

131 FERC ¶ 61,181
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Marc Spitzer, Philip D. Moeller,
and John R. Norris.

PJM Interconnection, L.L.C. and
Carolina Power & Light Company

Docket No. ER10-713-000

ORDER CONDITIONALLY ACCEPTING JOINT OPERATING AGREEMENT

(Issued May 28, 2010)

1. In this order, the Commission conditionally accepts a Joint Operating Agreement (Joint Operating Agreement) between PJM Interconnection, L.L.C. (PJM) and Carolina Power & Light Company (Carolina Power) (collectively, PJM/Carolina), suspends it for a nominal period to be effective June 1, 2010, subject to refund.
2. The Joint Operating Agreement provides for the exchange of energy through a dynamic schedule, the management and coordination of congestion between PJM and the Carolina Power eastern balancing authority area, pricing refinements consistent with the PJM Open Access Transmission Tariff (PJM OATT), and make whole provisions that ensure that Carolina Power does not lose money by following the dynamic schedule.

I. Background

3. On February 2, 2010, PJM/Carolina filed the proposed Joint Operating Agreement, which governs the exchange of information and coordination of operation in matters that may affect congestion on either system. PJM/Carolina state that the proposed Joint Operating Agreement is intended to replace an earlier Joint Operating Agreement between PJM and Carolina Power that was accepted by the Commission in 2005 (2005 JOA).¹ PJM/Carolina state that the 2005 JOA provided for, among other things: the management of congestion on flowgates affected by PJM and Carolina Power; the exchange of information to permit calculation of available transfer capability (ATC); coordination of scheduled outages, voltage control and reactive power;

¹ PJM/Carolina Transmittal at 1-2 (citing *PJM Interconnection, L.L.C.*, Docket No. ER05-1279-000 (Sept. 9, 2005) (unpublished letter order)).

coordination of transmission planning studies; and joint emergency operation, including Transmission Loading Relief (TLR) procedures.²

4. PJM/Carolina state that, in a previous proceeding, PJM submitted tariff sheets revising the PJM OATT and PJM Amended and Restated Operating Agreement in December 2008. PJM/Carolina state that the filing proposed to clarify and specify PJM's authority to calculate pricing points for external balancing authority areas. PJM/Carolina state that PJM proposed two new methods to calculate external prices for external balancing authority areas outside organized markets: High-Low Pricing and Marginal Cost Proxy Pricing. With regard to Marginal Cost Proxy Pricing, PJM/Carolina state that PJM proposed that this pricing methodology have a sunset date of January 31, 2010. At that time, such pricing would terminate for any external balancing authority area that had not executed an interregional congestion management agreement with PJM so as to encourage the formation of such agreements. PJM/Carolina state that the Commission recognized that requiring a congestion management agreement for Marginal Cost Proxy Pricing is just and reasonable. However, PJM/Carolina further state that the Commission clarified that PJM must negotiate in good faith with any balancing authority requesting a congestion management agreement.³

5. PJM/Carolina state that this proposed movement to implement new interface pricing methodologies was the impetus for Carolina Power and PJM to review the 2005 JOA to determine whether it should be revised to include an updated congestion management process. PJM/Carolina state that while the parties were negotiating a congestion management process for inclusion in the currently effective 2005 JOA, it became evident that the 2005 JOA could potentially benefit from additional consideration and clarification.

6. PJM/Carolina state that while the proposed Joint Operating Agreement incorporates much of the 2005 JOA, some changes and additions have been made. PJM/Carolina state that major new provisions include: using a dynamic schedule to coordinate power exchange and manage congestion between PJM and Carolina Power; pricing of transactions made through the dynamic schedule, which will be consistent with the non-ISO pricing provisions of the of the PJM OATT; make whole provisions that ensure that Carolina Power does not lose money by following the dynamic signal; and

² PJM/Carolina Transmittal at 1-2.

³ PJM/Carolina Transmittal at 2 (citing *PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,101 (2009) (May 1, 2009 Order)).

supporting documents that need to be executed that govern issues concerning power flows and implementation of the proposed Joint Operating Agreement.⁴

II. Notice of Filing and Responsive Pleadings

7. Notice of the filing was published in the *Federal Register*, 75 Fed. Reg. 6654 (2010), with comments, interventions and protests due on or before February 23, 2010. American Municipal Power, Inc., Duke Energy Corporation, North Carolina Electric Membership Corporation, and American Electric Power Service Corporation filed timely motions to intervene. Monitoring Analytics, LLC (PJM Market Monitor) filed a timely motion to intervene and comments.⁵ On March 24, 2010, the North Carolina Utilities Commission (North Carolina Commission) filed a motion to intervene out-of time and comments.

