

October 1, 2018

VIA ELECTRONIC MAIL:

PublicPolicyPlanningMailbox@nyiso.com

Mr. Zachary G. Smith
Vice President of System & Resource Planning
New York Independent System Operator
10 Krey Boulevard
Rensselaer, New York 12144

RE: New York Transco LLC’s Response to the New York Independent System Operator’s Request for Proposed Transmission Needs Driven by Public Policy Requirements

Dear Mr. Smith:

New York Transco LLC (“Transco”) respectfully submits this letter in response to the New York Independent System Operator, Inc.’s (“NYISO”) August 1, 2018 “Request for Proposed Transmission Needs Being Driven by Public Policy Requirements for the 2018-2019 Transmission Planning Cycle” (the “Notice”). In response to the Notice and consistent with Section 31.4.2 of Attachment Y of the NYISO’s Open Access Transmission Tariff (“OATT”), Transco has identified two transmission needs being driven by a Public Policy Requirement, which the NYISO shall file with the New York State Public Service Commission (the “Commission”) for review.

I. Overview

As energy production within New York continues to evolve and diversify to include a higher level of renewable energy, it is widely acknowledged that the State’s existing transmission system needs to be upgraded to achieve its public policy objectives.¹ One of the State’s core energy-related public policy objectives is embodied in the Clean Energy Standard (“CES”). On August 1, 2016, the Commission issued its *Order Adopting a Clean Energy Standard* (the “CES Order”) and adopted the goal set forth in the State Energy Plan that 50% of the electricity used in New York will be generated by renewable sources by 2030.² As a

¹ See e.g. New York State Independent System Operator, Inc., *Public Policy Needs Study: Transmission Constrained Renewable Generation Pockets* (dated July 27, 2018) (the “NYISO Constraint Assessment”) (discussing the NYISO’s transmission constraint assessment related “to the significant injection of renewable generation resources into various locations in the New York Control Area . . . to satisfy the 50-by-30 goal of the State’s Clean Energy Standard” and the resulting transmission upgrades needed to facilitate achievement of this goal).

² Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Order Adopting a Clean Energy Standard (Issued Aug. 1, 2016).

consequence of this goal, renewable generation facilities are being—and will continue to be—constructed in New York.

As with current facilities, these future large-scale renewable resources, including solar and wind farms, will continue to be developed across the State. As evidenced by the NYISO’s interconnection queue, many of these renewable projects are intended to be sited in the North Country and the southern tier region (the “Southern Tier”) of New York. In an effort to anticipate transmission needs stemming from this potential future renewable generation, the NYISO studied the addition of these resources at their likely geographical locations to determine whether curtailments or increased curtailments are likely to occur due to congestion on the existing transmission system. Ultimately, the NYISO identified a risk of increased curtailments and congestion in the North Country and Southern Tier.³

After considering the CES Order and the NYISO Constraint Assessment, Transco has identified two transmission needs stemming from the CES-based Public Policy Requirement:

- (a) to address constraints on the existing transmission system in the North Country (also referred to by the NYISO as “Pocket X”) to afford the State with full access to existing clean, renewable generation resources already in that region, including hydroelectric generation, and to accommodate planned developments of new in-State renewable resources; and
- (b) to address constraints on the existing transmission system in the Southern Tier (also referred to by the NYISO as “Pocket Z”) to afford the State with full access to existing, planned, and prospective in-State clean, renewable generation resources located across the Finger Lakes region and throughout Steuben to Broome Counties, and to broaden access to qualified regional renewable resources toward Western areas of the State.

In response to these two transmission needs, Transco requests that the Commission identify the CES as the driver of a Public Policy Requirement that will allow for the unbottling of at least: (1) 400 megawatts (“MW”) of renewable generation resources across the North Country’s transmission corridor from North to South, and (2) 800 MW of renewable generation resources across the Southern Tier transmission corridor from West to East.

Additionally, Transco suggests below that the NYISO establish an equivalent “Energy Deliverability” (*i.e.*, North Country 35 terawatt hours (“TWh”) annually, and for the Southern Tier 57 TWh annually) selection metric, which will be described in the NYISO’s solicitation for projects to satisfy a Public Policy Transmission Need (“PPTN”). This selection metric will take into account peak and seasonal requirements with the objective to achieve optimal access to resources as needed to reduce costs to customers while enabling the State to achieve its CES goal. Transco suggests additional selection metrics to satisfy a CES-based Public Policy

³ See NYISO Constraint Assessment, at 25 and 29.

