

New York Power Authority

Type of Engagement: Annual Review

Date: April 29, 2021

Engagement Team:

Ijeoma Madueke, ijeoma.madueke@sustainalytics.com, (+1) 647 317 3631

Daniel Sanchez, daniel.sanchez@sustainalytics.com, (+1) 647 264 6644

Introduction

In May 2020, the Power Authority of the State of New York (“New York Power Authority” or “NYPA”) issued a green bond aimed at financing transmission infrastructure to support the integration of renewable energy to its electricity grid. Sustainalytics provided a Second Party Opinion¹ of the Framework. In April 2021, NYPA engaged Sustainalytics to review the projects funded through the issued green bond and provide an assessment as to whether the projects met the Use of Proceeds criteria and the Reporting commitments outlined in the New York Power Authority Green Bond Framework² (the “Framework”).

Evaluation Criteria

Sustainalytics evaluated the projects and assets funded in 2020 based on whether the projects and assets:

1. Met the Use of Proceeds and Eligibility Criteria outlined in the New York Power Authority Green Bond Framework; and
2. Met the reporting criteria for each Use of Proceeds criteria outlined in the New York Power Authority Green Bond Framework.

Table 1 lists the Use of Proceeds, Eligibility Criteria, and associated Reporting Criteria. Table 2 lists Sustainalytics detailed findings.

Table 1: Use of Proceeds, Eligibility Criteria, and associated Reporting Criteria

Use of Proceeds	Eligibility Criteria	Reporting Criteria
Renewable Energy and Energy Efficiency	Retrofitting, and upgrading energy transmission infrastructure to support the integration of low-carbon energy sources. Installation of “smart sensors” to improve the transmission grid.	Project type, capacity and location of projects financed

Issuing Entity’s Responsibility

NYPA is responsible for providing accurate information and documentation relating to the details of the projects that have been funded, including description of projects, amounts allocated, and project impact.

Independence and Quality Control

Sustainalytics, a leading provider of ESG and corporate governance research and ratings to investors, conducted the verification of NYPA’s Green Bond Use of Proceeds. The work undertaken as part of this engagement included collection of documentation from NYPA employees and review of documentation to confirm the conformance with the New York Power Authority Green Bond Framework.

¹ Sustainalytics, “New York Power Authority Green Bond Framework Second-Party Opinion”, (2020), at: https://mstar-sustops-cdn-mainwebsite-s3.s3.amazonaws.com/docs/default-source/spos/ny-pa-green-bond-framework-second-party-opinion.pdf?sfvrsn=c939eaf7_3

² NYPA, “New York Power Authority Green Bond Framework”, (2020) at: <https://ny-pa.gov/-/media/ny-pa/documents/document-library/financials/ny-pa-green-bond-framework.pdf?la=en>

Sustainalytics has relied on the information and the facts presented by NYPA with respect to the Nominated Projects. Sustainalytics is not responsible, nor shall it be held liable if any of the opinions, findings, or conclusions it has set forth herein are not correct due to incorrect or incomplete data provided by NYPA.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight over the assessment of the review.

Conclusion

Based on the limited assurance procedures conducted,³ nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the reviewed bond projects, funded through proceeds of NYPA's Green Bond, are not in conformance with the Use of Proceeds and Reporting Criteria outlined in the New York Power Authority Green Bond Framework. NYPA has disclosed to Sustainalytics that 76% of proceeds of the green bond have been allocated as of April 2021.

Detailed Findings

Table 2: Detailed Findings

Eligibility Criteria	Procedure Performed	Factual Findings	Error or Exceptions Identified
Use of Proceeds Criteria	Verification of eight projects funded by the green bond between 2020-2021 to determine if projects aligned with the Use of Proceeds Criteria outlined in the New York Power Authority Green Bond Framework and above in Table 1.	All projects reviewed complied with the Use of Proceeds criteria.	None
Reporting Criteria	Verification of eight projects funded by the green bond between 2020-2021 to determine if the information reported is in line with the reporting criteria outlined in the New York Power Authority Green Bond Framework and above in Table 1. For further information on the projects financed refer to the Appendix.	All projects reviewed are aligned with the reporting criteria set in the Framework.	None

³ Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the projects that have been funded, including description of projects, estimated and realized costs of projects, and project impact, which were provided by the Issuer. The Issuer is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.

