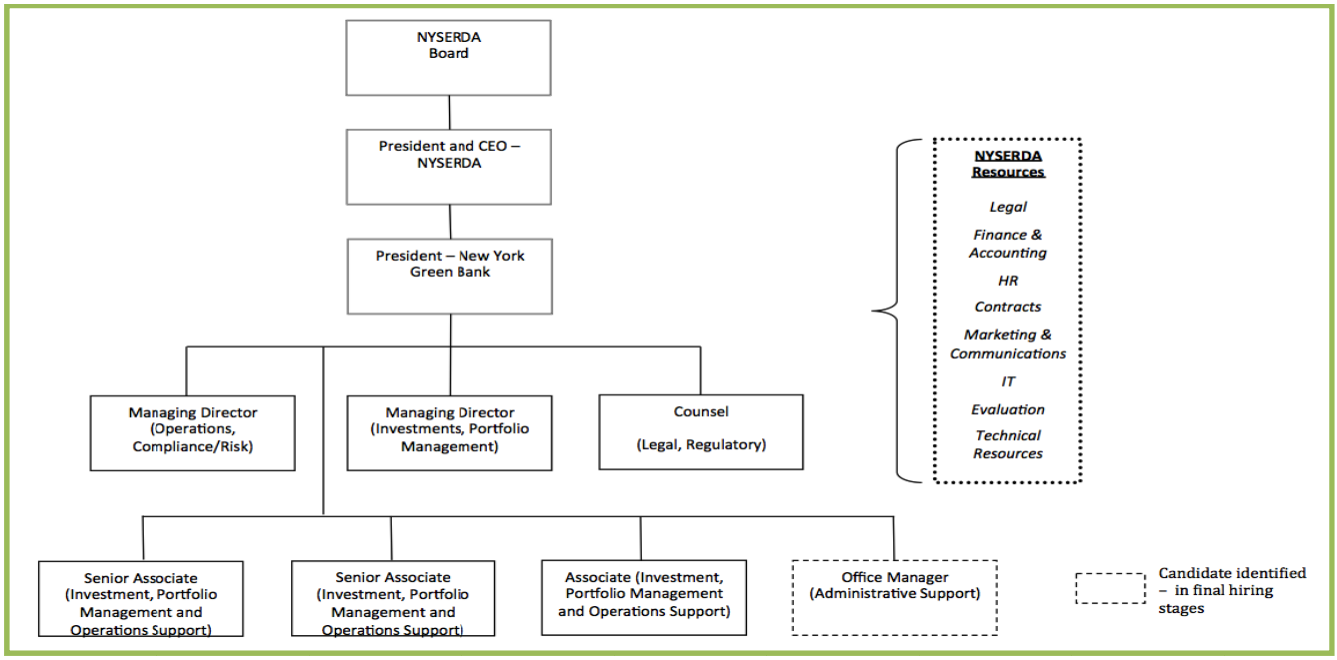
(a) Strong upstream origination capabilities through close ties with potential private sector clients and partners to motivate a steady stream of quality investment submissions to NYGB consistent with its mandate;
(b) Extensive transaction structuring, diligence, financial modeling and analysis, negotiating, execution, monitoring and management capabilities;
(c) Creative product development in response to market indications of particular areas of need in which NYGB can play a material role consistent with its mandate;
(d) Personnel to assess and manage the NYGB portfolio (from both asset and risk management perspectives); and
(e) Strong support in the areas of investor/government relations, marketing and communications, finance and legal, engineering and technical, human resources and IT.

The skills listed in (a) through (d) above are critical to be retained within NYGB itself while those referred to in item (e) can be internal or externally sourced as the situation warrants. While NYGB, as a division of NYSERDA, will be able to leverage some of the intellectual capital and clean energy domain expertise of NYSERDA, NYGB's unique mandate and business model underscore the need for specialist energy finance, development and investment capabilities to be built in-house.

NYGB's business is characterized by complex transaction structures with multiple parties and long-term transactional relationships. These types of activities require that there be significant infrastructure in place, not just in the front office but also back office and support areas, to successfully achieve NYGB's mandate and meet client, partner and key stakeholder needs in clean energy markets within New York State.

