ORDER ON COMPLIANCE FILING

(issued March 15, 2012)

1. On December 30, 2011, the New York Independent System Operator, Inc., (NYISO) and PJM Interconnection, L.L.C. (PJM) (collectively, Applicants) submitted a joint filing in response to two Commission orders, issued in Docket No. ER08-1281-005, et al. (Lake Erie Loop Flow Proceeding), requiring NYISO to implement a Market-to-Market Coordination Process, to address certain interregional transactions in, and around, the Lake Erie region. Applicants state that their filing consists of revisions to: (i) the Joint Operating Agreement (JOA) between NYISO and PJM; and (ii) the NYISO Market Administration and Control Area Services Tariff (Services Tariff). Applicants request that their filing be made effective on a flexible basis, subject to certain specified conditions and the submission of additional filings, as may be necessary.

2. For the reasons discussed below, we conditionally accept Applicants’ filing, subject to the submission of an additional compliance filing. We leave for our order addressing NYISO’s additional compliance filing issues regarding the effective date applicable to NYISO’s Market-to-Market Coordination Process.

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2 Joint Operating Agreement Among and Between NYISO and PJM, § 35 (Attachment CC) to the NYISO OATT.
I. Background

A. Lake Erie Loop Flow Proceeding

3. The Lake Erie Loop Flow Proceeding was instituted by NYISO to address certain unscheduled flows around Lake Erie. The transactions were submitted by a small number of market participants, beginning in 2008, for the purpose of exporting power from NYISO to PJM. The transactions utilized a path that exited NYISO and then crossed through both the Ontario Independent Electricity System Operator (IESO) and the Midwest Independent Transmission System Operator, Inc. (MISO) to reach PJM.

4. To address these market distortions, NYISO proposed certain short-term solutions, which the Commission accepted, subject to the requirement that NYISO work with its neighboring regional entities to development a comprehensive, long-term solution.³ In response, NYISO, in collaboration with PJM, MISO and the IESO, proposed to develop and implement a Market-to-Market Coordination Process, among other proposals.⁴

5. As described in the NYISO Report, the Market-to-Market Coordination Process contemplated the development and implementation of an initiative designed to reduce the costs of addressing transmission congestion within the region, based on an existing coordination program currently in place between MISO and PJM. In an order issued July 15, 2010, the Commission found that this initiative appeared to represent a workable framework for minimizing the occurrence of these Lake Erie region loop flows, but also identified unanswered questions and directed the regional parties to respond.⁵ The parties’ responses were addressed by the Commission in the December 2010 Order. With respect to the Market-to-Market Coordination Process, the December 2010 Order directed NYISO to implement its initiative by the second quarter of 2011.


6. On rehearing, at the request of NYISO, the Commission granted an extension of the filing deadline through the end of the fourth quarter 2011 and specified that the Market-to-Market Coordination Process be implemented by the end of 2012.\(^6\)

### B. Applicants’ Compliance Filing

7. Applicants state that, consistent with the market reform initiative outlined in the NYISO Report,\(^7\) the fundamental objective underlying their proposed Market-to-Market Coordination Process is to allow transmission constraints that are significantly impacted by generation dispatch changes in both the NYISO and PJM markets, or by the operation of the Ramapo phase angle regulators (PAR),\(^8\) to be jointly managed by use of their respective real-time, security-constrained, economic dispatch models. Applicants state that their proposal will provide a more efficient and lower cost transmission congestion management solution than currently available and will facilitate price convergence at the market boundaries.

8. To achieve these objectives, Applicants propose a new Schedule D to the JOA that sets both the rules for coordinating real-time joint redispatch of resources as well as the coordinated operation of the Ramapo PARs, which are used to control power flows over transmission facilities interconnecting New York and New Jersey. Applicants state that failure to incorporate PAR operations into the Market-to-Market Coordination Process could produce inefficient results that could increase costs and reduce or negate market-to-market benefits.\(^9\) Therefore, as Applicants state, the Market-to-Market Coordination Process will


\(^7\) See supra note 4.

