UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, LLC) Docket No. ER17-2291-000

MOTION TO INTERVENE AND PROTEST OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

Pursuant to Rules 211, 212, and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission the ("Commission"), 18 C.F.R. §§ 385.211 and 385.214 (2016), the New York Independent System Operator, Inc. ("NYISO") hereby moves to intervene and to protest in this proceeding. This filing addresses the PJM Interconnection, LLC's ("PJM") August 11 filing proposing "Tariff and Operating Agreement Revisions Regarding Dynamic Transfers" (the "August Filing").[1] The August Filing proposes revisions to PJM's Open Access Transmission Tariff ("PJM OATT") and to the *Amended and Restated Operating Agreement of PJM Interconnection, L.L.C.* ("PJM Operating Agreement").[2]

PJM's August Filing proposes to move toward cementing PJM's pseudo-tie requirements as the *exclusive* avenue by which generators that are directly interconnected to other Balancing Authority Areas' transmission systems can become PJM "Capacity Performance Resources"[3] that are excepted from PJM's "Capacity Import Limit."[4] The NYISO submits this protest because it cannot accommodate a number of PJM's proposed pseudo-tie requirements and cannot

[1] PJM Interconnection, L.L.C., *Tariff and Operating Agreement Revisions Regarding Dynamic Transfers*, Docket No. ER17-2291-000 (August 11, 2017).

[2] For convenience, throughout this pleading the PJM OATT, the *Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region* ("RAA") and the PJM Operating Agreement are referred to collectively as PJM's "tariff."

[3] "Capacity Performance Resource" is defined in Article 1 of the RAA and Attachment DD of the PJM OATT.

[4] "Capacity Import Limit" is defined in Article 1 of the PJM RAA. The definition also prescribes the criteria that resources external to PJM must satisfy in order to obtain an exception from the Capacity Import Limit.

reasonably be expected to overhaul its tariffs and change its market design to do so. The NYISO is responsible for maintaining reliable service in the New York Control Area ("NYCA").[5] As explained below, allowing generators that are directly interconnected to NYCA transmission facilities to follow PJM's dispatch instructions will likely cause adverse reliability impacts in the NYCA and would exacerbate interregional seams. PJM's pseudo-tie rules are fundamentally incompatible with the NYISO's financial transmission reservations, generator scheduling market rules and reliability operating practices. Finally, PJM's proposed tariff revisions also conflict with the established interregional agreement governing the NYISO/PJM interface and with the NYISO's tariffs.[6] The NYISO previously raised these concerns in its attached March 31, 2017 filing in pending Docket No. ER17-1138 ("March Protest").[7]

The NYISO is prepared to work with PJM to develop a mutually acceptable alternative that will allow generators that are directly interconnected to NYCA transmission facilities to sell their capacity to PJM. However, because the NYISO and PJM have not yet engaged in anything beyond the most preliminary discussions, this protest states NYISO's concerns with PJM's proposed *Form of Pseudo-Tie Agreement for Generator Pseudo-Ties into the PJM Region When No Joint Operating Agreement Addresses Pseudo-Tie Operation and Implementation* ("*pro*

[5] Section 3 of the *Agreement Between the New York Independent System Operator and Transmission Owners* ("ISO-TO Agreement") makes NYISO ultimately responsibility for controlling, operating, and maintaining the reliability of the NYS Power System.

[6] PJM's proposed tariff revisions in this proceeding are fundamentally different from those that the Commission accepted in *ISO New England, Inc. and New England Power Pool Participants Committee, et, al.*, 157 FERC ¶ 61,025 (2016). In the *ISO New England* case, the Commission declined to delay the implementation of proposed tariff revisions that the NYISO did not contend were unjust and unreasonable, but that triggered an acknowledged inefficiency in the NYISO's own market design. *See* 157 FERC ¶ 61,025 at P 31. By contrast, in this proceeding PJM's proposed tariff revisions are unjust and unreasonable. There is no underlying flaw in the NYISO's rules or markets.

[7] *See* New York Independent System Operator, Inc., *Motion to Intervene One Day Out of Time and Protest*, Docket No. ER17-1138-000 (March 31, 2017). The NYISO's March Protest addressed a different set of proposed PJM tariff revisions that are also intended to cement PJM's pseudo-tie requirements as the *exclusive* avenue by which generators that are directly interconnected to other Balancing Authority Areas' transmission systems can be excepted from PJM's Capacity Import Limit. The NYISO's March Protest is included as Attachment A hereto, and is incorporated by reference herein.

forma pseudo-tie agreement").[8] The NYISO does not agree that PJM's proposed *pro forma* pseudo-tie agreement "is acceptable as a just and reasonable 'starting point to facilitate negotiation of pseudo-tie arrangements'"[9] between PJM and the NYISO. The terms and conditions PJM proposes in its *pro forma* pseudo-tie agreement are unjust and unreasonable as applied to New York.[10]

The Commission should not permit PJM to prescribe generally applicable, one-size fits all, pseudo-tie requirements in its tariffs and require all neighboring Balancing Authorities to accommodate PJM's rules in order for generators in their areas to have the opportunity to sell capacity to PJM. Instead, PJM's rules should be sufficiently flexible to accommodate regional differences at its borders. PJM should incorporate more detailed and specific requirements for cross-border sales of capacity into its interregional agreements with each of its neighbors, as PJM has done with MISO.[11]

At a minimum, the Commission should require PJM to make explicit in its tariffs that pseudo-tie arrangements can only occur if the native Balancing Authority agrees and elects to execute a pseudo-tie agreement with PJM and the applicable generator. This requirement would codify in PJM's tariff the Commission's finding in prior proceedings.[12] The NYISO requests that the Commission condition its acceptance of PJM's March and August filings on PJM's submission of tariff rules that do not mandate the use of pseudo-ties at all of its borders and that

[8] Proposed new Attachment MM to the PJM Tariff.

[9] August Filing at 5, quoting *Southwest Power Pool*, 123 FERC ¶ 61,062 at P17 (2008).

[10] This protest does not address the justness and reasonableness of the proposed *pro forma* pseudo-tie rules as applied to other Balancing Authority Areas.

[11] *See* PJM's filing of *Proposed Revisions to Joint Operating Agreement Between PJM and MISO* in Docket No. ER17-2218-000 and MISO's simultaneous filing in Docket No. ER17-2220-000 (August 1, 2017).

[12] *See* June 2015 Order at P 96.

give PJM sufficient flexibility to accommodate differences between PJM's neighboring Balancing Authority Areas.

I. COMMUNICATIONS

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II. MOTION TO INTERVENE

The NYISO is the independent, not-for-profit entity responsible for administering Commission-jurisdictional markets for electricity and capacity, for providing open-access transmission service, and for maintaining electric reliability in the NYCA, including the metropolitan New York City area. The NYISO and PJM are responsible for neighboring Balancing Authority Areas. There is substantial interregional trading between their areas, including exports and imports of capacity and energy. Changes to one Balancing Authority Area's capacity market rules can have substantial impacts on market outcomes and system operations in the other Balancing Authority Area.

[13] The NYISO respectfully requests waiver of the requirements of Rule 18 C.F.R. § 385.203(b)(3) (2015) to permit service on more than two persons.

As discussed below, allowing a generator that is directly interconnected to the NYCA transmission system to be committed and dispatched by PJM in accordance with PJM's proposed new pseudo-tie rules could threaten the reliable operation of the NYCA and disrupt the NYISO-administered markets. The NYISO, therefore, has a unique, direct and substantial interest in the outcome of this proceeding that cannot be adequately represented by any other party. It is appropriate and in the public interest that the NYISO be permitted to intervene herein and to participate with full rights as a party.

III. BACKGROUND

A. PJM's March and August 2017 Pseudo-Tie Filings

On March 9, 2017 PJM submitted tariff revisions in Docket No. ER17-1138 that proposed to explicitly incorporate a requirement that external Capacity Performance Resources must be pseudo-tied to the PJM Balancing Authority Area in order to be excepted from PJM's Capacity Performance Limit (the "March Filing"). The NYISO's attached March Protest explained the reliability and market reasons why the NYISO could not and does not support implementing PJM's pseudo-tie construct for sales of capacity from generators that are interconnected to the NYCA transmission system to PJM. The March Protest stated that PJM's filing was incomplete because it did not include the *pro forma* pseudo-tie agreement that PJM was (at the time) still in the process of developing. The NYISO's March Protest argued "It is not possible to fully understand how PJM's pseudo-tie proposals would actually be applied without considering the *pro forma* language."[14]

It is clear from PJM staff presentations that the tariff revisions proposed in PJM's March and August Filings are integrally related and were, at least until late 2016 or early 2017, being

[14] March Protest at 8.

developed in a coordinated fashion.[15] PJM's proposed *pro forma* pseudo-tie agreement builds upon existing PJM tariff requirements that resources located outside of PJM that seek to become Capacity Performance Resources must have confirmed long-term firm transmission service or the equivalent thereof, and must not be subject to NERC tagging as an interchange transaction in order to be excepted from PJM's Capacity Import Limit. The specified transmission service requirements to obtain an exception from PJM's Capacity Import Limit were first accepted by the Commission in its "June 2015 Order."[16]

In its *pro forma* pseudo-tie agreement, PJM proposes to require "Native Balancing Authority Areas" to agree to: (1) make long-term firm transmission service or its equivalent available to enable the energy associated with pseudo-tied capacity to be exported to the PJM Balancing Authority Area; (2) give PJM operational control of the pseudo-tied generator, including authority to commit and dispatch the generator, except when local transmission reliability concerns arise; (3) not require e-tagging of power flows from the pseudo-tied generator; (4) use the NERC Interchange Distribution Calculator ("IDC") re-dispatch process and the Congestion Management Process ("CMP") included in the Joint Operating Agreement Between the Midcontinent Independent System Operator, Inc. and PJM Interconnection, L.L.C. ("PJM/MISO JOA") to address congestion impacts; and (5) "honor firm delivery transfer status via third party firm flow limit calculation procedures" in accordance with the CMP.[17] Finally, PJM proposes to require a generator that wants to become a PJM Capacity Performance

[15] *See, e.g., Proposal for Pro Forma Pseudo-Tie Agreements*, Jacqulynn Hugee, PJM Markets and Reliability Committee, January 2017 at 5. < http://www.pjm.com/~/media/committees-groups/committees/mrc/20170126/20170126-item-11-pseudo-tie-agreement-presentation.ashx > ("January MRC Presentation").

[16] *See* PJM Filing at n. 8; *citing PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at PP 96-97 (2015); *order on reh'g*, 155 FERC ¶ 61,157, at P 44 (2016).

[17] *See* Section 7 of the proposed *pro forma* pseudo-tie agreement. As explained below, NYISO believes the intent of PJM's language is to require the Native BAA to grant PJM a "firm flow entitlement" to use the Native BAA's transmission system.

Resource to compensate the Native Balancing Authority Area for the reasonable implementation and operations related costs it incurs.

B. Pseudo-Tie Arrangements Have Never Been Implemented in the NYISO, PJM's Proposed Rules Do Not Appear to Be Workable for the NYISO and Attempting to Implement them Would Adversely Impact New York

PJM has had pseudo-tie arrangements with some of its other neighbors for years. In particular, PJM currently has a number of pseudo-tied generators located inside the Midcontinent Independent Transmission System Operator, Inc. ("MISO"). Although there have been disagreements between PJM and MISO related to their implementation of pseudo-tied generators for years, it appears that the two Regional Transmission Organizations ("RTOs") may have worked out their differences.[18] However, there are multiple pending complaint proceedings concerning the application of PJM and MISO congestion charges to pseudo-tied units[19] and any agreement that PJM and MISO may have reached does not resolve the concerns NYISO raises in this protest.

The NYISO does not have, and is not currently developing, pseudo-tie rules of its own. New York generators have never before been pseudo-tied to PJM or to any other region. The NYISO does not require a pseudo-tie arrangement to accept capacity from any of its four neighboring external Balancing Authority Areas. Capacity exports from New York to PJM have been less than 200 MW in recent years. Exports of Federal preference power from the Niagara and St. Lawrence hydroelectric facilities in New York to municipal entities and cooperatives in

[18] *See* PJM's filing of *Proposed Revisions to Joint Operating Agreement Between PJM and MISO* in Docket No. ER17-2218-000 and MISO's simultaneous filing in Docket No. ER17-2220-000 (August 1, 2017).

[19] *See* Midcontinent Independent System Operator, Inc. and PJM Interconnection L.L.C. *Status Update,* Docket Nos. EL16-108-000, EL17-29-000, EL17-31-000, EL17-37-000 (March 27, 2017) (providing informational update on efforts by MISO and PJM to resolve "congestion overlap" issue related to pseudo-tied generation in each RTO in four pending complaint dockets)**.**

PJM occurred under arrangements that PJM has confirmed are and will continue to be excluded from PJM's pseudo-tie requirements.[20]

The NYISO/PJM border is fundamentally different from PJM's borders with its other neighbors, including PJM's border with MISO. There are currently seven PARs in-service at the NYISO/PJM border that are operated to achieve specific components of NYCA/PJM interchange in order to maximize its reliability and economic value. There are also three scheduled lines that interconnect the NYCA with the PJM Balancing Authority Area that use direct current technology or variable frequency transformers to control power flows to match the interchange that is scheduled over those facilities. NYISO is not aware of any other border between PJM and a neighboring Balancing Authority Area where power flows are as heavily managed by control technologies in order to maximize economic and reliability benefits. As explained below, implementing PJM's proposed *pro forma* pseudo-tie arrangements would result in inefficient scheduling and congestion management at the PJM/NYISO interface because the *pro forma* rules do not appear to allow the output of a generator that is pseudo-tied to PJM to be represented as a component of NYISO/PJM interchange, as is done today to maximize benefits to both Balancing Authority Areas.

The NYISO and PJM have developed special rules to manage PAR-controlled flows across their common interface. These rules are set forth in the *Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C.* (the "NYISO/PJM JOA").[21] The NYISO/PJM JOA does not include pseudo-tie

[20] *See Answer of PJM Interconnection, L.L.C. to Protests and Comments*, Docket No. ER17-1138 at 47 (April 25, 2017).

[21] The NYISO/PJM JOA is on file (on behalf of both NYISO and PJM) as Section 35 of the NYISO Open Access Transmission Tariff ("NYISO OATT"). Schedule D to the JOA (Section 35.23) sets forth the Market-to-Market ("M2M") coordination rules that apply to NYISO and PJM. The NYISO and PJM recently filed proposed revisions to their JOA (including proposed revisions to the M2M coordination rules) to address the elimination of

procedures and, as discussed below, the NYISO/PJM JOA is incompatible with some of the pseudo-tie rules proposed in the August Filing.

As further discussed below, PJM's pseudo-tie requirement also appears to conflict with other features of the NYISO's Commission-approved tariffs and threaten to create reliability problems and market inefficiencies in New York.

