

Second-Party Opinion

New York Power Authority Green Bond Framework



Evaluation Summary

Sustainalytics is of the opinion that the New York Power Authority Green Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2018. This assessment is based on the following:



USE OF PROCEEDS The eligible category for the use of proceeds, electric transmission infrastructure, is aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that investments in refurbishing, upgrading, and modernizing New York’s power grids will lead to positive environmental impacts by facilitating the use of low-carbon energy and advance the UN Sustainable Development Goals, specifically SDG 7: Affordable and Clean Energy.



PROJECT EVALUATION / SELECTION New York Power Authority’s internal process in evaluating and selecting projects is based on the four-year Capital Plan detailed in its 2020 Capital Budget. NYPA’s treasury team has selected specific projects from this Plan that are specified within the Framework. Sustainalytics considers the project selection process to be in line with market practice.



MANAGEMENT OF PROCEEDS New York Power Authority will deposit the proceeds of its green bonds in separate accounts and manage the allocation process using its existing internal tracking system. Pending allocation, proceeds may be held in liquid instruments as per its investment policy. This is in line with market practice.



REPORTING New York Power Authority make efforts to disclose allocation and impact information such as allocated amounts, project location, and project capacity, as well as broader reporting about its alignment to State environmental objectives. Sustainalytics highlights that reporting is considered to be one of the core components of the green bond market and encourages NYPA to prioritize these actions.

Evaluation date	May 6, 2020
Issuer Location	White Plains, NY, U.S.

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Introduction

The Power Authority of the State of New York (“New York Power Authority” or “NYPA”) is a New York State public authority, and the State’s largest public power organization. NYPA was created in 1931 with the purpose to provide continuous and adequate supply of reliable electric power and energy. As the only state-wide power supplier, with 16 generating facilities, NYPA generates nearly 25% of New York’s energy supply and owns and operates 1,400 miles of high voltage transmission line, three large hydroelectric facilities, two large gas-fired power plants and various smaller generating assets.

NYPA has developed the New York Power Authority Green Bond Framework (the “Framework”) under which it intends to issue a green bond and use the proceeds to finance and/or refinance, in whole or in part, existing and/or future projects that refurbish, upgrade, and modernize its power transmission system. The Framework defines eligible projects in the area of electric transmission infrastructure. Specifically, NYPA has defined five transmission lines, as well as their associated switching facilities, which will be the focus of investment of the green bond proceeds:

1. The 765-kV line south from the Canadian border to Marcy, New York
2. Two 345-kV lines from the Niagara Project east to Niagara Mohawk’s Edic Substation in central New York
3. Two 345-kV lines from Marcy, New York, connecting to other utility substations in south-eastern New York
4. Three 345-kV lines from the Blenheim-Gilboa Project extending to substations near Athens, New Scotland, and Delhi, respectively
5. Two 230-kV lines extending east from the St. Lawrence Project to Plattsburgh, New York, and to the Vermont border.

A full list of eligible projects and descriptions for the 2020 green bond issuance is provided in Appendix 1.

NYPA engaged Sustainalytics to review the New York Power Authority Green Bond Framework, dated May, 2020 and provide a second-party opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP).¹ This Framework has been published in a separate document.²

Scope of work and limitations of Sustainalytics Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics independent³ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible categories are credible and impactful.

NYPA’s utilization of Sustainalytics for this independent assessment and publication of this Second Party Opinion on its website does not constitute an endorsement by NYPA of Sustainalytics’ products or services.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the ICMA Green Bond Principles 2018;
- The credibility and anticipated positive impacts of the use of proceeds;
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.3, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of NYPA’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. NYPA representatives have confirmed (1) they understand it is the sole responsibility of NYPA to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and

¹ The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

² The New York Power Authority Green Bond Framework is available on New York Power Authority’s website at: <https://www.nypa.gov>.

³ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

(3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics' opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and NYPA.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the intended allocation of proceeds but does not guarantee the realised allocation of the bond proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that NYPA has made available to Sustainalytics for the purpose of this SPO.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the New York Power Authority Green Bond Framework

Sustainalytics is of the opinion that the New York Power Authority Green Bond Framework is credible and impactful, and aligns with the four core components of the GBP 2018. Sustainalytics highlights the following elements of NYPA's Green Bond Framework:

- Use of Proceeds:
 - The eligible category, electric transmission infrastructure, is aligned with those recognized by the GBP 2018 within the areas of renewable energy and energy efficiency.
 - NYPA's Framework identifies several transmission infrastructure projects as eligible for financing by the green bond. Sustainalytics considers the specified projects to be aligned with green bond market practice for the following reasons:
 - NYPA's electricity supply mix is currently 81% low-carbon, primarily from existing large hydroelectric facilities. These figures demonstrate that, although NYPA's assets do transmit a share of fossil fuel-based power, that they are predominantly delivering sustainable, renewable power. Sustainalytics has calculated the emissions intensity of the energy transmitted over the grid to be approximately 124 gCO₂/kWh.⁴ While this value is higher than the 100 gCO₂/kWh figure that is recognized within the green bond market to be indicative of energy supply aligned with a low-carbon transition, it does not represent a substantial deviation.
 - NYPA, a New York State public authority, is subject to the goals and legislation of New York's climate policies. Specifically, Chapter 106 of the New York State Climate Leadership and Community Protection Act of 2019 mandates that 70% of electricity be from renewable sources by 2030 and that by 2040 the electricity sector be zero-emission.⁵ This represents a credible and climate-aligned transition.
 - Sustainalytics additionally recognizes secondary environmental benefits associated with the green bond projects.

⁴ Based on data from NYPA's Sustainability Plan 2019-2023, accessed at: <https://www.nypa.gov/-/media/nypa/documents/document-library/environmentaljustice-sustainability/nypa-sustainability-plan-2019-2023.pdf>.

⁵ New York State, Climate Leadership and Community Protection Act, <https://www.dec.ny.gov/energy/99223.html>

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- The majority of the projects to be financed by NYPA's 2020 green bond are fully or predominantly dedicated to transmitting hydroelectric power, such as transmission line upgrades or improvements to switching facilities. Additionally, one project relates to the installation of advanced monitoring and "smart" sensing equipment. Sustainalytics considers transmission assets dedicated to renewable energy and smart grid investments to improve resiliency and efficiency to be eligible green projects without further qualification.
 - Sustainalytics also recognizes that within the context of New York State's existing power system that there exist constraints to maximizing the use of renewable energy due to a mismatch of suitable generation resources in upstate New York and load centers in the downstate region. In this context, transmission improvements across NYPA's grid may support in better allowing for the movement of clean power to customers in the New York City area.
- Project Evaluation and Selection:
 - The projects eligible for financing from NYPA's green bond are drawn from those of its 2020 Capital Budget, approved by NYPA's board of Trustees in December 2019. NYPA's treasury team subsequently selected a subset of projects which have clear environmental objectives. Only the projects specifically defined within the Framework are eligible to be financed by green bond proceeds.
 - Based on the upfront disclosure of an exhaustive list of eligible projects, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - The proceeds of the green bond will be deposited in segregated bank account(s) until such time as proceeds are allocated to the spending requirements identified.
 - NYPA will monitor the allocation of proceeds through an internal tracking system, and pending allocation proceeds will be held in temporary liquid and readily available investment instruments, including cash, term deposits with commercial banks, mutual funds and/or government securities as permitted by the company's investment policy. NYPA has disclosed that it intends to allocate the majority of the proceeds at time of issuance, and that the remainder will be allocated to ongoing or approved projects as required.
 - Based on the use of ringfenced accounts and the disclosures on the management of proceeds Sustainalytics considers this process to be in line with market practice.
- Reporting:
 - NYPA will track internally allocated amounts and project data, including type, capacity and location of projects financed. NYPA intends to work on a best efforts basis to report on this information, as well as the Authority's broader efforts to advance State green initiatives, on its website.
 - Sustainalytics encourages the intended disclosures, and notes that allocation and impact reporting are considered to be market practice for green bonds.

Alignment with Green Bond Principles 2018

Sustainalytics has determined that the New York Power Authority Green Bond Framework aligns to the four core components of the GBP 2018, and that therefore the Series 2020 A Revenue Bonds that will be issued under this Framework⁶ are also in alignment with the GBP 2018 and can be considered to be Green Bonds. For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Performance of NYPA

Contribution of framework to New York Power Authority's sustainability mandate

Sustainalytics is of the opinion that NYPA demonstrates a strong commitment to sustainability with a focus on advancing New York state's clean energy and climate goals.