\(^8\) A PAR is an electrical device that is used to help control power flows. The Ramapo PARs refer to two of the eight PARs that regulate the power flow across the eastern alternating current (A/C) ties between NYISO and PJM. Located at Ramapo, Rockland County, NY, the Ramapo PARs are primarily used to facilitate the delivery of power between PJM and NYISO across the Branchburg-Ramapo 500 kV interconnection (i.e., the “5018” interconnection), a line that connects the Consolidated Edison (Con Ed) Ramapo Substation to the PSEG Branchburg Substation. The remaining six PARs are operated to deliver a contracted energy “wheel” from Ramapo to New York City via the 230 kV network in northern New Jersey. The “wheel,” as discussed later, typically transfers 1000 MW on a continuous, hourly basis. The Ramapo PARs can also be used to support this energy wheel.

\(^9\) Applicants note that, in contrast, the market-to-market coordination process between PJM and MISO operates over contiguous, intertwined, control areas with sinuous (continued…)
result in a more efficient economic dispatch solution across both markets to manage the real-time transmission constraints that impact both markets by focusing on the actual flows in real-time.\textsuperscript{10}

9. Proposed new Schedule D of the JOA sets forth the rules for implementing the Market-to-Market Coordination Process. It explains that the Market-to-Market Coordination Process includes both generator redispatch and PAR control actions, and focuses on real-time market coordination to manage congestion that occurs on Market-to-Market flowgates in a more effective manner. It defines Market-to-Market flowgates as those flowgates where constraints will be jointly monitored and coordinated by NYISO and PJM. It also describes the study process that will be used to determine which constraints should be jointly coordinated as Market-to-Market flowgates, noting that only a subset of the transmission constraints that may exist in NYISO or PJM will be designated as Market-to-Market flowgates and be eligible for coordinated congestion management.\textsuperscript{11}

10. Section 5 of Schedule D sets forth the proposed rules for determining the Market-to-Market Market flows, that will be used in Market-to-Market Coordination Process redispatch coordination process and to determine the resulting monetary settlements, while section 6 provides a preliminary explanation of how NYISO and PJM anticipate they will determine “Entitlements” that each will use to measure benefits from the Market-to-Market Coordination Process. Market-to-Market Entitlements are rights to use each other’s (i.e., NYISO or PJM) Market-to-Market flowgates. When, for example, a NYISO Market-to-Market flowgate is congested, NYISO would pay PJM if the PJM market flow over the congested Market-to-Market flowgate is less than PJM’s Market-to-Market Entitlement, and vice versa. The Applicants expect to be able to complete development of both the method of developing the Entitlements as well as the actual Entitlements by four months from the date of the instant filing, i.e., the end of April 2012, at which time they expect to file additional revisions to Schedule D.

11. The rules for coordinating real-time dispatch using generator redispatch and Ramapo PAR coordination are contained in Section 7. Essentially, when a NYISO Market-to-

\textsuperscript{10} See JOA, Schedule D, § 1.

\textsuperscript{11} NYISO and PJM will each publicly post a list of the Market-to-Market flowgates in their respective control areas on their web sites.
Market flowgate binds, NYISO will request PJM to redispacth its generation if it can do so more efficiently than NYISO, and vice versa. In some circumstances, significant congestion relief may also be provided to NYISO or PJM by permitting the Ramapo PARs to deviate from their expected schedule. Section 8 contains the proposed rules for financial settlement of generation redispacth coordination and Ramapo PARs coordination that occurs for a particular day, hour, or portion of an hour.

12. Applicants state their proposal will build on the services provided under the Unscheduled Transmission Service (UTS) Agreement, a 2002 agreement that addresses the operation of the Ramapo PARs by: (i) expanding the permitted congestion cost recovery to include all, rather than only some, congestion costs on the agreed-upon flowgates, as caused by one system’s “overuse” of the other system’s transmission system; and (ii) using the actual congestion costs calculated at the Ramapo PARs to determine the settlement, rather than approximating the cost using prices from designated surrogate locations. Applicants state that, because the instant proposal will implement an improved UTS process, they intend to request to terminate the UTS Agreement, in a future filing to be made at the end of 2012.

13. Applicants also propose revisions to the NYISO Services Tariff to remove provisions addressing a congestion management pilot program that will be superseded when the Market-to-Market Coordination Process becomes effective. PJM adds that it will separately file to remove this inter-regional congestion management pilot program from its tariff.