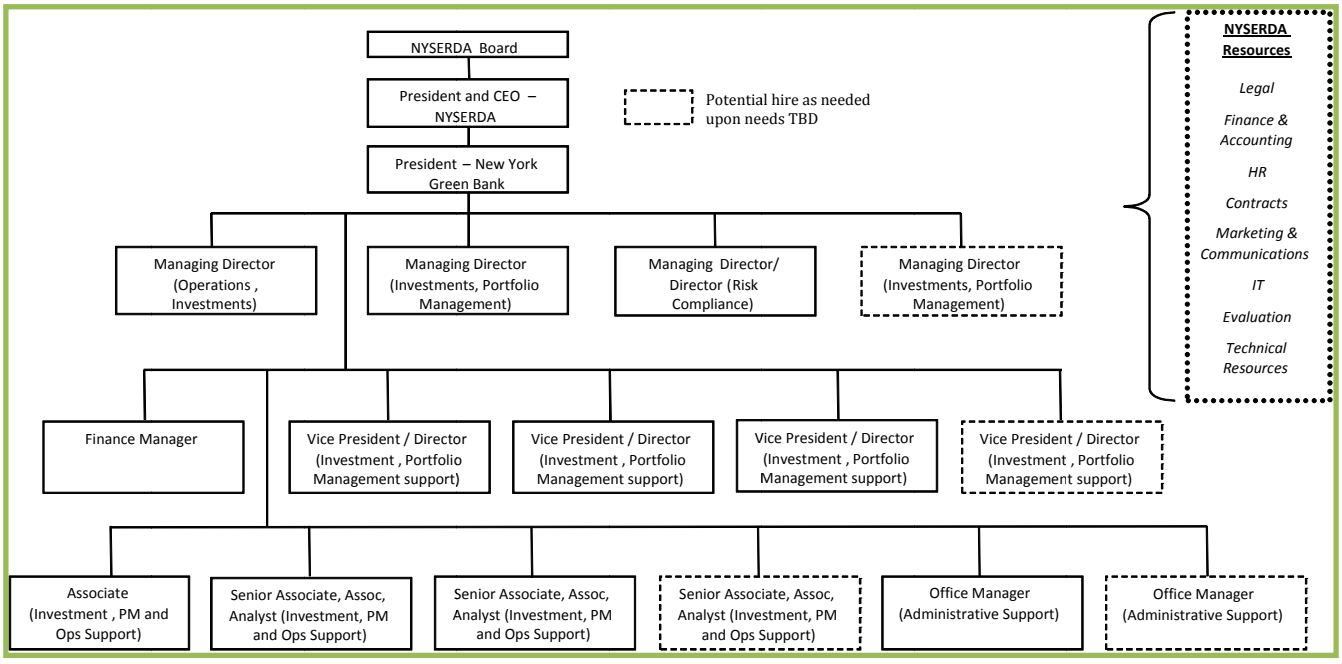
On February 18, 2014, NYGB made a required Organization Plan filing with the PSC that outlined key milestones in the establishment of NYGB, together with the organization chart included in Exhibit 15.

Exhibit 15. NYGB Organization Filing – As at February 2014



As NYGB transitions from start-up mode to fully operational, it will need to expand its personnel to support business growth. NYGB estimates that by June 2015 it will have a full-time staff of 12 - 15 professionals, in an organizational structure as set out in Exhibit 16.

Exhibit 16. NYGB Projected Organizational Structure – June 2015



8.2 Infrastructure & Information Technology

As a unique, markets-based approach to motivating investment and scale in clean energy within New York State, NYGB is structured, staffed and operated as much as possible in the private sector mold. To gain the attention of private sector participants and build the right profile among potential clients and partners, dealing with NYGB in all respects must look and feel like interacting with any comparable business. It is inherent that NYGB has things such as:

(a) Separate, stand-alone staffing for critical and business-specific functions;
(b) Separate corporate structure(s);
(c) Separate financials and key accounts;
(d) Own office accommodations and related systems; and
(e) Distinct brand identity and communications and marketing materials.