NYPA has established a Sustainability Advisory Council ("SAC") which serves as the collaborative body to formulate its sustainability strategy. The Sustainability group, in consultation with the SAC, developed the

⁶ Including \$296,355,000 4.000% Term Bonds due November 15, 2050; \$300,985,000 4.000% Term Bonds due November 15, 2055; \$194,280,000 4.000% Term Bonds due November 15, 2060; and \$100,000,000 3.250% Term Bonds due November 15, 2060

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Sustainability Plan 2019-2023⁷ (the “Plan”) and will be in charge of coordinating the work across functional teams from all facilities to ensure implementation. The Plan, which NYPA intends to align with the Paris Climate Agreement, sets out internal operations, and customer and public-facing programs around energy efficiency, renewable energy, energy storage and transportation electrification.

The overarching goals of the Sustainability Plan include:

- To support climate stabilization at a 1.5°C increase and establish strategies to address greenhouse gas emissions and the impacts of climate change across NYPA’s value chain.
- To meet and exceed New York State’s goal to reduce greenhouse gas emissions 40% by 2030 across NYPA’s electricity supply, administrative/support buildings and vehicle fleet.
- To reduce energy use and improve resource efficiency across NYPA operations.
- To protect and conserve natural resources, including water and land, across NYPA’s operations and supply chain.
- To lead by example in sustainability and accelerate the adoption of sustainable technologies, processes and behaviors by showcasing NYPA’s efforts.

NYPA’s sustainability program defines a clear set of responsibilities, planning, execution, monitoring and reporting guidelines to meet its objectives. Among the executive team involved is the Senior Vice President of Public and Regulatory Affairs who serves as NYPA’s Chief Sustainability Officer, and the Vice President of Environmental Justice and Sustainability who has direct oversight of NYPA Sustainability Plan implementation and milestones.

Among other initiatives to further advance its sustainability strategy, NYPA has launched an interactive software platform to encourage employee participation in sustainability initiatives. The employee engagement tool “will serve as a resource hub for connecting employees across sites and will facilitate knowledge sharing and collaboration.”⁸ To advance energy efficiency, NYPA’s Customer Energy Solutions (“CES”), which serves public, commercial, municipal and institutional customers, focuses on the design, installation, commissioning, and financing of projects for energy efficiency, resiliency, and distributed energy. CES has completed over 2,400 energy projects at nearly 5,700 facilities throughout the state resulting in a combined annual cost savings of over USD 256 million.⁹

Sustainalytics is of the opinion that the New York Power Authority Green Bond Framework is aligned with the NYPA’s overall sustainability strategy and initiatives, and that it will further NYPA’s sustainability goals on its key environmental priorities.

Well positioned to address common environmental and social risks associated with the projects

While Sustainalytics recognizes that the net proceeds from the bonds issued under the Framework will be directed towards eligible projects that are anticipated to have positive environmental impact, Sustainalytics is aware that, as with any infrastructure investment, such projects may also be associated with negative environmental and social impacts. Some key environmental and social risks associated with the eligible projects include occupational health and safety and biodiversity and pollution impacts from construction sites.

NYPA has put in place controls, policies, procedures, and as part of its worker health and safety strategy, training is encouraged for all employees and is provided through annual digital courses aimed at eliminating health and safety incidents.^{10,11} In addition, the NYPA’s Risk Management (“RM”) business unit is in charge of performing three main functions which include Enterprise Risk Management, Insurance Risk Management, and Commodity Risk and Analytics with the purpose of facilitating informed and transparent risk-based decision making. The Enterprise Risk Management group leads the effort to identify, assess, mitigate and report risks to protect and enhance the value of the organization.¹²

NYPA has regional Environmental, Health and Safety (“EHS”) Managers who are responsible for compliance with applicable laws and regulations overseen by organizations including the Occupational Safety and Health Administration (“OSHA”), the Public Employee Safety and Health Bureau (“PESH”), the Environmental Protection Agency (“EPA”), the New York State Department of Environmental Conservation (“NYSDEC”), the

⁷ NYPA, “Sustainability Plan 2019-2023”, at: <https://www.nypa.gov/-/media/nypa/documents/document-library/environmentaljustice-sustainability/nypa-sustainability-plan-2019-2023.pdf?la=en>.

⁸ NYPA, “New York Power Authority Environmental Justice and Sustainability 2017 Update”, at: <https://www.nypa.gov/-/media/nypa/documents/document-library/environmentaljustice-sustainability/nypa-environmental-justice-sustainability.pdf>.