14. Finally, Applicants state that their proposal contemplates the submission of additional filings once remaining issues are resolved with stakeholders, as discussed below, and after software changes and testing are complete. Therefore, Applicants request a flexible effective date to occur during the fourth quarter of 2012 and state that they intend to inform the Commission of the proposed effective date once it is mutually determined between NYISO and PJM.

II. Notice of Filing and Responsive Pleadings

15. Notice of Applicants’ filing was published in the Federal Register, 77 Fed. Reg. 1478 (2012), with interventions and protests due on or before January 20, 2011. Motions to intervene were timely filed by Exelon Corp. (Exelon), the Indicated New York Transmission Owners (Indicated Transmission Owners), PSEG Companies (PSEG),

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American Electric Power Service Corp. (AEP), and Monitoring Analytics, LLC, the independent market monitor of PJM (PJM IMM). Comments were submitted by the Indicated Transmission Owners. A protest was filed by PSEG. On February 9, 2012, Applicants filed an answer to PSEG’s protest.

III. Procedural Matters

16. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2011), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2011), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the answer filed by the Applicants because it has provided information that assisted us in our decision-making process.

IV. Discussion

17. For the reasons discussed below, we conditionally accept Applicants’ compliance filing, subject to the submission of an additional compliance filing. We leave for our order addressing NYISO’s additional compliance filing issues regarding the effective date applicable to NYISO’s Market-to-Market Coordination Process.

A. Market-to-Market Coordination Process

1. Applicants’ Proposal

18. According to the Applicants’ proposal, before the Market-to-Market Coordination Process can be implemented, both the method of determining Market-to-Market Entitlements and the initial allocation of Market-to-Market Entitlements will need to be agreed to by the entities that own these transmission assets.13 Applicants propose that this arrangement be considered in a separate filing, to be made in approximately four months from the date of the instant filing.

2. **Comments**

19. Indicated Transmission Owners argue that Applicants’ filing fails to provide sufficient detail regarding the procedures that will be used to determine Market-to-Market Entitlements. Indicated Transmission Owners assert that, given this lack of detail, it is not possible to determine whether Applicants will derive benefits from the Market-to-Market Process on an equitable basis. Indicated Transmission Owners therefore request that the Commission conditionally rule on Applicants’ filing, subject to Applicants’ submittal of their Market-to-Market Entitlement proposal.

3. **Commission Determination**

20. We find that the revisions proposed by Applicants to the JOA are consistent with the Commission’s directive to develop a Market-to-Market coordination proposal to reduce the costs of addressing transmission constraints at specified flowgates on the PJM/NYISO border. We find that coordinating the redispatch of resources and PAR operations in both NYISO and PJM as compared to each market operating independently, and thereby limiting the set of resources available for redispatch to resources located within the control area where the constraint is located, is a preferred method for addressing interregional transmission constraints and the Lake Erie loop flows. Accordingly, the Market-to-Market Coordination Process is a just and reasonable approach to jointly manage these transmission constraints that are impacted by generation dispatched in both markets and by the operation of the Ramapo PARs, and once implemented, should result in more efficient economic dispatch.

21. We agree with the Indicated Transmission Owners that the Market-to-Market Entitlement proposal expected to be submitted by the end of April 2012 represents a critical aspect of Applicants’ proposal. Accordingly, our acceptance of Applicants’ filing, here, is conditioned on our order addressing such proposal, as discussed below.

B. **Related Filings Needed to Implement Market-to-Market Coordination**

1. **Applicants’ Proposal**

22. Applicants state that, in addition to the need to submit a Market-to-Market Entitlement proposal, additional related revisions to Schedule D of the JOA may be necessary. Specifically, Applicants state that they may propose revisions addressing: (i) the modeling of external capacity resources for purposes of developing Market-to-Market Entitlements; (ii) the appropriate criteria to determine when the Ontario/Michigan PARs will be reflected in the Market-to-Market Entitlement calculations; (iii) whether and when it is appropriate to limit Market-to-Market obligations and settlements based on the physical capabilities (e.g., thermal rating) of the 5018 interconnection; and (iv) how to reflect PJM’s service to its Rockland load.
23. Applicants state that they should be able to identify any tariff changes required to address the first three issues, outlined above, in approximately four months of the date of the instant filing. With respect to Rockland, Applicants state that they have reached an agreement on how to preliminarily model Rockland for purposes of Market-to-Market flow and entitlements and propose to file a final agreement, once it is reached.

