NEW YORK POWER AUTHORITY

NORTH AMERICA TRANSMISSION

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June 8, 2018

Business Issues Committee Operating Committee c/o New York Independent System Operator 10 Krey Boulevard Rensselaer, NY 12144

By email to publicpolicyplanningmailbox@nyiso.com

Dear Committee Members:

North America Transmission, LLC ("NAT") and New York Power Authority ("NYPA") recommend a vote in favor of NYISO Board Approval of the AC Transmission Public Policy Transmission Planning Report ("AC Transmission Report" or "Report") including the recommended selection of NAT/NYPA Proposal T027 and Proposal T029. The Report clearly shows a significant level of time and effort by NYISO staff and its independent consultants including SECO in reviewing proposals submitted by multiple developers. The Report reflects a thorough and comprehensive analysis of all aspects of proposals including independent cost estimates, impacts on system transfer levels, production cost analysis, risks, and many other key metrics.

For the better part of a decade, New York has been considering potential actions to address long-standing concerns that there is insufficient transmission capacity between upstate power generation sources and downstate consumers on the bulk electric transmission system. New York's Clean Energy Standard ("CES") will exacerbate these concerns, with 50 percent of New York's electricity to come from renewable energy sources by 2030, much of which is expected to be located in western and northern New York. The recommended projects best address the long-standing congestion problem that has been present on the Central East interface, as well as providing the necessary level of UPNY-SENY incremental transfer. Additionally, as has been observed by many stakeholders in the Integrating Public Policy Task Force process, without sufficient incremental transmission capacity, carbon-reducing benefits of new CES resources will not be realized. NYISO's recommendation identifies the projects that best meet the objectives identified in the New York Public Service Commission Order Finding Transmission Needs Driven by Public Policy Requirements including "to reduce production costs through congestion relief; ... to take better advantage of existing fuel diversity; to increase diversity in supply, including additional renewable resources; ..." The recommended projects provide the best congestion relief

¹ See for example: IPPTF February 5, 2018 presentation materials, Recommendations for the Integrating Public Policy Task Force by the City of New York, February 5, 2018 at slide 4a and January 8, 2018 presentation materials, Evaluating Mechanisms to Meet Public Policy Goals presentation by Daymark Energy Advisors ² Case 14-E-0454 In the Matter of New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration et. al, Order Finding Transmission Needs Driven by Public Policy Requirements, Dec. 17, 2015, ("December 2015 Order") p. 66-67

including under the CES case, and as a result have the highest production cost benefit relative to cost of any of the top tier projects.

NYISO Conducted a Transparent Process

NYISO staff has incorporated many lessons learned from the Western New York Public Policy Requirements proceeding, which has improved the efficiency of this process and afforded meaningful stakeholder input for NYISO consideration in the evaluation of competing proposals. From its meetings with developers early in the process, to the numerous stakeholder meetings following issuance of the Viability and Sufficiency Report, NYISO staff has demonstrated a commitment to allow all stakeholders several opportunities to provide feedback, and it is evident NYISO staff has carefully considered this input throughout the process. NYISO clearly identified which risks are considered to be material with respect to each proposal, and transparently applied the use of permitting risk in the evaluation process. For example, NAT/NYPA's Proposal T025 had the best congestion relief and transfer performance, but was ranked lowest overall due in part to the permitting risk related to the 765 kV conversion. Similarly, for Segment B, NYISO ranked some marginally better proposals in terms of transfer as low overall due in part to the permitting risk related to structure heights.

Segment A

The recommendation of Proposal T027, the double-circuit proposal, is well supported. Proposal T027 is clearly distinguished in terms of incremental Central East transfer, which translates to higher production cost savings and other system benefits such as improved operability. Proposal T027 performs significantly better than all proposals other than Proposal T025, NAT/NYPA's 765 kV Proposal, which was identified as Tier 3 due to permitting risk. Among Tier 1 and Tier 2 proposal combinations, combinations with Proposal T027 have the highest production cost benefit relative to cost, and rank highest.