8. On March 10, 2010, PJM/Carolina filed an answer to PJM Market Monitor's comments. On April 2, 2010, the PJM Market Monitor filed an answer to PJM/Carolina's March 10 answer. On April 19, 2010, PJM/Carolina filed an answer to the PJM Market Monitor's April 2 answer.

III. Discussion

A. Procedural Matters

9. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2009), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2009), the Commission will grant North Carolina Utilities Commission's late-filed motion to intervene given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

10. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2009), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We will accept PJM/Carolina's and PJM Market Monitor's answers because they have provided information that assisted us in our decision-making process.

⁴ *Id.* at 5.

⁵ On February 25, 2010, PJM Market Monitor filed a corrected pleading, which replaced its pleading filed on February 23, 2010.

B. Substantive Matters

11. As discussed below, the Commission conditionally accepts the Joint Operating Agreement proposed by PJM/Carolina, suspends it for a nominal period to be effective on June 1, 2010, subject to refund. We direct PJM/Carolina to respond within 30 days of the date of this order to the questions set forth in this order to provide additional information to support certain of their proposals. These questions are designed to elicit additional information regarding certain provisions within the instant Joint Operating Agreement. In addition, PJM/Carolina is directed to: (a) make a compliance filing of the agreement described in Article 13 of the Joint Operating Agreement within one year of the effective date of the Joint Operating Agreement; and (b) post the implementation document described in section 14.3 of the Joint Operating Agreement on PJM's website within 30 days of the date of this order.

1. Approach of Joint Operating Agreement

12. PJM/Carolina state that the proposed Joint Operating Agreement sets forth a congestion management process that allows Carolina Power to “quickly respond to pricing values sent by PJM” and will help manage congestion on the PJM transmission system by maintaining flows and stabilizing Locational Marginal Price (LMP) values. PJM/Carolina state that new congestion management procedures are implemented through a dynamic schedule between PJM and Carolina Power. PJM/Carolina state that the quantity of power can be adjusted as often as every five minutes based on the real-time LMP that PJM calculates for Carolina Power, which, PJM/Carolina state, reflects the impact of energy interchange between PJM and Carolina Power with respect to PJM transmission constraints. PJM/Carolina state that the ability to adjust such energy transfers in real time will allow Carolina Power to quickly respond to changes in the LMP value and therefore, beneficially impact PJM constraints.⁶

a. Comments

13. The North Carolina Commission states that in April 2005 it approved Virginia Electric and Power Company's (VEPCO) integration into PJM subject to certain conditions, including that PJM and Carolina Power file with the Commission a joint operating agreement to address matters that materially impacted the Carolina Power system arising from VEPCO's integration. As a result of these conditions, PJM and Carolina Power executed the 2005 JOA.⁷ The North Carolina Commission notes that the Joint Operating Agreement proposes to provide more enhanced methodologies for

⁶ PJM/Carolina Transmittal at 5.

⁷ *Id.*

managing parallel flows and real-time congestion, which will benefit both the PJM and Carolina Power systems. The North Carolina Commission believes that the proposed Joint Operating Agreement is “a huge step forward,” and urges the Commission to approve it.⁸

14. PJM Market Monitor agrees that the proposed dynamic schedule approach is a more effective method for managing constraints than redispatching on one side of the congested facility, but contends that the dynamic schedule approach is not the “optimal resolution” because it is not as efficient as joint or coordinated economic dispatch.⁹ The PJM Market Monitor recommends that the Commission assign a sunset date for the dynamic schedule approach of no later than December 31, 2011, and direct the parties to develop a LMP solution.¹⁰

b. PJM/Carolina Answer

15. PJM/Carolina argue that the proposed Joint Operating Agreement is a just and reasonable methodology to address congestion on the PJM and Carolina systems, and that the PJM Market Monitor has not shown that the proposed approach is unjust and unreasonable.¹¹ PJM/Carolina contend that the proposed Joint Operating Agreement is beneficial because it enables Carolina Power to quickly respond to the prices PJM sends. PJM/Carolina also contend that the proposed Joint Operating Agreement will help manage congestion on the PJM system by maintaining flows within established limits, stabilizing PJM LMP values, and lessening the use of TLRs.¹²

16. PJM/Carolina note that the proposed Joint Operating Agreement and congestion management process will require refinement. However, PJM/Carolina assert that the imposition of a sunset date requiring them to negotiate other methods to address congestion management is premature.¹³

⁸ *Id.* at 4.

