STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held in the City of Albany on October 13, 2016

COMMISSIONERS PRESENT:

Audrey Zibelman, Chair
Patricia L. Acampora
Gregg C. Sayre
Diane X. Burman

CASE 14-E-0454 - In the Matter of New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration.

ORDER ADDRESSING PUBLIC POLICY TRANSMISSION NEED FOR WESTERN NEW YORK

(Issued and Effective October 13, 2016)

BY THE COMMISSION:

INTRODUCTION

On July 20, 2015, the Commission issued an order identifying congestion relief in Western New York as a Public Policy Requirement, as defined under the New York Independent System Operator, Inc.'s (NYISO) federally-approved Open Access Transmission Tariff (OATT).[1] Pursuant to the NYISO's OATT, any Public Policy Requirements identified by the Commission that may be driving the need for additional transmission facilities, referred to as Public Policy Transmission Needs, are forwarded to the NYISO to solicit potential solutions and to prepare a Viability and Sufficiency Assessment of the proposed projects.

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[1] Case 14-E-0454, In the Matter of New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration, Order Addressing Public Policy Requirements for Transmission Planning Purposes (issued July 20, 2015).

On November 1, 2015, the NYISO solicited potential solutions for resolving the identified congestion in Western New York. In response to its solicitation, the NYISO received proposals from eight developers, which proposed a total of 15 projects. On June 1, 2016, the NYISO submitted a report for the Commission's consideration detailing the results of its Viability and Sufficiency Assessment. On June 22, 2016, a Notice of Proposed Rulemaking (Notice) was published in the State Register seeking comments from interested entities on the NYISO's report.

In this order, the Commission considers the comments filed in response to the Notice and finds that a transmission solution to relieve congestion in Western New York should continue to be analyzed by the NYISO. Accordingly, the NYISO is directed to proceed to a full evaluation and selection, as appropriate, of the more efficient or cost-effective transmission solution to meet the Public Policy Transmission Need. Further, the Commission identifies the need to undertake certain non-bulk transmission facility upgrades in order to fully achieve the objectives of the Public Policy Transmission Need.

BACKGROUND

The NYISO's Public Policy Transmission Planning Process (PPTPP) was developed to comply with the Federal Energy Regulatory Commission's (FERC) Order No. 1000, which required, in part, the development of a planning process for the consideration of public policy-driven transmission needs.[2] The NYISO's PPTPP consists of four main steps, which include: (1)

[2] See Docket No. RM10-23-000, Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order No. 1000 (issued July 21, 2011), reh'g denied, Order No. 1000-A (issued May 17, 2012) reh'g denied, Order No. 1000-B (issued October 18, 2012).

the identification of Public Policy Requirements/Public Policy Transmission Needs; (2) the solicitation of proposed solutions to identified Public Policy Transmission Needs; (3) the evaluation of the viability and sufficiency of proposed transmission and non-transmission solutions to a Public Policy Transmission Need; and, (4) upon confirmation of the transmission need by the Commission, the evaluation and selection by the NYISO of the "more efficient or cost-effective" transmission project to satisfy the Public Policy Transmission Need.[3]

The NYISO's PPTPP establishes the Commission's role in identifying any Public Policy Requirements, and confirming that such requirements continue to exist after reviewing the results of the NYISO's Viability and Sufficiency Assessment. The NYISO OATT defines a Public Policy Requirement as:

> [a] federal or New York State statute or regulation, including [an order issued by the Commission] adopting a rule or regulation subject to and in accordance with the State Administrative Procedure Act, any successor statute, or any duly enacted law or regulation passed by a local governmental entity in New York State, that may relate to transmission planning on the [Bulk Power Transmission Facilities].[4]

The Commission established the procedures for identifying any Public Policy Requirements and the process for carrying out its responsibilities in an August 2014 Policy Statement.[5] Under the final step identified in the August 2014

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[3] See, NYISO Public Policy Transmission Planning Process Manual; Section 1.2 (July 2015); see also, NYISO OATT, Attachment Y, §31.4.1.

[4] NYISO OATT, Attachment Y, §31.1.1.

