

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C. and)	
Progress Energy Carolinas, Inc.)	Docket No. ER10-713-000
)	
)	

**MOTION FOR LEAVE TO ANSWER AND ANSWER
OF THE INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rules 212 and 213 of the Commission’s Rules and Regulations, 18 CFR §§ 385.212 & 385.213 (2009), Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM (“Market Monitor”),¹ moves for leave to answer and answers the Joint Motion for Leave to Answer and Answer of PJM Interconnection, L.L.C. and Progress Energy Carolinas, Inc. (“PJM/PEC”) filed on March 10, 2010 in the above captioned proceeding. PJM/PEC respond in their pleading to a number of issues raised by the Market Monitor, namely that the Joint Operating Agreement (“JOA”) executed and filed by PJM/PEC falls short of what the Commission expects and that certain provisions in the proposed JOA accord discriminatory access to PEC for transmission service, which is inconsistent with the Commission’s open access policies.²

¹ PJM Interconnection, L.L.C. is a FERC-approved Regional Transmission Organization. Capitalized terms used herein and not otherwise defined have the meaning provide in the PJM Open Access Transmission Tariff or the PJM Operating Agreement (“OA”).

² See, e.g., *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*,

PJM/PEC make no attempt to demonstrate that the proposed JOA satisfies the Commission's expectations for a congestion management agreement set forth in its order issued May 1, 2009, in the prior, related proceeding in Docket No. ER09-369-000 ("May 1st Order").³ PJM/PEC instead propose the JOA as if it were an ordinary section 205 filing not subject to explicit Commission requirements.⁴ PJM/PEC neither refute the Market Monitor's identification of discriminatory provisions nor adequately address the identified technical defects in the PJM/PEC JOA. The Commission should not approve this agreement as consistent with the May 1st Order or as just, reasonable and non discriminatory. The Commission should require the parties to remedy the identified flaws so as to ensure that the PJM/PEC JOA facilitates, rather than obstructs, progress towards the prevailing industry standard for interregional congestion management agreement.⁵

PJM/PEC claim (at 6) that the Market Monitor "has not suggested a different methodology to manage congestion to stand in place of the dynamic schedule approach." On the contrary, the Market Monitor proposed in its Comments (at 2, 4) that the parties adopt a "clearly defined LMP solution that would respect constraints on both systems and

Order No. 888, FERC Stats. & Regs. ¶31,036 (1996), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶31,048, *order on reh'g*, Order No. 888-B, 81 FERC ¶61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

³ *PJM Interconnection, L.L.C.*, 127 FERC ¶61,101.

⁴ See PJM/PEC at 2–3.

⁵ See 16 U.S.C. § 824d.

determine the most economic unit commitment” and that they do so on a “comprehensive basis,” suggesting a joint operating agreement patterned after the Congestion Management Protocol (CMP) included in the Joint Operating Agreement (JOA) between PJM and the Midwest Independent System Operator, Inc. (“MISO”) (“PJM/MISO CMP”). Whatever the possibilities for further enhancement, the PJM/MISO CMP arguably constitutes current best practice for interregional congestion management.⁶ The May 1st Order cites the PJM/MISO CMP as an example of what would meet the Commission’s expectations.⁷

Accordingly, the Market Monitor proposes, in addition to correcting the proposed PJM/PEC JOA’s discriminatory and technically deficient aspects, that the Commission, consistent with the May 1st Order, further condition acceptance of the proposed PJM/PEC JOA on the inclusion of a sunset date of December 31, 2011 and an agreement to move forward with negotiating an agreement equal or superior to the standard set by the PJM/MISO CMP.

⁶ See, e.g., PJM/MISO White Paper, “Investigation of Loop Flows Across Combined Midwest ISO and PJM Footprint” at 4 (May 25, 2007) (“The Midwest ISO and PJM consider the larger issue of how to address loop flow on their borders between them essentially resolved. The Midwest ISO and PJM continue to refine and update the power flow studies and data points used in their joint Congestion Management Process in order to achieve greater accuracy. The CMP has worked well to date and has resolved many loop flow issues.”); Testimony of Terry Boston, President and CEO, PJM, Review of Wholesale Electricity Markets, Docket No. AD08-9-000 at 4 (July 1, 2008) (“The CMP uses real-time data to assess the impact of every megawatt of each RTO’s operating generators on neighboring parties’ flowgates. As a result of implementation of the CMP, PJM now calculates the impacts on about 500 flow gates in neighboring systems as far away as the Independent Electricity System Operator in Ontario and Duke Energy in the Carolinas, providing an expanded geographic view far beyond the PJM footprint.”).