C. Contrary to Commission Precedent the August Filing Does Not Reflect the NYISO's Input on Seams, Market, or Reliability Issues Impacting New York

The Commission first accepted PJM's Capacity Import Limit rules in its April 2014 Order in Docket No. ER14-503.[22] That order rejected recommendations by intervenors that a pseudo-tie requirement be made applicable to all external resources seeking to participate in PJM's forward capacity auctions. The Commission agreed with PJM's position at the time that such a mandate would "limit competition from external resources (by making it more difficult for them to qualify as capacity resources) without providing any offsetting benefits."[23]

The June 2015 Order, however, accepted a PJM proposal to require external capacity resources to be pseudo-tied to PJM, even though PJM's tariffs did not include an explicit pseudo-tie requirement at that time. The Commission's determination was predicated on a finding that the protestors in that proceeding had not shown that a pseudo-tie requirement would exacerbate seams. The Commission also emphasized that PJM was "required to reach agreement with External Balancing Authorities regarding all implementation issues associated with a pseudo-tied

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the 1000 MW wheel that was originally established in the 1970s by the Consolidated Edison Company of New York, Inc. and the Public Service Electric and Gas Company ("Con Edison – PSEG Wheel"). The jointly filed revisions are pending in Docket No. ER17-905-000.

[22] *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,060 (2014) ("April 2014 Order").

[23] April 2014 Order at P 49.

resource, including reliability and commercial obligations, and that this process should minimize any resulting seems issues"[24]

As discussed below, PJM's proposed *pro forma* pseudo-tie agreement has not been designed to minimize seams at the NYISO/PJM interface, and does not account for commercial or reliability issues in the NYISO. Nor does it reflect the level of inter-regional coordination that PJM argued is necessary in the ongoing MISO pseudo-tie proceeding.[25]

IV. PROTEST

A. NYISO Concerns with Specific Provisions of PJM's Proposed *Pro Forma* Pseudo-Tie Agreement

1. Allowing PJM to Commit and Dispatch Generators that are Connected to NYCA Transmission Facilities Would Put NYCA Reliability at Risk and Increase the Cost NYISO Incurs to Serve NYCA Loads

Section 2(d) of the *pro forma* pseudo-tie agreement states that PJM will provide commitment and dispatch instructions to the "Company" that (presumably) owns or operates the pseudo-tied Facility. Section 2(d) also says PJM and Native Balancing Authority "will also provide data concerning its dispatch decisions for the Facility to each other solely for use in their operational planning analyses." Section 2(g) of the *pro forma* pseudo-tie agreement similarly states that the Native Balancing Authority and the PJM Balancing Authority "hereby agree that the PJM Balancing Authority shall have operational control of the Facility while this Agreement

[24] June 2015 Order at P 96 (footnote citing to pertinent NERC and NAESB rules omitted).

[25] PJM protested MISO's February 28, 2017 filing of a proposed *pro forma* pseudo-tie agreement in Docket No. ER17-1061-000 on the ground that MISO was allegedly granting itself too much authority. In its protest PJM stated that "PJM's *pro forma* agreement requires mutual agreement because PJM wants to ensure that the Native Balancing Authority, native Reliability Coordinator and native Transmission Operator agree with PJM on how the pseudo-tie will be implemented and operated since they will be impacted by that pseudo-tie, and to ensure coordination and clear delineation of roles and responsibilities as between them, consistent with NERC standards." PJM emphasized that the relevant NERC standards require coordination between regions on issues that include Area Control Error, Frequency Control, congestion management, resource adequacy planning/scheduling, and contingency reserve assessment. *See Protest of PJM Interconnection, L.L.C.*, Docket No. ER17-1061-000 at 2 (March 21, 2017) (footnotes omitted from quote).

is in effect." Finally, Section 2(m) of the *pro forma* pseudo-tie agreement states that under normal operating conditions PJM is responsible for the capacity, energy and dispatch of the MW dedicated to the Pseudo-Tie of the Facility.

Reliability Concerns

The reliable operation of the New York State Transmission System is of paramount importance to the NYISO, which acts as the Reliability Coordinator and a Transmission Operator for the Bulk Electric System. The NYISO desires to maintain reliable operations and is concerned that implementing pseudo-ties would degrade its ability to do so. The operation of the New York State Transmission System ("NYSTS") is governed not only by the Commission's reliability standards, as enforced by NERC and the NPCC, but also by a series of local Reliability Rules issued and enforced by the New York State Reliability Council ("NYSRC").[26] The operation of the NYSTS requires close coordination between the NYISO, the New York Transmission Owners, and individual NYCA Generators to ensure that all applicable standards are satisfied, and that reliability is maintained. Effective coordination is particularly critical in New York due to New York's transmission limits, high levels of congestion and the unique operating and reliability challenges presented by New York City.

The NYISO and its predecessor, the New York Power Pool, have relied for over forty years on the ability to commit and dispatch NYCA Generators to manage reliability of the NYSTS though the use of highly automated security constrained commitment and dispatch software systems. The NYISO's planning and operating rules and practices are fundamentally based on the premise that Generators interconnected to the NYSTS will be subject to the control

[26] Under Section 215(h)(3) of the Federal Power Act ("FPA"), New York State is authorized to have reliability rules that are more stringent than those adopted by the North American Electric Reliability Organization and the regional reliability entities. Under New York law, the NYSRC is charged with developing such reliability rules.

and dispatch of the NYISO. The NYISO has significant concerns about the potential reliability impacts of ceding NYISO control to PJM to commit and dispatch generators that are directly interconnected to the NYSTS, including the metropolitan New York City area. Ceding commitment and dispatch authority over New York generation to PJM is inconsistent with the intent of, and might violate, the *Agreement Between the New York Independent System Operator and Transmission Owners* ("ISO-TO Agreement").[27] Section 3 of the ISO-TO Agreement makes NYISO ultimately responsible for controlling, operating, and maintaining the reliability of the NYS Power System.

New York State's special Reliability Rules[28] supplement and are more stringent than the NERC and regional standards. Some of the best known Reliability Rules are the "Thunderstorm Alert" or "Storm Watch" rules that apply when a thunderstorm threatens the major transmission lines that serve New York City. When a Thunderstorm Alert is in effect, NYISO is required to commit and dispatch additional generation in New York City and to reduce the output of generators that must rely on the at-risk transmission facilities to supply energy to New York City. It is essential that all generators that are interconnected to the NYSTS comply with NYISO's instructions when the NYISO issues a Thunderstorm Alert.

The NYISO's Tariffs implement certain Reliability Rules directly;[29] while implementation of other Reliability Rules requires close coordination between the Transmission

[27] The ISO-TO Agreement is one of the NYISO's foundational documents, and is subject to the public interest standard of review under the Mobile-Sierra Doctrine. The agreement can be found at http://www.nyiso.com/public/markets_operations/documents/legal_regulatory/index.jsp.

[28] NYISO OATT Section 1.18 and NYISO Market Administration and Control Area Services Tariff ("NYISO Services Tariff") Section 2.18 define "Reliability Rules" as "Those rules, standards, procedures and protocols developed and promulgated by the NYSRC, including Local Reliability Rules, in accordance with NERC, NPCC, FERC, PSC and NRC standards, rules and regulations, and other criteria and pursuant to the NYSRC Agreement."

[29] *See e.g.*, NYISO Services Tariff Section 4.1.9 ("Generating units designated pursuant to the New York State Reliability Council's Local Reliability Rule I-R3 -- Loss of Generator Gas Supply (New York City) or I-R5 --

Owners and the NYISO.[30] The Transmission Owners also coordinate with the NYISO on the implementation of Applications of the Reliability Rules ("ARRs") for those portions of the NYSTS not included in the NYISO Controlled Transmission System.[31] Coordination among the NYISO, NYCA generators and the Transmission Owners is critical to protecting NYSTS reliability. Operating practices and procedures using NYISO's security constrained dispatch are implemented during emergencies or other operating contingencies when time is of the essence to maintain reliability. Comprehensive training on and intimate familiarity with the Reliability Rules and all of the ARRs that could apply to a particular NYCA generator are necessary to coordinate effectively during these events.

PJM's requirement of operational control of pseudo-tied NYCA generators would jeopardize compliance with these Reliability Rules. Specifically, allowing PJM to control Generators that are connected to the NYSTS may introduce reliability issues when a pseudo-tied generator is needed to respond to maintain reliability, consistent with longstanding NYISO planning and operations practices.

Market Efficiency Concerns

PJM's commitment and dispatch of pseudo-tied Generation Capacity Resources that are interconnected to the NYCA would cause significant inefficiencies in the NYISO's Day-Ahead and Real-Time Energy Markets that would reduce the value of NYISO's market solutions and would be expected to increase the costs incurred to serve NYCA loads.

Loss of Generator Gas Supply (Long Island), as being required either to burn an alternate fuel at designated minimum levels, or to activate their auto-swap capability, based on forecast Load levels in Load Zones J and K (for purposes of this Section 4.1.9, "Eligible Units"), shall be eligible to recover costs associated with burning the required alternate fuel when Local Reliability Rule I-R-3 or I-R5 is invoked pursuant to the provisions of this Section 4.1.9.").

[30] *See Applications of the NYSRC Reliability Rules, available at* http://www.nysrc.org/pdf/NYSRCReliabilityRulesComplianceMonitoring/apprulesintro.pdf.

[31] *See TO Applications of NYSRC Reliability Rules*, available at http://www.nyiso.com/public/webdocs/markets_operations/committees/councils/nysrc/reliability_rules_2_2003.pdf.

If a Generation Capacity Resource that is directly interconnected to the NYCA but pseudo-tied to PJM does not participate in the NYISO's Day-Ahead Energy Market ("DAM"), the NYISO will not be able to develop a least-cost Day-Ahead solution that incorporates the reliability and market impacts that the operation of the pseudo-tied PJM Generation Capacity Resource is expected to cause in the NYCA. PJM does not run its DAM until after NYISO's DAM results have ordinarily been posted.[32] Because PJM is not expected to provide its Day-Ahead schedules for pseudo-tied generators to NYISO in advance of NYISO running its DAM, the NYISO Day-Ahead assumptions about the pseudo-tied generator's probable operation will introduce material uncertainties into the NYISO's Day-Ahead solution that would be expected to increase the total cost incurred to serve NYCA load in the NYISO's DAM and/or in its Real-Time Energy Market ("RTM").

PJM has suggested that it may use Day-Ahead congestion management to reduce its expected impact on congestion management flowgates associated with PJM's external Generator Capacity Resources. However, there are only two redispatch flowgates that are currently active in NYISO's real-time congestion management process with PJM. It would be impractical to expect cross-border congestion management practices to ameliorate the impacts of transferring control of a NYCA generator to PJM. The existence of PARs and other control devices at the NYISO's border with PJM limits the potential benefits of redispatching PJM generation to manage congestion on flowgates located in the NYCA.

The NYISO schedules and dispatches generation in its RTM using a 2.5 hour look-ahead Real-Time Commitment process ("RTC") that achieves a least-cost commitment by anticipating

[32] The NYISO's Day-Ahead Market ("DAM") closes at 5:00 a.m. (EST) on the day before the operating day and the results are ordinarily posted by 10:00 a.m. on the day before the operating day. The NYISO's Tariffs require the DAM to be posted by 11:00 a.m. PJM's DAM closes at 10:30 a.m. on the day before the operating day and the results are ordinarily posted by 1:30 p.m. on the day before the operating day.

changes in load, system configuration, and generator output. In order for NYISO's RTC to produce a least-cost solution, it must accurately reflect the expected reliability and market impacts caused by the operation of all generation. The inability to incorporate the expected operation of PJM's pseudo-tied Generation Capacity Resources that are located in the NYCA will compromise efficiency by introducing material uncertainties into the NYISO's RTM.

PJM's March Filing[33] and Sections 7 and 8 of PJM's *pro forma* pseudo-tie agreement[34] each indicate that PJM intends to rely upon redispatch coordination to address transmission congestion on NYCA flowgates that is caused by PJM's scheduling and dispatch of a pseudo-tied Generation Capacity Resource. Redispatch coordination by PJM is expected to present a less efficient solution to transmission congestion that is occurring in the NYCA than NYISO's RTC look-ahead commitment can produce for the following reasons:

First, M2M redispatch coordination is only engaged after congestion develops and the NYCA experiences congestion costs. RTC's look-ahead process proactively develops a least-cost solution to anticipated congestion and redispatches resources before congestion occurs. This permits RTC to incorporate generator commitment time and ramp constraints into its least-cost solution. Second, in most cases the NYCA generators that are available for commitment or redispatch by RTC will have significantly more impact on efficiently resolving the NYCA transmission constraints that are represented by congestion management flowgates than generators located in PJM's Balancing Authority Area do.

[33] March Filing at 4, 14-15.

[34] Section 7 of PJMs *pro forma* pseudo-tie agreement states that Facility impacts will be controlled using the NERC Interchange Distribution Calculator ("IDC") process and the Congestion Management Process set forth in the PJM/MISO JOA. Section 8 of PJMs *pro forma* pseudo-tie agreement addresses the establishment of Coordinated Flowgates that are used in the redispatch coordination (congestion management) process.

The Day-Ahead and real-time market efficiency concerns that the NYISO identifies in this section of its Protest will not arise if PJM allows its external Generation Capacity Resources that are directly interconnected to the NYCA to be scheduled and dispatched by the NYISO, in accordance with the NYISO's market rules.

2. PJM's *Pro Forma* Pseudo-tie Agreement Requires a Form of Transmission Service That Does Not Exist in the NYISO

Section 2(b) of PJM's proposed *pro forma* pseudo-tie agreement requires External Generation Capacity Resources to obtain long-term firm point-to-point transmission service "or the equivalent thereof, as required by the PJM Governing Documents"[35] in order to pseudo-tie a generator into the PJM Balancing Authority Area. This aspect of the PJM proposal is based on the traditional concept of physical reservation of transmission service as reflected in the *pro forma* OATT, and the Commission's rules under Order Nos. 888 and 890.

This concept is, however, fundamentally different from the manner in which the NYISO provides transmission service to its customers. In the NYISO, there are no express physical reservations of transmission capacity in the manner contemplated by traditional firm point-to-point service. Rather, in the NYISO, customers are entitled to schedule transactions between any two points on the system as long as such transactions are consistent with a security-constrained economic dispatch (as they will be in most circumstances). The only way to "reserve" transmission capacity in New York is to couple the use of the transmission system with an identified energy transaction. Essentially, any desired use of the transmission system can be accommodated as long as the transmission customer is willing to pay for the cost of congestion. The economic value of limited transmission capacity is allocated through the use of Day-Ahead

[35] NYISO explained why several proposed requirements included in PJM's pending revisions to the "PJM Governing Documents" are unjust and unreasonable in the protest that NYISO filed on March 31, 2017. *See* Attachment A to this protest.

financial rights called Transmission Congestion Contracts ("TCCs") rather than through physical reservations on the NYISO system. Customers holding TCCs are thus able to hedge against congestion costs associated with transactions between specified points on the NYISO system. Under this approach, the NYISO makes the entire capacity of the New York State Transmission System available to customers, and most desired transactions are able to be accommodated, subject to payment of congestion costs.

