

133 FERC ¶ 61,276
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellenghoff, Chairman;
Marc Spitzer, Philip D. Moeller,
John R. Norris, and Cheryl A. LaFleur.

New York Independent System Operator, Inc.

Docket Nos. ER08-1281-005
ER08-1281-006

ORDER ON REHEARING AND COMPLIANCE

(Issued December 30, 2010)

1. Public Service Electric and Gas Company and its affiliates¹ (PSEG) seek rehearing of a Commission order issued in this proceeding on July 15, 2010.² For the reasons discussed below, we deny rehearing.

2. We also address the parties' data responses submitted in response to the July 15, 2010 Order, i.e., the submissions made by International Transmission Company, d/b/a ITC Transmission (ITC), PJM Interconnection, L.L.C. (PJM), the Independent Electricity System Operator (IESO), New York Independent System Operator, Inc. (NYISO), and the Midwest Independent Transmission System Operator, Inc. (Midwest ISO). These data responses address the parties' progress, to date, in developing long-term, comprehensive solutions to the occurrence of Lake Erie loop flow.³ For the reasons discussed below, we impose additional compliance obligations establishing a re-prioritized implementation schedule that includes firm deadlines applicable to the resolution of these issues.⁴

¹ PSEG Power LLC and PSEG Energy Resources & Trade LLC.

² *New York Independent System Operator, Inc.*, 132 FERC ¶ 61,031 (2010) (July 15, 2010 Order).

³ As discussed more fully below, these loop flows were first addressed by the Commission in an order issued August 21, 2008. *See New York Independent System Operator, Inc.*, 124 FERC ¶ 61,174 (2008) (August 21, 2008 Order).

⁴ In a companion order, we address cost allocation issues associated with ITC's

(continued...)

I. Background

3. This proceeding was instituted by the NYISO to address the market distortions and increased congestion attributable to certain transactions that began to be submitted to the NYISO in January 2008. The NYISO stated that these transactions, submitted for the purpose of exporting power to PJM, were being scheduled by a small number of market participants as circuitous flows around Lake Erie, utilizing a scheduled path that exited the NYISO and then crossed through both the IESO and the Midwest ISO, before ultimately sinking in PJM. The NYISO noted that, in fact, approximately eighty percent of this scheduled power actually flowed directly across the NYISO/PJM border. The NYISO added that, by utilizing the scheduled path at issue, these transactions benefited from the relatively lower market prices at the NYISO's western border, i.e., the NYISO/IESO border, and thus avoided the relatively higher market price at the more congested NYISO/PJM border.

4. To address these market distortions, the NYISO sought authorization to mandate a more direct routing option, i.e., it proposed to prohibit the scheduling of external transactions over eight specified circuitous paths, until such time as adequate operational controls are implemented, including new PARs.

5. In the August 21, 2008 Order, the Commission accepted the NYISO's proposed temporary solutions.⁵ The Commission encouraged the parties to consider all appropriate long-term solutions, including market reforms and the installation of PARs on the Ontario-Michigan interconnection. In a related order issued July 16, 2009, the Commission required the NYISO to submit a report addressing its proposed solutions.⁶

6. On January 12, 2010, the NYISO filed its report (NYISO Report). With respect to the Ontario-Michigan PARs, the report noted that ITC will not execute the operating

new phase angle regulators (PARs). *See Midwest Transmission System Operator, Inc.*, 133 FERC ¶ 61,275 (2010) (PARs Cost Allocation Order). PARs are electrical devices that help control power flows through a particular component of the transmission network.

⁵ August 21, 2008 Order, 124 FERC ¶ 61,174 at P 20. The NYISO's initial filing was made pursuant to the "exigent circumstances" provisions of its tariff, subject to an automatic sunset date. In a later order, the Commission conditionally accepted the NYISO's proposal to make permanent the routing restriction. *See New York Independent System Operator, Inc.*, 125 FERC ¶ 61,184, at P 20 (2008).