[5] Case 14-E-0068, Policies and Procedures Regarding Transmission Planning for Public Policy Purposes, Policy Statement on Transmission Planning for Public Policy Purposes (issued August 15, 2014) (August 2014 Policy Statement).

Policy Statement, the Commission determines, after reviewing the NYISO's Viability and Sufficiency Assessment of any proposed solutions, whether a transmission solution should or should not be pursued further. Assuming the Commission determines to pursue a transmission solution, the process specified under the NYISO OATT requires the NYISO to prepare fully detailed analyses. The NYISO will provide its full analyses in a Public Policy Transmission Planning Report in which it may select the more efficient or cost-effective transmission solution to the identified Public Policy Transmission Need, based on various metrics specified under its OATT.[6] The NYISO will also include, to the extent it is feasible, any criteria or analyses specified by the Commission or contained within the Public Policy Requirement. Transmission projects selected by the NYISO are eligible for cost allocation and recovery under the NYISO's OATT.

On August 1, 2014, the NYISO initiated the first round of its PPTPP under its OATT by requesting interested entities to identify any potential transmission needs that may be driven by a Public Policy Requirement. Following its receipt of responses, the NYISO filed the proposed Public Policy Requirements for the Commission's consideration.

On July 20, 2015, the Commission issued an order finding that "significant environmental, economic, and

[6] In determining which transmission solution is the more efficient or cost-effective, the NYISO considers several metrics, including: cost estimates, cost per MW ratio, expandability of the project, flexibility in operating the system (such as generation dispatch, access to operating reserves and ancillary services, or ability to remove transmission for maintenance), utilization of the system (such as interface flows or percent loading of facilities), a developer's property rights, potential construction delays, and impacts on NYISO-administered markets.

reliability benefits could be achieved by relieving the transmission congestion identified in Western New York."[7] Accordingly, the Commission identified the relief of transmission congestion in Western New York as a Public Policy Requirement driving the need for transmission, and referred it to the NYISO as a Public Policy Transmission Need warranting the solicitation and evaluation of potential solutions.

In referring the Western New York Public Policy Transmission Need, the Commission directed the NYISO to:

> consider solutions for increasing Western New York transmission capability sufficient to ensure the full output from [New York Power Authority's] Niagara hydroelectric generating facility (i.e., 2,700 MW including Lewiston Pumped Storage), as well as certain levels of simultaneous imports from Ontario across the Niagara tie lines (i.e., maximize Ontario imports under normal operating conditions and at least 1,000 MW under emergency operating conditions).[8]

This increased capability was intended to maximize transfers out of Load Zone A and into the rest of the State. The Commission further specified that the NYISO's analysis should ensure "no transmission security violations, thermal, voltage or stability, would result under normal and emergency operating conditions" and that "the system would be maintained in a reliable manner with fossil-fueled generation in Western New York out-of-service, as well as in-service."[9] In addition, the NYISO was advised to "consider other metrics in its evaluation of this Public Policy Requirement, including: changes in production costs; Load-Based Marginal Prices; transmission losses; emissions; Installed Capacity costs; Transmission Congestion

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[7] Case 14-E-0454, supra, Order Addressing Public Policy Requirements for Transmission Planning Purposes, p. 27.

[8] Id.

[9] Id. at 27-28.

Contract revenues; transmission congestion; impacts on transfer limits; and, resource deliverability."[10]

Based on the Commission's directives, the NYISO solicited potential solutions to address the identified transmission need. In response to the solicitation, the NYISO received responses from eight developers, which proposed a total of 12 transmission projects and three other non-transmission proposals. The NYISO prepared a Viability and Sufficiency Assessment for each of the proposed solutions and, following stakeholder review and comments, issued a report on May 31, 2016.