The NYISO's financial reservation model has been in place since the NYISO commenced operations in 1999. The Commission has repeatedly found it to be just and reasonable.[36] It facilitates the efficient operation of competitive markets by ensuring that all available transmission capacity is able to be used, and by preventing the hoarding of scarce capacity by market participants.[37] However, the NYISO's financial reservation model does not fit readily with the requirement for "physical" firm point-to-point transmission service embodied in PJM's proposal. The NYISO does not provide firm point-to-point transmission service in the manner contemplated by the PJM proposal, however PJM's proposed *pro forma* pseudo-tie agreement would also permit the use of "equivalent" transmission service. The NYISO believes that it is possible for the concerns underlying the firm point-to-point requirement in the PJM proposal to be addressed, and for the NYISO and PJM to come up with a mutually acceptable solution that ensures the deliverability of capacity to the PJM system that is consistent within the

[36] *See* New York Independent System Operator, Inc., 125 FERC ¶ 61,274 (2008) (Confirming that NYISO's financial reservation model was consistent with or superior to the physical reservation requirements of Order No. 890's *pro forma* OATT.); *New York Independent System Operator, Inc.*, 123 FERC ¶ 61,134 (2008) (stating same).

[37] *See Regional Transmission Organizations*, Order No. 2000, 65 Fed. Reg. 809 (Jan. 6, 2000), FERC Stats. & Regs. ¶ 31,089 at pg. 31,126 (2000) (holding that systems based on locational prices and financial rights "provide a sound framework for efficient congestion management"), *order on reh'g*, Order No. 2000-A, 65 Fed. Reg. 12,088 (Feb. 25, 2000), FERC Stats. & Regs. ¶ 31,092 (2000), *aff'd*, Public Utility District No. 1 of Snohomish County, Washington v. FERC, 272 F.3d 607 (D.C. Cir. 2001).

NYISO's financial reservation model. Such a solution, however, will require discussions and coordination between the NYISO and PJM.

The implementation of firm point-to-point service, as reflected in the *pro forma* OATT and the PJM proposal, is fundamentally incompatible with the NYISO's existing market rules and, perhaps most importantly, is unnecessary to accommodate the efficient export of NYCA capacity to PJM. It would be highly burdensome, and unjust and unreasonable, to require the NYISO to modify its rules simply to accommodate PJM's unilateral imposition of the point-to-point requirement on its external Generation Capacity Resources that are interconnected to the NYCA transmission system.

3. PJM's Proposal that it be Granted a Firm Flow Entitlement to Use the Transmission System of an External Balancing Authority Area Is Unjust and Unreasonable and Should be Rejected

In Section 7 of its proposed *pro forma* pseudo-tie agreement, PJM proposes to require the Native Balancing Authority to "honor firm delivery transfer status via third party firm flow limit calculation procedure" pursuant to the CMP provisions of the PJM/MISO JOA. NYISO was not able to locate the words "firm delivery transfer status" or the words "third party firm flow limit" in MISO's posted version of the PJM/MISO JOA.[38] Based on proposed tariff revisions included in PJM's March Filing, the NYISO believes that PJM intends for the quoted terms to require the Native Balancing Authority to grant PJM a "firm flow entitlement" to use the Native Balancing Authority Area's transmission system to deliver energy from a pseudo-tied Facility to the PJM Balancing Authority Area.

[38] Link to MISO's posting of the PJM/MISO JOA: https://www.misoenergy.org/Library/Repository/Tariff/Rate%20Schedules/Rate%20Schedule%2005%20-%20MISO-PJM%20JOA%20and%20CMP.pdf

PJM's March Filing stated that PJM should receive a "firm flow entitlement" on any coordinated redispatch flowgate associated with an external Generation Capacity Resource.[39] Proposed Section 5.5A(b)(i)(D) of PJM's Tariff (included in PJM's March Filing) requires a PJM Capacity Market Seller to secure "written acknowledgement from the external Balancing Authority Area" that "firm allocations associated with any coordinated flowgate applicable to the external Generation Capacity Resource … will be allocated to PJM."

In its March Filing PJM argued that granting PJM a "firm flow allocation" is appropriate because "a pseudo-tied resource is capacity committed to PJM load, and therefore, PJM load should be assigned the firm flow allocation from that coordinated flowgate."[40] PJM's position is unjust and unreasonable, and should be rejected by the Commission for the reasons explained below.

A firm flow entitlement is, in essence, a right to use a portion of another Balancing Authority's transmission system without paying for that use. PJM and NYISO have granted entitlements to use each other's transmission system in a carefully studied and negotiated, mutually agreed, "swap" of rights in accordance with rules set forth in the NYISO/PJM JOA. Each ISO/RTO was granted rights to use specifically identified slices of the other entity's transmission system in the interest of enabling more efficient interregional coordination. There is no "swap" proposed in Section 5.5A(b)(i)(D) of the PJM OATT. It simply requires that PJM be allocated entitlements to use another Balancing Authority Area's transmission system without paying for that use or providing any other form of compensation in return.

PJM's proposed requirement is unjust and unreasonable because it ignores the fact that any use PJM makes of an external Balancing Authority Area's transmission system is an

[39] March Filing at 9-10.

[40] March Filing at 15-16.

incremental addition to the native Balancing Authority Area's own use of its transmission system to serve that external Balancing Authority's native load customers (who paid for the construction of the transmission system). It appears to NYISO that Section 5.5A(b)(i)(D) of the PJM OATT (which is a new provision that PJM proposed in its March Filing) requires that PJM be given transmission rights without paying for them. PJM's proposal that it should receive "firm allocations associated with any coordinated flowgates applicable to the external generator under an agreed congestion management process" is unjust and unreasonable, and should be rejected.

Section 6.2.1.1 of Schedule D to the NYISO/PJM JOA states "External Capacity Resources may be included in the M2M Entitlement calculation to the extent the Parties mutually agree to their inclusion" and "Inclusion of PJM External Capacity Resources that exceed the net M2M Entitlement impact of the PJM External Capacity Resources that were used for the initial implementation of the M2M coordination process must be mutually agreed to by the Parties." The NYISO cannot agree to grant PJM a firm flow entitlement to use the NYCA transmission system unless PJM provides fair compensation in return.

Although NYISO is not prepared to grant PJM or a PJM External Capacity Resource a "physical" firm flow entitlement on the NYCA transmission system, if a PJM External Capacity Resource pays for upgrades to the NYCA transmission system in order to improve its deliverability to the PJM Balancing Authority Area, the upgrades may result in an award of Incremental Transmission Congestion Contracts ("TCCs") in accordance with the NYISO's Open Access Transmission Tariff.[41] TCCs are financial instruments that provide congestion

[41] *See* NYISO OATT Section 19.2.4.

payments[42] that can be used to hedge the congestion cost of delivering a PJM External Capacity Resource to the PJM Balancing Authority Area in the NYISO's Day-Ahead Market.

4. PJM's Proposed Rules Addressing Generators that Simultaneously Sell Capacity to Multiple Balancing Authority Areas Are Incomplete

Section 2(p) of PJM's proposed *pro forma* pseudo-tie agreement addresses generators that are selling a portion of their capacity to PJM, and the remainder to the Native Balancing Authority Area. PJM proposes two different allocations of split capacity sales. PJM's first option allocates the "first __ MW dispatched from" a generator to the Native Balancing Authority, and allocates the remaining MW of energy and ancillary services to the PJM Balancing Authority Area via the Pseudo-Tie. PJM's second option states that some of the MW of energy and ancillary service will remain with the Native Balancing Authority Area and not be subject to the Pseudo-tie, and specifies the percentage of the generator's installed capacity that will be dedicated to the Pseudo-Tie.

It is NYISO's understanding that the pseudo-tie requirement mandates that dispatch control over the pseudo-tied output be given to PJM, and that PJM treats the pseudo-tied output as part of its Balancing Authority Area. If some of the MW are being used to satisfy capacity obligations in the NYISO, then the two Balancing Authority Areas each having dispatch control over the generator raises a host of practical issues that are not addressed in Section 2(p) of PJM's *pro forma* pseudo-tie agreement. If fewer MW than the minimum stable output of the generator were dedicated to PJM via the pseudo-tie, would PJM have the right to require the Generator's commitment? If so, this would force the generator to be committed and to sell energy uneconomically in the Native Balancing Authority Area in order to satisfy its capacity obligation to PJM. The NYISO has concerns about how a partially pseudo-tied generator would structure

[42] *See* NYISO OATT Section 20.2.3.

its energy and ancillary service offers to recover its incremental costs at times when the generator's commitment is not economic in both of the markets in which it participates. How would start-up costs be allocated between the two Balancing Authority Areas?[43] Finally, it is unclear how the dual authority to instruct the generator's operation would be applied in circumstances where the two Balancing Authority Areas seek to dispatch the generator in ways that are inconsistent with one another, or that are inconsistent with the generator's operating capabilities. PJM's proposed *pro forma* pseudo-tie rules raise a number of practical operating questions and leave the door open to scenarios in which a generator might have to produce energy at a loss in one of the two markets where it has assumed a capacity obligation.

The NYISO's concerns are not addressed in PJM's proposed *pro forma* pseudo-tie agreement. Without rules negotiated and agreed to by both participating Balancing Authority Areas to govern bifurcated capacity sales, the *pro forma* terms and conditions are unjust and unreasonable.

5. Energy Produced by PJM Capacity Performance Resources that are Interconnected to NYCA Transmission Facilities Must be Accounted for as Interchange Between the NYISO and PJM

Section 7 of PJM's *pro forma* pseudo-tie agreement proposes to require the Native Balancing Authority Area to agree to waive the NERC tagging requirement for the energy produced by a pseudo-tied Facility. Section 2(g) of PJM's proposed *pro forma* pseudo-tie agreement states that the Native Balancing Authority and the PJM Balancing Authority will include the real-time pseudo-tie value in their respective calculations of Actual Net Interchange ("ANI") and Area Control Error ("ACE"). The NYISO is prepared to consider whether it might be acceptable to waive the NERC tagging requirement. However, the NYISO believes it is

[43] Consider a hypothetical scenario where one of the Balancing Authority Areas would not have started-up the generator, but dispatches the generator to provide energy after the other Balancing Authority Area instructs it to start-up.

necessary to explicitly incorporate the scheduled output from PJM capacity resources that are interconnected to the NYCA transmission system into the scheduled interchange between the NYISO and PJM Balancing Authority Areas.

The NYISO/PJM border is fundamentally different from PJM's borders with its other neighbors, particularly PJM's border with MISO where most of the generators that are presently pseudo-tied to PJM are located. There are currently seven PARs in-service at the NYISO/PJM border that are operated to achieve specific components of scheduled interchange in accordance with the requirements of the NYISO/PJM JOA and Section 17.1.1.1.2 of the NYISO Services Tariff. There are also three scheduled lines located at NYISO's border with PJM that use direct current technology or variable frequency transformers to control power flows to match the interchange that is scheduled over those facilities.

The Ramapo, ABC and EFO PARs that are located in New York or New Jersey at the NYISO's border with PJM (collectively, the "NY/NJ PARs") are currently being operated to achieve scheduled interchange and to implement M2M PAR coordination in accordance with Schedule D to the NYISO/PJM JOA, which is consistent with how the NYISO and PJM have operated the Ramapo PARs since 2013.[44]

The proposed "Target Values" for the NY/NJ PARs incorporate the net interchange schedule between PJM and the NYISO over the AC tie lines, distributed across the various NY/NJ PARs using allocations that NYISO and PJM developed with input from the affected transmission owners.[45] Section 5.5 of Schedule D to the NYISO/PJM JOA makes clear that the

[44] *See New York Independent System Operator, Inc. and PJM Interconnection, L.L.C., Order Accepting and Suspending Filing, Subject to Refund, and Further Commission Order*, 158 FERC ¶ 62,270 (March 31, 2017); *see also*, Section 7.2 of Schedule D to the proposed JOA revisions that were jointly filed by PJM and NYISO in Docket No. ER17-905-000.

[45] *See* Table 5 in Section 7.2.1 of Schedule D to the proposed JOA revisions that were jointly filed by PJM and NYISO in Docket No. ER17-905-000.

interchange schedules it addresses are imports, exports and wheels-through the NYCA and PJM that are scheduled to flow over a proxy bus or a scheduled line. PJM's use of the NYISO's transmission system to serve PJM's Rockland Electric load is also explicitly addressed in Schedule D to the NYISO/PJM JOA.

Other than PJM service to its Rockland Electric load, Schedule D to the NYISO/PJM JOA does not presently allow for the use of untagged transmission service to deliver power across the NYISO/PJM border. PJM's unwillingness to permit external Generation Capacity Resources to use scheduled interchange to deliver energy to PJM across its border with the NYISO is inconsistent with the currently effective market rules that NYISO and PJM jointly developed for operating the NY/NJ PARs.[46] The inconsistency between PJM's requirements for how external Generation Capacity Resources must deliver energy to PJM and the rules NYISO and PJM jointly developed addressing the scheduling of transactions and operation of PARs at their common border could cause significant market inefficiencies and reliability concerns if the NYISO and PJM do not incorporate energy produced by PJM Capacity Performance Resources into the recognized interchange between their Balancing Authority Areas.

Failure to meet interchange flow targets can result in financial settlement obligations being assigned to PJM or to NYISO under the M2M PAR coordination rules in the NYISO/PJM JOA.[47] NYISO and PJM will use NY/NJ PAR taps to prevent energy produced by a pseudo-tied generator from flowing into PJM over any NY/NJ PAR-controlled interface when power flows fall outside of the targets specified in Schedule D to the NYISO/PJM JOA. When the NY/NJ PARs are operated to block untagged power flows, energy produced by an external Generation

[46] PJM's requirements for energy deliveries from external Generation Capacity Resources is also inconsistent with the jointly developed rules that were in Schedule D to the NYISO/PJM JOA from January 15, 2013 to April 31, 2017.

[47] *See* Schedule D to the JOA, Sections 7.2.2, 7.2.3, 8.1 and 8.3.

Capacity Resource would be expected to flow into PJM over the uncontrolled interconnections between Pennsylvania and Western New York. These untagged power flows would have a different value than power flows over the NY/NJ PAR controlled facilities, would require the NYISO and PJM to consume NY/NJ PAR taps (a limited resource[48]) to block untagged flows, and could present reliability concerns that are described elsewhere in this protest.