Requirement below, including a focus on the expandability and flexibility of the proposed solutions to accommodate greater amounts of variable renewable energy in the future and the advantages the upgrades will have on future resiliency and operator flexibility.

II. Discussion

a. A CES-based Public Policy Requirement

Transco applauds the NYISO and the Commission for their efforts to-date in pursuing initial Public Policy Requirements driving certain identified transmission needs in Western New York and across the Central East and UPNY/SENY interfaces. However, as recognized through various NYISO assessments and operational reports, the evolving New York energy landscape indicates that there are Public Policy Requirements driving transmission needs that neither the NYISO nor the Commission have addressed in prior Public Policy Transmission Planning Processes. The most significant and pressing of the unaddressed Public Policy Requirements is the Commission-declared CES.⁴ As a direct result of the CES, the State’s generation fleet is undergoing significant changes,⁵ and, simply put, the State’s transmission system needs to be upgraded to accommodate these changes.⁶

For example, in 2017, to encourage new large-scale renewable energy projects in an effort to meet the CES, the New York State Energy and Resource Development Authority (“NYSERDA”) awarded \$1.4 billion for 26 renewable generation projects that will develop nearly 1,400 MW of new, clean energy capacity throughout New York State.⁷ The make-up of these projects—which are expected to be operational by 2022—is: 22 solar farms (totaling 647 MW); 3 wind farms (totaling 734 MW), 1 of which will feature an energy storage component; and 1 hydroelectric facility (totaling 3 MW). These projects are expected to generate enough electricity to power more than 430,000 homes, reduce carbon emissions by 1.6 million metric tons, and create over 3,000 short- and long-term well-paying jobs. Figure 1 below illustrates the generation added under NYSERDA’s 2017 award in various New York Control Area (“NYCA”) zones:

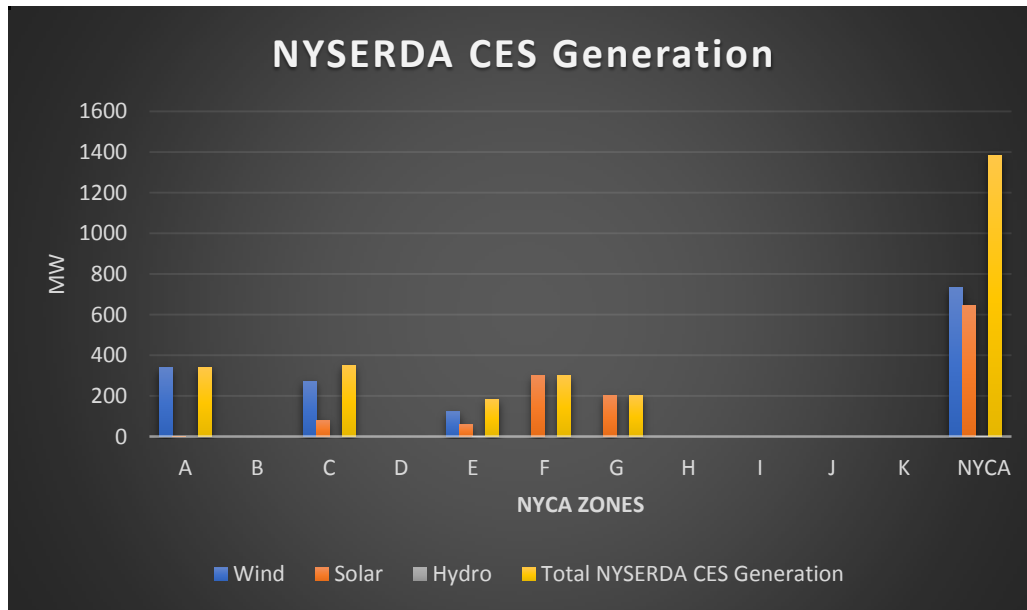
⁴ See New York State Independent System Operator, Inc., Open Access Transmission Tariff, Attachment Y, § 31.1.1 (defining a Public Policy Requirement to include “[a] federal or New York State statute or regulation, including a [Commission] order adopting a rule or regulation subject to and in accordance with the State Administrative Procedure Act . . . that may relate to transmission planning on the [Bulk Power Transmission Facilities.]”).