⁷ May 1st Order at P 33 n.40.

The ultimate goal of congestion management agreements between neighboring balancing authorities is to get the prices right. Getting the prices right means getting the prices as close as possible to the prices that would result from the application of a single security constrained, least cost dispatch across the two systems, if not the entire Eastern Interconnection. The goal of the proposed PJM/PEC JOA is to address perceived issues with the current pricing available to PEC. While that is a reasonable goal, the more important question for the Commission to consider is what is the problem with the current PJM approach to interface pricing? The solution to that problem ultimately must incorporate improvements in interface pricing for all market participants in the Eastern Interconnection. It is the view of the Market Monitor that the best way to achieve improvements in interface pricing for all should incorporate the approach contained in the MISO/PJM JOA as an essential component.

The Commission should not approve the proposed PJM/PEC JOA without requiring the parties to remove those aspects of the proposal that are unjust, unreasonable and unduly discriminatory and inconsistent with open access. The argument that the Commission should overlook such basic deficiencies has no validity. This is especially true in light of the ready availability of an alternative meeting these standards, and recognized in the May 1st Order, that has been successfully implemented by PJM and MISO for nearly five years.

I. COMMENTS

A. Neither PJM nor PEC Explain Why the Commission Should Accept a Minimalist Approach to Congestion Management.

Article 14.1 of the PJM/PEC JOA states that the dynamic schedule will “help manage congestion on the PJM transmission system by maintaining flows within established limits and stabilizing PJM LMP values.” This description does not distinguish the proposed JOA from the current interface pricing arrangement. The PJM/PEC JOA does not recognize constraints within PEC and does not calculate the equivalent of locational marginal prices within PEC based on a security constrained, least cost dispatch.

The PJM/PEC JOA does not fulfill the directives set forth in the May 1st Order. The May 1st Order determined (at P33) that “a congestion management agreement ultimately is needed to provide PJM with more complete information to identify potential adverse loop flows.” The Commission noted in its order approving the PJM/MISO CMP:

‘Coordination of the sort formalized in the JOA can only lead to enhanced reliability and more efficient use of resources. Extensive information sharing, coordinated congestion management, coordinated TTC, ATC and AFC determinations, coordinated emergency procedures, and joint expansion planning are just some of the central accomplishments of the JOA.’⁸

⁸ May 1st Order at P 33 n.40, quoting *Midwest Independent Transmission System Operator*, 106 FERC ¶61,251 at P 23 (2004).

The May 1st Order clearly stated (at P 35) that the congestion management agreement it contemplated meant coordination of dispatch on both sides of the interface, not just the PJM side:

A congestion management agreement need not necessarily provide PJM with the ability to dispatch Duke's or Progress's system or disrupt any state mandates regarding pricing, and indeed the congestion management agreement between PJM and the Midwest ISO does not provide either RTO with the ability to dispatch the other's system. A congestion management agreement will provide PJM, however, with sufficient information to enable it to establish more accurate prices for the power that utilities in North Carolina are generating for PJM.

The PJM/PEC JOA does not even attempt to establish more accurate prices for the power that PEC is generating for PJM. The sole focus of the PJM/PEC JOA, rather, is on the prices that PJM applies to PEC, and the accuracy of those prices is compromised by the preferential treatment accorded to PEC discussed below.

In order to ensure that the PJM/PEC JOA, which is presented as an incremental step forward,⁹ does not become an obstacle to further progress, the Commission should condition acceptance of the proposed PJM/PEC JOA on the addition of a sunset date and an

⁹ PJM/PEC at 2; *see also* Motion to Intervene Out of Time and Comment of the North Carolina Utilities Commission, filed in Docket ER09-713-000 at 4 (March 24, 2010) ("The NCUC realizes that a congestion management agreement is an ever-evolving process and believes that this new PJM/PEC JOA is a huge step forward.").

explicit commitment by the parties to immediately begin negotiating a replacement agreement equal or superior to the PJM/MISO CMP that would not only address PJM/PEC's issues but incorporate an open architecture approach that would permit application to all market participants. This would provide PJM and PEC ample time to conclude a process with which PJM now has considerable experience.

PJM/PEC stated in their transmittal letter (at 2, 4–6) that their review of the PJM/MISO CMP revealed certain aspects of that arrangement that would be difficult to adapt to the PJM/PEC interface. PJM/PEC also stated (at 5) that “experience may prove that the dynamic schedule is the optimal methodology available to the Parties.” These statements are not explained or supported in the pleadings.