While NYGB can leverage NYSERDA systems in many ways that are both efficient and effective, there are areas where NYGB's business is sufficiently different and distinct from other divisions of NYSERDA, requiring specific arrangements. These include having tools and a software platform capable of managing, monitoring and calculating risk relating to NYGB's portfolio of investments. The specifications for, and requirements of, such tools and software will be similar to those for private infrastructure fund businesses and are expected to permit tracking of the following:

(a) Status and performance of NYGB funds (e.g., capital committed, drawn down, invested, realized, internal rates of return and return on NYGB's investments);
(b) Aggregate roll-up of status/performance of NYGB portfolio;
(c) Portfolio diversification (e.g., by vintage year, product, technology, client/partner, geography);
(d) Portfolio annual cash flows, actual and projected;
(e) Portfolio impairments;
(f) Compliance of the NYGB fund with contractual requirements;
(g) Contracts manager/directory of responsible NYGB personnel;
(h) Forward calendar of expected capital commitments and deployments; and
(i) Customized reports derived from filtering, grouping, subtotaling portfolio database information.

NYGB is continuing to assess the advisability of engaging a credible, experienced third party firm for the provision of fund administration, depositary and other required services to NYGB and may retain such an administrator in the future. Such administrator would likely form an integrated component of NYGB's risk management and business monitoring, including through the preparation and distribution of fund (and related entities) accounts and reports, providing a treasury support function, all portfolio and financial reporting, liaising with external auditors, etc.

9.0 **External Environment**

In this Section 9.0, NYGB identifies the aspects of the external environment that are critical to NYGB's success, as well as the areas from which challenges to realizing its mandate may come. These external influences generally fall into three groups: Market Receptivity & Response, Economic & Business Cycle and Regulatory & Legal Landscape.

9.1 Market Receptivity & Response

While considerable data gathering and analysis has gone into assessing the need for, and viability of, NYGB (both through the Market Study and surveying secondary market information and sources more generally), the success of NYGB will ultimately be in realizing the expected market receptivity and engagement from NYGB's target private sector clients and partners.

NYGB offers a new state-sponsored model to remedy perceived market failures and advance the scale adoption and implementation of clean energy in a number of ways. Not only do NYGB offerings exclude the more expected public sector incentives of grants or subsidized capital, NYGB's predominant *modus operandi* will not be to stand in the marketplace with a preset roster of products and programs engaging with those whose proposed projects fall within program parameters. Instead, NYGB adopts a flexible approach in its dedication to being completely market responsive: private sector market participants work with NYGB to identify financing market barriers and gaps for otherwise economically feasible projects, and then structure arrangements to make viable transactions that would not otherwise be possible in current commercial markets.

A key challenge for NYGB is getting and maintaining the attention of the target private sector clients and partners – many of whom have little experience in meaningful scale public/private partnerships and may harbor some skepticism as to the likely effectiveness and commercial speed of such arrangements. NYGB's market strategy and outreach activities, both in scope and content, are designed to address this. NYGB's ultimate capitalization of $1 billion is of critical importance in getting the attention of even the largest private sector participants and signaling that NYGB is a serious and concerted initiative to fundamentally influence the market, not just impact the periphery. Generating interest and engagement initially needs to be followed through in a manner which retains interest and grows NYGB's reputation and track record. A key element of being able to achieve this is for NYGB to be truly structured and run like a comparable private sector fund. Potential partners and clients will have little commitment to interactions with NYGB if it is perceived as an overly burdensome counterparty. This means that dealing with NYGB 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.

9.2 Economic & Business Cycle

At various times over the past decade, clean energy has been hailed as "the next big thing" after the technology revolution. As a result, many market participants made clean energy investments in the mid-2000s. Amid all the exuberance and upward pressure on valuations, properly recognizing and pricing technology and project risks were sometimes not optimal, and the full extent of the capital-intensiveness of energy projects (compared to technology) was not always fully appreciated. When the financial crisis hit in 2008 - 2009, many clean energy investors found the value of their investments impaired and in some cases, significantly. Not only had the financial crisis itself diminished capital availability, but reforms requiring banks to divest proprietary investments also had a negative effect on liquidity available for clean energy. The long, slow economic recovery over the past five years, coupled with policy uncertainties surrounding

ongoing federal clean energy incentives, combined to divert material private capital, attention and priority from the sector.