Appendix

NYPA's Project and Asset Reporting

In May 2020, NYPA issued a total of USD 1.12 billion in Series A bonds with USD 791.8 million designated as "green".⁴ Table 3 details the green bond allocation and Table 4 includes a description of projects being financed.

Table 3 Green Bond Allocation

Net Bond Proceeds Allocation (USD) May 12, 2020 – April 16, 2021	
Net bond proceeds used for transmission project reimbursement ⁵	\$276,779,726.95
Net bond proceeds allocated and disbursed on eligible projects	\$198,704,544.92
Allocated bond proceeds (future spend on ongoing projects) ⁶	\$187,472,925.25
Unallocated bond proceeds (future spend)	\$128,798,328.91
Total:	\$791,755,526.03

Table 4 Detailed description of eligible projects

Project Name	Project Description	Net Bond Proceeds Allocated (USD)
Transmission LEM (NIA)	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.	\$24,087,716.88
MA1 & MA2 Transmission Smartpath	A project to extend the file 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).	\$137,950,377.52
Marcy to Scotland	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	\$2,532,385.94
Sensor Deployment Transmission	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	\$14,450,967.88

⁴ NYPA has designated as green bonds, the Series A Bonds maturing on November 15, 2050, November 15, 2055, and November 15, 2060. At: <https://emma.msrb.org/SS1379786-SS1074352-SS1481598.pdf>

⁵ "Project reimbursement" includes the refinancing of expenditures for eligible projects.

⁶ NYPA has communicated that "future spend" refers to new financing on the projects listed in Table 4 which are expected to occur over the next two years up to 2023.

	to be installed on transformers, breakers, battery banks, exciters, reactors, regulators, cables, and capacitors, for increased reliability and enhanced decision-making.	
TLEM - STL Remote Substations	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.	\$6,391,015.94
Breaker & Relay Replacement	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.	\$5,927,375.71
PV20 Cable Replacement	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.	\$3,056,502.20
Transmission LEM (CEC)	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	\$4,308,202.85
Total:		\$198,704,544.92

Disclaimer

Copyright ©2021 Sustainalytics. All rights reserved.

The information, methodologies and opinions contained or reflected herein are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data), and may be made available to third parties only in the form and format disclosed by Sustainalytics, or provided that appropriate citation and acknowledgement is ensured. They are provided for informational purposes only and (1) do not constitute an endorsement of any product or project; (2) do not constitute investment advice, financial advice or a prospectus; (3) cannot be interpreted as an offer or indication to buy or sell securities, to select a project or make any kind of business transactions; (4) do not represent an assessment of the issuer's economic performance, financial obligations nor of its creditworthiness; and/or (5) have not and cannot be incorporated into any offering disclosure.

These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. The firm works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The world's foremost issuers, from multinational corporations to financial institutions to governments, also rely on Sustainalytics for credible second-party opinions on green, social and sustainable bond frameworks. In 2020, Climate Bonds Initiative named Sustainalytics the "Largest Approved Verifier for Certified Climate Bonds" for the third consecutive year. The firm was also recognized by Environmental Finance as the "Largest External Reviewer" in 2020 for the second consecutive year. For more information, visit www.sustainalytics.com.

5th Green Bond Pioneer Awards

Climate Bonds Initiative

Largest Verifier for Certified
Climate Bonds of 2019

awarded to Sustainalytics



More information conference.climatebonds.net/awards



GlobalCapital SRI Awards

Named

2015: Best SRI or Green Bond Research or Rating Firm
2017, 2018, 2019: Most Impressive Second Opinion Provider



The
**Green Bond
Principles**