The efficiency and reliability concerns NYISO identifies in this section of its Protest could be avoided if PJM were to instead require external Generation Capacity Resources to use scheduled interchange to deliver capacity to PJM at PJM's border with the NYCA, or if the NYISO and PJM develop an alternative method of incorporating the output of Generation Capacity Resources into net interchange. NYISO is prepared to work with PJM to ensure PJM has access to the information it requires to monitor the delivery of energy from external Generation Capacity Resources located in New York.

6. PJM's *Pro Forma* Pseudo-Tie Agreement Should Permit a Pseudo-Tied Generator to Be Committed for Reliability Purposes By its Native Balancing Authority at Times When the Generator Is Not Committed by PJM

ISO-New England, Inc.'s ("ISO-NE's") tariffs facilitate the participation of external resources in its Forward Capacity Markets while still allowing them, under certain circumstances, to provide capacity and energy to the Balancing Authority Areas to which they are physically interconnected. Under the ISO-NE rules, external capacity resources remain available in the native region's commitment and dispatch and are permitted to supply energy to their native region if it otherwise is not required by ISO-NE.[49]

[48] *See* Section 7.2 of Schedule D to the proposed NYISO/PJM JOA revisions that were jointly filed by PJM and NYISO in Docket No. ER17-905-000.

[49] *See New York Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,064 at P 39 (2017) ("Per the ISO-NE Tariff, when an import generator is located in a control area with which the ISO-NE control area has implemented certain enhanced scheduling procedures (e.g., NYISO), "the resource must comply with all offer, outage scheduling and

PJM's proposed *pro forma* pseudo-tie agreement explicitly authorizes the Native Balancing Authority to "direct that the amount of energy utilizing the Pseudo-Tie of the Facility be adjusted for local transmission reliability concerns, and shall be responsible for mitigating the transmission related congestion on the transmission system where the Facility is connected."[50] The preamble to PJM's *pro forma* agreement further states that "the Facility will not be directed to serve load in the Native Balancing Authority Area at a time when the PJM Balancing Authority Area requires the output of the Facility, except during a local transmission reliability emergency…"[51] NYISO reads the cited provisions of the *pro forma* pseudo-tie agreement as authorizing a Native Balancing Authority Area (1) to specify or to limit the output of, a pseudo-tied Facility in order to address or mitigate local transmission reliability concerns, and/or (2) to use the output of the pseudo-tied Facility to serve the load of the Native Balancing Authority Area in order to address or mitigate local transmission reliability concerns. PJM's provisions that empower the Native Reliability Coordinator to dispatch a pseudo-tied Facility to address local transmission reliability concerns are helpful. However, NYISO believes there are additional improvements that need to be made.

NYISO does not read Section 2(l) as authorizing the Native Balancing Authority Area to require the commitment of a pseudo-tied Facility to address or mitigate local transmission reliability concerns. PJM's *pro forma* pseudo-tie agreement appears to be silent on the subject of whether, and the circumstances under which, its external Generation Capacity Resources will be available for commitment by the Reliability Coordinator of the Native Balancing Authority Area to which a pseudo-tied generator is directly interconnected. NYISO requests that the

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operating requirements applicable to capacity resources in the native Control Area."); *citing* ISO-NE Tariff, Section III.13.6.1.2.3 (b).

[50] *Pro forma* pseudo-tie agreement Section 2(l).

[51] *Pro forma* pseudo-tie agreement at 3.

Commission direct PJM to revise its *pro forma* pseudo-tie agreement to explicitly permit the Native Balancing Authority Area to schedule, dispatch and compensate a PJM Generation Capacity Resource at times when (a) PJM has not committed the resource, and (b) the PJM Generation Capacity Resource's operation is necessary to protect reliability in the Native Balancing Authority Area. The NYISO respectfully submits that it is unjust and unreasonable for PJM to fail to clearly specify that Reliability Coordinators that are responsible for maintaining reliability in the Balancing Authority Area to which a pseudo-tied Generation Capacity Resource is directly interconnected may commit, dispatch, and compensate pseudo-tied generators to address reliability concerns at times when PJM has not scheduled its external Generation Capacity Resource to operate. The Commission should direct PJM to revise Section 2(l) of its *pro forma* pseudo-tie agreement accordingly.

V. THE COMMISSION SHOULD DIRECT PJM TO WORK WITH THE NYISO TO DEVELOP MUTUALLY ACCEPTABLE ALTERNATIVE MEANS OF ADDRESSING PJM'S OBJECTIVES

For the reasons set forth above, PJM's August Filing is unjust and unreasonable, at least as applied to generation that is directly interconnected to the NYCA transmission system, and should not be unconditionally accepted in its current form. PJM has not demonstrated that its proposed tariff revisions are just and reasonable. Nor has PJM justified requiring the NYISO to make the sweeping changes to its Tariffs, market rules and software that would be necessary to accommodate PJM's proposals without compromising reliability or market efficiency in New York.

PJM has indicated that it does not intend to enter into pseudo-tie arrangements that have not been agreed to by all affected parties, including native Balancing Authorities such as the

NYISO.[52] If this is true then there is no prospect that the PJM Filing's proposals would ever be implemented for generators that are directly interconnected to the NYCA because PJM's proposed prerequisites cannot be satisfied and NYISO could not voluntarily agree to support a pseudo-tie to PJM under the terms and conditions included in PJM's *pro forma* pseudo-tie agreement, or under the tariff revisions proposed in PJM's March or August Filings. The NYISO is willing to work with PJM to develop an alternative method of selling capacity across their common border that would be acceptable to both PJM and the NYISO.

Accordingly, the Commission should condition its acceptance of PJM's March and August filings on PJM's submission of tariff rules that do not mandate the use of pseudo-ties at all of its borders and that give PJM sufficient flexibility to accommodate differences between PJM's neighboring Balancing Authority Areas. NYISO's requested relief will require PJM to abandon its stated goal of having one-size-fits-all uniform pseudo-tie arrangements in place with all of its neighbors.[53] PJM's goal is unrealistic because PJM's proposal is not compatible with the NYISO's Tariffs, Agreements and market rules, because the interface between the NYCA and the PJM Control Area is different from PJM's border with its other neighbors, and because PJM is required to work with the NYISO to address all implementation issues associated with implementing pseudo-ties, including reliability and commercial obligations and other seams issues.

VI. CONCLUSION

Wherefore, NYISO respectfully requests that the Commission grant its intervention in the above-captioned proceeding, find that the PJM Filing's proposals are not just and reasonable, at

[52] *See, e.g.*, January MRC Presentation at 5 ("PJM will not approve any Pseudo-Ties that do not have sign-off by all affected entities.").

[53] *See* March Filing at 4-5.

least as applied to generators that are directly interconnected to the NYCA, and condition its acceptance of PJM's March and August filings on PJM's submission of tariff rules that do not mandate the use of pseudo-ties at all of its borders and that give PJM sufficient flexibility to accommodate differences between PJM's neighboring Balancing Authority Areas. At minimum, the Commission should require PJM to make explicit in its tariff that pseudo-tie arrangements can only occur if the native Balancing Authority agrees and elects to execute a pseudo-tie agreement with PJM and the applicable generator. This requirement would codify in PJM's tariff the Commission's finding in prior proceedings.[54]

Respectfully submitted,

/s/ Alex M. Schnell
Alex M. Schnell
Assistant General Counsel/
Registered Corporate Counsel
New York Independent System Operator, Inc.

Dated: September 1, 2017

cc: Michael Bardee
Anna Cochrane
Jette Gebhart
Kurt Longo
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Daniel Nowak
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Douglas Roe
Kathleen Schnorf
Gary Will

[54] *See* June 2015 Order at P 96.

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 1st day of September 2017.

/s/ Joy A. Zimberlin

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Attachment A

Motion to Intervene One Day Out of Time and Protest of The New York Independent System Operator, Inc.

Submitted in Docket No. ER17-1138-000 on
March 31, 2017

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, LLC) Docket No. ER17-1138-000

MOTION TO INTERVENE ONE DAY OUT OF TIME AND PROTEST OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

Pursuant to Rules 211, 212, and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission the "Commission"), 18 C.F.R. §§ 385.211 and 385.214 (2016), the New York Independent System Operator, Inc. ("NYISO") hereby moves to intervene and to protest in this proceeding. This filing addresses the PJM Interconnection, LLC's ("PJM") March 9 filing (the "PJM Filing")[1] proposing "External Capacity Enhancements" to PJM's Open Access Transmission Tariff ("PJM OATT") and Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region ("RAA").[2]

The PJM Filing proposes detailed new rules that build upon existing tariff requirements that resources located outside of PJM that seek to become "Capacity Performance Resources"[3] must have confirmed long-term firm transmission service and must not be subject to NERC tagging as an interchange transaction in order to be excepted from PJM's "Capacity Import Limit."[4] The specified transmission service requirements to obtain an exception from PJM's

[1] PJM Interconnection, L.L.C., *External Capacity Enhancements*, Docket No. ER17-1138-000 (March 9, 2017).

[2] For convenience, throughout this pleading the PJM OATT and RAA will be referred to collectively as PJM's "tariff."

[3] "Capacity Performance Resource" is defined in Article 1 of the RAA and Attachment DD of the PJM OATT.

[4] "Capacity Import Limit" is defined in Article 1 of the PJM RAA. The definition also prescribes the criteria that resources external to PJM must satisfy in order to obtain an exception from the Capacity Import Limit.

Capacity Import Limit were first accepted by the Commission in its "June 2015 Order."[5] The instant PJM Filing proposes more detailed rules to address specific "modeling, congestion management, planning, and operational concerns . . . ."[6] that PJM has identified since 2015.

The PJM Filing is unjust and unreasonable as applied to New York[7] and should not be accepted in its current form.[8] PJM's proposed tariff revisions would impose unreasonable obligations on the New York Control Area ("NYCA"). It would likely cause adverse reliability and market impacts in the NYCA and exacerbate interregional seams. The proposed tariff revisions also conflict with the established interregional agreement governing the NYISO/PJM interface and with the NYISO's tariffs.[9]

As discussed in detail below, PJM's filing is incomplete because it does not include the *pro forma* pseudo-tie agreement that PJM has been developing with its stakeholders and other necessary implementation rules are either missing or unclear. It is not possible for the Commission to determine if allowing PJM's proposed tariff rules to become effective would be

[5] *See* PJM Filing at n. 8; *citing PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at PP 96-97 (2015); *order on reh'g*, 155 FERC ¶ 61,157, at P 44 (2016).

[6] PJM Filing at 2.

[7] The NYISO takes no position concerning the justness and reasonableness of the PJM Filing's proposed revisions as applied to other Balancing Authority Areas.

[8] If the Commission has not regained a quorum before the expiration of the statutory sixty day notice period, the Commission's staff should exercise its delegated authority, *see* 18 C.F.R. §375.307(ii) and (v), to either reject the PJM Filing on the ground that its incompleteness and other flaws make it "patently deficient" or issue a deficiency letter that would require PJM to submit a complete filing and reset the notice period.

[9] PJM's proposed tariff revisions in this proceeding are fundamentally different from those that the Commission accepted in *ISO New England, Inc. and New England Power Pool Participants Committee, et, al.*, 157 FERC ¶ 61,025 (2016). In the *ISO New England* case, the Commission declined to delay the implementation of proposed tariff revisions that the NYISO did not contend were unjust and unreasonable, but that triggered an acknowledged inefficiency in the NYISO's own market design. *See* 157 FERC ¶ 61,025 at P 31. By contrast, in this proceeding PJM's proposed tariff revisions are unjust and unreasonable. There is no underlying flaw in the NYISO's rules or markets.

just and reasonable because there are significant and substantive gaps in the implementation rules that PJM will apply based on the new obligations it is requesting permission to impose.

The tariff revisions that are included in the PJM Filing were developed without input from the NYISO. PJM's proposed pseudo-tie rules are not workable for New York. The NYISO does not believe that it would be possible for it to execute a pseudo-tie agreement under the terms and conditions proposed and described by PJM. The NYISO is not prepared to make significant substantive changes to its Tariffs and to the fundamental design of its markets in order to accommodate the requirements PJM seeks to impose on its external Generation Capacity Resources. The NYISO is, however, willing to work with PJM to develop a mutually acceptable alternative to pseudo-ties to facilitate sales of capacity between their two Balancing Authority Areas. PJM and NYISO can work together to develop mutually acceptable rules that take into account the Phase Angle Regulators ("PAR") at the A/C interconnections between their Balancing Authority Areas and that accommodate long-recognized, Commission-accepted differences between the NYISO and PJM tariffs and market rules. The differences between the NYCA and other regions, and between the NYISO/PJM interface and other interfaces, are simply too great to accommodate uniform treatment based on rules that PJM developed at its other borders.

The Commission should not permit PJM to prescribe generally applicable, one-size-fits-all, pseudo-tie obligations in its tariffs and force all neighboring Balancing Authorities to accommodate PJM's rules. Instead, PJM's generally applicable tariff rules must not mandate the use of pseudo-ties in all instances, but should instead be sufficiently flexible to allow for regional differences. PJM should incorporate more detailed and specific requirements for cross-border sales of capacity into its interregional agreements with each of its neighbors. At a minimum, the

Commission should require PJM to make explicit in its tariff that pseudo-tie arrangements can only occur if the native Balancing Authority agrees and elects to execute a pseudo-tie agreement with PJM and the applicable generator. This requirement would codify in PJM's tariff the Commission's finding in prior proceedings[10] and, based on discussions with PJM staff, NYISO believes that PJM would be receptive to this element of NYISO's requested relief. Such a requirement is essential because PJM's tariff does not yet incorporate material terms and conditions, many of which would directly impact the NYISO's ability to operate the NYCA and to serve NYCA loads at least cost. The NYISO requests that the Commission reject PJM's filing and require PJM to submit generally applicable tariff rules that give PJM sufficient flexibility to accommodate regional differences at its borders.

I. COMMUNICATIONS

Communications and correspondence regarding this filing should be directed to:

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* persons designated for service.[11]

[10] *See* June 2015 Order at P 96.

[11] The NYISO respectfully requests waiver of the requirements of Rule 18 C.F.R. § 385.203(b)(3) (2015) to permit service on more than two persons.

II. MOTION TO INTERVENE ONE DAY OUT-OF-TIME

The NYISO is the independent, not-for-profit entity responsible for administering Commission-jurisdictional markets for electricity and capacity, for providing open-access transmission service, and for maintaining electric reliability in the NYCA. The NYISO and PJM are neighboring regions. There is substantial interregional trading between them, including exports and imports of capacity. Changes to one region's capacity market rules can have substantial impacts on market outcomes and system operations in the other.