⁹ NYPA, “Energy Solutions”, at: <https://www.nypa.gov/services/customer-energy-solutions/overview-of-solutions>.

¹⁰ NYPA, “Accomplishments 2019”, at: <https://www.nypa.gov/-/media/nypa/documents/document-library/governance/nypa-accomplishments-2019.pdf>.

¹¹ <http://www.canals.ny.gov/about/compliance/Approved%202020-2023%20Financial%20Plan.pdf>.

¹² NYPA, “Section 12”, at: <https://www.nypa.gov/-/media/nypa/documents/document-library/governance/nypa-major-authority-units.pdf>.

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United States Army Corps of Engineers (“USACOE”), the State Historic Preservation Office (“SHPO”), and the Department of Health (“DOH”) regulations to which all NYPA projects must be in compliance.

More recently, in 2019, NYPA received ISO 55001 (“Asset Management”) Certification. This Certification helps manage performance, costs and opportunities throughout the lifecycle of assets. It also enables managers of physical assets to systematically manage and reduce risks associated with ownership of assets such as inefficiencies, breakdowns, and accidents.¹³

Based on these policies, standards and assessments, Sustainalytics is of the opinion that NYPA has implemented sufficient measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the projects financed.

Section 3: Impact of Use of Proceeds

The use of proceeds category is aligned with those recognized by the GBP 2018. Sustainalytics has focused below on where the impact is specifically relevant in the local context.

Importance of investing in clean energy infrastructure

In 2014, New York State introduced a new energy policy, Reforming the Energy Vision (“REV”), to build an integrated energy network that would allow it to better integrate the central grid to clean and locally generated power. This was followed with the release of the 2015 New York State Energy Plan, a roadmap to “build a clean, resilient, and affordable energy system for all New Yorkers”, including implementing specific initiatives to increase renewable energy generation, energy efficiency, and decrease GHG emissions.¹⁴ One of the New York State Energy Plan’s main initiatives is to modernize energy infrastructure which includes “smart generation and transmission”. In 2015, it was estimated that the cost to replace New York’s electric transmission and distribution infrastructure and meet projected energy demand in the following decade would be 30 billion USD.

As NYPA continues to work on an update to its 2020 Strategic Plan, Vision 2030, its aim is to continue to build on the implementation of its previous strategic plan, in which it sought to gain the largest market share of new transmission and large-scale renewable projects.¹⁵ The new plan will be centered on advancing New York State’s Climate Leadership and Community Protection Act (“CLCPA”), approved in 2019, with a set of ambitious targets to make New York’s electricity carbon neutral by 2040,^{16,17} and to reduce GHG emissions by 85% from 1990 levels and offsetting the remaining 15% through actions like reforestation and carbon sequestration.¹⁸

Sustainalytics is of the opinion that the eligible projects enumerated by the Green Bond Framework will support critical infrastructure to meet the objectives of the 2015 New York State Energy Plan.

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. This green bond advances the following SDG goal and target:

Use of Proceeds Category	SDG	SDG target
Electric Transmission Infrastructure	7. Affordable and Clean Energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

¹³ ISO, “ISO: 55001 Asset management - Management system: requirements”, at: https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso-55089-colour_pdf.pdf.

¹⁴ New York State, “2015 New York State Energy Plan”, at: <https://energyplan.ny.gov/Plans/2015.aspx>.

¹⁵ NYPA, “NYPA 2020 Strategy Update: Empowering Customer Success”, at: <https://www.nypa.gov/-/media/nypa/documents/document-library/governance/nypa-2020-strategic-vision.pdf>.

¹⁶ NYPA, “2020 – 2023 Proposed Budget and Financial Plan”, at: <https://nypa.gov/-/media/nypa/documents/document-library/financials/proposed-2020-2023-financial-plan.pdf>.

¹⁷ New York State, “Governor Cuomo Announces Green New Deal Included in 2019 Executive Budget”, (2019) at:

<https://www.governor.ny.gov/news/governor-cuomo-announces-green-new-deal-included-2019-executive-budget>.

¹⁸

NY Senate, “Historic Climate Leadership and Community Protection Act Signed into NYS Law”, (2019) at: <https://www.nysenate.gov/newsroom/press-releases/jen-metzger/historic-climate-leadership-and-community-protection-act-signed>.

