UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Reform of Affected System Coordination in the Generator Interconnection Process	))))))	**Docket No. AD18-8-000**

COMMENTS OF
THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

The New York Independent System Operator, Inc. ("NYISO") respectfully submits these limited post-technical conference comments in response to the April 19, 2018 *Notice Inviting Post-Technical Conference Comments* ("Notice") in this proceeding. The NYISO appreciates the opportunity to interact with the Federal Energy Regulatory Commission ("Commission") and FERC Staff through the technical conference and the submission of written comments on affected system coordination in the Generator Interconnection Process based on its experience in coordinating the interconnection of projects that have impacts on affected systems both within and outside of New York.

I. General Affected System Coordination Process

Each ISO/RTO has interconnection processes that, while generally similar, have evolved over time to address the unique characteristics of its region and markets, resulting in differing procedures for the treatment of affected systems. Coordination with affected systems is a critical component to the successful and efficient implementation of the interconnection process, particularly when a proposed interconnection has the potential to adversely affect a neighboring system. The NYISO and its FERC-jurisdictional neighbors, PJM Interconnection, L.L.C. ("PJM") and ISO New England Inc. ("ISO-NE"), have worked together and adopted the

Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol ("Planning Protocol")[1] to address, among other things, coordination of interconnection processes when proposed interconnections involve neighboring systems.[2]

Under the Planning Protocol, the NYISO works with PJM and ISO-NE to study the reliability impacts of interconnection requests on their respective systems. The Planning Protocol also enables collaboration between the regions in order to improve existing processes for addressing proposed interconnections that impact each other while respecting the neighboring system's interconnection process. The parties to the Planning Protocol have made significant strides in improving and coordinating their processes through the creation and refinement of procedures that govern the coordination of study costs, estimates of study costs, development of study scopes, work flow among the impacted ISOs/RTOs and their respective Transmission Owners, and the sharing of information among impacted parties.

As a result of the coordination in the Northeast, due in large part to the Planning Protocol, in addressing the impacts of proposed interconnections, the NYISO remarked in its comments to the December 16, 2016 *Notice of Proposed Rulemaking* in Docket No. RM17-8-000 that it generally does not support the Commission adopting a standardized approach for affected system analysis and coordination, or imposing specific study requirements and associated timelines on affected systems for the Northeast region. The unique characteristics of the various regions' processes that have developed over the years since Order No. 2003 are better left to the various

[1] *See* Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol, *available at* http://www.nyiso.com/public/webdocs/markets_operations/services/planning/ipsac/Northeast_Planning_Protocol_FINAL_SIGNED_VERSION.pdf.

[2] The NYISO has also memorialized key portions of the Planning Protocol in its NYISO's Transmission Expansion and Interconnection Manual.

systems to specifically address the interaction of their respective, and often distinct, interconnection processes with Commission guidance versus a standardized approach.

Additionally, the NYISO continues to enhance its procedures to align them with its neighboring regions' processes. For example, as part of its 2017 interconnection process improvement initiative, the NYISO amended its procedures for studying transmission upgrades, required on its system to mitigate the adverse reliability impacts in New York of a project interconnecting in a neighboring region.[3] As revised, the transmission upgrades studied by the NYISO for projects in the neighboring system's interconnection process can now proceed directly to a Facilities Study in the NYISO's Transmission Interconnection Procedures, significantly expediting the study process.

II. Modeling and Study Procedures Used for Affected Systems Information

A generation or transmission facility proposing to interconnect to the New York transmission system may, based on its electrical characteristics and its specific location on the system, impact a system other than the host system with which it will directly interconnect. Such impacts could be, in some cases, equal to or greater than the impacts to the host system. The NYISO agrees that an affected system must have the opportunity to evaluate the potential implications on its system of a facility seeking to connect in a neighboring system, such as fault current contribution, power flow pattern, and transient stability swings, and to identify and install any upgrades, if necessary, to address these issues.