24. Given the pendency of these matters, Applicants propose that their filing be accepted, subject to a flexible effective date. Specifically, Applicants propose to use their best efforts to implement their proposal by the end of 2012, as required by the July 2011 Order.

25. Applicants further request that, within these parameters, they be permitted to implement their filing on a date to be mutually agreed to by the Applicants. Applicants explain that this flexibility is necessary, given that they will not be able to propose a precise effective date until the software changes needed to implement their filing are ready for deployment and testing has been completed. Accordingly, Applicants propose that the effective date not occur until: (i) the Commission has issued an order accepting the proposed JOA and other tariff revisions; (ii) at least two weeks after Applicants have notified the Commission and their respective stakeholders that the revisions are ready for implementation; and (iii) notice of the effective date has been posted on Applicants’ websites for at least five days.

2. Commission Determination

26. In the July 2011 Order, the Commission directed the NYISO to implement its Market-to-Market coordination initiative by the fourth quarter of 2012, based on a firm commitment proposed, in that proceeding, by the NYISO, to submit its proposal, in its entirety, in a filing to be made by the end of the fourth quarter of 2011. The Commission noted that, “[g]iven NYISO’s past failure to meet deadlines in this proceeding, and the ongoing market inefficiencies associated with not fully resolving the Lake Erie loop flow issues, we expect the NYISO to expend the necessary resources to meet [its] deadlines.”

27. Based on these timing considerations, we conditionally accept the proposed revisions, subject to the Applicants submitting an additional compliance filing, no later than May 1, 2012, consisting of all remaining tariff revisions required to implement Applicants’

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15 Id.
Market-to-Market Coordination Process, in its entirety, by the end of the fourth quarter of 2012, including but not limited to their proposal addressing Rockland\(^{16}\) and Applicants’ proposed termination of their pilot projects and the UTS Agreement. We leave for our order addressing NYISO’s additional compliance filing issues regarding the effective date applicable to NYISO’s Market-to-Market Coordination Process.

C. **Additional Issues**

1. **Whether Applicants Should be Required to Address the Effects of Their Proposal on Existing Wheeling Agreements**

28. PSEG raises concerns regarding the effects of Applicant’s proposal on two existing Commission-filed wheeling agreements between Con Ed and PJM (Con Ed/PSEG Wheel Agreements).\(^{17}\) Specifically, PSEG seeks clarifications regarding the parties’ rights and obligations *vis a vis* the “auto-correct mechanism,” as described in the Con Ed/PSEG Wheel Agreements, and the provision in Applicants’ proposal allowing for make-up quantities in the case of certain under-deliveries between the NYISO and PJM.\(^{18}\)

a. **Applicants’ Response**

29. In their answer, Applicants, argue that, under their proposal, the Con Ed/PSEG Wheel Agreements will be maintained and should be honored. The JOA, Schedule C details the operating protocol to implement the Con Ed/PSEG Wheel Agreements (e.g., Long-term Firm Point-to-Point Transmission Service Agreements referred to in the JOA as “600/400 MW transactions”).\(^{19}\) Applicants explain that their Con Ed/PSEG Wheel Agreements are

\(^{16}\) The proposed provisions further state that when the Applicants reach an agreement on addressing the Rockland load, they shall file necessary revisions to the JOA with the Commission (JOA, Schedule D, § 5). If the handling of the Rockland load is not yet determined at the time Applicants make their compliance filing, then the filing shall include a schedule by which NYISO and PJM will resolve the issue.

\(^{17}\) *See Consolidated Edison Co. of New York, Inc.*, 132 FERC ¶ 61,221 (2010) (requiring Con Ed to deliver to PSEG, in northern New Jersey, 1000 MW of power and for PSEG to redeliver the same amount of power to Con Ed in New York City).

\(^{18}\) *See* JOA, Schedule D, § 7.2.1.