⁵ See e.g. Case 15-E-0302, *supra*, Staff White Paper on Clean Energy Standard (filed Jan. 25, 2016), at 7 (summarizing New York State Department of Public Service Staff’s [“DPS Staff”] determination that “slightly more than 33,700 GWh of incremental renewable generation must be added to the State’s fuel mix” in order to achieve the CES goal of 50% renewable by 2030).

⁶ See e.g. Case 15-E-0302, *supra*, CES Order, at 75 (directing DPS Staff to “ensure that the bulk transmission system is sufficiently modernized such that it can fully support the State’s renewable goals”).

⁷ NYSERDA, *Large-Scale Renewables Fact-Sheet*, 2017 Renewable Energy Standard Solicitation, available at <https://www.nyserd.ny.gov/-/media/Files/Programs/Clean-Energy-Standard/2017-RES-RFP-Results-Factsheet.pdf> (last accessed Sept. 24, 2018).

Figure 1: NYISERDA Clean Energy Standard Generation by Regions



To achieve New York State’s renewable energy goals as embodied in the CES Order, significant investment in new renewable resources is being, and will continue to be, made across the State. As the NYISO has acknowledged, and as is discussed in further detail below, this increase in generation drives corresponding transmission needs.⁸ For these reasons, access and unbotting of existing, current, and prospective CES resources satisfies the definition of a Public Policy Requirement under Attachment Y of the NYISO’s OATT.

b. Transmission Needs Driven By CES

In order to allow this new injection of renewable generation to reach New York load centers, it is widely accepted that a similar investment needs to be made in New York’s transmission system.⁹ While Transco appreciates the complexity of optimizing access to renewable resources while managing the cost to consumers and avoiding potential unnecessary upgrades to the existing transmission infrastructure, it believes that pursuing a properly defined PPTN in support of a Public Policy Requirement to access and consume renewable resources is critical to realize the CES benefits and goals by 2030.

This need for new transmission to support CES generation is confirmed by the NYISO’s recently-released presentation detailing the results of a transmission constraint assessment concerning the injection of renewable generation resources into New York’s generation fleet.

⁸ See NYISO Constraint Assessment, at 29.

⁹ See e.g. Case 15-E-0302, *supra*, NYISO Supplemental Comments on the Clean Energy Standard (filed July 8, 2016) (acknowledging that upgrades to New York’s existing bulk power system—particularly new transmission—will be required to satisfy the CES).

The NYISO’s Constraint Assessment revealed that under certain conditions—which assumed the successful construction and operation of NextEra’s Western New York transmission project, a “generic” AC Transmission project, and NYPA’s proposed rebuild of Moses-Adirondack 230 kV circuits—the “addition of significant amounts of renewable generation to achieve CES goals will cause stress and certain violations on the NY transmission system at both the backbone (>200) as well as the underlying (100-200 kV) system.”¹⁰ More specifically, the NYISO’s Constraint Assessment revealed “pockets” of overloads as follows:

Groups of overloads (“pockets”) were found from study scenarios with renewable generation turned on at their maximum outputs. These overloads were organized into groups:

- **Pocket W: Western NY Overloads**
 - Niagara – Rochester (115 kV)
 - PJM-NY AC Ties (115 kV)
 - Niagara – Gardenville – Stolle Rd (115 kV)
- **Pocket X: Northern NY Overloads**
 - Zone D Wind Generation Corridor (230 & 115 kV)
 - North to South Moses South Transfer path (230 & 115 kV)
 - Jefferson & Lewis Counties (115 kV)
- **Pocket Y: Eastern NY Overloads**
 - Mohawk Valley Corridor (115 kV)
 - Hudson Valley Corridor (115 kV)
- **Pocket Z: Southern Tier Overloads**
 - Finger Lakes Region Wind & Solar (115 kV)
 - Southern Tier Transmission Corridor (345 & 115 kV)

As a result of this study, the NYISO concluded that there is “*a need for transmission upgrades in order to transmit the full power from the renewable generation pockets to NYCA load to achieve the CES.*”

