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

RE: Response to Request for Proposed Transmission Needs Being Driven by Public Policy Requirements for the 2018-2019 Transmission Planning Cycle

Dear Mr. Smith:

The Indicated New York Transmission Owners (“NYTOs”)¹ respectfully submit the following 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 NYTOs request that the NYISO consider this submission and forward it to the New York Public Service Commission (“NYPSC”), pursuant to the NYISO’s Public Policy Planning Process.

Introduction

The solicitation of transmission needs driven by Public Policy Requirements (“PPR”) represents the first step in NYISO’s Public Policy Transmission Planning Process (“PPTPP”). The current stage of the process is focused on identifying public policy transmission needs (“PPTNs” or “Needs”). The NYTOs believe there may be multiple PPTNs throughout New York (particularly in Northern New York and the Southern Tier) to alleviate bottled renewable generation, as supported by NYISO’s recent study. In addition, certain local upgrades to non-bulk facilities may be required to un-bottle renewable generation in these areas. The NYTOs ask that the NYISO and the NYPSC identify in their respective Needs identification documents and Orders those local facility upgrades that would be required and designate those upgrades to the local transmission owner.

¹ For purposes of these comments, the NYTOs include: Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.; Niagara Mohawk Power Corporation d/b/a National Grid; New York Power Authority; New York State Electric & Gas Corporation; Orange & Rockland Utilities, Inc.; and Rochester Gas & Electric Corporation.

After NYISO submits proposed PPRs to the NYPSC and the NYPSC identifies one or more Needs, the NYISO will solicit solutions. To encourage innovative, efficient and cost effective solutions, NYISO's sponsorship model of transmission development allows developers to propose a range of solutions to meet the PPTN identified by the NYPSC, including transmission and non-transmission alternatives (such as other technologies). For example, a developer may propose energy storage as a solution to a PPTN, which could support the State's Energy Storage Roadmap. The NYTOs believe that the NYPSC should encourage the submission of new technologies and innovative solutions to satisfy a PPTN, and also direct the NYISO to consider resilience benefits and efficient use of right of ways among its selection criteria.

Public Policy Requirements Driving Growth in Renewables Upstate

Both the State's Clean Energy Standard ("CES") and New York City's environmental goals will drive growth in renewables in New York. These policies, described below, set targets for reaching environmental goals.

Clean Energy Standard

On August 1, 2016, the NYPSC issued its Order Adopting a Clean Energy Standard ("CES"), embracing as its "foundational basis and essential component" a statewide goal that 50% of the electricity used in New York will be generated by renewable sources by 2030 (commonly referred to as "50-by-30"). The order also required every load serving entity in New York State to procure qualifying Renewable Energy Credits ("RECs") in minimum quantities established by the Order. Achieving the CES will require the addition of new renewable energy in New York State, much of which will occur in upstate New York.²

New York City Objectives

The City of New York has also released energy objectives: they call for an 80% reduction in the City's greenhouse gas emissions by 2050 and a 40% reduction in such emissions from the City government by 2030.³ While these objectives have yet to be codified, statutory or regulatory changes could be adopted in the future and will similarly drive development of new renewable resources in New York State.

These policies, together, point to the need for transmission to bring upstate renewable generation to downstate loads.

² For more information, see <https://www.nyserda.ny.gov/All%20Programs/Programs/Clean%20Energy%20Standard>.

³ For more information, see <https://www1.nyc.gov/site/sustainability/codes/80x50.page>.

Transmission Needs driven by Upstate Wind and Solar

NYISO Public Policy Transmission Needs Study: Transmission Constrained Renewable Generation Pockets

In March 2018, the NYPSC directed further analyses to assist with the identification of Needs in the future.⁴ Pursuant to that Order, the NYISO released, in July 2018, the results of its study, “Public Policy Transmission Needs Study: Transmission Constrained Renewable Generation Pockets,” which it had conducted in consultation with New York Department of Public Service (“DPS”) Staff. The study’s results indicate a need for new transmission to integrate the renewables required to achieve the CES.⁵

In the study, the NYISO conducted a screening analysis on the system with the projected renewable resource additions required to satisfy the CES 50-by-30 goal. Based on input from DPS Staff, NYISO added 9,205 MW of renewables to the system, including 2,400 MW of offshore wind. The study sought to identify areas upstate where high renewable penetration could cause transmission security issues. NYISO found “a need for transmission upgrades in order to transmit the full power from the renewable generation pockets to NYCA load to achieve the CES.”

Specifically, the study found certain zones, highlighted in the map below, where overloads were present upon addition of the studied renewables. The zones identified by NYISO include Western NY (“Pocket W”), Northern NY (“Pocket X”), Eastern NY (“Pocket Y”), and the Southern Tier (“Pocket Z”). Renewable curtailments varied by area, reaching as much as 975-1,050 MW in Pocket W and 1,000-1,150 combined between Pockets W and Z (due to the combination of constraints in those areas).

⁴ NYPSC, March 16, 2018. *Order Addressing Public Policy Requirements for Transmission Planning Purposes*. (Case 16-E-0558).

⁵ Available at

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2018-07-27/PPTN_genpockets_ESPWG_20180727.pdf.