⁹ PJM Market Monitor Comments at 6.

¹⁰ *Id.* at 7.

¹¹ PJM/Carolina March 10 Answer at 6.

¹² *Id.* at 4-5.

¹³ *Id.* at 5.

c. PJM Market Monitor Answer

17. PJM Market Monitor avers that the “ultimate goal of congestion management agreements . . . is to get the prices right,” which it states means getting the prices as close as possible to the prices resulting from a single least cost dispatch across the two systems.¹⁴ PJM Market Monitor contends that the proposed Joint Operating Agreement does not fulfill the directives set forth in the Commission’s May 1, 2009 Order¹⁵ for a congestion management agreement because the May 1, 2009 Order clearly states that the congestion management agreement meant coordination of dispatch on both sides of the interface, not just the PJM side.¹⁶ PJM Market Monitor contends that the sole focus of the proposed Joint Operating Agreement is on the prices that PJM applies to Carolina Power, and the accuracy of those settlement prices is compromised by the preferential treatment accorded to Carolina Power.¹⁷

18. Moreover, PJM Market Monitor contends that the proposed Joint Operating Agreement should be modeled after the PJM and Midwest Independent Transmission System Operator, Inc. congestion management protocol (PJM/Midwest ISO CMP), which PJM Market Monitor states is the current best practice for interregional congestion management.¹⁸ Additionally, PJM Market Monitor believes that PJM should attempt to develop a comprehensive solution for all parties at its southern interfaces rather than negotiating bilateral arrangements.¹⁹

d. PJM/Carolina Answer

19. PJM/Carolina state that any congestion management agreement must respect the unique operational relationship of the respective parties involved. PJM/Carolina contend that following the congestion management PJM/Midwest ISO CMP is impossible since Carolina Power does not utilize LMP. PJM/Carolina further contend that the Commission did not mandate a specific congestion management procedure in the May 1,

¹⁴ PJM Market Monitor Answer at 4.

¹⁵ May 1, 2009 Order, 127 FERC ¶ 61,101.

¹⁶ PJM Market Monitor Answer at 6.

¹⁷ *Id.* at 6.

¹⁸ *Id.* at 3, 6-7.

¹⁹ *Id.* at 7.

2009 Order and that the PJM Market Monitor's reliance upon it to require that congestion management agreements adhere to the PJM/Midwest ISO CMP is unfounded.²⁰

e. Commission Determination

20. We find that PJM/Carolina's approach to congestion management in the proposed Joint Operating Agreement is just and reasonable and deny PJM Market Monitor's request that PJM/Carolina be required to implement a more comprehensive congestion management solution after a sunset date. In the May 1, 2009 Order, the Commission noted that requiring a congestion management agreement for directly connected balancing authorities was just and reasonable if those balancing authorities wished to obtain more advantageous pricing.²¹ Such a congestion management agreement, the Commission explained, should allow PJM "to identify loop flows," and otherwise account for the effect of neighboring balancing authorities' dispatch on PJM.²² PJM/Carolina's approach in the proposed Joint Operating Agreement satisfies these requirements by extensive informational change allowing quick response to changes in the conditions on the PJM/CPL (Carolina Power eastern balancing authority area) interface.²³

21. We disagree with PJM Market Monitor's contention that the May 1, 2009 Order did not contemplate negotiated bilateral contracts. Not only did the May 1, 2009 Order specifically contemplate such bilateral contracts, it required PJM to file an unexecuted congestion management agreement with the Commission in the event PJM and a utility were unable to reach such an agreement.²⁴ Accordingly, we accept the approach adopted in the proposed Joint Operating Agreement.