⁶ *New York Independent System Operator, Inc.*, 128 FERC ¶ 61,049, at P 6 (2009) (July 16, 2009 Order).

agreements required to make the PARs operational until such time as an agreement is in place addressing the equitable allocation of all costs attributable to the PARs.⁷ With respect to market initiatives, the NYISO Report recommended a series of four initiatives to be developed and implemented by the NYISO and its neighboring regional transmission organizations (RTO) and independent system operators (ISO). The NYISO Report asserted that these four initiatives, taken as a whole, would help reduce uplift costs associated with real-time event management and congestion management and thereby lower total system operating costs. The timeline included in the NYISO Report had implementation dates ranging from the spring of 2010 through the end of 2012.⁸ The Commission addressed the NYISO Report in the July 15, 2010 Order.

7. In that order, the Commission found that intervenors had raised issues and concerns related to the proposed initiatives which had not been fully addressed by the NYISO Report. Accordingly, the Commission directed the NYISO and additional parties to answer a series of data requests. The Commission also noted that progress on the proposals set forth in the NYISO Report should proceed expeditiously.

8. On December 28, 2010 in Docket No. ER11-2547-000, the NYISO filed tariff sheets to revise its Market Administration and Control Area Services Tariff and its Open Access Transmission Tariff. The proposed revisions address the enhanced interregional transaction coordination initiative, one of the four initiatives described by the NYISO in the NYISO Report. The NYISO states that the proposed revisions: (i) will allow for more frequent transaction scheduling at the borders of the New York Control Area, and (ii) will modify pricing rules for intra-hour scheduling. This filing is pending before the Commission.

II. Request for Rehearing

9. PSEG seeks rehearing of the July 15, 2010 Order. PSEG takes issue with the Commission's interim finding that the planned initiatives outlined in the NYISO Report, subject to the submission of additional information, "appear to represent a constructive, workable framework for minimizing the occurrence of Lake Erie region loop flow."⁹

⁷ Such a proposal was jointly made by the Midwest ISO and ITC on October 20, 2010 in Docket No. ER11-1844-000. *See* PARs Cost Allocation Order, 133 FERC ¶ 61,275.

⁸ NYISO Report at 19.

⁹ PSEG Request for Rehearing at 7 (*citing* July 15, 2010 Order, 132 FERC ¶ 61,031 at P 40).

10. PSEG argues that this finding is in error because the July 15, 2010 Order failed to adequately address what PSEG asserts are three fundamental elements necessary to manage the NYISO/PJM interface. Specifically, PSEG submits that the July 15, 2010 Order erred in: (i) failing to require NYISO and PJM to develop a robust and transparent regional planning process that includes cost allocation principles applicable to transmission projects that provide regional benefits; (ii) failing to require that all controllable lines that cross the NYISO/PJM seam have separate proxy bus calculations; and (iii) failing to require modifications to the PJM tariff to allow transmission lines constructed by PJM transmission owners providing services under cost of service tariffs to be awarded capacity injection and withdrawal rights.

11. On September 3, 2010, an answer to PSEG's request for rehearing was filed by the NYISO transmission owners (NYTOs).¹⁰

A. Procedural Matters

12. Rule 713(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.713(d) (2010), prohibits answers to requests for rehearing. Accordingly, NYTOs' September 3, 2010 Answer is hereby rejected.

B. Commission Determination

13. PSEG asserts, as error, the July 15, 2010 Order's failure to address certain Lake Erie loop flow issues on the merits, including seams issues as between the NYISO and PJM and that the Commission should direct the NYISO and PJM to adopt proposals PSEG submitted in comments it filed in response to the NYISO's compliance filing. We deny rehearing. The July 15, 2010 Order addressed the NYISO's compliance filing, submitted by the NYISO in response to the July 16, 2009 Order and determined that certain issues and concerns remained unaddressed.¹¹ Therefore, the Commission set forth a procedural path requiring the parties to supplement the record.¹² Specifically, the Commission identified unanswered questions based on the record as it then existed and directed that these matters be addressed by the parties (by the NYISO, its neighboring RTOs/ISOs, and ITC) within 30 days of the date of the Commission's order. No

¹⁰ Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Long Island Power Authority, New York Power Authority, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

¹¹ 128 FERC ¶ 61,049 at P 6.