Segment B

The recommendation of Proposal T029, NAT/NYPA's base proposal, is well supported based on an overall evaluation of several metrics, with superior performance noted for the combination of T029 with T027 for key metrics, including performance relative to cost, operability, replacement of aging infrastructure and permitting risk (see following table).

T027 Grouping	Independent Cost	Operability	Upgrades to	CES Production	Permitting Risk -	Other
	Estimate		Aging	Cost Benefit:	Overall Visual	Risks
			Infrastructure	Cost	Impact	
T027+T019	1,195	High	High	0.99	Medium	High
T027+T022	1,088	Average	Low	1.04	Medium	Average
T027+T023	1,139	Average	High	0.99	High	Average
T027+T029	1,080	High	High	1.05	Low	Average
T027+T030	1,098	High	High	1.01	Low	Average
T027+T032	1,252	Average	High	0.90	Low	High

The AC Transmission Report identifies Proposals T029 and T030 having improved system operability as a result of improved N-1-1 performance due to the proposed replacement of the Middletown transformer with a higher rated unit. No other proposal provides this operability benefit. The Report identifies disadvantages of some proposals, such as the facts that Proposal T022 replaces less aging infrastructure and Proposal T019 presents additional risk related to Sub-Synchronous Resonance mitigation related to series compensation. Proposals T019, T022, and T023 present higher permitting risk due to taller transmission structures.

Competing bidders have criticized the assessment of structure heights as impacting permitting for Segment B, claiming the ability to modify the design in the permitting process can reduce the risk. However, a proposal with more structures at the same height or lower than existing structures (such as T029) will have fewer permitting issues to mitigate. It is better to have mitigated the risk upfront than have to remedy an issue in the permitting process, and all bidders took this into account in the development of proposals, attempting to minimize heights. The sensitivity to visual impacts that result from structure heights in Segment B is apparent to participants in the AC Transmission proceeding at the New York Public Service Commission and is evident in the comments submitted by competing developers. For example, the New York Times story cited in the National Grid/New York Transco May 3, 2018 comments identifies continuing concerns about structure heights in the Hudson Valley, even after National Grid and New York Transco had modified their proposal in an attempt to be responsive to local concerns:

"[Ned Sullivan of Scenic Hudson] and others met with representatives from National Grid, who gave them a preview of the company's reworked proposal. 'The good news is they stayed within the corridor, and eminent domain is off the table,' Mr. Sullivan said, 'but they were still looking at towers that were going to be 40 feet higher than the existing ones.' "³

NYISO's approach in the AC Transmission Report is also consistent with the New York Public Service Commission December 17, 2015 Order Finding Transmission Need Driven by Public Policy, "... the Commission throughout these proceedings will continue to encourage the applicants to further minimize the heights of their proposed structures to the degree possible consistent with safety regulations as to conductor clearances." and "All applicants are encouraged to minimize the heights of the proposed structures" ⁴

Conclusion

The completion of the AC Transmission Report is the culmination of a long process to identify the best solution to the objectives identified by the New York Public Service Commission including to address long-standing system congestion, and to increase transmission capacity for renewable generation. The AC Transmission Report identifies Proposal T027 as the more efficient or cost-effective Segment A proposal, and Proposal T029 is the more efficient or cost effective Segment B proposal to address the AC Transmission Public Policy Transmission Need. This combination of proposals has the highest Production Cost Benefit relative to cost,

³ Penelope Green, With Power Comes Ambivalence, NY TIMES (May 14, 2014).

⁴ December 2015 Order, p. 35 and p. 43

lowest permitting risk due to structure height and EMF reductions, and the best overall performance across the evaluation metrics. NYISO members should vote to approve the AC Transmission Report including recommendation of these projects.

Sincerely,

Lawrence Willick Senior Vice President

North America Transmission, LLC

Richard W. Allen Vice President

New York Power Authority