\(^{19}\) NYISO and PJM state that the Con Ed Wheel Agreement is Schedule C to the JOA. Schedule C to the JOA replaces Attachment M-1 to the NYISO’s Services Tariff effective May 1, 2012.
independent obligations from the Market-to-Market Coordination Process. Applicants add that the auto-correct mechanism, or factor, that is to be used on the various interfaces in the Con Ed/PSEG Wheel Agreement, is expressly accounted for in the calculation of the Ramapo target value.  

b. Commission Determination

30. We deny, as unnecessary, PSEG’s request for further clarification regarding how the Con Ed/PSEG Wheel Agreements will be affected by Applicants’ proposal. Applicants’ Market-to-Market Coordination Process contains express language directed at meeting the obligations under the Con Ed/PSEG Wheel Agreements. Specifically, the proposed language in the Market-to-Market rules addressing the operation of the PARs will allow the implementation of Market-to-Market Coordination Process while maintaining the existing obligations of NYISO and PJM under the Con Ed/PSEG Wheel Agreements. Section 5.6 of proposed Schedule D to the JOA requires that these Con Ed/PSEG Wheel Agreements be taken into account when determining Market-to-Market flows. It is also specified that the Schedule C Wheel Agreements be taken into account when determining the Ramapo target flow values and that the auto-correction mechanism is expressly accounted for when setting the Ramapo target flow values.

2. Whether Real-Time Bids Should Reflect Updated Fuel Prices

31. PSEG argues that Applicants’ filing fails to address the different rules in place on Applicants’ respective systems, regarding the effect of fuel prices on bids. Specifically, PSEG notes that, while NYISO allows hourly real-time bids to reflect updated fuel prices, PJM does not. PSEG argues that, as such, Applicants’ proposal to compare resources in their respective regions, to determine who can provide relief at a cheaper price, will result in an inefficient dispatch of resources and will create another seam, as between the two regions. Therefore, PSEG requests that the Commission either reject the filing or defer its

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20 See JOA, Schedule D, § 7.2.1 (Ramapo Target Value). The Ramapo target value refers to a target value for flow between NYISO and PJM to be calculated for each PAR, pursuant to specified formulas, and used for Market-to-Market settlement purposes.

21 JOA, Schedule D, § 7.2.1.

22 PSEG notes, as an example, that if natural gas prices are rising and New Jersey assets are called upon, in real-time, to provide relief to New York, PSEG could be unfairly forced to run at a loss if its supply is determined to be cheaper than New York-based supply due only to its bid price reflecting day-old gas prices while the New York comparison supply reflects real-time gas prices.
implementation until such time as PJM has adopted rules comparable to NYISO that allow real-time bids to reflect updated fuel prices.

a. **Applicants’ Response**

32. Applicants argue that PSEG’s request that the Commission either reject the filing or defer its implementation until such time as PJM has adopted rules comparable to NYISO that allow real-time bids to reflect updated fuel prices, is beyond the scope of this proceeding. NYISO and PJM state that the purpose of Market-to-Market Coordination Process is to allow transmission constraints to be jointly managed in the real-time security-constrained economic dispatch models of both NYISO and PJM, each using its own market rules. Applicants also explain that the proposed Market-to-Market Coordination Process is consistent with the process currently used between PJM and MISO, where MISO market rules allow for real-time bids to reflect updated fuel prices similar to NYISO.\(^{23}\)

b. **Commission Determination**

33. We find that the fuel price cost adjustment issues raised by PSEG are beyond the scope of this proceeding. The purpose of Applicants’ Market-to-Market Coordination Process is to address transmission constraints at the border between NYISO and PJM in a more efficient manner using each system operator’s currently effective market rules. The compliance mandate for this filing is to develop solutions for addressing Lake Erie loop flows and is not intended to address all seams issues. The Market-to-Market Coordination Process thus uses each system’s dispatch rules and does not seek to modify existing procedures in either market for determining real-time hourly bids. In addition, the Market-to-Market Coordination Process only manages interregional congestion and will not redispach resources to serve load in another market.