¹² July 15, 2010 Order, 132 FERC ¶ 61,031 at P 41.

substantive rulings were made and the NYISO's ongoing compliance obligations were made subject to its further compliance submissions, as addressed in this order, below. As such, the July 15, 2010 Order did not err in failing to address any issues on the merits or take any of the specific actions proposed by PSEG at that time. Rather, as clarified by the July 15, 2010 Order,¹³ the parties have already been directed to address "*all*" solutions to the loop flow problem. Therefore, PSEG's proposals should be among those considered by the NYISO and the other parties in their on-going discussions.

III. Data Responses

14. Data responses addressing the issues raised by the Commission in the July 15, 2010 Order were submitted by ITC on August 5, 2010, PJM on August 6, 2010, IESO on August 13, 2010, and the NYISO and Midwest ISO on August 16, 2010. In addition, the NYISO filed a supplemental data response on October 14, 2010.

15. In its August 13, 2010 data response, the NYISO notes that the regional RTOs and ISOs have continued to work collaboratively to develop the initiatives proposed in the NYISO Report, including: (i) buy-through congestion; (ii) market-to-market coordination; (iii) interface pricing revisions; and (iv) enhanced interregional transaction coordination. The NYISO adds that the members of the inter-ISO/RTO design groups have expanded to capture the necessary expertise to address the complexity of the initiatives and produce the necessary additional design details. The NYISO states that these working groups have hosted weekly conference calls and two multi-day site visits dedicated to further refining the initiatives and addressing the complexities of their implementations.

16. In its October 14, 2010 supplemental data response, the NYISO states that it has engaged Potomac Economics, its independent market monitor (NYISO IMM), to prepare an analysis of the potential benefits to the collective markets that may be achieved through the implementation of these initiatives. The NYISO IMM's analysis included, among other things, an economic analysis of the effects of interface optimization, coordinated congestion management and buy-through-of congestion on Lake Erie loop flow. The NYISO IMM identified, as the largest source of benefits, the efficiency savings achievable by improved utilization of the inter-RTO/ISO interfaces, in particular, improved real-time coordination of the net scheduled interchange.¹⁴ The NYISO IMM described the coordination of the net scheduled interchange as using bids and offers in each market to establish the optimal net scheduled interchange in the same way that RTOs/ISOs establish optimal power flows across each transmission interface inside these

¹³ *Id.* P 6.

¹⁴ NYISO Supplemental Data Response at 10.

markets.¹⁵ The NYISO IMM recommended that interface optimization be given the highest priority. The NYISO IMM estimated a total potential regional annual benefit of over \$362 million in fuel-adjusted production cost savings.¹⁶

17. In the July 15, 2010 Order, the Commission required the Midwest ISO, PJM, IESO, and the NYISO to identify and describe any tariff mechanisms currently in place, and/or any other procedures, that address loop flows caused by transactions between entities located outside of their respective markets. The Midwest ISO and PJM, in response, explain that congestion management/market-to-market coordination is used as an exception to the use of transmission load relief (TLR) procedures to manage loop flows caused by external transactions. The Midwest ISO adds that, because entities other than the Midwest ISO, PJM, and the Southwest Power Pool (SPP) do not report their market flows to the North American Electric Reliability Corporation (NERC), relying on a TLR measure will not always result in the proper curtailment of transactions internal to the balancing authority. IESO and PJM further add that they participate in the Lake Erie Emergency Redispatch agreement to facilitate emergency redispatch among balancing authorities surrounding Lake Erie to avoid the shedding of firm customer load.

18. ITC, in its response, provides additional details addressing the operation of the Ontario-Michigan PARs, the cost of the PARs, and their anticipated completion. ITC explains that the PARs will be operated in accordance with a Presidential Permit and various operating agreements.

A. Notice of Filings and Responsive Pleadings

19. Notices of the parties' data responses were published in the *Federal Register*, 75 Fed. Reg. 49,921 and 52,527 (2010), with comments and interventions due on or before September 15, 2010. Comments were submitted by the NYTOs, ITC, and Monitoring Analytics, LLC, PJM's independent market monitor (PJM IMM).