As discussed below, allowing a generator that is directly interconnected to the NYCA to be committed and dispatched by PJM in accordance with PJM's proposed new pseudo-tie rules could threaten the reliable operation of the NYCA and disrupt the NYISO-administered markets. The NYISO, therefore, has a direct and substantial interest in the outcome of this proceeding that cannot be adequately represented by any other party. It is appropriate and in the public interest that the NYISO be permitted to intervene herein and to participate with full rights as a party.

The NYISO also respectfully requests leave to intervene one day out-of-time. The Commission routinely grants such motions as long as the proceeding is at an early stage, the entity seeking to intervene has a significant interest in the proceeding, and the grant of the motion will not cause undue prejudice to any party, or delay in the resolution of the proceeding.[12] In this case, PJM's proposed pseudo-tie rules will have a significant impact on the manner in which the NYISO interacts with generators interconnected to its system, and on the NYISO's operation of the NYCA. The NYISO's interest is also unique and cannot be adequately

[12] *See Midcontinent Independent System Operator, Inc.*, 158 FERC ¶ 61,128 at P 4 (2017) (granting "late-filed motions to intervene given the interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay."); *California Independent System Operator Corporation*, 141 FERC ¶ 61,176 at P 25 (2012) (holding same); *ISO New England, Inc.*, 140 FERC ¶ 61,239 at P 19 (2012) (holding same).

represented by any other party. Furthermore, the proceeding itself is still in its early stages, and the NYISO's motion to intervene, will not cause undue delay or prejudice any party. Accordingly, the NYISO respectfully requests that the Commission grant its motion to intervene in this proceeding one day out-of-time.

III. BACKGROUND

A. Pseudo-Tie Arrangements Have Never Been Implemented in the NYISO, PJM's Proposed Rules Do Not Appear to Be Workable for the NYISO and Attempting to Implement them Would Adversely Impact New York

PJM has had pseudo-tie arrangements with some of its other neighbors for years. In particular, PJM currently has a number of pseudo-tied generators located inside the Midcontinent Independent Transmission System Operator, Inc. ("MISO") and it is NYISO's understanding that more are expected to be established soon.[13] In fact, MISO recently submitted a separate Section 205 filing in Docket No. ER17-1061 to establish a *pro forma* pseudo-tie agreement[14] which PJM has protested. There are also multiple pending complaint proceedings concerning the application of PJM and MISO congestion charges to pseudo-tied units.[15]

The NYISO does not have, and is not currently developing, pseudo-tie rules of its own. New York generators have never before been pseudo-tied to PJM or to any other region. The NYISO does not require a pseudo-tie arrangement to accept capacity from external Balancing

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[13] *See* Amanda Durish Cook, *PJM Filing Renews MISO Monitor's Call for Pseudo-Tie Elimination,* RTO Insider (March 26, 2017) (noting that there are currently thirteen MISO generators currently pseudo-tied to PJM and that the number is expected to soon rise to eighteen) < *https://www.rtoinsider.com/pjm-miso-pseudo-ties-40680/*>.

[14] *MidContinent Independent System Operator, Inc., Proposed Pro Forma Pseudo-Tie Agreement and Associated Revisions to MISO's Open Access Transmission, Energy , and Operating Reserves Tariff*, Docket No. ER17-1061-000 (February 28, 2017).

[15] *See* Midcontinent Independent System Operator, Inc. and PJM Interconnection L.L.C. *Status Update*, Docket Nos. EL16-108-000, EL17-29-000, EL17-31-000, EL17-37-000 (March 27, 2017) (providing informational update on efforts by MISO and PJM to resolve "congestion overlap" issue related to pseudo-tied generation in each RTO in four pending complaint dockets).

Authority Areas. Capacity exports from New York to PJM have been less than 200 MW in recent years**.** Exports of Federal preference power from the Niagara and St. Lawrence hydroelectric facilities in New York to municipal entities and cooperatives in PJM occurred under arrangements that NYISO understands are, and requests be explicitly, excluded from PJM's pseudo-tie requirement.[16] The PJM Filing has highlighted the difficulties and disruptions that would be imposed on the NYISO if a New York generator were to seek to become a PJM Capacity Performance Resource and to comply with the rules that PJM has proposed.

As discussed in Section IV.C.1 below, issues arise in large part because the NYISO/PJM border is fundamentally different from PJM's borders with its other neighbors, including PJM's border with MISO. There are currently seven PARs in-service at the NYISO/PJM border that are operated to achieve specific components of NYCA/PJM interchange. There are also three scheduled lines that interconnect the NYCA with the PJM Balancing Authority Area that use direct current technology or variable frequency transformers to control power flows to match the interchange that is scheduled over those facilities. NYISO is not aware of any other border between PJM and a neighboring Balancing Authority Area where power flows are as heavily managed by control technologies.

The NYISO and PJM have developed special rules to manage PAR-controlled flows across their common interface. These rules are set forth in the *Joint Operating Agreement Among and Between New York Independent System Operator Inc. and PJM Interconnection, L.L.C.* (the "JOA").[17] The JOA does not include pseudo-tie procedures and, as discussed below, the JOA is incompatible with some of the pseudo-tie rules proposed in the PJM Filing.

[16] *See infra* Section IV.B.5.

[17] The JOA is formally filed (on behalf of both NYISO and PJM) as Section 35 of the NYISO's OATT. Schedule D to the JOA (Section 35.23) sets forth the Market-to-Market ("M2M") coordination

As further discussed below, PJM's pseudo-tie requirement also appears to conflict with other features of the NYISO's Commission-approved tariffs and threatens to create reliability problems and market inefficiencies in New York.

B. The PJM Filing Seeks to Impose New Requirements but Does Not Include Necessary Rules Explaining How PJM will Implement Them

PJM has been working with its stakeholders to develop a *pro forma* pseudo-tie agreement.[18] Many important issues that are not addressed in the PJM Filing are, apparently, being left to that agreement. NYISO has identified other omissions that are not addressed in PJM's draft *pro forma*. For example, PJM's draft rules do not address whether it, or the Reliability Coordinator of the transmission system to which an external Generation Capacity Resource is directly interconnected, will be responsible for outage scheduling. It is unclear when PJM's *pro forma* language will be finalized and filed for the Commission's consideration.

The latest draft version of PJM's *pro forma* pseudo-tie agreement addresses numerous matters that are directly relevant to PJM's proposals in this proceeding. NYISO has concerns with many of the provisions of the draft *pro forma* pseudo tie agreement. It is not possible to fully understand how PJM's pseudo-tie proposals would actually be applied without considering the *pro forma* language. The Commission should not accept the new requirements in the PJM Filing before it has the opportunity to review PJM's proposed rules for implementing those requirements.

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rules that apply to NYISO and PJM. The NYISO and PJM recently filed proposed revisions to their JOA (including proposed revisions to the M2M coordination rules) to address the elimination of the 1000 MW wheel that was originally established in the 1970s by the Consolidated Edison Company of New York, Inc. and the Public Service Electric and Gas Company ("Con Edison – PSEG Wheel"). The jointly filed revisions are pending in Docket No. ER17-905-000.

[18] The most recent iteration of PJM's draft *pro forma* agreement is posted at http://www.pjm.com/%7E/media/committees-groups/committees/mrc/20170323/20170323-item-04-draft-pjm-pro-forma-pseudo-tie-agreement.ashx.

C. Contrary to Commission Precedent the PJM Filing Does Not Reflect the NYISO's Input on Seams, Market, or Reliability Issues Impacting New York

The Commission first accepted PJM's Capacity Import Limit rules in its April 2014 Order in Docket No. ER14-503.[19] That order rejected recommendations by intervenors that a pseudo-tie requirement be made applicable to all external resources seeking to participate in PJM's forward capacity auctions. The Commission agreed with PJM's position at the time that such a mandate would "limit competition from external resources (by making it more difficult for them to qualify as capacity resources) without providing any offsetting benefits."[20]

The June 2015 Order, however, accepted a PJM proposal to require external capacity resources to be pseudo-tied to PJM, even though PJM's tariffs did not include an explicit pseudo-tie requirement at that time. The Commission's determination was predicated on a finding that the protestors in that proceeding had not shown that a pseudo-tie requirement would exacerbate seams. The Commission also emphasized that PJM was "required to reach agreement with External Balancing Authorities regarding all implementation issues associated with a pseudo-tied resource, including reliability and commercial obligations, and that this process should minimize any resulting seems issues"[21]

As discussed below, PJM's proposed new pseudo-tie rules have not been designed to minimize seams at the NYISO/PJM interface, and do not account for commercial or reliability issues in the NYISO. Nor do they reflect the level of inter-regional coordination that PJM has argued is necessary in the pending MISO proceeding.[22]

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[19] *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,060 (2014) (April 2014 Order).

[20] April 2014 Order at P 49.

[21] June 2015 Order at P 96 (footnote citing to pertinent NERC and NAESB rules omitted).

[22] *See* Section IV.A, *infra*.

IV. PROTEST

A. The PJM Filing Seeks to Impose New Requirements but Does Not Include Necessary Rules Explaining How PJM will Implement Them

The PJM Filing proposes to impose various obligations on external resources that want to sell capacity to PJM, and on the operators of the Balancing Authority Areas in which such resources are located. The PJM Filing omits necessary implementation details that are fundamental to any evaluation of the justness and reasonableness of PJM's proposed pseudo-tie rules. Several of these omissions are addressed in Section IV.B below and are themselves sufficient reason to find PJM's proposals unjust and unreasonable. The PJM Filing's most serious omission is the absence of the *pro forma* pseudo-tie agreement that PJM has been drafting with its stakeholders. The *pro forma* agreement is not mentioned in the PJM Filing, but it is clear from a review of the latest posted draft that PJM's *pro forma* agreement will impose numerous, substantive pseudo-tie implementation requirements that are not addressed in the PJM Filing. It is likewise clear from PJM staff presentations that the tariff revisions included in the PJM Filing and PJM's *pro forma* pseudo-tie agreement are integrally related and were, until recently, being developed in a coordinated fashion.[23]

Draft, unfiled, *pro forma* provisions that are of greatest concern to the NYISO include: language addressing resources that simultaneously sell capacity to PJM and to the Balancing Authority Area where the Generator is located; proposed rules governing PJM's obligation to make pseudo-tied generation available for commitment by the NYISO and the relevant local Transmission Owner; and proposed rules governing PJM's obligation to comply with all

[23] *See, e.g., Proposal for Pro Forma Pseudo-Tie Agreements,* Jacqulynn Hugee, PJM Markets and Reliability Committee, January 2017 at 5. < http://www.pjm.com/~/media/committees-groups/committees/mrc/20170126/20170126-item-11-pseudo-tie-agreement-presentation.ashx > ("January MRC Presentation").

reliability rules that apply in the Balancing Authority to which the pseudo-tied generator is directly interconnected.[24] Responsibility for scheduling and approving planned outages is a matter that needs to be considered, but that does not appear to be addressed in the latest draft of the PJM *pro forma* pseudo tie agreement.

PJM itself recently protested MISO's filing of a *pro forma* pseudo-tie agreement on the ground that MISO was allegedly granting itself too much authority.[25] PJM contrasted MISO's proposal with the draft of its own *pro forma* pseudo-tie agreement, which PJM asserted provided for appropriate interregional coordination over matters where NERC Reliability Standards require it. Specifically, PJM stated that "PJM's *pro forma* agreement requires mutual agreement because PJM wants to ensure that the Native Balancing Authority, native Reliability Coordinator and native Transmission Operator agree with PJM on how the pseudo-tie will be implemented and operated since they will be impacted by that pseudo-tie, and to ensure coordination and clear delineation of roles and responsibilities as between them, consistent with NERC standards." PJM emphasized that the relevant NERC standards require coordination between regions, "such

[24] *See* PJM's most recent draft *Form of Pseudo-Tie Agreement* (dated March 15, 2017 as of this writing) which are posted at the location cited at n. 17 above. The draft "Whereas" clauses include alternative language applicable to generators that seek to pseudo-tie only a defined quantity or a percentage of dispatched capacity to PJM. Section 2(m) states that "The Native Balancing Authority, . . . shall have the right to direct that the amount of energy utilizing the Pseudo-Tie be adjusted for local transmission reliability concerns in emergency conditions, shall have the right to request that the amount of energy utilizing the Pseudo-Tie be adjusted for local transmission reliability concerns under normal conditions, and shall be responsible for mitigating the transmission related congestion on the transmission system where the Pseudo-Tie is connected." Draft Section 2(p) states that "In accordance with NERC Standards IRO-001-1.1 and TOP-001-1a and their respective successors, during a local transmission reliability emergency Company shall comply with [native Reliability Coordinator] [Native Reliability Coordinator] . . .reliability directives by taking required actions to avoid security limit violations on closely situated transmission facilities and to ensure that [native Transmission Owner] [Native Transmission Owner] and [native Reliability Coordinator] [Native Reliability Coordinator] have the ability to return the transmission system to normal operating conditions, unless such actions would violate safety, equipment, or regulatory or statutory requirements."

[25] *Protest of PJM Interconnection, L.L.C.,* Docket No. ER17-1061-000 (March 21, 2017) ("PJM Protest").

as Area Control Error and Frequency Control, congestion management, resource adequacy planning/scheduling, and contingency reserve assessment."[26]

PJM's plans for addressing such critical operational and compliance matters, as well as other implementation details, are essential to a complete understanding of how its pseudo-tie proposal would impact the NYISO. The PJM Filing acknowledges that NERC standards establish "key requirements" governing its "use and implementation" of pseudo-ties. However, the *pro forma* agreement provisions addressing relevant NERC standards are not now before the Commission for review.

It is well-established that that the Commission will reject Section 205 filings if they fail to provide sufficient information for the Commission to conduct an adequate evaluation of their justness and reasonableness[27] or have been submitted prematurely.[28] The PJM Filing should be rejected for both reasons. As PJM's recent protest in the MISO *pro forma* pseudo-tie proceeding highlights, the terms and conditions set forth in a *pro forma* pseudo-tie agreements are critically important. The PJM Filing is incomplete without a draft *pro forma* agreement, and it will only be possible for commenters and the Commission to determine if PJM has developed proposed rules addressing all of the reliability, coordination and market concerns that must be addressed

[26] PJM Protest at 2 (footnotes citing NERC Reliability Standards BAL-005-0.2b, INT-00403.1, TOP-001-1a and IRO-001-1-.1, and BAL-002-1 (respectively) were omitted above).

[27] *See, e.g., Northern Maine Independent Service Administrator*, 119 FERC ¶ 61,231 (2007) ("NMISA has not provided the Commission with sufficient information to determine the effects of its proposed revisions. We find therefore that NMISA has failed to demonstrate that the proposed tariff revisions are just and reasonable, and accordingly, has failed to satisfy its burden of proof under section 205 of the FPA. Consequently, we reject NMISA's proposed revisions without prejudice.").