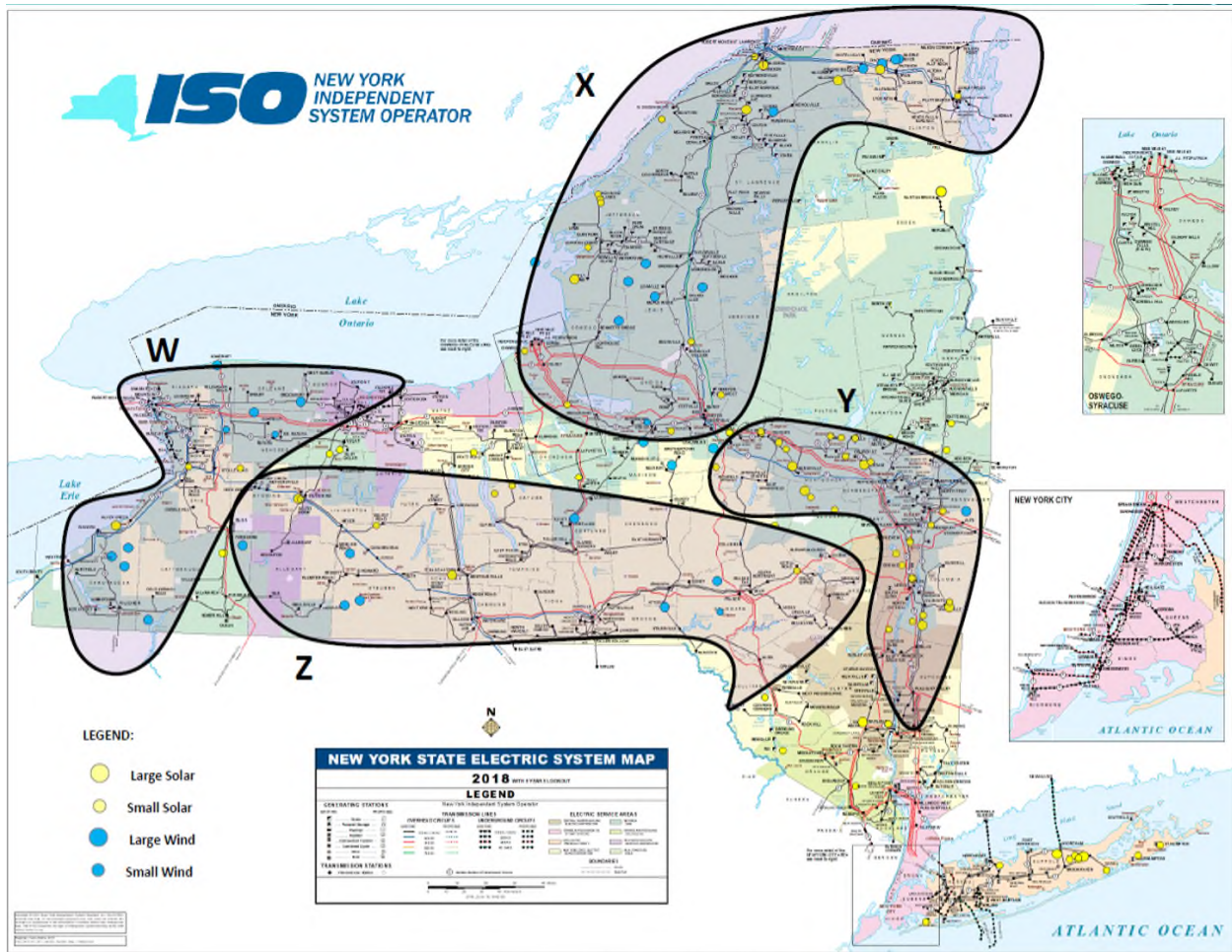


Image source: NYISO. July 27, 2018. “Public Policy Transmission Needs Study: Transmission Constrained Renewable Generation Pockets.” Available at http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2018-07-27/PPTN_genpockets_ESPWG_20180727.pdf.

Identification of Public Policy Transmission Needs

The NYISO’s study provides the needed specificity for the NYPSC to declare a PPTN, and indicates that there may be multiple PPTNs associated with the need to integrate upstate renewables onto the grid. The NYTOs urge the NYPSC to consider declaring more than one Need, based on the results observed in different parts of the State.

NYISO, having performed this study, is in the best position to interpret its results. NYISO has the tariff authority to, “on its own initiative,” identify proposed transmission needs it believes are being driven by PPRs.⁶ Therefore, the NYTOs believe that NYISO should act directly and identify Needs consistent with the results of its study.

⁶ See OATT §31.4.2

Transmission Needs in Northern New York

As noted, the NYISO study indicates a Need for new transmission to un-bottle renewables in Northern New York. Several of the NYTOs had submitted comments in the last public policy planning cycle urging the NYPSC to declare a PPTN to relieve constraints in Northern New York that impede renewable energy's movement to load,⁷ and the NYTOs reiterate those comments here.