The NYISO's Viability and Sufficiency Assessment analyzed each proposed solution to determine whether it independently satisfied the Western New York Public Policy Transmission Need.[11] This assessment included a transmission security analysis to identify any remaining transmission security issues resulting from the addition of each project to the baseline case. The NYISO found that each project addressed at least some portion of the baseline transmission security issues, but not all projects would be able to address the entire bulk power transmission security criteria. Projects which were unable to address all of the bulk power transmission security issues were deemed insufficient to meet the Western New York Public Policy Transmission Need. The NYISO determined that ten transmission projects, out of the 12 remaining projects that provided sufficient information for the NYISO's consideration, were viable and sufficient to satisfy the Western New York

[10] Id. at 28.

[11] Three of the 15 proposed projects were removed from further consideration in the planning process after failing to submit a complete response within the timeframe provided under the OATT.

Public Policy Transmission Need. None of the proposed non-transmission solutions were deemed viable and sufficient by the NYISO.

In carrying out its assessment, the NYISO also found that the full capability of each proposed project to unbottle Niagara hydroelectric generation and Ontario imports would not be realized if certain non-bulk transmission issues were left unaddressed. The NYISO therefore recommended that these non-bulk transmission issues be addressed by whichever project is ultimately selected. Specifically, the NYISO recommends mitigation of the Niagara-Packard 115 kV #193 and #194 line overloads by reconductoring the lines or modification of the Niagara substation configuration, as well as the replacement of limiting substation terminal equipment for line #54 at the Gardenville 115 kV station.

NOTICE OF PROPOSED RULE MAKING

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), the Notice was published in the State Register on June 22, 2016 [SAPA No. 14-E-0454SP2]. The time for submission of comments pursuant to the Notice expired on August 8, 2016.

In response to the Notice, various entities filed comments, including: (i) North American Transmission, LLC (NAT); (ii) Niagara Mohawk d/b/a National Grid (National Grid); (iii) NextEra Energy Transmission New York, Inc. (NextEra); (iv) New York Transco, LLC (NY Transco); (v) NYISO; and (vi) New York Power Authority and New York State Electric & Gas Corp. (NYPA/NYSEG). These comments are addressed below.

COMMENTS

NAT

NAT suggests that the Commission find that the Public Policy Transmission Need for Western New York continues to exist. According to NAT, substantial evidence confirms that persistent congestion has continued in Western New York and is expected to exist in the future. They cite two recent independent studies related to both real time operation and forecasts of future conditions identifying significant congestion in Western New York. Citing Potomac Economics' First Quarter 2016 NYISO Electricity Markets report, NAT notes that 1) both day-ahead and real-time congestion in Western New York continues to be significant in 2016; 2) West Zone lines accounted for the second highest level of congestion in the state; and, 3) there was an increase in Western New York congestion in March 2016 following the retirement of the Huntley units. NAT also cites the NYISO's 2016 Congestion Assessment and Resource Integration Study (CARIS) Phase 2 Preliminary Base Case Results, which shows significant forecasted demand congestion in Western New York.

Further, NAT states that were no non-transmission alternatives to the Public Policy Transmission Need determined to be viable and sufficient, and that Western New York congestion does not arise from increasing load that can be offset through energy efficiency or demand response, but rather from bottling of low-cost, location-constrained generation. NAT also suggests that the Commission should affirm its support for risk mitigation proposals such as cost containment, similar to

the AC Transmission Upgrades proceeding.[12] NAT believes there is a risk that the NYISO's comparative evaluation will result in the recommendation of a project with an unreasonably low non-binding estimate, exposing rate-payers to higher costs. They further suggest that not all risk mitigation proposals provide equal protection to ratepayers and that the Commission should provide guidance that higher levels of protection should be valued higher.

National Grid

National Grid maintains that a Public Policy Transmission Need still exists in Western New York that can be addressed through transmission investments, and that the NYISO should continue with its evaluation of proposed transmission solutions to address the matter. National Grid notes that it has implemented several transmission reinforcements intended to maintain reliability and improve operational performance of the system in Western New York.[13] However, National Grid suggests that significant enhancements in system capability to substantially reduce congestion and fully unlock the output of the Niagara hydroelectric facility should still be made. The closure of more fossil-fueled generation and other infrastructure changes, National Grid maintains, further supports the need to reinforce the transmission system.