20. The NYTOs urge the Commission to require ITC to supplement its responses on a monthly basis regarding the status of the PARs. In particular, the NYTOs argue that ITC should be required to address when it expects to receive its Presidential Permit, what operating agreements need to be executed, and when ITC expects to be in a position to place the PARs into service, and whether ITC will place the PARs into service as soon as those events take place irrespective of any funding by parties other than ITC, either within or outside the Midwest ISO.

¹⁵ *Id.* at 19.

¹⁶ *Id.* at 12.

21. The NYTOs also urge the Commission to require ITC to provide additional information regarding the PARs' costs and the delays encountered in the physical completion of the PARs, and the NYTOs request that additional information be provided explaining why these delays have occurred and when ITC expects these issues to be resolved such that the PARs may be placed into service.

22. ITC notes that the Commission's data requests, in the July 15, 2010 Order, required the NYISO to submit copies of all studies it has done regarding loop flow issues and the various possible solutions to loop flow. ITC argues, however, that the NYISO, in response, appears to have provided only copies of presentations reporting on the results of certain studies, rather than copies of the actual studies themselves. ITC requests the Commission require the NYISO to submit copies of the actual studies. In addition, ITC asserts that the NYISO, in its initial filing in this proceeding, referenced several studies regarding loop flow and the costs caused by loop flow, as previously prepared by the NYISO IMM. ITC requests that these studies also be provided. Finally, ITC states that it and the Midwest ISO intend to submit a rate filing, addressing a regional sharing of the costs of the PARs.¹⁷

23. The PJM IMM states that, while it is optimistic that the implementation of the RTO/ISO recommendations will address most loop flow issues over the long term, the NYISO has failed to explain why interface pricing reform and congestion management/market-to-market coordination cannot be implemented more expeditiously. The PJM IMM argues that interface pricing reform will remove the incentives for scheduling circuitous transactions and that congestion management/market-to-market coordination will allow the ISOs and RTOs to curtail transactions in an efficient manner, in accordance with existing transmission rights. The PJM IMM adds that the NYISO has failed to explain why the buy-through of congestion proposal is a necessary part of the proposed solutions. The PJM IMM also explains that the buy-through of congestion proposal may have a significant and inappropriate impact on the relative value of firm and non-firm transmission service. The PJM IMM further notes that, under certain circumstances, firm service could be curtailed prior to non-firm service, which would be inconsistent with PJM's tariff.¹⁸

24. The PJM IMM also claims that the NYISO has failed to adequately explain why the parallel flow visualization tool is necessary for the implementation of the market-to-

¹⁷ On October 20, 2010 in Docket No. ER11-1844-000, the Midwest ISO and ITC submitted tariff sheets to allocate costs associated with the PARs among the Midwest ISO, PJM and the NYISO. That filing is being addressed in a separate order. *See supra* note 4.

¹⁸ *See* PJM Open Access Transmission Tariff at Section 13.6.

market coordination proposal.¹⁹ The PJM IMM states that the data for establishing firm flow entitlements already exists, and that the necessary entitlements can be established without the parallel flow visualization tool. Finally, the PJM IMM urges that the NYISO be directed to develop firm flow entitlements using existing data rather than waiting until the parallel flow visualization tool is completed.

B. Commission Determination

25. For the reasons discussed below, we establish additional compliance obligations and reporting requirements for the purpose of assuring that the Lake Erie loop flow concerns giving rise to this proceeding are resolved expeditiously and without any further undue delay. First, we agree with ITC that the NYISO has failed to identify and produce the loop flow-related studies it was directed to produce by the July 15, 2010 Order.²⁰ Accordingly, we require the NYISO to submit this information in a compliance filing to be made within 30 days of the date of this order. In the alternative, the NYISO may post these studies on its website and reference the relevant postings in its compliance filing.