Conclusion

NYPA has developed the New York Power Authority Green Bond Framework under which it will issue a green bond and the use of proceeds to finance projects that will support the distribution of renewable energy, increase energy efficiency and support the New York State Climate Leadership and Community Protections Act. Sustainalytics considers that the projects funded by the green bond proceeds will provide positive environmental impacts.

The New York Power Authority Green Bond Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the New York Power Authority Green Bond Framework is aligned with the overall sustainability strategy of the company and that the green use of proceeds category will contribute to the advancement of the UN Sustainable Development Goal 7: Affordable and Clean Energy. Additionally, Sustainalytics is of the opinion that NYPA has sufficient measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that New York Power Authority is well-positioned to issue green bonds and that the New York Power Authority Green Bond Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2018.

Appendices

Appendix 1: Detailed description of eligible projects

#	Project Description
1	A life extension and modernization (LEM) project at the Niagara Switchyard to replace Bays 10, 14, 16, 20, 21, 22 and 25 Breakers, MOD's, Manual Disconnects, HVIT's, Tubular Bus Aerial Cable and Autotransformer No. 1. The switchyard and majority of its installed equipment including autotransformers, oil-filled circuit breakers, disconnect switches, potheads, and other related equipment were installed in the early 1960's and are becoming increasingly prone to failures, challenging to maintain and environmental risks.
2	A project to extend the life of the Moses-Adirondack lines (MA-1 and MA-2) by rebuilding the lines at 345 kV on double-circuit steel monopoles with 1033 ACSR conductor. These lines were built by the Department of Defense in 1942 to transmit power from hydro generating facilities at Taylorville on the Beaver River just north of the Adirondack Substation to Alcoa in Massena. In the early 1950s, the Authority purchased the two 115kv lines and later upgraded the lines to 230kV during the construction of the St. Lawrence – F.D.R. Power Project in the late 1950s. The lines were also extended from Alcoa to Barnhart Island (North Extension) and from Taylorville to the new Adirondack Substation (South Extension).
3	New 345kV double circuit line ~86mi from existing Edic (E) to existing New Scotland (NS) station -2 new 345 kV lines ~5 miles single-circuit looping the existing 345 kV E to NS #14 line to new Rotterdam (R) 345kV station. R 230kV station to be retired -2 new 345/115 kV transformers connecting R 115kV yard to the new 345kV yard -rebuild ~6 miles of the R to NS 345 kV Line to -Remove R to NS 115kV Line -New Princetown 345kV yard -Terminal upgrades E and Marcy -Decom. Porter and R 230kV lines
4	Part of NYPA's Smart Generation & Transmission (Smart G&T) Strategic Initiative, focus is on the installation of smart sensors to improve the transmission grid by continuously monitoring assets. Sensors are planned to be installed on transformers, breakers, battery banks, exciters, reactors, regulators, cables, and capacitors, for increased reliability and enhanced decision-making.
5	A project to perform life extension and modernization (LEM) actions at the Plattsburgh, Sarana and Willis substations in northern NY. This program is a multiyear project aimed at maintaining availability, increasing reliability and ensuring regulatory compliance. This project will replace the substations' circuit breakers, disconnect switches, instrument transformers, station service equipment, relaying and provide an updated control rooms.
6	The STL Robert Moses Breaker and Relay Replacement Program is a multiyear program with the goal of selectively upgrading components of NYPA's existing transmission system. The switchyard 115kV busses support Alcoa (MAL4, 5, 6), Alcoa East (MAE1,2; previously MRG 1,2), Med Grasse River (MED4, 5), and Reynolds (MAE3, previously MR3) transmission line operations. The 230kV busses support Massena (MMS1, 2), Ontario Hydro's St. Lawrence Transformer Station (L33P, L34P), (MA1, 2) and Willis (MW1, 2) transmission line operations. To ensure continued reliability and regulatory compliance the following equipment is scheduled to be replaced: Bay 1500 & 1400 Breakers and Relays and Capacitor Bank Installation. Transmission Life Extension and Modernization (T-LEM) is a multiyear program that will upgrade NYPA's existing transmission system to maintain availability, increase reliability, and ensure regulatory compliance. The project at Massena Substation includes the replacement or upgrade of 765kV SF6 Breakers, CCVTs, VTs along with 13.8kV switchgear, station service equipment and insulators and all pieces of equipment that have reached their end of life, require excessive costs to maintain and pose reliability threats to the system.
7	PV-20 is a single circuit 115kV transmission line running from Plattsburgh substation to Cumberland Head substation. It is approximately 7.5 miles long. The submarine cable portion consists of four (4) original 500 kcmil cables installed in 1958 (one spare), and three (3) additional 1000 kcmil cables installed in 1970.
8	The Marcy Switchyard (located at Clark Energy Center) Life Extension and Modernization Program is a multiyear program with the goal of selectively upgrading components of NYPA's existing transmission system. The Clark Energy Center 765 kV busses support Massena (MSU1) and auto transformers 1, 2 and spare 1-2X which in turn service the Marcy 345 kV yard. The Clark Energy Center 345 kV yard supports the Marcy FACT system, and Coopers Corner (UCC2-41 and New Scotland (UNS-18) transmission line operations. The Marcy 345 kV Switchyard has been in service over 30 years and a majority of the original equipment is still in service. The following equipment will be replaced as part of the Marcy Switchyard LEM Program to ensure continued reliability and regulatory compliance: 765kV Breakers 7402, 7414, & 7302 and 345kV Circuit Breakers 3308 & 3302