National Grid also points out that assuring the unconstrained output from the Niagara hydroelectric facility

[12] Case 12-T-0502, et al., Proceeding on Motion of the Commission to Examine Alternating Current Transmission Upgrades, Order Finding Transmission Needs Driven By Public Policy Requirements (issued December 17, 2015).

[13] National Grid notes that it has implemented a number of transmission reinforcements designed to maintain reliability of the transmission system and improve operational performance in light of the loss of Huntley Power LLC's units 67 and 68 and of the Dunkirk Power LLC plant.

will be critical to achieving the Clean Energy Standard goals,[14] and that further reinforcements of the Western New York transmission system would be necessary to achieve that objective. Strengthening the Western New York transmission grid, National Grid asserts, will also facilitate the integration of wind generation and other renewable energy resources, as well as help address aging infrastructure needs.

Finally, National Grid addresses statements by NAT regarding non-bulk power transmission facilities affected by certain developers' proposals. National Grid argues that certain developers did not account for the effects of their projects on the non-Bulk Power Transmission system, and that their proposals failed to pass the NYISO's initial Viability and Sufficiency Assessment.

NextEra

NextEra strongly supports NYISO's further evaluation of a proposed solution for the Western New York Public Policy Transmission Need, noting that the Public Policy Requirement that drives the need for a potential transmission solution continues to exist. NextEra further notes that the adoption of the Clean Energy Standard has heightened the need for new transmission to deliver renewable energy to consumers. Relieving congestion in Western New York, NextEra asserts, would allow for the full utilization of the existing renewable, non-carbon producing generation from the Niagara hydroelectric facility. NextEra also concurs with the NYISO that for projects which have been identified in the Viability and Sufficiency

[14] Case 15-E-0302, Proceeding of Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016) (adopting a goal that 50% of electricity consumed in New York by 2030 be generated from renewable sources).

Assessment as having non-Bulk Power Transmission Facilities issues, mitigation of the non-bulk issues should be added to the scope of the project which is ultimately selected.

NY Transco

NY Transco asks the Commission to find that there continues to be a transmission needs in Western New York driven by a Public Policy Requirement, and that the NYISO should continue to evaluate the proposed transmission solutions to the need. NY Transco refers to the NYISO's prior comments listing the benefits from transmission upgrades, such as addressing aging infrastructure, integration of renewables, increased fuel diversity, reduction in energy and capacity prices, and better utilization on Niagara hydroelectric generation and Canadian imports.[15] NY Transco notes that recent presentations by the NYISO show that the need for Western New York transmission upgrades has increased, along with the related benefits.[16]

NYISO

The NYISO submits that there continues to be a transmission need driven by a Public Policy Requirement in Western New York and that the proposed solutions should continue to be analyzed for purposes of selecting the more efficient or cost-effective solution. The NYISO points out that New York's energy infrastructure is aging and in need of replacement to meet expected future needs, and that there is a clear need for transmission infrastructure to provide important reliability, economic, and public policy benefits to meet the expected electricity needs of New York consumers. The NYISO reiterates

[15] Case 14-E-0454, supra, NYISO Comments (filed May 18, 2015).

[16] NYISO Presentation to Market Issues Working Group, *Western New York Transmission Constraints* (August 4, 2016). See, http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2016-08-04/Western%20Ny%20Congestion%20Official.pdf

the benefits of improved transmission in Western New York, and highlights that the transmission grid is the backbone that supports all future policy changes in the electricity sector.

The NYISO also points to its recent Power Trends 2016 report[17] and the Energy Highway Blueprint[18] which articulate the need to update the NY transmission system. The NYISO further cites to its 2015 CARIS study, which showed that for the period from 2015-2024, the Western New York 230kV system is one of the most congested interfaces in the system.[19] The NYISO notes that additional transmission capacity would enhance competition in the electricity markets, make the system more resilient to extreme weather conditions, give the NYISO greater operation flexibility, take better advantage of fuel diversity, provide greater access to renewable resources, and allow for more emergency assistance from neighboring regions.