3. **Whether Applicants’ Proposal Authorizes the Application of Mitigation Measures**

34. PSEG objects to Applicants’ proposal to utilize market mitigation as part of their inter-regional dispatch. PSEG argues that Applicants have not demonstrated why either system would be allowed to enforce cost capping on units that are not designated to their system in instances where the system dispatcher is required to make economic decisions about congestion management. PSEG argues that any type of cost capping, associated with inter-regional dispatch, would appear to constitute a “taking” of the economic value of the

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units. PSEG recommends, instead, that only bids by generators be reviewed in making any such inter-regional determination.

a. Applicants’ Response

35. In their answer Applicants argue that PSEG inaccurately characterizes Applicants’ Market-to-Market Coordination Process as “inter-regional dispatch.” Applicants assert that, in fact, the Market-to-Market Coordination Process does not alter the scheduled interchange between the two markets. Applicants note that, under their proposal, generators within either system (or generators operating in both), may be redispatched, in order to manage congestion on flowgates near the NYISO/PJM border, as each system will merely add an additional set of transmission constraints to its own security-constrained economic dispatch model and will otherwise dispatch generation under its currently-effective market rules. Applicants add that generators that are redispatched as part of the Market-to-Market Coordination Process to manage external constraints will be redispatched exactly as they are to manage internal constraints. Applicants argue that, regardless of whether a generator is being dispatched to manage an internal constraint or external constraint, the RTO/ISO dispatching the generator must continue to utilize its market power mitigation rules to ensure that the generator is not exerting market power.

b. Commission Determination

36. We agree with Applicants’ assessment and reject the clarification request proposed by PSEG. First, we disagree with PSEG’s characterization of market mitigation rules as inter-regional. As Applicants correctly note in their answer, the instant proposal does not alter the scheduled interchange between the two markets. Instead, the Market-to-Market Coordination Process will result in the inclusion of additional transmission constraints in the respective NYISO and PJM dispatch models.24 We also agree that the Market-to-Market Coordination Process is to allow any transmission constraints that are significantly impacted by generation dispatch changes in both the NYISO and PJM markets or by the operation of the Ramapo PARs to be jointly managed in the real-time security-constrained economic dispatch models of both Parties.” (emphasis added). The JOA further states, that under normal system operating conditions, Applicants will use the Market-to-Market Coordination Process on all defined Market-to-Market flowgates that experience congestion. The operator that is responsible for monitoring a Market-to-Market flowgate will initiate and terminate the redispatch component of the Market-to-Market Coordination Process. That system operator is further expected to bind that flowgate when it becomes congested, and to initiate Market-to-Market redispatch to utilize the more cost-effective generation between the two markets to manage the congestion. Ramapo PAR coordination need not be formally invoked by

24 See JOA, § 35.12: “[The purpose of the] Market-to-Market Coordination Schedule is to allow any transmission constraints that are significantly impacted by generation dispatch changes in both the NYISO and PJM markets or by the operation of the Ramapo PARs to be jointly managed in the real-time security-constrained economic dispatch models of both Parties.” (emphasis added). The JOA further states, that under normal system operating conditions, Applicants will use the Market-to-Market Coordination Process on all defined Market-to-Market flowgates that experience congestion. The operator that is responsible for monitoring a Market-to-Market flowgate will initiate and terminate the redispatch component of the Market-to-Market Coordination Process. That system operator is further expected to bind that flowgate when it becomes congested, and to initiate Market-to-Market redispatch to utilize the more cost-effective generation between the two markets to manage the congestion. Ramapo PAR coordination need not be formally invoked by
Coordination Process only redispershales generation within a given market (i.e., NYISO or PJM) to alleviate congestion in the neighboring market at the lowest possible cost while respecting existing tariff rules.

37. As Applicants further note, generators that are redispached as part of the Market-to-Market Coordination Process to manage external constraints will be redispached in the same manner that they are redispached to manage internal constraints and will not be subject to mitigation rules from the neighboring market. The JOA details that the identification of a Market-to-Market flowgate that is eligible for redispach coordination is exclusively the right of the system operator that has operational control of the Market-to-Market flowgate. Further, redispach is only undertaken by the neighboring system operator if it can do so more efficiently, according to economic value as calculated by its own dispatch model.25

The Commission orders:

Applicants’ proposed tariff revisions are hereby conditionally accepted, subject to the submittal of an additional compliance filing, no later than May 1, 2012, as discussed in the body of this order.

By the Commission.

( S E A L )

Kimberly D. Bose,
Secretary.

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25 See JOA, Schedule D, § 7.