There are multiple balancing authorities to the south of PJM, and the framework adopted for PJM and PEC should anticipate and accommodate the inclusion of other balancing authorities in a regional framework. The May 1st Order contemplated (at P 36) the development of a “process” open to multiple parties rather than another series of separately negotiated bilateral agreements: “[W]e find that PJM’s requirement for congestion management agreements is not just and reasonable because it fails to include a process under which parties can obtain such agreements from PJM within a reasonable time frame.” The idiosyncrasies for specific systems could be dealt with by filing unexecuted

agreements, as the May 1st Order specifically contemplated.¹⁰ The Commission should explicitly reiterate its requirement that PJM develop an open architecture consistent with a regional approach to congestion management.

B. The Proposed PJM/PEC JOA Is Unduly Discriminatory Because It Confers Access to After the Fact Transmission Reservations to PEC Unavailable to Other Parties.

The proposed PJM/PEC JOA provides unjust, unreasonable and unduly discriminatory preferential treatment to PEC. The first such preferential treatment is that PEC would be permitted to acquire transmission service on an ex post rather than on an ex ante basis for imports into and exports from PJM. All other market participants must obtain transmission before they use the service. PEC does not provide such preferential treatment to itself on its own system. PEC must obtain ATC on its own system prior to flowing energy under the PJM/PEC JOA.¹¹

PEC is required to procure transmission on its own system prior to flowing energy under the JOA. The level of exports or imports under the JOA will be limited to PEC's ability to acquire transmission service in advance on its own system. The provision for after the fact transmission service reservations only applies to the ability of PEC to use

¹⁰ *Id.*

¹¹ Article 14.4.1 of the proposed PJM/PEC JOA provides: "The transmission service used on the PEC transmission system to support the process described in this Article will be a non-firm point to point reservation from PEC to PJM made by PEC. *The Dynamic Schedule will be limited to the point to point reservation*" (emphasis added). Article 14.4.2 further states, "The transmission service used on the PEC transmission system will be network secondary service *with verification that ATC is available*" (emphasis added).

transmission service on PJM's system. PEC would have the ability to obtain after the fact transmission, even if none was available. There is nothing unique about flows of energy between PJM and PEC that requires that PEC should be the only transmission customer permitted to use retroactive transmission service reservations on PJM's system. All other parties are required to make reservations on the PJM OASIS system prior to energy delivery. The preferential treatment granted to PEC in this regard is inconsistent with the Commission's open access policies.

PJM/PEC's defense for this discriminatory practice is that under the approach adopted in the proposed PJM/PEC JOA, there is no way to offer such service to third parties and system capability would be wasted if PEC could not make use of it. PJM/PEC claim (at 8-9) that PEC's entitlement to this advantage derives from the more efficient usage of the capabilities of the transmission system that the proposed PJM/PEC JOA enables. Under the proposed approach, PJM recognizes the availability of this capacity due to the increase in power transfer capabilities created by changes to the PEC imports or exports that relieve congestion. If transactions of other market participants flow in the same direction, they too would provide relief of this congestion, yet they are not permitted to acquire system transmission capacity retroactively.

The Commission should be skeptical of any agreement alleged to require discriminatory treatment. Other parties could make the same argument that the inability to obtain transmission service ahead of time results in economic transactions not flowing. If other market participants flow in the same direction, they too would provide relief on the

congestion, and yet they are required to obtain and pay for the transmission service reserved, regardless of whether they use it.

There is no reason to accept discrimination as the price of efficiency. Under the approach implemented in the PJM/MISO CMP, all transactions are treated identically. All transactions receive the appropriate interface prices if they have obtained advance transmission reservations. Any constraints that result are managed using joint redispatch by MISO and/or PJM. Under this approach, overall usage of the transmission would be even more efficient, and the benefits could be extended to all parties receiving transmission without the need for any discriminatory or preferential access to retroactive transmission service reservations.