The NYISO further states that Demand Dollar Congestion in Zone A has increased significantly over the last few years, rising from an annual average of negative $6.8 million in 2009-2011 to an annual average of $29.1 million in 2012-2014, and reached over $82.8 million in 2015. According to the NYISO 2016 Summer Operating Study, the import capability of the Ontario-New York tie lines to Zone A is 1,875 MW, but only 125 MW is

[17] See, http://www.nyiso.com/public/webdocs/media_room/publications_presentations/Power_Trends/Power_Trends/2016-power-trends-FINAL-070516.pdf.

[18] See, http://www.NYEnergyHighway.com

[19] See, http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Economic_Planning_Studies_(CARIS)/CARIS_Final_Reports/2015_CARIS_Report_FINAL.pdf

actually capable of being imported under summer peak load conditions due to the Niagara-Gardenville 230 kV constraints.[20] The constraints on the 230 kV lines result in frequent real-time congestion that limits Ontario imports and Niagara hydro from flowing east. These facilities have become more congested following the mothballing of Dunkirk and retirement of Huntley.

The NYISO also notes that a surplus MW of import capacity and generating capacity in Zone A are unavailable statewide, and as much as 2,044 MW is bottled with all transmission lines in-service. Potomac Economics 2015 State of the Market Report also reported increasing congestion in Zone A and notes that elimination of transmission constraints would have significant economic benefits. The NYISO's analysis shows detailed numbers for Zone A electric price reductions, decreased Demand Dollar Congestion in Western New York, and increased Niagara output and Ontario imports.

NYPA/NYSEG

NYPA and NYSEG collectively recommend that the Commission find that the Public Policy Transmission Need identified for Western New York continues to exist and that the NYISO should proceed to evaluate and rank the viable and sufficient transmission solutions, and to select the more efficient or cost-effective solutions for cost allocation and recovery under the NYISO tariff. According to them, the need to relieve congestion in Western New York remains a crucially important public policy objective.

[20] See, http://www.nyiso.com/public/webdocs/markets_operations/market_data/reports_info/operating_studies/thermal_transfers/Summer2016_Operating_Study_OC_APPROVED_5-19-2016_Report.pdf.

DISCUSSION

The Commission's responsibility at this stage in the planning process is to make a determination, based on the NYISO's Viability and Sufficiency Assessment, as to whether a transmission solution to the previously-identified Public Policy Transmission Need should continue to be analyzed by the NYISO, or whether a non-transmission solution should be pursued instead. In accordance with the NYISO OATT and the Commission's August 2014 Policy Statement, the Commission has reviewed the results of the NYISO's Viability and Sufficiency Assessment, as well as the comments received in response to the SAPA Notice. Based upon a consideration of these matters, the Commission confirms that the relief of congestion in Western New York continues to be a Public Policy Transmission Need warranting the NYISO's full evaluation of the proposed transmission solutions that have been deemed viable and sufficient.

There was unanimous agreement among all commenters that congestion in Western New York continues to exist, and that the Commission should direct the NYISO to move forward with evaluation and selection of a solution to meet the Public Policy Transmission Need. National Grid has indicated that it has recently implemented several transmission reinforcements intended to maintain reliability and improve operational performance in Western New York, yet states that transmission congestion in the area persists and that significant enhancements in system capability are still needed to reduce congestion and ensure the Niagara hydroelectric facility can be fully utilized.

The NYISO's comments pointing to its 2016 Summer Operating study is particularly telling, indicating that only 125 MWs of imports would be capable of flowing across the New York/Ontario interface during summer peak load conditions,

compared with an import capability of 1,875 MW. The NYISO submits that this is due to transmission constraints on the Niagara-Gardenville 230 kV lines, which results in frequent real-time congestion limiting Ontario imports and Niagara hydroelectric power flows east.

The NYISO will proceed to evaluate the remaining solutions to the Western New York Public Policy Transmission Need based on the established metrics and criteria established in the OATT, as well as the specific criteria previously identified by the Commission. Upon completion of its evaluation, the NYISO Board of Directors may select the more efficient or cost-effective transmission project to satisfy the Public Policy Transmission Need. This project would be eligible for cost allocation and cost recovery under the NYISO's OATT.