Indeed, there is already a bottling of renewable generation resources in Northern New York during certain system conditions. The addition of further renewables in the region will exacerbate the constraint and impair the State's ability to achieve the CES. NYISO's PPTN study shows that there will be overloads both on the Moses South transfer path and on the collector system in Northern NY. Specifically, NYISO found overloads in the Zone D wind generation corridor (230 & 115 kV), North to South Moses Transfer Path (230 & 115 kV), and in Jefferson and Lewis Counties (115 kV). These overloads were present both in the case with existing baseline renewables and in the case with added renewables to meet the CES.

As noted above, the study found that addressing overloads on the Northern NY 230 and 115 kV system could un-bottle between 975 and 1,050 MW of renewables. Even addressing the overloads on the 230 kV system alone could un-bottle between 400-425 MW of renewable generation. The NYPSC should therefore declare a Need to un-bottle 400 to 1,000 MW of renewables in Northern New York to facilitate the State's achievement of the CES.

Transmission Needs in the Southern Tier

The NYISO study also indicates that relieving a number of overloads in the Southern Tier could un-bottle a similar amount of generation as in Northern NY. Specifically, alleviating overloads on the 345 kV and 115 kV systems in the Southern Tier Corridor and on the 115 kV system in the Finger Lakes region (which exist as a result of additions of wind and solar generation there) could un-bottle between 875 and 925 MW of renewables. The NYTOs thus urge the NYPSC to also declare a Need in the Southern Tier corridor and in the Finger Lakes region to un-bottle 800 to 900 MW of wind and solar generation and facilitate the State's achievement of the CES.

Treatment of Non-Bulk Upgrades

The NYTOs urge NYISO and the NYPSC to be explicit in identifying common local upgrades for bulk transmission projects. With respect to Needs identified by the NYPSC on the bulk system, the NYPSC should contemporaneously identify, with assistance from NYISO, any

⁷ Available at http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Public_Policy_Documents/Proposed_Needs/2016/NYPA_NGrid_CHGE%20Proposed%20PPR%20Transmission%20Needs.pdf.

upgrades to local non-bulk facilities that would be required to satisfy the Need, regardless of the solution selected. Because the local transmission owner will construct these upgrades, their identification in the NYPSC Order declaring the PPTN will avoid confusion during the solutions solicitation stage. This will also provide clarity to both developers and transmission owners as to the identity of common local upgrades requiring construction as part of bulk PPTN solicitations as well as their modeling and consideration by NYISO in the solicitation process.

In addition, the NYTOs note that several of the Needs identified by the NYISO study are on the non-bulk (115 kV) system. Any non-bulk upgrades to the local system will be completed by the local transmission owner. Therefore, it is important that the NYISO and the NYPSC be clear upfront in identifying upgrades to the non-bulk system that would be required to address the identified overloads, and assign those upgrades to the local transmission owner.

Integrating Offshore Wind

In addition to renewables being added upstate, the State also has an independent goal to develop 2,400 MW of offshore wind by 2030. NYSERDA has proposed a two-phase approach to achieve this goal. Phase 1 would procure at least 800 MW of offshore wind energy through two solicitations in 2018 and 2019, the first of which would commence in Q4 2018, with facilities expected to come online between 2024 and 2025. Phase 2 would procure the remaining 1,600 MW, with annual procurements of 400 MW, which would come online between 2027 and 2030.⁸

While NYISO's study included an assumed 2,400 MW of offshore wind consistent with the State's goal, it assumed the 2,400 MW of offshore wind was connected to the bulk power system and did not focus on the associated transmission and interconnection challenges that are critical to the goal's achievement. The construction of common backbone transmission and interconnection infrastructure for offshore wind is required to make the State's goal of 2,400 MW of offshore wind both cost effective and feasible. While the NYPSC's desired timing may preclude such infrastructure's construction during Phase 1, a common backbone transmission system should be identified as the preferred option for integrating Phase 2.

While the public policy transmission process is available to the NYPSC, using this process for offshore wind may introduce timing uncertainties, which could affect future offshore wind solicitations. The NYPSC should consider the use of the public policy transmission process as well as other options it may have available.

⁸ New York State Offshore Wind Master Plan, available at <https://www.nysenda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State/New-York-Offshore-Wind-Master-Plan>.

Conclusion

The NYTOs believe there may be multiple transmission needs in upstate New York driven by the need to integrate renewables to meet the State's Clean Energy Standard. The NYTOs encourage NYISO to act directly to identify for the NYPSC the specific areas requiring new transmission that it identified in its PPTN Transmission-Constrained Renewable Bottlenecks study. In addition, the NYTOs recommend that the NYPSC recognize as a PPTN the relief of constraints that impede the movement of renewable energy from Northern NY to load, as well as the constraints in the Southern Tier corridor. The NYTOs also request that the NYPSC identify in its PPR Order, with assistance from NYISO, upgrades to local non-bulk facilities that will be completed by the local transmission owner. Finally, the PSC should recognize that there are several ways to reduce congestion and renewable curtailments, and seek to encourage new technologies and innovative solutions, while also considering whether the proposed solutions enhance the resiliency of the system and make efficient use of right of ways.

Sincerely,

/s/ Stuart A. Caplan
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New York Transmission Owners*