[28] *See, e.g., Public Service Company of Colorado*, 156 FERC ¶ 61,187 (2016) (rejecting tariff filing as premature.); *PJM Interconnection, L.L.C.*, 150 FERC ¶ 61,251 at P 30 (2015) (rejecting proposed tariff revisions as premature where there was a risk that revisions could be withdrawn based on the outcome of a pending court proceeding); *Midwest Independent Transmission System Operator, Inc.*, 142 FERC ¶ 61,182 (2013) (rejecting proposed tariff revision as premature where option set forth in the revision was being addressed in an ongoing proceeding).

when PJM files its entire proposed ruleset. PJM's submission of an incomplete set of rules makes it impossible for the NYISO to identify all of the possible implications for New York, or for the Commission to ascertain the overall justness and reasonableness of PJM's proposed tariff revisions. It would be premature for the Commission to accept the PJM Filing, or for Commission staff to allow PJM's incomplete set of proposed tariff revisions to become effective.

The Commission should, at a minimum, issue a deficiency letter directing PJM to submit the missing components of its tariff rules that are intended to govern external Generation Capacity Resources. These would include a complete *pro forma* agreement and answers to, or rules addressing, each of the concerns that the NYISO raises in this Protest.

B. The PJM Filing Is Unjust and Unreasonable Because it Raises Serious Reliability and Market Concerns for New York and Is Not Compatible with Commission-Accepted NYISO Rules

1. The PJM Filing Fails to Address Whether a Pseudo-Tied Generator May Be Used for Reliability Purposes By its "Native" Balancing Authority at Times When it Is Not Needed by PJM

ISO-New England, Inc. ("ISO-NE") recently filed tariff changes to facilitate the participation of external resources in its Forward Capacity Markets while still allowing them, under certain circumstances, to provide capacity and energy to the Balancing Authority Areas to which they are physically interconnected. Under the ISO-NE rules, external capacity resources remain available in the native region's commitment and dispatch and are permitted to supply energy to their native region if it otherwise is not required by ISO-NE.[29]

By contrast, the PJM Filing is silent on the subject of whether, and the circumstances under which, its external Generation Capacity Resources will be available for commitment and

[29] *See New York Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,064 at P 39 (2017) ("Per the ISO-NE Tariff, when an import generator is located in a control area with which the ISO-NE control area has implemented certain enhanced scheduling procedures (e.g., NYISO), "the resource must comply with all offer, outage scheduling and operating requirements applicable to capacity resources in the native Control Area."); *citing* ISO-NE Tariff, Section III.13.6.1.2.3 (b).

dispatch by the "native" Reliability Coordinator of the Balancing Authority Area to which a pseudo-tied generator is directly interconnected. PJM's failure to address NYISO's authority to schedule and dispatch a PJM Generation Capacity Resource when its operation is necessary to protect NYCA reliability might be construed as signifying that NYISO cannot schedule or dispatch a PJM Generation Capacity Resource in such instances. The NYISO respectfully submits that it is unjust and unreasonable for PJM to fail to clearly specify that Reliability Coordinators that are responsible for maintaining reliability in the Balancing Authority Area to which a pseudo-tied Generation Capacity Resource is directly interconnected may commit, dispatch, and compensate pseudo-tied generators to address reliability concerns when PJM has not scheduled its external Generation Capacity Resource to operate. The Commission should require PJM to revise its proposal accordingly.[30]

2. The PJM Filing Is Unjust and Unreasonable Because it Fails to Address the Impacts of Pseudo-Ties on Local Reliability

The PJM Filing indicates that PJM is still determining how to handle local system issues that are not addressed by congestion management protocols.[31] Local reliability issues are very significant in New York. The operation of the New York State Transmission System ("NYSTS") is governed not only by the Commission's reliability standards, as enforced by NERC and the NPCC, but also by a series of local Reliability Rules issued and enforced by the New York State Reliability Council ("NYSRC").[32] The operation of the NYSTS requires close

[30] Paragraph 1(m) of the latest draft of the unfiled PJM *pro forma* pseudo-tie agreement would appear to allow the NYISO to commit a New York generator that is pseudo-tied to PJM but only in an emergency.

[31] See PJM Filing at 9-10.

[32] Under Section 215(h)(3) of the Federal Power Act ("FPA"), New York State is authorized to have reliability rules that are more stringent than those adopted by the North American Electric Reliability Organization and the regional reliability entities. Under New York law, the NYSRC is charged with developing such reliability rules.

coordination between the NYISO, the New York TOs, and individual Generators to ensure that all applicable standards are satisfied, and that reliability is maintained. Effective coordination is particularly critical in New York due to New York's transmission limits, high levels of congestion and the unique operating and reliability challenges presented by New York City.

The NYISO has concerns about the potential reliability impacts of permitting PJM to commit and dispatch generators that are directly interconnected to the NYCA. Some of the NYISO's reliability concerns stem from the fact that PJM does not propose to include a detailed representation of the entire NYCA in its network model, so PJM will not have full visibility into the possible reliability impacts of dispatching a pseudo-tied generator that is directly interconnected with the NYCA. Ceding commitment and dispatch authority over New York generation to PJM might violate the *Agreement Between the New York Independent System Operator and Transmission Owners* ("ISO-TO Agreement").[33] Section 3 of the ISO-TO Agreement makes NYISO ultimately responsibility for controlling, operating, and maintaining the reliability of the NYS Power System.

New York State's special Reliability Rules[34] supplement and are more stringent than the NERC and regional standards. Some of the best known Reliability Rules are the "Thunderstorm Alert" or "Storm Watch" rules that apply when a thunderstorm threatens the major transmission lines that serve New York City. When a Thunderstorm Alert is in effect, NYISO is required to commit and dispatch additional generation in New York City and to reduce the output of

[33] The ISO-TO Agreement is one of the NYISO's foundational documents, and is subject to the public interest standard of review under the Mobile-Sierra Doctrine. The agreement can be found at http://www.nyiso.com/public/markets_operations/documents/legal_regulatory/index.jsp.

[34] OATT Section 1.18 and Services Tariff Section 2.18 define "Reliability Rules" as "Those rules, standards, procedures and protocols developed and promulgated by the NYSRC, including Local Reliability Rules, in accordance with NERC, NPCC, FERC, PSC and NRC standards, rules and regulations, and other criteria and pursuant to the NYSRC Agreement."

generators that must rely on the at-risk transmission facilities to supply energy to New York City. It is essential that all generators comply with NYISO's instructions when the NYISO issues a Thunderstorm Alert.

The NYSRC establishes, maintains, assures compliance with, and updates the Reliability Rules. The NYISO and all entities engaging in electric power transactions on the New York State Power System must adhere to the Reliability Rules.[35] If PJM assumes responsibility for scheduling and dispatching a generator that is directly interconnected to the NYCA, it will also have to comply with the Reliability Rules.

The NYISO's Tariffs implement certain Reliability Rules directly;[36] while implementation of other Reliability Rules requires close coordination between the Transmission Owners and the NYISO.[37] The Transmission Owners also coordinate with the NYISO on the implementation of Applications of the Reliability Rules ("ARRs") for those portions of the NYSTS not included in the NYISO Controlled Transmission System.[38] Coordination among the

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[35] *See* NYISO Transmission and Dispatching Operations Manual at Section 2.1.5, available at http://www.nyiso.com/public/webdocs/markets_operations/documents/Manuals_and_Guides/Manuals/Operations/trans_disp.pdf. The NYS Power System is defined as "All facilities of the New York State Transmission System, and all those generators located within New York State or outside New York State, some of which may be from time-to-time subject to operational control by the NYISO. *See Reliability Rules & Compliance Manual* at Glossary, available at http://www.nysrc.org/pdf/Reliability%20Rules%20Manuals/RRC%20Manual%20V39%2012-6-16.pdf.

[36] *See e.g.*, Services Tariff Section 4.1.9 ("Generating units designated pursuant to the New York State Reliability Council's Local Reliability Rule I-R3 -- Loss of Generator Gas Supply (New York City) or I-R5 -- Loss of Generator Gas Supply (Long Island), as being required either to burn an alternate fuel at designated minimum levels, or to activate their auto-swap capability, based on forecast Load levels in Load Zones J and K (for purposes of this Section 4.1.9, "Eligible Units"), shall be eligible to recover costs associated with burning the required alternate fuel when Local Reliability Rule I-R-3 or I-R5 is invoked pursuant to the provisions of this Section 4.1.9.").

[37] *See Applications of the NYSRC Reliability Rules, available at* http://www.nysrc.org/pdf/NYSRCReliabilityRulesComplianceMonitoring/apprulesintro.pdf.

[38] *See TO Applications of NYSRC Reliability Rules*, available at http://www.nyiso.com/public/webdocs/markets_operations/committees/councils/nysrc/reliability_rules_2_2003.pdf.

NYISO, NYCA generators and the Transmission Owners is critical to protecting NYSTS reliability, especially during emergencies or other operating contingencies when time is of the essence. Comprehensive training on and intimate familiarity with the Reliability Rules and all of the ARRs that could apply to a particular NYCA generator are necessary to coordinate effectively during these events.

PJM's assumption of operational control of pseudo-tied NYCA generators could jeopardizes compliance with these Reliability Rules. Specifically, allowing PJM to control Generators in the NYCA may introduce reliability issues when a pseudo-tied generator is needed to respond to a local system issues. Allowing an entity that is not as familiar with the Reliability Rules and ARRs to direct the output of a NYCA generator, especially during emergencies or other contingencies, could jeopardize NYSTS reliability.

PJM itself expressly acknowledges that it still must determine how to address local reliability issues not otherwise addressed in market-to-market congestion management protocols. These are critically important issues for New York, and without concrete rules in place to ensure local reliability in New York, the PJM proposal is incomplete, unjust and unreasonable.

3. The PJM Filing is Incomplete and Unjust and Unreasonable Because it Does Not Address how the Existence of a Pseudo-Tied Generator Would Impact ATC/TTC Determinations at the NYISO/PJM Border

PJM's proposed tariff revisions are incomplete, and may be unjust and unreasonable, because they do not address how pseudo-tied Generation Capacity Resources will impact Total Transfer Capability ("TTC") and Available Transfer Capability ("ATC") determinations at PJM's borders with the Balancing Authority Area to which a pseudo-tied Generation Capacity Resource is directly interconnected. PJM's requirements that external Generation Capacity Resources (a) obtain long-term firm transmission service, but (b) are not permitted to use NERC

tagged interchange, complicates TTC and ATC determinations. NYISO would have concerns if PJM intends to reserve transfer capability for use by a pseudo-tied Generation Capacity Resource even when PJM is not receiving power from that Generation Capacity Resource. Such a result would constitute an inefficient restriction on the use of transfer capability between the two regions.

It is also unclear how PJM's proposal would impact the NYISO's ability to schedule economic interchange as counter-flow when a pseudo-tied Generation Capacity Resource is providing its energy to PJM. The Commission recently clarified that system operators must recognize the potential availability of a counterflow in conjunction with the operation of a pseudo-tied generator.[39] An approach that fails to allow the NYISO to schedule a counterflow transaction in this circumstance would appear to contravene the Commission's directive and could prevent the scheduling of economically efficient interchange.

4. PJM's Proposed Redispatch Requirements Do Not Appear to Reflect the Ability of PARs to Hold Flows on the NYISO/PJM Interface

The PJM Filing proposes to only permit an external generator to become a Generation Capacity Resource that is pseudo-tied to PJM if PJM is able to redispatch resources located in the PJM Control Area to reduce PJM's market flow on any coordinated redispatch flowgates that are associated with the pseudo tied Generator. Said more simply, PJM wants to have congestion management options available to it other than reducing the output of a pseudo-tied Generation Capacity Resource.

[39] *Public Citizen, Inc. v. Midcontinent Indep. Sys. Operator, Inc.*, 153 FERC ¶ 61,385 (2015), *reh'g denied*, 154 FERC ¶ 61,224 (2016) (finding that the Midcontinent Independent System Operator Inc.'s ("MISO's") tariff provisions were unjust and unreasonable because they did not properly account for counter-flows resulting from capacity exports to neighboring regions when determining Capacity Import Limits).

There are currently seven PARs in-service at the NYISO/PJM border that are operated to achieve specific components of scheduled interchange in accordance with the requirements of the "JOA",[40] and in accordance with Section 17.1.1.1.2 of the NYISO's Services Tariff. There are also three scheduled lines located at NYISO's border with PJM that use direct current technology or variable frequency transformers to control power flows to match the interchange that is scheduled over those facilities. At the NYCA/PJM border there will almost always be one or more NY/NJ PARs the operation of which will significantly impact the ability to redispatch generators located in PJM to relieve congestion on a NYCA redispatch flowgate that reflects the congestion impacts of a Generation Capacity Resource that is pseudo-tied to PJM.

To determine whether the redispatch of generators located in the PJM Control Area is an effective option to reduce congestion on redispatch flowgates that are developed to address a potential pseudo tied generator's congestion impacts in New York, PJM should perform its test based on the expectation that the NY/NJ PARs will be actively operated to hold flow. This is appropriate because the mission of the NY/NJ PARs is to achieve scheduled interchange and to reduce congestion at M2M PAR coordinated flowgates consistent with the M2M PAR coordination settlement rules. As explained in Section IV.C.1 of this Protest, the PARs at the NYCA/PJM border are not operated to facilitate untagged interchange or to relieve transmission congestion on congestion management redispatch flowgates.

[40] The NYISO is the designated entity that is responsible for filing the JOA on behalf of both itself and PJM. The Commission-accepted JOA is Section 35 of the NYISO's OATT. Schedule D to the JOA (Section 35.23) sets forth the M2M coordination rules that apply to NYISO and PJM. The NYISO and PJM recently filed proposed revisions to their JOA (including proposed revisions to the M2M coordination rules) to address the elimination of the 1000 MW Con Edison – PSEG Wheel. The jointly filed revisions are pending in Commission Docket No. ER17-905-000. In that filing the NYISO also proposed changes to Section 17.1.1.1.2 of its Services Tariff to address the elimination of the Con Edison – PSEG Wheel.

NYISO is prepared to work with PJM to develop a mutually acceptable solution for capacity sales between their respective regions. If PJM determines that it is able to permit its Generation Capacity Resources located in the NYCA to participate in the NYISO's commitment and dispatch, then the NYISO's Day-Ahead Security Constrained Unit Commitment ("SCUC") or Real-Time Commitment ("RTC") software will develop a least-cost solution to serve all NYCA system load, including the scheduled export to PJM.