In response to commenters' recommendations, the Commission agrees with NAT that there is a risk that the NYISO's comparative evaluation may result in the selection of a project with an unreasonably low non-binding estimate, which could expose ratepayers to higher costs. The Commission strongly supports the use of risk mitigation proposals, such as cost containment measures, to ensure ratepayers are not exposed to higher costs than necessary. To ensure the NYISO can adequately consider risk mitigation in its evaluation, the NYISO should incorporate into its remaining process, as practicable, a mechanism for implementing risk mitigation measures and cost-overrun-sharing incentives. The Commission believes that this additional information will be of assistance and may be crucial to discerning between close bids. The Commission expects the NYISO to give due consideration to such measures when making any selection of a project for purposes of cost allocation and recovery.

In order to establish an appropriate cost allocation methodology that is reflective of the Commission's public policy objectives, the NYISO should apply the "beneficiaries pay principle," and take into account the economic benefits associated with congestion relief and assign a portion of the project(s) costs to the beneficiaries.[21] However, a portion of the costs may be allocated on a load-ratio share statewide given that increased access to renewables will reduce emissions and thus provide benefits statewide.

As discussed in the Commission's order identifying a Public Policy Transmission Need for Western New York, the NYISO's Public Policy Transmission Planning Process does not supplant the need for developers to obtain any necessary permits and approvals, such as siting approvals under Article VII of the Public Service Law (PSL). The Commission continues to encourage the initiation of the effort required for the submission of siting applications under the PSL Article VII as soon as practicable.

While the merits of any siting application will be evaluated based on the findings required under PSL §126, the Commission encourages the use of existing rights-of-way to the maximum extent practicable. The use of existing corridors are preferable from an environmental impact standpoint, and should serve to facilitate Article VII siting approval. Accordingly, the NYISO should administer its selection process in a manner

[21] Pursuant to Attachment Y, §31.5.2 of the OATT, the NYISO "shall allocate the cost of transmission facilities to those within the transmission planning region that benefit from those facilities in a manner that is at least roughly commensurate with estimated benefits."

that minimizes the acquisition of new rights-of-way.[22] As the Commission has stated previously, current non-ownership of essential utility rights-of-way should not disqualify potential developers from competing.[23] Utility companies that own rights-of-way are expected to "bargain in good faith to reach an agreement with the developer of the transmission solution as to property access and compensation as it would for other linear project developers that seek to co-locate on utility property."[24]

Finally, the Commission recognizes the need to complete certain non-bulk transmission facility upgrades in order to reduce congestion in Western New York and fulfill the objectives of the Public Policy Transmission Need. The Commission expects National Grid to undertake the upgrades necessary on the non-bulk system, such as those identified by the NYISO, and to receive reimbursement from the developer ultimately selected by the NYISO to receive cost recovery through the OATT. The costs of these upgrades should not be used as a distinguishing factor between bids.

CONCLUSION

The Commission continues to identify congestion relief in Western New York as a Public Policy Transmission Need and directs the NYISO to proceed with its evaluation and selection under the PPTPP of the more efficient or cost-effective transmission solution. The Commission further determines that

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[22] For the purposes of this criterion, the transfer or lease of existing transmission right-of-way property or access rights from a current utility company owner to a developer of the transmission solution shall not be considered a new acquisition.

[23] Case 12-T-0502, et al., supra, Order Finding Transmission Needs Driven By Public Policy Requirements, p. 60.

[24] Id.

the non-bulk transmission facility projects identified by the NYISO in its Viability and Sufficiency Assessment should be undertaken to meet the Public Policy Transmission Need.

The Commission orders:

1. The relief of congestion in Western New York, as described in the body of this order, shall continue to be addressed by the New York Independent System Operator, Inc. (NYISO) and be considered a Public Policy Requirement, as defined in NYISO Open Access Transmission Tariff.

2. The New York Independent System Operator, Inc. shall evaluate the Public Policy Requirement identified in Ordering Clause No. 1 utilizing the evaluation criteria described in the body of this order.

3. This proceeding is closed.

By the Commission,

(SIGNED) KATHLEEN H. BURGESS
Secretary