[3] *See* NYISO's Transmission Expansion and Interconnection Manual at Section 2.3.1.1, *available at* http://www.nyiso.com/public/webdocs/markets_operations/documents/Manuals_and_Guides/Manuals/Planning/tei_mnl.pdf; *see also New York Independent System Operator*, Proposed Tariff Revisions Regarding Interconnection Process Improvements, Docket No. ER18-80-000 (October 16, 2017).

To this end, coordination and information sharing between regions is essential. The NYISO and its neighboring systems, through the Planning Protocol, closely coordinate with each other once the host system identifies that a proposed interconnection to its system potentially impacts an affected system. Each system differs slightly in the manner in which it pre-screens interconnection requests to identify potentially affected systems. In the Northeast, the NYISO, PJM, and ISO-NE coordinate formally and informally on projects in their respective interconnection queues to ensure that projects for which a host system did not identify an affected system may be identified as such if it sees the potential for an impact to its system.[4] Once identified, the host system will notify an affected system and provide applicable information to allow the affected system to make a determination as to whether it wishes to participate in the interconnection studies. The Planning Protocol also affords the parties flexibility to, at the affected system's election, allow the host system to the study the impact based upon the affected system's input.

When the NYISO is an affected system of a proposed interconnection located in neighboring systems, the scope of the NYISO's affected system study is tailored as narrowly as possible in an effort to accommodate the host system's study timeline and only study what is necessary for the proposed interconnection. For example, the NYISO will study only those sub-regions that, in the NYISO's engineering judgment, would be potentially affected based upon the electrical characteristics of the project and the specific location where the project proposes to interconnect on the host system.

Moreover, PJM, ISO-NE, and NYISO all use different criteria and methodologies applicable in each region. The host system is required to respect the affected system's study

[4] For example, the NYISO, PJM, and ISO-NE participate in the Joint ISO/RTO Planning Committee and also coordinate via regular communications among interconnection and transmission planning staff.

criteria and methodology when studying the impacts to the affected system and vice versa. There may, for example, be instances in which one party does not identify reliability issues requiring mitigation based on its applicable criteria, but the neighboring system does identify the need for upgrades based on violations of its applicable criteria. Any network upgrades to the affected system shall be identified in accordance with the procedures and criteria of applicable to the affected system, and the host system will note the required upgrades in the study prepared for the interconnection customer, to the extent the affected system has identified such upgrades prior to completion of the host system's interconnection study report.

III. Timing of Affected System Coordination

The NYISO, together with PJM and ISO-NE, has already made significant strides to improve the timing of their processes for affected system studies. As detailed in its tariff and Transmission Expansion and Interconnection Manual, the NYISO affords affected systems numerous opportunities to participate in its interconnection process, including, for example, review and comment on study scopes, preliminary and final study analyses and reports, and proposed upgrade facilities. This occurs along the way, and to the extent that the affected system provides information, analyses, descriptions of required upgrades, and cost estimates, such information is shared with the interconnection customer through the various study reports. Thus, under the NYISO's interconnection processes, interconnection customers have the opportunity to review, at the very least, preliminary results of an affected system studies, if the information is provided by the affected system, prior to financial milestone payments or execution of an interconnection agreement.

Additionally, the parties to the Planning Protocol have agreed to use their best efforts to meet the applicable study timelines of the host system, as each system's respective study process

differs on the manner in which it studies project. The Planning Protocol recognizes the Commission's prescription in Order No. 2003 that if an affected system either declines to work with the host system or fails to timely provide study results or information, the host system may proceed under its interconnection process.[5] However, the difficulty in prescribing a precise timeline for an affected system to complete a study is that each system has differences and aligning those differences would require significant changes to the various regions' interconnection processes.

IV. Allocation of Affected System Costs

As stated above, the NYISO's affected system studies, which evaluate the impacts of projects interconnecting to a neighboring system, are tailored to study the impact of the proposed interconnection on sub-regions within the New York Control Area ("NYCA") as opposed to the NYISO's entire footprint. Upgrades required to mitigate adverse impacts identified in the NYISO's affected system studies are allocated to the interconnection customer and, if located within the NYCA, will ultimately be evaluated and cost allocated under the NYISO's Transmission Interconnection Procedures.