In parallel with the effects of the economic cycle, the past five years have also seen a coalescing of major change in the energy generation sector. Historically, electricity needs have been served in a "hub and spoke" model with large power plants (e.g., 500 MW and greater) being built and connected to end-users via extensive transmission and distribution systems. Such projects can cost hundreds of millions of dollars and take years to develop, construct and put in service. Critically aging power generation and transmission infrastructure in the United States that needs to be replaced has run headlong into more complex and difficult siting and permitting processes that have the potential to delay or deny large project developments. This has driven a growing trend towards distributed generation – many smaller, local projects with less projected demand for the expense or impact of large single plants or transmission/distribution systems. Renewable energy and energy efficiency projects are uniquely suited to fulfilling this distributed energy need. As private funding sources continue to recognize this shift in the country's energy infrastructure and look to capitalize upon it, the role of NYGB for installations within New York becomes more important. Traditional financiers to the energy sector benefit from large numbers and large capacity projects, justifying their participation and cost structures. The challenge with distributed clean energy developments is that individual projects are generally too small to get the attention of the traditional capital participants. Consequently, a key challenge for NYGB is to be seen as a serious and commercial enterprise engaged with its potential private sector clients and partners in devising ways to aggregate the distributed energy projects to larger and more scalable transactions with greater impact.

9.3 Regulatory & Legal Landscape

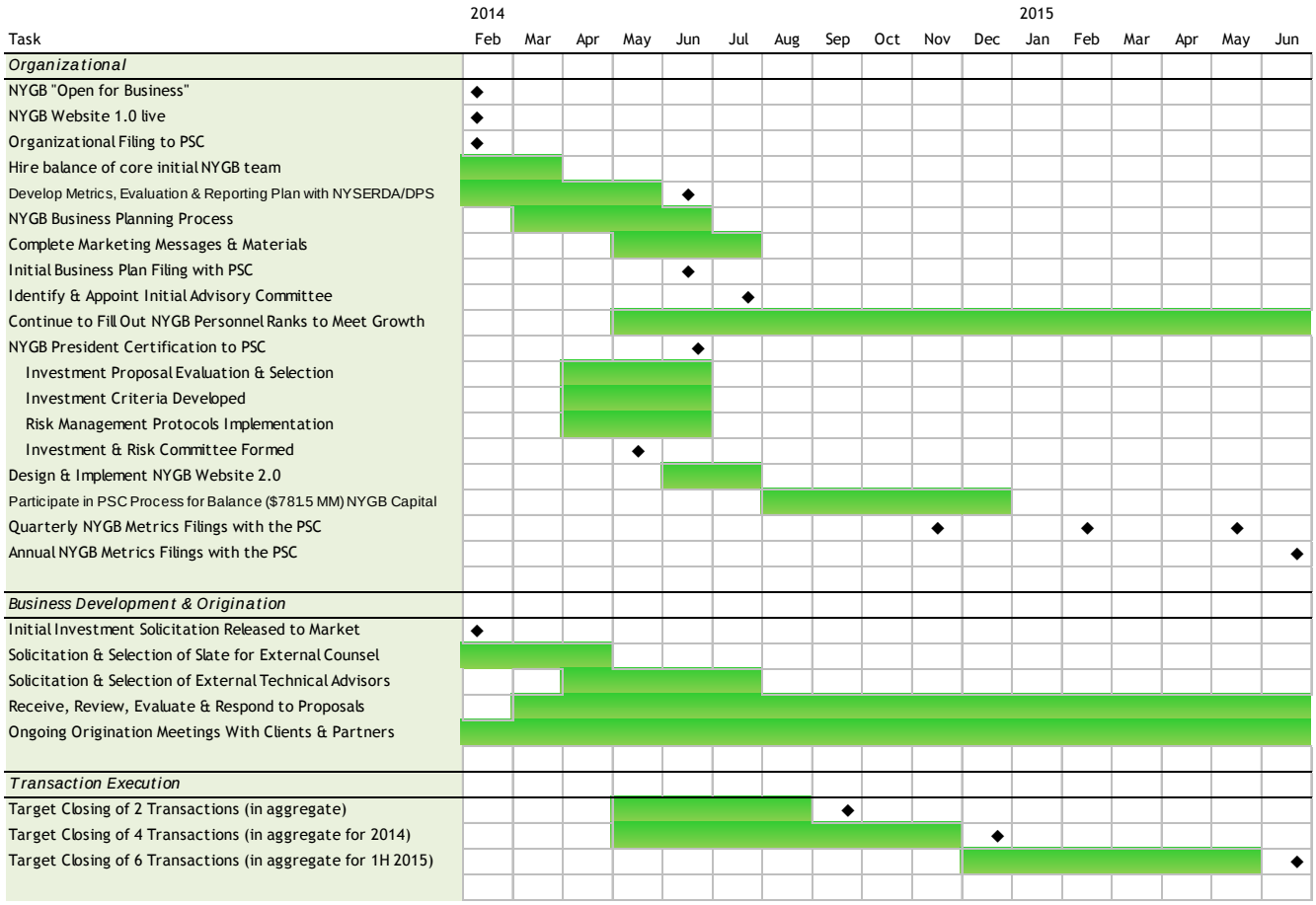
NYGB is a product of policy and regulation, so its ongoing existence and capitalization depend directly upon continuing political support of its mission and operations. To remain relevant and continue to be taken seriously by its potential counterparties, those organizations must have confidence that NYGB will be fully capitalized and remain in place for multiple years. Additional challenges to NYGB's success in achieving its mandate are legal or regulatory changes adversely impacting the demand for its products or its ability to structure products as originally designed. Finally, there is always a risk that political or public events adversely impact the perception or outcome of NYGB's objectives, resulting in overall challenges to the effectiveness of NYGB. If the mission of NYGB is to be adequately supported over time, it is imperative for the political, regulatory and legal landscape to remain as consistent and predictable as possible.