Appendix 2: Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	New York Power Authority
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: <i>[specify as appropriate]</i>	New York Power Authority Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	May 6, 2020
Publication date of review publication:	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (*if applicable*):

The eligible category for the use of proceeds, electric transmission infrastructure, is aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that investments in refurbishing, upgrading, and modernizing New York's power grids will lead to positive environmental impacts by facilitating the use of low-carbon energy and advance the UN Sustainable Development Goals, specifically SDG 7: Affordable and Clean Energy.

Use of proceeds categories as per GBP:

- | | |
|--|---|
| <input type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input checked="" type="checkbox"/> Other (<i>please specify</i>): electric transmission infrastructure |

If applicable please specify the environmental taxonomy, if other than GBPs:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (*if applicable*):

New York Power Authority's internal process in evaluating and selecting projects is based on the four-year Capital Plan detailed in its 2020 Capital Budget. NYPA's treasury team has selected specific projects from this Plan that are specified within the Framework. Sustainalytics considers the project selection process to be in line with market practice.

New York Power Authority Green Bond Framework

Evaluation and selection

- | | |
|--|--|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- | | |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

New York Power Authority will deposit the proceeds of its green bonds in separate accounts and manage the allocation process using its existing internal tracking system. Pending allocation, proceeds may be held in liquid instruments as per its investment policy. This is in line with market practice.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (<i>please specify</i>): |

Additional disclosure:

- | | |
|---|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input checked="" type="checkbox"/> Allocation to a portfolio of disbursements |
| <input checked="" type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (<i>please specify</i>): |

4. REPORTING

Overall comment on section (*if applicable*):

New York Power Authority make efforts to disclose allocation and impact information such as allocated amounts, project location, and project capacity, as well as broader reporting about its alignment to State

New York Power Authority Green Bond Framework

environmental objectives. Sustainalytics highlights that reporting is considered to be one of the core components of the green bond market and encourages NYPA to prioritize these actions.

Use of proceeds reporting:

- | | |
|---|---|
| <input type="checkbox"/> Project-by-project | <input type="checkbox"/> On a project portfolio basis |
| <input checked="" type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Information reported:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Green Bond financed share of total investment |
| <input checked="" type="checkbox"/> Other (<i>please specify</i>): <i>project type and location</i> | |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Impact reporting:

- | | |
|---|---|
| <input type="checkbox"/> Project-by-project | <input type="checkbox"/> On a project portfolio basis |
| <input checked="" type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Information reported (expected or ex-post):

- | | |
|--|--|
| <input type="checkbox"/> GHG Emissions / Savings | <input type="checkbox"/> Energy Savings |
| <input type="checkbox"/> Decrease in water use | <input type="checkbox"/> Other ESG indicators (<i>please specify</i>): <i>transmission line capacity</i> |

Means of Disclosure

- | | |
|--|---|
| <input type="checkbox"/> Information published in financial report | <input type="checkbox"/> Information published in sustainability report |
|--|---|

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- Information published in ad hoc documents Other (please specify): Information published on NYPA's website
- Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

<https://www.nypa.gov/>

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- Consultancy (incl. 2nd opinion) Certification
- Verification / Audit Rating
- Other (please specify):

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. Second Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include

a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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