The NYISO, in coordination with the host system, will review and identify those network upgrades that are the least costly alternatives, which would be feasible to satisfy the identified impact. If the upgrade is an addition or modification to the New York State Transmission System and the interconnection customer proceeds with the development of its project, the

[5] *See* Standardization of Generator Interconnection Agreements and Procedures, Order No. 2003, FERC Stats. & Regs. ¶ 31,146, at P 121 (2003) ("Order No. 2003"), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. 31,160 (2004), *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. 131,190 (2005), sub nom. *Nat'l Ass'n of Regulatory Util. Com'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

customer will then submit a Transmission Project Interconnection Application in NYISO's Transmission Interconnection Procedures for the identified network upgrade. As a result of recent interconnection reforms, such evaluation can proceed directly to a Facility Study. In addition, the interconnection customer may be eligible to receive incremental Transmission Congestion Contracts, if applicable, in accordance with the NYISO's tariffs and procedures.

Where the NYISO is the host system and a neighboring control area is the affected system, the NYISO incorporates any available affected system study results at the time that the NYISO finalizes the respective interconnection study report. In the final study of the NYISO's Large Facility Interconnection Process—*i.e.*, the Class Year Interconnection Facilities Study—the NYISO includes any upgrades that an affected system has identified, together with any cost estimates and/or construction schedules for such upgrades, even if such information is just preliminary. Such practice provides the interconnection customer with as much information as possible regarding affected system upgrades at the time that a financial commitment is required (*i.e.*, the decision and settlement stage of the Class Year Interconnection Facilities Study). The identified affected system upgrades are then ultimately refined and cost allocated pursuant to the affected system's interconnection process (*e.g.*, in the PJM Facilities Study). While not cost allocated in the NYISO's Class Year Interconnection Facilities Study, affected system upgrades are identified in the study report and in the ultimate Interconnection Agreement, as required, in order for the project to go into service.

With respect to the appropriate assignment of cost responsibility for shared network upgrades between proposed interconnections in neighboring systems, neither the NYISO tariff nor the Planning Protocol specifically addresses this issue. While the NYISO anticipates that such a scenario could be addressed through non-conforming Interconnection Agreements and/or

Engineering, Procurement and Construction Agreements among the affected parties, the NYISO welcomes further guidance from the Commission.

V. Regional Flexibility

As the Commission considers potential actions that it may take to address further coordination of affected systems in the various regions' interconnection study processes, the NYISO respectfully encourages the Commission to continue to provide individual ISOs and RTOs the flexibility to implement the appropriate coordination among their neighboring systems to account for and reflect their respective interconnection processes. While the coordination between neighboring systems in studying interconnections must be compatible to ensure reliability of the systems, they need not be uniform as evidenced by the existing coordination in the Northeast. As a result, the NYISO believes that the most beneficial way to address the areas of improvement would be for guidance as opposed to standardized approach.

VI. Conclusion

The NYISO respectfully submits these post-technical conference comments for the Commission's consideration.

Respectfully submitted,

/s/ Sara B. Keegan

Sara B. Keegan, Senior Attorney
Brian R. Hodgdon, Attorney
New York Independent System Operator, Inc.
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
skeegan@nyiso.com
brhodgdon@nyiso.com

May 22, 2018

cc: Anna Cochrane
James Danly
Jette Gebhart
Kurt Longo
David Morenoff
Daniel Nowak
Larry Parkinson
J. Arnold Quinn
Douglas Roe
Kathleen Schnorf
Gary Will

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. § 385.2010.

Dated at Rensselaer, NY this 22nd day of May 2018.

By: */s/ John C. Cutting*

John C. Cutting
New York Independent System Operator, Inc.
10 Krey Blvd.
Rensselaer, NY 12144
(518) 356-7521