Based on the NYISO’s Constraint Assessment and other publically-available information about the location of proposed renewable generation facilities in New York, Transco has identified the following transmission needs driven by a CES-based Public Policy Requirement: (1) the North Country (“Pocket X”), and (2) the Southern Tier (“Pocket Z”). In light of these two transmission needs, which the NYISO will file with the Commission, the Commission should, in turn, identify a Public Policy Requirement to allow for the unbottling of at least: (1) 400 MW of renewable generation resources across the North Country’s transmission corridor from North to South, and (2) 800 MW of renewable generation resources across the Southern Tier transmission corridor from West to East.

c. Benefits of Identifying Transmission Needs Driven by CES

New transmission in the North Country and Southern Tier will provide greater certainty to developers that their future renewable generators will be able to provide electricity into the system in order to maximize the renewable energy production and consumption in the State. Greater certainty should increase production revenues from the market while lowering production risks, which, in turn, should lower the requested subsidies that generators bid to cover

¹⁰ NYISO Constraint Assessment, at 29.

their risks. In contrast, the absence of such transmission upgrades will, as the NYISO Constraint Assessment demonstrates, continue to result in, or increase, curtailments and the inability to rely on available renewable resources, which could prevent developers of renewable generation from even entering the market.¹¹

Moreover, the proposed upgrades position the State's bulk power system to: (1) afford full access to existing clean, renewable generation resources located in the North Country and Southern Tier, including wind, solar, and hydro generation; (2) accommodate planned and prospective future developments of incremental new in-State renewable resources; and (3) broaden the potential access to qualified regional renewable resources toward the Western parts of the State.

Transmission upgrades in the constrained North Country and the Southern Tier regions may provide other benefits as well. For example, these upgrades may provide the following environmental benefits:

- Reduced greenhouse gas emissions,
- Potentially, the need for fewer fossil fuel generators,
- Support more cost-effective implementation of carbon pricing in the NYISO wholesale market,
- Increased production cost savings, and
- Enhanced fuel diversity.

Additionally, these upgrades may have other system benefits, including:

- Increased operational flexibility,
- Ability to expand for future growth needs, which is critical to ensure flexible systems designed to accommodate the variability of renewable energy,
- Increased system resiliency, which addresses system needs due to increased extreme weather conditions, and
- Fuel security and diversity.

d. Evaluation Criteria

The NYISO's August 1, 2018 solicitation requires that parties identifying a proposed transmission need(s) also provide suggested evaluation criteria. Accordingly, Transco proposes the following overarching criteria to be used in evaluating projects proposed to satisfy the North Country/Pocket X transmission need and the Southern Tier/Pocket Z transmission need that Transco has identified: the ability to increase the development of renewable resources that would not otherwise be available to load centers.

¹¹ NYISO Constraint Assessment, at 29 (stating "a substantial amount of additional renewable generation in these zones may need to be curtailed to prevent overloading transmission facilities.").

Further, Transco proposes that the following additional criterion be used to specifically evaluate each of the transmission needs that Transco has identified:

- Reduced system constraints in both summer and winter periods,
- Resiliency benefits with additional transmission pathways using existing rights-of-ways,
- Expandability to allow for the phasing of transmission development to meet continuing future needs,
- Use of existing rights-of-way and infrastructure corridors,
- Economic benefits, including reduction in system-wide production costs, and
- Ability to unbundle existing and expected renewable and carbon-free generation resources as follows:
 - North Country/Pocket X: Access to a total of at least 4,000 MW of renewable resources in NYISO Zones D and E or the equivalent of at least 35 TWh annually, and
 - Southern Tier/Pocket Z: Access to a total of 6,500 MW of renewable resources in NYISO Zones A, B, and C or the equivalent of 57 TWh annually.

III. Conclusion

In sum, consistent with the NYISO's Constraint Assessment and the Commission's CES Order, Transco has identified two transmission needs being driven by a Public Policy Requirement, which the NYISO shall file with the Commission for review.

Please contact me with any questions about Transco's response to the Notice. Thank you for your consideration in this matter.

Sincerely,

/s/ Kathleen Carrigan

Kathleen Carrigan
General Counsel & Corporate Secretary
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