26. In the July 15, 2010 Order, the Commission commended the NYISO and the entities with whom it collaborated for their efforts to develop a constructive, workable framework for minimizing the occurrence of Lake Erie loop flow.²¹ However, the Commission found that the proposed initiatives raised issues and concerns that were not fully addressed by the NYISO Report. Therefore, the Commission directed the NYISO and additional parties to answer questions and provide additional evidence regarding comments filed in response to the NYISO Report.²²

27. In one set of questions, the Commission asked about the differences in the way the RTOs/ISOs price transactions at their borders and how revisions to interface pricing would address the incentives for scheduling circuitous transactions. The NYISO's

¹⁹ The parallel flow visualization tool is being developed by NERC to assemble real-time data to perform generation-to-load calculations, facilitate the calculation of impacts and make available common and consistent information regarding the sources of power flows and their impacts to all regions. The NYISO Report states that the parallel flow visualization tool, which will distinguish the source of flow between each separate region's impacts associated with generation-to-load dispatch and individual transaction impacts, is a prerequisite to the implementation of the four initiatives.

²⁰ July 15, 2010 Order, 132 FERC ¶ 61,031, Appendix A, Questions 12-13.

²¹ *Id.* at 40.

²² *Id.* at 42.

response indicates that there are differences between the interface pricing methods used in PJM and the NYISO. PJM and Midwest ISO use NERC tag information regarding the source and sink of a transaction to determine the price the transaction receives or pays. In contrast, the NYISO and IESO base the price on the path over which the external transaction is scheduled into their respective control areas. The NYISO acknowledges that this difference creates incentives for market participants to schedule circuitous transactions which can exacerbate loop flow. The NYISO's comments indicate that a change to their pricing methodology may reduce the incentives for scheduling these transactions, and has agreed to evaluate what changes are necessary. Further, the analysis by the NYISO IMM states that changes to market rules regarding the interfaces would address most of the problems associated with Lake Erie loop flow.²³ Similarly, the PJM IMM states that interface pricing reform could be implemented immediately and at minimal cost. We concur with the two IMM's and will thus make revisions to interface pricing a heightened priority, as outlined in our compliance directives below.

28. The Commission asked whether a congestion management/market-to-market coordination agreement similar to the one between the Midwest ISO and PJM could be developed. In response, the NYISO stated that it would have such an agreement by the third quarter of 2011, provided that the parallel flow visualization tool was in place. The PJM IMM, however, has argued that this tool was not necessary to implement such an agreement with neighboring RTOs/ISOs.²⁴ We are not persuaded that the parallel flow visualization tool is necessary in order to implement a congestion management/market-to-market coordination agreement between NYISO and its neighboring RTOs/ISOs given that the Midwest ISO and PJM currently use this type of agreement to manage loop flows between their systems. While the parallel flow visualization tool will provide additional data for analyzing loop flows, it is merely an update to the Interchange Distribution Calculator (IDC); it is not a new technology. Indeed, some of the data required to address these problems can already be obtained from the existing IDC. Nothing in the record demonstrates that the NYISO cannot take advantage of the existing technology and data. Therefore, we find that NYISO can implement a congestion management/market-to-market coordination agreement prior to finalization of the parallel flow visualization tool.

29. The NYISO argues that the buy-through of congestion proposal recognizes the financial impacts created by parallel flows.²⁵ The NYISO also states that an up-to component is not feasible for real-time interchange transactions. However, the

²³ NYISO Supplemental Data Response at 10.

²⁴ PJM IMM Comments at 5.

²⁵ NYISO August 16, 2010 Transmittal Letter at 5.

PJM IMM raises concerns regarding this proposal stating that: (i) the benefits of buythrough of congestion appear to be overstated, (ii) the product would take a long time to implement,²⁶ and (iii) the NYISO has not adequately explained why buy-through of congestion is a necessary part of a comprehensive solution to Lake Erie Loop Flow issues.²⁷ We concur with the PJM IMM that the NYISO did not adequately explain why this proposal should be regarded as a top-priority initiative at this time.