5. PJM Must Clearly Identify Any Exceptions or Exemptions from the Pseudo-Tie Requirement; Including the Apparent Exception for Grandfathered Niagara Preference Power Exports

PJM's proposed tariff revisions do not expressly address exports from the Niagara Power Project under the Niagara Redevelopment Act of 1957 ("1957 Act").[41] That law directed that the Niagara Power Project, which is located in New York State: (i) "make at least 50 percent of the project power available to public bodies and non-profit cooperatives for the purpose of ensuring that the power is sold to consumers at the lowest rates reasonably possible (referred to as "preference power")"; and (2) allocated up to twenty percent of that preference power for use within neighboring states.[42] The New York Power Authority ("NYPA"), which owns and operates the Niagara Power Project, was exporting preference power to municipal and co-operative customers located within PJM's footprint decades before the NYISO was formed. They currently amount to roughly 163.2 MWs per year. NYPA also delivers 30.7 MW of preference power to municipal and cooperative customers located in PJM from its St. Lawrence hydroelectric facility that began operating in 1958.

[41] 16 U.S.C. § 836-836a (2010).

[42] *See New York Power Authority*, 118 FERC ¶ 61,206 at PP 30-31 (2007) (describing the preference power requirements under Section 836 of the 1957 Act).

The PJM Filing is silent on the treatment of preference power exports. This silence could not reasonably be interpreted as implying that the Niagara Power Project or St. Lawrence would have to be pseudo-tied to PJM, since that would conflict with statutory and treaty provisions governing the project's operation (and would seemingly be beyond the Commission's Federal Power Act jurisdiction). PJM has informally indicated to the NYISO that preference power exports are treated as "grandfathered" in PJM and thus are not subject to the Capacity Import Limit (and thus to the need to be pseudo-tied). But this is nowhere stated in the PJM Filing and there is no binding assurance that PJM will continue to permit preference power exports in the absence of a pseudo-tie.

The Commission should therefore instruct PJM to revise its tariffs to clearly address the treatment of preference power exports and any other "grandfathered" arrangements that it may intend to support without requiring a pseudo-tie arrangement. Failing to identify such exceptions is inconsistent with the filing requirements of Section 205 of the FPA.

6. PJM's Proposed Deliverability Study Requirement Is Unjust and Unreasonable in its Current Form

Under the PJM proposal, not only must a generator arrange for long-term firm point-to-point service from the Balancing Authority Area to which it is interconnected,[43] but it also must ensure that such service "is evaluated for deliverability from the unit-specific physical location of the resource to PJM load."[44] Furthermore, although PJM's proposal suggests that the study would be performed by the Balancing Authority Area to which the generator is interconnected, the PJM proposal "requires that such deliverability evaluation must be in accordance with PJM deliverability criteria, and must be . . . reviewed and approved by PJM." *Id.*

[43] As discussed below in Section IV.C.2, this transmission service requirement would be highly problematic if applied to New York given the NYISO's use of a financial reservation transmission model.

[44] PJM Filing at 16.

As with other aspects of the PJM proposal, the NYISO objects to the unilateral imposition of PJM's rules on system evaluations and operations conducted by the NYISO. As explained in detail below, the NYISO system relies almost completely on financial transmission reservations to allocate the economic benefit of transmission capacity, and therefore is able to honor almost all submitted schedules as long as they are consistent with security-constrained dispatch and the transmission customer is willing to bear the congestion costs associated with such schedules. However, because it relies on financial rights rather than physical rights, the NYISO does not provide firm point-to-point service, at least in the traditional sense reflected in the PJM proposal. Thus, it is not clear how a deliverability study performed in accordance with PJM standards, and subject to PJM's review, would be implemented in the context of the NYISO's system.

The NYISO has similar concerns with respect to PJM's apparent intention to apply PJM, and Reliability*First* Corporation ("ReliabilityFirst"), planning standards on the NYISO. The NYISO is located within the Northeast Power Coordinating Council, Inc. ("NPCC"), which has its own set of planning requirements. Furthermore, the NYISO is concerned that, in some respects, the NPCC standards applicable to a deliverability evaluation may be more stringent than comparable PJM and ReliabilityFirst standards. A rule allowing for the imposition of PJM and ReliabilityFirst standards under these circumstances would contravene the basic structure of reliability regulation adopted by the Commission.

Under the ISO Agreement the NYISO is required to "develop, maintain and promulgate a NYS Transmission System expansion and reliability assessment process to be performed in compliance with the [NYSRC] Reliability Rules."[45] The NYISO's responsibility for conducting

[45] *See* ISO-TO Agreement, which is one of the NYISO's foundational documents.

reliability studies on its system in accordance with NYSRC rules is at odds with PJM's proposal to make deliverability studies subject to PJM standards.

The Commission should reject PJM's imposition on the NYISO of deliverability standards that are different from the standards NYISO normally uses, and that may be less stringent than the corresponding NPCC standards. Without a mutual agreement between the NYISO and PJM regarding these evaluations, the PJM proposal is unjust and unreasonable. The NYISO respectfully submits that, at the very least, PJM should be required to amend proposed Section 5.5A(b)(ii) of its OATT (and any other PJM tariff provisions that repeat the cited requirement) to: (a) also require the Balancing Authority for the External Balancing Authority Area to which the Generation Capacity Resource is directly interconnected to review and approve deliverability study results, and (b) state that the criteria that will apply are PJM deliverability criteria or any more stringent criteria that may apply in the Balancing Authority Area where the Generation Capacity Resource is located.

7. PJM's Proposal that it be Granted a Firm Flow Entitlement to Use the Transmission System of an External Balancing Authority Area Is Unjust and Unreasonable and Should be Rejected

The PJM Filing states that PJM should receive a "firm flow entitlement" on any coordinated redispatch flowgates associated with an external Generation Capacity Resource.[46] Proposed Section 5.5A(b)(i)(D) of PJM's Tariff requires a Capacity Market Seller to secure "written acknowledgement from the external Balancing Authority Area" that "firm allocations associated with any coordinated flowgate applicable to the external Generation Capacity Resource … will be allocated to PJM."

[46] PJM Filing at 9-10.

PJM argues that its proposal is appropriate because "a pseudo-tied resource is capacity committed to PJM load, and therefore, PJM load should be assigned the firm flow allocation from that coordinated flowgate."[47] PJM's position is unjust and unreasonable, and should be rejected by the Commission for the reasons explained below.

A firm flow entitlement is, in essence, a right to use a portion of another Balancing Authority's transmission system without paying for that use. PJM and NYISO have granted entitlements to use each other's transmission system in a carefully studied and negotiated, mutually agreed, "swap" of rights in accordance with rules set forth in their JOA. Each ISO/RTO was granted rights to use specifically identified slices of the other entity's transmission system. There is no "swap" proposed in Section 5.5A(b)(i)(D) of PJM's OATT. It simply requires that PJM be allocated entitlements to use another Balancing Authority Area's transmission system without paying for that use or providing any other form of compensation in return.

PJM's proposed requirement is unjust and unreasonable because it ignores the fact that any use PJM makes of an external Balancing Authority Area's transmission system is an incremental addition to the native Balancing Authority Area's own use of its transmission system to serve that external Balancing Authority's native load customers (who paid for the construction of the transmission system). It appears to NYISO that Section 5.5A(b)(i)(D) of PJM's OATT requires that PJM be given transmission rights without paying for them.

Illustrative Example of NYISO's Concern

> Generator G has been a NYCA Generator for 5 years. When Generator G is operating, approximately 100 MW of its output ordinarily flows over Transmission Line T—a transmission line that can become significantly congested when the NYCA is experiencing peak or near-peak load conditions. When Transmission Line T becomes congested, the

[47] PJM Filing at 15-16.

> LBMP at Generator G's proxy bus incorporates the congestion that Generator G is causing on Transmission Line T, which results in an increased LBMP at Generator G's location, and may result in NYISO reducing its dispatch of Generator G.
>
> Now, assume that (a) Generator G elects to leave the NYCA and to become a PJM Generation Capacity Resource that is pseudo-tied to PJM, and (b) NYISO is required to grant PJM a firm flow entitlement to use 100 MW on Transmission Line T whenever Generator G is operating, and (c) PJM has the right to schedule and dispatch pseudo-tied Generator G.
>
> When a hot summer day arrives, PJM will be able to commit and dispatch Generator G and use its firm flow entitlement to flow up to 100 MW of energy on Transmission Line T without paying NYISO, or the Transmission Owner that owns Transmission Line T, or the native load customers who paid to build Transmission Line T, a dime. Instead, the NYISO would have to redispatch NYCA resources that are under its dispatch control to limit congestion (prevent thermal overloads) on Transmission Line T. NYCA loads would bear the cost of NYISO's redispatch to make Generator G's power deliverable to PJM.
>
> PJM's requested "firm flow entitlement" to use the New York State Transmission System would be superior to the rights that NYISO offers to its own Transmission Customers in its Tariffs, and to the rights that Generator G possessed before it became pseudo-tied to PJM.

For the reasons explained above, PJM's proposal that it should receive "firm allocations associated with any coordinated flowgates applicable to the external generator under an agreed congestion management process" is unjust and unreasonable, and should be rejected.

Section 6.2.1.1 of Schedule D to the NYISO/PJM JOA states "External Capacity Resources may be included in the M2M Entitlement calculation to the extent the Parties mutually agree to their inclusion" and "Inclusion of PJM External Capacity Resources that exceed the net M2M Entitlement impact of the PJM External Capacity Resources that were used for the initial implementation of the M2M coordination process must be mutually agreed to by the Parties." The NYISO cannot agree to grant PJM a "firm flow entitlement" to use its transmission system unless PJM provides fair compensation in return.

8. PJM's Proposed Requirement Regarding the Operations of Other Balancing Authorities' Network Models is Unjust and Unreasonable

PJM proposes that "coordinating entities with an agreed congestion management process . . . must maintain network models that produce results for such flowgates that are within two percent of one another."[48] Under this rule, NYISO's network model addressing redispatch flowgates in New York would be required to conform to the results produced by PJM's network model for those same flowgates.

This requirement is problematic for several reasons. First, it requires the external (non-PJM) Balancing Authority Area to conform its network model to produce the same results as PJM's, without regard to quality of the output from PJM's network model. Thus, it would be the NYISO's obligation to conform its network model to the results produced by the PJM network model for flowgates located in and representing transmission constraints on the transmission system operated by the NYISO, and even if the PJM network model produces results that are less accurate than, or inaccurate as compared to, the results of the NYISO model.

This result is inequitable and it misplaces the applicable burdens. For coordinated flowgates that represent NYCA transmission constraints, it is the NYISO that has the most up-to-date information, and the most experience in modeling them. Thus, it should be PJM's obligation to ensure that its network model produces results that match those produced by the NYISO's network model, and not the other way around.

The plus or minus two percent threshold PJM proposes is far more prescriptive than the threshold that NYISO and PJM used to benchmark their respective models. Achieving PJM's proposed plus or minus two percent threshold would be especially difficult for the NYISO

[48] *See* PJM Filing transmittal letter at 15. *See also* proposed Section 5.5A(b)(i)(C) of Attachment DD of the PJM OATT.

because PJM and NYISO employ different treatment of PARs in their EMS models during real-time operations. This can yield very different results in real-time operations.

PJM's proposed tariff rules do not explain what the consequences would be if the results of the two network models deviated by more than two percent after PJM approves a Generation Capacity Resource. PJM should be required to specify in its tariff that this requirement is only intended as an eligibility threshold that might prevent an external generator from becoming an External Capacity Resource. If PJM intends some other consequence when an external entity's network model produces a result that diverges by more than two percent from the result produced by PJM's network model, then PJM must to modify the tariff revisions it filed accordingly.

9. The PJM Filing is Unjust and Unreasonable Because it Does Not Address Pseudo-Tied Generators That Make Sales to Both PJM and their Native Balancing Authorities

The NYISO anticipates that, if a NYCA generator became an external Generation Capacity Resource that is pseudo-tied to PJM, there would be circumstances in which that generator sold only part of its capacity to PJM, and sold the remainder in the NYISO-administered markets. Partial capacity sales are not uncommon in both New York or in neighboring regions. The PJM Filing does not specify how such bifurcated sales will be addressed.

This omission is significant because of the pseudo-tie requirement, and the potential impact that it has on generators that commit only a portion of their capacity to PJM. The pseudo-tie requirement mandates that dispatch control over such a generator be given to PJM, and that PJM treat the generator as part of its Balancing Authority Area. However, if some of the MWs are being used to satisfy capacity obligations in the NYISO, then PJM's dispatch

control over the unit raises a host of issues that are not addressed by the PJM Filing. For example, if PJM has dispatch control over the unit, but part of the unit is committed to the NYISO markets, it is unclear how the part of the unit committed to New York would bid into the NYISO Day Ahead Market, how the unit would clear in the NYISO markets, and how NYISO dispatch of the portion of the unit committed to New York would work. It also is unclear how this arrangement would function in circumstances where the two markets seek to dispatch the unit in ways that are inconsistent with one another, or that are inconsistent with the operating capabilities of the unit. Without rules in place to address these issues, the PJM proposal leaves the door open to scenarios in which a generator would have to frequently run at a loss in the market to which it is physically interconnected in order to satisfy obligations imposed by PJM.

None of these issues are addressed by the PJM Filing. Granting generators flexibility to participate in more than one market should promote efficient market outcomes. But without rules negotiated and agreed to by both participating regions to govern bifurcated capacity sales, the PJM Filing is unjust and unreasonable.

C. PJM's Pseudo Tie Requirement Presents Serious Reliability, Market, and Seams Issues that Would Preclude the NYISO from Ever Voluntarily Entering into a Pseudo-Tie Arrangement with PJM

1. Physical and Regulatory Differences Necessitate Having Different Rules at the NYISO/PJM Interface

As explained above, the NYISO/PJM border is fundamentally different from PJM's borders with its other neighbors, particularly PJM's border with MISO where most of the generators that are presently pseudo-tied to PJM are located. There are currently seven PARs in-service at the NYISO/PJM border that are operated to achieve specific components of scheduled interchange in accordance with the requirements of the JOA and Section 17.1.1.1.2 of the NYISO's Market Services Tariff. There are also three scheduled lines located at NYISO's

border with PJM that use direct current technology or variable frequency transformers to control power flows to match the interchange that is scheduled over those facilities.

The Ramapo, ABC and EFO PARs that are located in New York or New Jersey at the NYISO's border with PJM (collectively, the "NY/NJ PARs") have historically been operated to achieve scheduled interchange, including the Con Edison - PSEG 1000 MW wheel. Since 2013 the Ramapo PARs have also been operated to achieve M2M PAR coordination in accordance with Schedule D to the JOA. Proposed tariff revisions pending in Docket No. ER17-905-000 were developed to permit NYISO and PJM to use all of the NY/NJ PARs to achieve scheduled interchange and to perform M2M PAR coordination commencing May 1, 2017, after the 1000 MW wheel ends.