10.0 Plan Implementation & Milestones

10.1 Milestones

NYGB's implementation plan through June 2015 is set out in Exhibit 17 below. The chart highlights key milestones and these action items fall into three categories: Organizational, Business Development & Origination and Transaction Execution.

Exhibit 17. NYGB Implementation Plan & Milestones



Systematically gaining and building upon market information and target segment feedback will be critical to NYGB's efforts to identify and capitalize upon opportunities to transact and address financing market barriers and gaps while expanding investment in clean energy within New York State.

10.2 Leading Indicators

Success for NYGB during the current Plan period includes achieving the following:

(a) Origination, structuring, negotiating and closing on an initial portfolio of investments/commitments that results in deployment of at least 75% of NYGB's initial $218.5 million capital;

(b) Cohesive, focused NYGB team in place executing to plan;

(c) Established and efficient information flows – critical to accurately adjusting course and being highly responsive to market indicators and feedback;

(d) Build, maintain and expand NYGB profile and reputation for:

i. Commercial focus and being transaction closers;
ii. Market orientation;
iii. Ability to act quickly;
iv. Ease of interactions and lack of bureaucracy;
v. Being a credible capital provider that makes smart, market leading investments; and
vi. Realizing on its mandate of expanding the market and private capital availability for clean energy investments in New York State; and

(e) Investments consistent with achieving NYGB's objective for revenues to exceed losses and administrative expenses on a portfolio basis.

10.3 Critical Success Factors

Certain items have been identified as necessary pre-requisites to NYGB success, falling into four main categories: Flexibility, Strategic Partnerships, Longitudinal Sustainability and Supporting Policy as set out in Exhibit 18. On an ongoing basis, NYGB remains focused on these key requirements to ensure a consistent foundation for building the business.