2. Dynamic Scheduling

22. Section 14.2 of the proposed Joint Operating Agreement provides that Carolina Power will change generation to support the dynamic schedule by a maximum of 50 MW every five minutes and that the actual power exchange will be implemented using the dynamic schedule based on current PJM congestion conditions.

²⁰ PJM/Carolina April 19 Answer at 2.

²¹ See May 1, 2009 Order, 127 FERC ¶ 61,101 at P 23.

²² *Id.* P 33, 35.

²³ We will address PJM Market Monitor's contention concerning the inaccuracy of PJM-Carolina interface prices below.

²⁴ May 1, 2009 Order, 127 FERC ¶ 61,101 at P 36.

23. Section 14.4.1 of the proposed Joint Operating Agreement provides that, for deliveries from Carolina Power to PJM, a non-firm point to point transmission reservation from Carolina Power to PJM will be made by Carolina Power. Network secondary service will be the transmission service used on the PJM transmission system.

24. For deliveries from PJM to Carolina Power, section 14.4.2 of the Joint Operating Agreement provides that transmission service used on the PJM transmission system will be a non-firm point to point reservation from PJM to Carolina Power and PJM, on behalf of Carolina Power, will make the reservation on the PJM OASIS after the hour to match the actual delivery. This section also provides that network secondary service with verification that ATC is available will be the transmission service used on the Carolina Power transmission system.

a. Comments

25. PJM Market Monitor states that it is not yet known whether a 50 MW ramp rate will adequately respond to constraints since the curtailment of external interchange transactions can be significantly larger than 150 MW on a 15-minute interval. Therefore, PJM Market Monitor recommends that the Commission reject the provision that Carolina Power units will only respond up to 50 MW on a 5-minute interval until detailed support has been provided.²⁵

26. PJM Market Monitor also states that after the fact acquisition of transmission service is not available to other market participants and recommends that the Commission require Carolina Power to acquire transmission service in advance.²⁶ PJM Market Monitor argues that the proposed Joint Operating Agreement lacks a sufficiently detailed description of what will happen in the event that transmission is not available after the fact and recommends that the agreement explain, in detail, how the parties will account for the case where ATC is not available on either PJM's or Carolina Power's OASIS node at the time of the after the fact reservation.²⁷

b. PJM/Carolina Answer

27. Concerning the 50 MW maximum ramp rate, PJM/Carolina state that a 600 MW generation pick-up for the Carolina Power system in any given hour is very aggressive. Further, according to PJM/Carolina, the 50 MW ramp rate contractually limits PJM's

²⁵ PJM Market Monitor Comments at 8.

²⁶ *Id.* at 8-9.

²⁷ *Id.*

ability to call for a 50 MW maximum, but Carolina Power can respond with a higher ramp rate if it can do so within operationally reliable limits.²⁸

28. PJM/Carolina state that, because the dynamic schedule will be unknown ahead of time, requiring Carolina Power to reserve transmission service ahead of time based on the anticipated maximum value of the dynamic schedule would unnecessarily result in the prevention of other market participants' access to the same service. PJM/Carolina maintain that the dynamic schedule will relieve congestion on the transmission system, and there will be a net increase in power transfer capability. Therefore, PJM/Carolina argue that it is just and reasonable to approve after-the-fact reservations.²⁹

c. PJM Market Monitor Answer to PJM/Carolina Answer

29. PJM Market Monitor asserts that the proposed Joint Operating Agreement provides unjust, unreasonable and unduly discriminatory preferential treatment to Carolina Power. PJM Market Monitor contends if other market participants' transactions flow in the same direction as the dynamic schedule, they too would provide congestion relief, yet they are not permitted to acquire system transmission capacity retroactively.³⁰ PJM Market Monitor further contends that Carolina Power would only be required to pay for transmission service for the actual flows and all other market participants must pay for the full reservation. The PJM Market Monitor states that there is no reason to accept discrimination as the price of efficiency.³¹

d. PJM/Carolina Answer to PJM Market Monitor Answer

30. PJM/Carolina state that, despite PJM Market Monitor's contrary assertion, the after the fact reservation component of the proposed Joint Operating Agreement is not unduly discriminatory because Carolina Power is responding to a dynamic signal from PJM. PJM/Carolina state that other participants are capable of reserving transmission service ahead of their transactions because they are aware, ahead of time, what they are going to schedule on their behalf. However, PJM/Carolina state that, Carolina is responding based on a signal from PJM that can change every five minutes. PJM/Carolina contend that it would be impractical and inefficient to expect Carolina

²⁸ PJM/Carolina March 10 Answer at 6.

