September 28, 2018

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

Sent via email

Re: Response of AVANGRID to New York Independent System Operator Solicitation of Transmission Needs Driven by Public Policy Requirements

Dear Mr. Smith:

Avangrid Networks, Inc. ("AVANGRID") submits this letter in response to the August 1, 2018 Public Policy Requirements solicitation associated with the New York Independent System Operator's ("NYISO") Public Planning Transmission Planning Process for the 2018-2019 Transmission Planning Cycle. As described below, AVANGRID identifies herein Public Policy Requirements associated with the New York State Public Service Commission's ("NYPSC") Clean Energy Standard, Clean Energy Fund and Reforming the Energy Vision Proceedings, the New York State Energy Plan and the NYISO 2010 Wind Generation Study/New York State Transmission Assessment and Reliability Study ("STARS").

The Clean Energy Standard ("CES")

On August 1, 2016, the NYPSC issued its Order Adopting a Clean Energy Standard ("CES"). The order adopted the goal of the State Energy Plan that 50% of the electricity used in New York State will be generated by renewable sources by 2030. The order also confirmed the related goal of preserving existing zero-emissions nuclear generation resources as a bridge to the clean energy future. To achieve these goals, the order requires every load serving entity in New York State to procure qualifying

Renewable Energy Credits ("RECs") and Zero-Emissions Credits ("ZECs") in quantities that satisfy the mandatory minimum requirements established by the order[1].

To achieve the CES goals, New York will need to increase dramatically its reliance on renewable resources. A large proportion of these resources will likely be developed in areas of western and northern New York State, remote from load centers. New transmission facilities will be required so that renewable energy required by the NYPSC order is not bottled in local transmission systems and can reach load centers throughout the state, including those in downstate regions[2]. New transmission facilities will also be important to help preserve the upstate nuclear plants as they provide the zero-emission bridge to New York's clean energy future by reducing current system congestion which impedes these plants' access to downstate energy and capacity markets. Increased energy and capacity revenues for such plants will also reduce future ZEC prices for the benefit of customers statewide[3].

Earlier this year, in March 28, 2018, NYISO issued the "2017 Congestion Assessment and Resource Integration Study"[4], completing the first phase (CARIS Phase I) of its two-phase economic planning process and providing a set of findings associated with the congestion issues in New York State. More recently, NYISO issued its "Public Policy Transmission Needs Study: Transmission Constrained Renewable Generation Pockets" in July 2018. This study indicates the potential for significant renewable generation restrictions unless the northern and western NY transmission system is reinforced.

Clean Energy Fund and Reforming the Energy Vision Proceedings

In addition to the CES Order, the NYPSC has issued orders in other proceedings with the objective of increasing alternative energy resources in New York State, including orders in the Clean Energy Fund and Reforming the Energy Vision proceedings. In its January 21, 2016 Clean Energy Fund order, the NYPSC approved a ten year commitment for $5.3 billion to clean energy programs in New York State to be managed by the New York State Energy Research and Development Authority under the Commission's supervision[5]. The Clean Energy Fund innovation and research programs involving smart grid, renewables, and distributed energy resources integration may need additional transmission to increase the ability to deliver grid scale renewable energy to the State's load centers, particularly since such renewable resources are likely be developed in western and northern New York State[6].

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[1] Order to Adopting a Clean Energy Standard at 2 (Aug. 2016), available at http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={44C5D5B8-14C3-4F32-8399-F5487D6D8FE8}

[2] Order to Adopting a Clean Energy Standard at 33 (Aug. 2016), available at http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={44C5D5B8-14C3-4F32-8399-F5487D6D8FE8}

[3] Order to Adopting a Clean Energy Standard at 128 (Aug. 2016), available at http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={44C5D5B8-14C3-4F32-8399-F5487D6D8FE8}

[4] This report is available at https://www.nyiso.com/public/webdocs/markets_operations/committees/mc/meeting_materials/2018-03-28/05_CARIS2017_Appendix_B_J.pdf

[5] Order Authorizing the Clean Energy Fund Framework at 106 (Jan. 2016), available at http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={B23BE6D8-412E-4C82-BC58-9888D496D216}

[6] Clean Energy Fund Information Supplement at 138 (Jun. 2015), available at http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={FC3FBD53-FBAC-41FB-A40E-3DA0A5E0866A}

Climate Change and Emissions Policies Driving the Need for Transmission

State regulators have taken actions to address climate change by releasing goals for carbon emissions reductions. The New York State Energy Plan calls for a 40 percent reduction in greenhouse gas emissions in the energy sector, including power generation, industry, buildings and transportation[7]. Transmission projects will be needed as part of the solution to address these requirements.