The following example illustrates the financial preference conferred on PEC by the ability to obtain transmission service after the fact. If PEC were required to acquire 600 MW/hr of both import and export transmission service (based on the proposed 50 MW/5 minute ramp limit) on the PJM system, the PJM import service, as specified in the proposed PJM/PEC JOA, would be network secondary service, and would be available at no cost. The PJM non firm point-to-point export transmission service would be charged \$0.67/MWh (which equates to \$402/hour, or approximately \$3.5 million/year). Under the agreement, PEC would be required to obtain transmission service on the PEC system. The PEC import transmission service is network secondary service, available at no charge, but there is a charge for PEC export transmission. Regardless of whether energy is flowing under the JOA, PEC pays the PEC transmission charges. PEC obtains a financial advantage when

energy is flowing under the JOA less than the full MWh value (600 MW) because the charges for PJM transmission service are paid only if energy flows, unlike the PEC transmission charges and unlike the transmission charges to all other users of the PJM transmission system. Under the PJM/PEC JOA, PEC would only pay for transmission service based on the actual flows. All other market participants would have to pay for the full reservations regardless of whether they were used.

C. The Proposed PJM/PEC JOA Is Unduly Discriminatory Because It Includes Methods for Calculating Pricing for PEC Unavailable to Other Parties.

The pricing provisions in the PJM/PEC JOA (Art. 15.5.1) would also create a discriminatory preference in favor of PEC transactions. The Market Monitor noted the inconsistency in excluding nuclear and hydro units from the pricing calculations in the PJM/PEC JOA. In response, PJM/PEC state (at 10–11) “nuclear and hydro units are not in a position to respond to constraints in a timely fashion.” Even if it were true that hydro units cannot respond to pricing signals, that would not be a reason to exclude hydro or nuclear units from the pricing calculations any more than it would be to exclude nuclear and hydro units from PJM’s LMP calculations. The intent of the pricing calculations is to replicate a locational marginal pricing system and to ensure that power flows from PEC have an identifiable impact on PJM constraints. Simply ignoring the PJM calculated LMPs of significant nuclear and hydro resources in the determination of an interface price is not consistent with this objective. Exclusion of the nuclear and hydro units from the pricing determination can have an impact when, for a transaction from PEC to PJM, the PJM

calculated LMP at one of the excluded nuclear or hydro buses is less than the marginal cost of the unit. In this case, that LMP would be ignored in the calculation, and PEC would receive a higher interface price for their sales to PJM. Conversely, for transactions from PJM to PEC, if the PJM calculated LMP at one of the excluded nuclear or hydro buses is greater than the marginal cost of the unit, PEC would receive a lower price for purchases from PJM. This price determination affects not only the price paid or received for energy from the PJM Energy Market, it also affects the accuracy of the pricing signal PJM is sending to PEC for anticipated relief of congestion. PJM does not exclude such units from its LMP calculations, and there is no support for providing preferential and inaccurate pricing to PEC by excluding those units in the LMP calculation under the proposed PJM/PEC JOA.

D. The Make Whole Provisions of the PJM/PEC JOA for PEC Are Unduly Discriminatory.

The proposed PJM/PEC JOA includes provisions for make-whole payments in both the import (PEC to PJM) and export (PJM to PEC) direction. PJM does not currently allow for make whole payments for exporting transactions, and thus the inclusion of this provision in the PJM/PEC JOA grants discriminatory preference to PEC, and should be rejected.

PEC would only be eligible for make whole payments under the JOA to the extent that it is following dispatch. PJM/PEC observe that “the criteria for evaluating whether PEC is following dispatch is analogous to how PJM determines whether ‘internal generators’ are following dispatch per section 3.2.3(o) of the Appendix to Attachment K of the PJM Tariff.” “Analogous” falls short of identical and there is no explanation of why a weaker standard is

appropriate here. Section 3.2.3(o)¹² makes no mention of the requirement for a generator to follow dispatch signals for eight 5-minute periods (or any other number of 5-minute periods) within the hour to avoid charges for balancing operating reserve deviations. Instead, section 3.2.3(o) specifies: “To determine if a resource is following dispatch the Office of the Interconnection shall determine the unit’s MW off dispatch and % off dispatch by using the lesser of the difference between the actual output and the UDS Basepoint or the actual output and ramp-limited desired MW value. The % off dispatch and MW off dispatch will be a time-weighted average over the course of an hour.” The Market Monitor submits that failure to apply to PEC the PJM tariff-defined standard for following PJM dispatch is preferential and should be rejected. The Market Monitor stated (at 12) that PJM/PEC had not explained why PEC should qualify for make-whole payments for following PJM dispatch in eight 5-minute periods in an hour, rather all 5-minute periods in an hour (see Art. 14.5.3). PJM/PEC reply (at 13–14) that “clarification in this regard is, at best, difficult to provide since application of this provision will require an initial finding by the parties that the make-whole evaluation is being used for over 10 percent of the hours that PEC is responding correctly to relieve PJM congestion.” Further, PJM/PEC state (at 14), “It is unclear to what extent, and even if, the settlement process will need to be reevaluated in the future, and proscribing [sic] a set time period and criteria for reevaluating the make-whole settlement process is premature.” This response is not convincing. The Market

¹² This section also appears as section 3.2.3(o) of Schedule 1 of the PJM OA.