PJM's tariffs state that any resource that seeks an exception to PJM's Capacity Import Limit cannot be subject to NERC tagging as an interchange transaction.[49] PJM has stated that the reasons it does not permit resources that seek exceptions to PJM's Capacity Import Limit to use tagged interchange are (1) the interchange schedule is subject to interruption by a Transmission Loading Relief ("TLR") 5, and (2) PJM is not able to monitor the performance of a specific resource if its power is delivered as one component of a broader interchange schedule. The Commission has stated that the concerns PJM annunciated are valid concerns.[50] However, these concerns do not present significant risks at PJM's border with the NYISO. Over the past five years TLR 5s affecting export transactions scheduled from the NYISO to PJM across their

[49] *See* Section 5.14D of Attachment DD to PJM's Reliability Assurance Agreement.

[50] *See PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,060 at P 27 (2014); *PJM Interconnection, L.L.C. v. Essential Power Rock Springs, LLC, et al*., 151 FERC ¶ 61,208 at PP 96-97 (2015), *order on reh'g*, 155 FERC ¶ 61,157 at P 44 (2016).

common border have been exceedingly rare.[51] With regard to PJM's ability to determine how a specific external Generation Capacity Resource performed, NYISO is willing to work with PJM to ensure PJM receives the metered output of the Generation Capacity Resource and the interchange MWs that were scheduled to PJM from the NYCA using a "capacity" priority. PJM is already aware of any deviations from the net interchange schedule between the NYISO and PJM.[52] PJM can develop tariff rules to address when it will assign partial or full responsibility for any deviation from the net interchange schedule to a PJM Generation Capacity Resource that is located in New York.

The NYISO and PJM have proposed to operate the NY/NJ PARs to "facilitate interchange schedules while minimizing regional congestion costs,"[53] which is consistent with how the NYISO and PJM have operated the Ramapo PARs since 2013. The proposed "Target Values" for the NY/NJ PARs incorporate the net interchange schedule between PJM and the NYISO over the AC tie lines, distributed across the various NY/NJ PARs using allocations that NYISO and PJM developed with input from the affected transmission owners.[54] Section 5.5 of Schedule D to the JOA makes clear that the interchange schedules it addresses are imports, exports and wheels-through the NYCA and PJM that are scheduled to flow over a proxy bus or a scheduled line. PJM's use of the NYISO's transmission system to serve PJM's Rockland Electric load is also explicitly addressed in Schedule D to the JOA.

[51] The NYISO reviewed its operator logs from 2013 to the present and identified only seven instances of TLR 5s resulting in transaction curtailments at the NYCA/PJM border since January 1, 2013. No curtailments were identified after 2014. None of the curtailments involved exports from the NYCA to PJM.

[52] NYISO and PJM report inadvertent energy (the difference between scheduled power flows and actual power flows) to NERC on a monthly basis.

[53] *See* Section 7.2 of Schedule D to the proposed JOA revisions that were jointly filed by PJM and NYISO in Docket No. ER17-905-000.

[54] *See* "Table x.x" in Section 7.2.1 Schedule D to the proposed JOA revisions that were jointly filed by PJM and NYISO in Docket No. ER17-905-000.

Other than PJM service to its Rockland Electric load, Schedule D to the JOA does not allow for the use of untagged transmission service to deliver power across the NYISO/PJM border. PJM's unwillingness to permit external Generation Capacity Resources to use scheduled interchange to deliver energy to PJM across its border with the NYISO is inconsistent with the market rules that NYISO and PJM jointly developed for operating the NY/NJ PARs.[55] The inconsistency between PJM's requirements for how external Generation Capacity Resources must deliver energy to PJM and the rules NYISO and PJM jointly developed addressing the scheduling of transactions and operation of PARs at their common border could cause significant market inefficiencies and reliability concerns.

Failure to meet interchange flow targets can result in financial settlement obligations being assigned to PJM or to NYISO under the M2M PAR coordination rules in the JOA.[56] NYISO and PJM will use NY/NJ PAR taps to prevent energy produced by a pseudo-tied generator from flowing into PJM over any NY/NJ PAR-controlled interface when power flows fall outside of the targets specified in Schedule D to the JOA. When the NY/NJ PARs are operated to block untagged power flows, energy produced by an external Generation Capacity Resource would be expected to flow into PJM over the uncontrolled 230 kV interconnections between Pennsylvania and Western New York. These untagged power flows would have a different value than power flows over the NY/NJ PAR controlled facilities, would require the

[55] PJM's requirements for energy deliveries from external Generation Capacity Resources is also inconsistent with the jointly developed rules that were in Schedule D to the JOA from January 15, 2013 to April 31, 2017.

[56] *See* Schedule D to the JOA, Sections 7.2.2, 7.2.3, 8.1 and 8.3.

NYISO and PJM to consume NY/NJ PAR taps (a limited resource[57]) to block untagged flows, and could present reliability concerns that are described in this Protest.

The efficiency and reliability concerns NYISO identifies in this section of its Protest could be avoided if PJM were to instead require external Generation Capacity Resources to use scheduled interchange to deliver capacity to PJM at PJM's border with the NYCA. As stated above, NYISO is prepared to work with PJM to ensure PJM has access to the information it requires to monitor the delivery of energy from external Generation Capacity Resources located in New York.

2. PJM's Pseudo-Tie Rules Appear to Require a Form of Transmission Service That Does Not Exist Within the NYISO

PJM would require that External Generation Capacity Resources obtain long-term firm point-to-point transmission service in order to bid into the PJM capacity market. This aspect of the PJM proposal is based on the traditional concept of physical reservation of transmission service as reflected in the *pro forma* OATT, and the Commission's rules under Order Nos. 888 and 890.

This concept, however, is fundamentally different from the manner in which the NYISO provides transmission service to its customers. In the NYISO, there are no express physical reservations of transmission capacity in the manner contemplated by traditional firm point-to-point service. Rather, in the NYISO, customers are entitled to schedule transactions between any two points on the system as long as such transactions are consistent with a security-constrained economic dispatch (as they will be in most circumstances). Essentially, any desired use of the transmission system can be accommodated as long as the transmission customer is willing to pay

[57] *See* Section 7.2 of Schedule D to the proposed JOA revisions that were jointly filed by PJM and NYISO in Docket No. ER17-905-000.

for the cost of congestion. The economic value of limited transmission capacity is allocated through the use of financial rights (Transmission Congestion Contracts) rather than through physical reservations on the NYISO's system. Customers holding such rights are thus able to hedge against congestion costs associated with transactions between specified points on the NYISO system. Under this approach, the NYISO makes the entire capacity of the New York State Transmission System available to customers, and most desired transactions are able to be accommodated, subject to payment of congestion costs.

The NYISO's financial reservation model has been in place since the NYISO commenced operations in 1999. The Commission has repeatedly found it to be just and reasonable.[58] Indeed, it facilitates the efficient operation of competitive markets by ensuring that all available transmission capacity is able to be used, and by preventing the hoarding of scarce capacity by market participants.[59] At the same time, however, it does not fit readily with the firm point-to-point requirement embodied in the PJM proposal. The NYISO does not provide firm point-to-point transmission service in the manner contemplated by the PJM proposal. The NYISO believes that it is possible for the concerns underlying the firm point-to-point requirement in the PJM proposal to be addressed, and for the NYISO and PJM to come up with a mutually-acceptable solution that ensures the deliverability of capacity to the PJM system, but

[58] *See* New York Independent System Operator, Inc., 125 FERC ¶ 61,274 (2008) (Confirming that NYISO's financial reservation model was consistent with or superior to the physical reservation requirements of Order No. 890's *pro forma* OATT.); *New York Independent System Operator, Inc.*, 123 FERC ¶ 61,134 (2008) (stating same).

[59] *See Regional Transmission Organizations*, Order No. 2000, 65 Fed. Reg. 809 (Jan. 6, 2000), FERC Stats. & Regs. ¶ 31,089 at pg. 31,126 (2000) (holding that systems based on locational prices and financial rights "provide a sound framework for efficient congestion management"), *order on reh'g*, Order No. 2000-A, 65 Fed. Reg. 12,088 (Feb. 25, 2000), FERC Stats. & Regs. ¶ 31,092 (2000), *aff'd*, Public Utility District No. 1 of Snohomish County, Washington v. FERC, 272 F.3d 607 (D.C. Cir. 2001).

that is consistent within the NYISO's financial reservation model. Such a solution, however, will require discussions and coordination between the NYISO and PJM.

The implementation of firm point-to-point service, as reflected in the *pro forma* OATT and the PJM proposal, is fundamentally incompatible with the NYISO's existing market rules, would cause needless delay and confusion among NYISO market participants and, perhaps most importantly, is unnecessary to accommodate the efficient export of NYCA capacity to PJM. It would be highly burdensome, and unjust and unreasonable, to require the NYISO to modify its rules simply to accommodate PJM's unilateral imposition of the point-to-point requirement on its external Generation Capacity Resources.

3. PJM's Commitment and Dispatch of a Pseudo-Tied New York Generator Would Cause Significant Day-Ahead and Real-Time Market Inefficiencies in New York

PJM's commitment and dispatch of pseudo-tied Generation Capacity Resources that are interconnected to the NYCA would cause significant inefficiencies in the NYISO's Day-Ahead and Real-Time Markets that would reduce the quality of NYISO's market solutions and could increase the costs incurred to serve NYCA loads.

If a Generation Capacity Resource that is directly interconnected to the NYCA but pseudo-tied to PJM does not participate in the NYISO's Day-Ahead Market ("DAM"), the NYISO will not be able to develop a least-cost Day-Ahead solution that incorporates the congestion that the operation of the pseudo-tied PJM Generation Capacity Resource is expected to cause in the NYCA. Unless PJM provides Day-Ahead schedules in advance of NYISO running its DAM NYISO Day-Ahead assumptions about the pseudo-tied generator's probable operation will introduce material uncertainties into the NYISO's Day-Ahead solution that could increase the total cost incurred to serve NYCA load in the DAM and/or in the Real-Time Market.

PJM has suggested that it may use Day-Ahead congestion management to reduce its expected impact on congestion management flowgates associated with PJM's external Generator Capacity Resources. NYISO and PJM have not developed a Day-Ahead congestion management process and there are only two redispatch flowgates active in NYISO's real-time congestion management process with PJM. The existence of PARs and other control devices at the NYISO's border with PJM limits the potential benefits of redispatching PJM generation to manage congestion on flowgates located inside the NYCA.

The NYISO schedules and dispatches generation in its real-time market using a 2.5 hour look-ahead RTC that achieves a least-cost commitment by anticipating changes in load, system configuration, and generator output. In order for NYISO's RTC to produce a least-cost solution, it must accurately reflect the expected congestion impacts caused by the operation of all generation. The inability to incorporate the expected future operation of PJM's pseudo-tied Generation Capacity Resources that are located in the NYCA will compromise efficiency.

The PJM Filing indicates[60] that redispatch coordination would be used to address transmission congestion on NYCA flowgates that is caused by PJM's scheduling and dispatch of a pseudo-tied Generation Capacity Resource. Redispatch coordination by PJM may present a less efficient solution to transmission congestion that is occurring in the NYCA than NYISO's RTC look-ahead commitment can produce for the following reasons:

M2M redispatch coordination is only engaged after congestion develops and the NYCA experiences congestion costs. RTC's look-ahead process proactively develops a least-cost solution to anticipated congestion and redispatches resources before congestion occurs. This permits RTC to incorporate generator commitment time and ramp constraints into its least-cost

[60] PJM Filing at 4, 14-15.

solution. In addition, the NYCA generators that are available for commitment or redispatch by RTC may have significantly higher shift factors on the NYCA transmission constraints that are represented by congestion management flowgates than generators located in PJM's Balancing Authority Area do.

The Day-Ahead and real-time market efficiency concerns that the NYISO identifies in this section of its Protest will not arise if PJM allows its external Generation Capacity Resources that are directly interconnected to the NYCA to be scheduled and dispatched by the NYISO, in accordance with the NYISO's market rules.

V. THE COMMISSION SHOULD DIRECT PJM TO WORK WITH THE NYISO TO DEVELOP MUTUALLY ACCEPTABLE ALTERNATIVE MEANS OF ADDRESSING PJM'S OBJECTIVES

For the reasons set forth in Section IV above, the PJM Filing is unjust and unreasonable, at least as applied to generation that is directly interconnected to the NYCA, and should not be accepted in its current form. PJM has neither made a complete filing nor demonstrated that its proposed tariff revisions are just and reasonable. Nor has PJM justified requiring the NYISO to make the sweeping changes to its Tariffs, market rules and software that would seem to be necessary to accommodate PJM's proposals without compromising reliability or market efficiency in New York.

PJM has indicated that it does not intend to enter into pseudo-tie arrangements that have not been agreed to by all affected parties, including native Balancing Authorities such as the NYISO.[61] If this is true then there is no prospect that the PJM Filing's proposals would ever be implemented for generators that are directly interconnected to the NYCA because PJM's

[61] *See, e.g.*, January MRC Presentation at 5 ("PJM will not approve any Pseudo-Ties that do not have sign-off by all affected entities.").

proposed prerequisites cannot be satisfied and NYISO could not voluntarily agree to support a pseudo-tie to PJM under the terms and conditions included in the PJM Filing (or the, as of yet unfiled draft, PJM *pro forma* pseudo-tie agreement). The NYISO is willing to work with PJM to develop a method of selling capacity across their common border that would be acceptable to both PJM and the NYISO.

Accordingly, the Commission should reject PJM's filing and require PJM to submit generally applicable tariff rules that do not require PJM to use pseudo-ties at all of its borders and give PJM sufficient flexibility to accommodate regional differences.[62] NYISO's requested relief will require PJM to abandon its stated goal of having one-size-fits-all uniform pseudo-tie arrangements in place with all of its neighbors.[63] As NYISO's Protest makes clear, PJM's goal is unrealistic because PJM's proposal is not compatible with the NYISO's Tariffs, Agreements and market rules, because the interface between the NYCA and the PJM Control Area is different from PJM's border with its other neighbors, and because PJM is required to address all implementation issues associated with implementing pseudo-ties, including reliability and commercial obligations and other seams issues.

VI. CONCLUSION

Wherefore, NYISO respectfully requests that the Commission grant its intervention in the above-captioned proceeding, find that the PJM Filing's proposals are not just and reasonable, at least as applied to generators that are directly interconnected to the NYCA, and require PJM to submit generally applicable tariff rules that do not mandate the use of pseudo-ties and give PJM sufficient flexibility to accommodate regional differences at its borders. At minimum, the

[62] *See supra* n. 8 regarding how Commission staff should address the PJM Filing if the Commission has not regained a quorum before the expiration of the statutory sixty day notice period.

[63] *See* PJM Filing at 4-5.

Commission should require PJM to make explicit in its tariff that pseudo-tie arrangements can only occur if the native Balancing Authority agrees and elects to execute a pseudo-tie agreement with PJM and the applicable generator. This requirement would codify in PJM's tariff the Commission's finding in prior proceedings.[64]

Respectfully submitted,

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Dated: March 31, 2017

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[64] *See* June 2015 Order at P 96.