New York City Objectives

The City of New York has released its own energy objectives that call for an 80 percent reduction in the city's greenhouse gas emissions by 2050 and a 35 percent reduction in such emissions from City government by 2025[8]. While these objectives have yet to be codified into law or regulation thus far, statutory or regulatory changes could be adopted in the future and they will likely be an additional driver behind the development of new renewable resources in New York State and therefore the need for additional transmission to support this development.

These objectives have been reaffirmed during the past two years, and have been documented in the "One NYC 2017 Roadmap to 80x50"[9]. Additionally, on June 2, 2017 the New York City Mayor signed Executive Order 26 committing New York City to the principles and goals set forth in the Paris Climate Agreement[10].

The NYISO 2010 Wind Generation Study and New York State Transmission Assessment and Reliability Study ("STARS")

As evaluated in NYISO studies, significant growth in intermittent resources (such as wind) at the regional and local transmission levels leads to increased needs for balancing services from quick starting and ramping generation. Transmission solutions add additional flexibility that the electric system needs to manage increased energy production from variable resources.

The NYISO 2010 Wind Generation Study was a technical study to evaluate the impact of large-scale integration of wind generation on the New York Power System with simulations "analyzed to identify the transmission constraints – local and system – that result in potential wind energy production being limited (i.e., "bottled")" with "three general areas of congestion: southwestern portion of Central (Zone C), Willis (Zone D), and Watertown (Zone E)."[11] The New York State Transmission Assessment and Reliability Study ("STARS") concluded, "[t]o meet state public policy objectives of increased renewable resources, the underlying local [transmission] upgrades identified in the NYISO 2010 Wind Generation

[7] 2015 New York State Energy Plan, Volume 1 at 112, available at https://energyplan.ny.gov

[8] *See* One NYC: 2016 Progress Report. Accessed at http://www1.nyc.gov/html/onenyc/downloads/pdf/publications/OneNYC-2016-Progress-Report.pdf

[9] Details of the NYC's Roadmap can be obtained at https://www1.nyc.gov/site/sustainability/codes/80x50.page

[10] This Executive Order can be found at https://www1.nyc.gov/assets/home/downloads/pdf/executive-orders/2017/eo_26.pdf

[11] Growing Wind: Final Report of the NYISO 2010 Wind Generation Study at 76 (Sept. 2010), available at http://www.uwig.org/growing_wind_-_final_report_of_the_nyiso_2010_wind_generation_study.pdf.

Study should be constructed based on a review of the status of the development of the wind projects in the three upstate areas identified in that study. This would lead to greatly improved deliverability of wind resources and reduced emissions."[12]

Conclusion

The construction of new transmission is necessary to achieve the State's Public Policy Requirements set forth in the NYPSC orders and other initiatives described above, including in particular additional transmission to permit an increased development and utilization of renewable resources and the preservation of the upstate zero emission nuclear plants to meet New York State's identified clean energy goals. AVANGRID accordingly recommends that as part of NYISO's 2018-2019 Public Policy Transmission Planning Process the NYISO and the NYPSC identify Public Policy Transmission Needs to address these Public Policy Requirements. In doing so, NYISO should invite proposals for feasible, efficient, cost effective and environmentally sensitive transmission solutions, both AC and DC, that will support and achieve the identified Public Policy Transmission Needs and evaluate those proposals in a manner that promotes creativity and competition consistent with the NYISO tariff and the FERC Order No. 1000. As a general recommendation, the NYISO and NYPSC should not pre-define solutions in their needs statement and a need should not prescribe a narrow solution.

Sincerely,

Thorn C. Dickinson
Vice President – Business Development
AVANGRID Networks

[12] New York State Transmission Assessment and Reliability Study at 7 (Apr. 2012), available at http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Documents_and_Resources/Special_Studies/STARS/Phase_2_Final_Report_4_30_2012.pdf