Monitor submits that failure to apply to PEC the PJM tariff-defined standard for following PJM dispatch is preferential and should be rejected.

E. The Ramp Rates for PEC in the Proposed PJM/PEC JOA Are Unduly Discriminatory.

The Market Monitor recommended (at 8) that the Commission reject the provision that PEC units must only respond up to 50 MW on a 5-minute interval until detailed support has been provided (Art. 14.2). PJM/PEC's response notes (at 6) that the 50 MW limit every 5 minutes "does not suggest that PEC cannot respond with more aggressive ramp rates, if it can do so within operationally reliable limits." That is the point. There is no reason for limiting the response of PEC to a 50 MW level. The only limit required is that the response be within operationally reliable limits.

F. If the Implementation Document Referenced in the PJM/PEC JOA Provides Additional Details About the Scheduling Arrangement, It Should Be Filed.

The Market Monitor recommended (at 8) that the Commission direct the parties to file with the Commission the specific details reserved for inclusion in the "implementation document" referenced in Article 14.3 of PJM/PEC JOA. So long as the implementation documentation does nothing more than identify the data items that the parties exchange, the Market Monitor agrees that the proposed public posting would be sufficient. However, to the extent that the implementation documentation provides additional details about the scheduling arrangement itself, then additional scrutiny is needed and PJM/PEC should file it with the Commission.

G. The PJM/PEC JOA Does Not Sufficiently Detail the Impacts on Pricing of Third System Exports and Imports from or to PEC.

The proposed PJM/PEC JOA does not specify that PEC would obtain SouthIMP or SouthEXP pricing instead of marginal cost proxy pricing when PEC is importing from other areas at the same time energy is flowing from PEC to PJM, or, if PEC is exporting to another area, at the same time energy is flowing from PJM to PEC. The proposed PJM/PEC JOA should explicitly confirm the continued application of the rule in the PJM Operating Agreement that specifies that the marginal cost proxy pricing is only applicable during times when no such exports and imports are occurring.¹³

The proposed PJM/PEC JOA also fails to specify how make-whole payments will be handled in the event PEC follows the PJM dispatch rate and then, after the fact, the price is set to the SouthIMP/SouthEXP pricing point due to simultaneous imports into PEC or exports from PEC to another area (see Art.14.5.3). It is unclear in the JOA that the existence of these exports or imports void any make-whole payments. The JOA should clearly state that this is the case.

¹³ PJM OA Schedule 1 § 2.6 (“During any hour in which any entity makes any purchases from other external areas outside of such area or sub-area (other than delivery of external designated network resources or such other exceptions specifically documented for such area or sub-area in the PJM Manuals) at the same time that energy sales into PJM are being made, or purchases energy from PJM for delivery into such area or sub-area while sales from such area to other external areas are simultaneously implemented (subject to any exceptions specifically documented for such area or sub-area in the PJM Manuals), pricing will revert to the applicable import or export pricing point that would otherwise be assigned to such external area or sub-area.”).

II. MOTION FOR LEAVE TO ANSWER

The Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2), do not permit answer to answers or protests unless otherwise ordered by the decisional authority. The Commission has made exceptions, however, where an answer clarifies the issues or assists in creating a complete record.¹⁴ In this answer, the Market Monitor provides the Commission with information useful to the Commission's decision-making process and which provides a more complete record. Therefore, this answer should be permitted.

¹⁴ See, e.g., *PJM Interconnection, L.L.C.*, 119 FERC ¶61,318 at P 36 (2007) (accepted answer to answer that "provided information that assisted ... decision-making process"); *California Independent System Operator Corporation*, 110 FERC ¶61,007 (2005) (answer to answer permitted to assist Commission in decision-making process); *New Power Company v. PJM Interconnection, L.L.C.*, 98 FERC ¶ 61,208 (2002) (answer accepted to provide new factual and legal material to assist the Commission in decision-making process).

III. CONCLUSION

The Market Monitor respectfully requests that the Commission grant this motion for leave to answer and afford its answer due consideration as it resolves the issues raised in this proceeding.

Respectfully submitted,



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Dated: April 2, 2010

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.

Dated at Eagleville, Pennsylvania,
this 2nd day of April, 2010.



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