30. In conclusion, we agree with commenters that interface pricing reform and congestion management/market-to-market coordination can address and resolve many of the price incentives that create loop flow related concerns. In addition, we agree with the PJM IMM that implementing these two market solutions sooner will be more cost effective than implementing all four initiatives at a later date. Because the implementation of the four proposed market initiatives will require a significant amount of time and resources, and because the four RTO/ISOs have not met the proposed timelines, as outlined in the NYISO Report, we find that it is appropriate, at this time, to re-prioritize the implementation schedule and establish revised, firm deadlines.²⁸

31. First, we require that interface pricing revisions be completed concurrently for the Commission-jurisdictional RTO/ISOs by the second quarter of 2011.²⁹ As noted by the PJM IMM, this method has been used by PJM and the Midwest ISO for years and could be implemented by other RTOs/ISOs at minimal cost.³⁰ We note that this required date, now Commission-mandated, still allows an additional year beyond the date for interface pricing revisions (design) included in the NYISO Report, which was originally proposed for the second quarter of 2010.

²⁶ PJM IMM February Comments at 7-8.

²⁷ PJM IMM Comments at 3.

²⁸ Our re-prioritization of the initiatives affects interface pricing revisions and the congestion management/market-to-market coordination initiatives. It does not affect the NYISO's proposed tariff revisions made in Docket No. ER11-2547-000 on the enhanced interregional transaction coordination initiative.

²⁹ The Commission does not have jurisdiction over IESO. We note, however, that IESO has been an active participant in these proceedings and we appreciate IESO's commitment to resolving the loop flow issues addressed in this order. We direct the NYISO, the Midwest ISO and PJM to continue to work with IESO to develop a comprehensive resolution to the Lake Erie loop flow problem.

³⁰ PJM IMM Comments at 2.

32. Second, we require congestion management/market-to-market coordination for the Commission-jurisdictional RTO/ISOs to be completed concurrently by the second quarter of 2011.³¹ We concur with the PJM IMM that its proposal can build on the existing framework developed and implemented by the Midwest ISO and PJM.³² We further agree that market-to-market mechanisms have been shown to economically relieve congestion and align border prices successfully.³³ We also note that this date, albeit now Commission-mandated, likewise allows more time than originally proposed in the NYISO Report, which called for implementation of this initiative in the third quarter of 2010. We further note that the NYISO originally projected a date of 2012 for additional regions.

33. Third, one year after the implementation of interface pricing reform and congestion management/market-to-market coordination, and every six months thereafter until the market initiatives are fully implemented, we require the NYISO, in collaboration with its neighboring RTO/ISOs, NERC and other market participants, to submit a report, as an information filing, addressing: (i) the effects of the reforms on reducing congestion that results from loop flows and the costs associated with mitigating congestion; (ii) the effects of the implementation of the enhanced interregional transaction coordination initiative;³⁴ and (iii) recommendations and analyses as to whether the buy-through congestion proposal is required, and if so, when it should be implemented.³⁵ The RTO/ISO parties are hereby reminded that any agreements and/or tariff provisions that they may develop to implement the interface pricing reform and congestion management/market-to-market coordination initiatives must be filed with the Commission.

34. Finally, we reject the NYTO's request that we require ITC to provide additional information regarding the PARs cost issues. Rather, we have established hearing and

³¹ See *supra* note 28.

³² *Id.* at 5-6.

³³ *Id.* at 4.

³⁴ Action on the NYISO's tariff proposal in Docket No. ER11-2547-000 to implement its enhanced interregional transaction coordination initiative is pending and will be addressed in that docket.

³⁵ These reports will be for informational purposes only. They will not be noticed and the Commission does not intend to act on them.

settlement judge proceedings in Docket No. ER11-1844-000, where these issues can be resolved.³⁶

The Commission orders:

(A) Rehearing of the July 15, 2010 Order is hereby denied, for the reasons discussed in the body of this order.

(B) The NYISO is hereby directed to make a compliance filing within 30 days of this order in which it provides copies of all of the studies it has done regarding loop flow issues and various possible solutions to such issues.

(C) The RTO/ISO parties are hereby reminded that any agreements and/or tariff provisions that they develop to implement the interface pricing reform and congestion management/market-to-market coordination initiatives must be filed with the Commission, as discussed in the body of the order.

(D) The RTO/ISO parties are hereby directed to submit informational reports, as discussed in the body of this order

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

³⁶ See PARs Cost Allocation Order, 133 FERC ¶ 61,275.