Exhibit 18. NYGB Critical Success Factors

Flexibility	• NYGB must remain flexible and adaptive in order to: -Balance the diversity of organizational objectives -React to the market as it responds to NYGB -Facilitate ongoing partnerships to ensure that the private sector is not crowded out
Strategic Partnerships	• Strategic partnerships with large, credible private sector participants will be essential for NYGB to create a rapid and tangible impact by utilizing market platforms • Strategic partnerships will allow NYGB to operate at a wholesale level and leverage capabilities of existing organizations to develop a pipeline of projects
Longitudinal Sustainability	• NYGB needs to secure longitudinal sustainability to execute its mandate -The market needs to have confidence that the institution will remain in place for multiple years -The market needs to "organize around $1 billion," requiring the full extent of capitalization
Supporting Policy	• Given NYGB's unique business model, and the need to provide market certainty to the private sector, policy makers are strongly discouraged from any requirements that may undermine NYGB activities in partnering with private sector capital • NYGB needs continuing coordination of all NY State policies to avoid the creation of competing entities with similar offerings

Source: Market Study

11.0 **Glossary**

"**2014 Draft State Energy Plan**" means the 2014 draft of "Shaping the Future of Energy – New York State Energy Plan Volume 1" issued by the New York State Energy Planning Board.

"**Advisory Committee**" means the advisory committee of NYGB.

"**Booz**" means Booz & Co.

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

"**CDFI**" means community development financial institution.

"**CHP**" means combined heat and power.

"**Collaborators**" has the meaning given to that term in Section 4.1.1.

"**Competitive Opportunity**" has the meaning given to that term in Section 4.5.

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

"**EEPS**" means the New York State Energy Efficiency Portfolio Standard.

"**ESCO**" means energy service company.

"**Financials**" has the meaning given to that term in Section 4.1.1.

"**GHG**" means greenhouse gas.

"**Greenlight Committee**" means the committee of NYGB tasked with "greenlight" review of potential transactions.

"**Industry**" has the meaning given to that term in Section 4.1.1.

"**Investment & Risk Committee**" or "**IRC**" means NYGB's investment & risk committee.

"**Market Study**" means the NYGB Final Report issued by Booz September 3, 2013.

"**Market Targeting Criteria**" has the meaning given to that term in Section 4.1.2.

"**Metrics**" has the meaning given to that term in Section 7.0.

"**Metrics Plan**" has the meaning given to that term in Section 7.0.

"**Milestones**" has the meaning given to that term in Section 7.0.

"**MMBtu**" means million Btus.

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

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

"**NGO**" means non-governmental organization.

"**NYGB**" means the New York Green Bank.

"**NYGB Petition**" means the Petition of NYSERDA to Provide Initial Capitalization for NYGB dated September 9, 2013 (Case 13-M-0412).

"**NYPA**" means the New York Power Authority.

"**NYSDEC**" means the New York State Department of Environmental Conservation.

"**NYSEDC**" means the New York State Economic Development Corporation.

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

"**Plan**" means this Business Plan.

"**PSC**" means the New York Public Service Commission.

"**PSC Order**" means the Order Establishing NYGB and Providing Initial Capitalization issued by the PSC on December 19, 2013 (Case 13-M-0412).

"**RFP**" means the "Clean Energy Financing Arrangements – Request for Proposals No. 1" issued by NYGB on February 5, 2014.

"**RGGI**" means the Regional Greenhouse Gas Initiative.

"**RPS**" means the New York State Renewable Portfolio Standard.

"**SBC**" means System Benefits Charge.

"**Scoring Committee**" means the committee of NYGB tasked with the initial review of submissions received outlining potential transactions.

"**SEQRA**" means the State Environmental Quality Review Act of New York.

"**SPE**" means special-purpose entity.

"**Strategic Opportunity**" has the meaning given to that term in Section 4.5.

"**TAM**" means Transaction Approval Memorandum, discussed in Section 4.5.

"**T&MD**" means the Technology and Market Development program in New York State (formerly referred to as the SBC).

"**Transaction Profile**" means the transaction profile template which is included as Appendix A to the Metrics Plan.

"**Transaction Proposers**" has the meaning given to that term in Section 4.1.1.