²⁹ *Id.* at 8-9.

³⁰ PJM Market Monitor Answer at 9-10.

³¹ *Id.*

Power to predict the value of that signal more than an hour ahead of time in order to reserve transmission service.³²

e. **Commission Determination**

31. We find that the proposed Joint Operating Agreement's provision for the 50 MW ramp rate limitation to be reasonable. PJM/Carolina have made it clear that this is a contractual limitation for PJM to call upon generation, and Carolina Power may increase generation by a greater amount if it can be accommodated within reliability limits. Furthermore, the Carolina Power eastern balancing authority area is one interface among many. Therefore, the 50 MW ramp limitation per 5 minutes is consistent with a greater than 150 MW ramp per 15 minutes on all interfaces.

32. In section 28.4 of the pro-forma OATT, which was approved by the Commission as part of Order No. 890,³³ secondary service is described as, "energy [that is] transmitted, on an as-available basis, at no additional charge. Secondary service shall not require the filing of an Application for Network Integration Transmission Service." In essence, secondary network integration transmission service (NITS) can be used if there is ATC available, without a reservation. Moreover, PJM/Carolina note that making transmission reservations in advance to accommodate the dynamic signal can prevent other parties from accessing the transmission system, unlike using their proposed after the fact reservations, which does not. However, PJM/Carolina have not stated the relationship between after-the-fact transmission reservations and NERC reliability standards, the details of how after-the-fact transmission reservations would be accounted for in PJM's OASIS, or whether it is possible there was no ATC to support the transmission service. Accordingly, we accept the after the fact transmission reservation portion of the proposed Joint Operating Agreement, subject to the condition that PJM/Carolina make a compliance filing within 30 days of the date of this order providing further information as described in Appendix A under the heading "Dynamic Scheduling."

³² PJM/Carolina April 19 Answer at 3.

³³ *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228 (2009) *order on reh'g* Order No. 890-D, 129 FERC ¶ 61,126 (2009).

3. Market Pricing

33. Section 14.5 of the proposed Joint Operating Agreement provides that PJM/Carolina will model the dynamic schedule as energy deliveries and receipts, one for each direction between Carolina Power and PJM with five-minute values integrated over the hour. This section further provides that if the schedule reverses during an hour, there will be both energy receipts and deliveries in an hour. Proposed section 14.5.1 provides that LMPs will be calculated consistent with section 2.6A of the Appendix to Attachment K of the PJM OATT. Under this method, the import price into PJM from Carolina Power will be the minimum LMP that is less than the marginal cost for any unit with output of more than 0 MW. If no such units exist, the price shall be the average of the bus LMPs that have been identified as the units moving to support an import to PJM. Proposed section 14.5.1 also provides that the export price from PJM to Carolina Power is the highest LMP that is greater than marginal cost for units producing more than 0 MW, excluding nuclear and hydro units. If no such units exist, the export price will equal the average of the LMPs for the units moving to support an export from PJM.

a. Comments

34. PJM Market Monitor states that the Joint Operating Agreement sets the interface price at the marginal unit's cost using the "High/Low" methodology.³⁴ PJM Market Monitor, however, states that there is no economic basis for excluding nuclear and hydro units and recommends that nuclear and hydro units be included with all other units in the determination of the interface price.³⁵

35. PJM Market Monitor states that it is concerned about the equitable treatment of third party transactions and recommends that PJM/Carolina clarify how third party transactions are priced prior to implementation.³⁶ Also, PJM Market Monitor recommends that the agreement specifically state that the proposed pricing does not apply when Carolina Power is importing or exporting from other areas because it is unclear whether the entire schedule should obtain the SOUTHIMP or SOUTHEXP pricing.³⁷

³⁴ PJM Market Monitor Comments at 10.

³⁵ *Id.*

³⁶ *Id.* at 10-11.

³⁷ *See* May 1, 2009 Order, 127 FERC ¶ 61,101 at n.6 ("SOUTHIMP/SOUTHEXP external proxy prices were introduced in 2006 so that PJM's southern interface would receive one import price and one export price. This pricing method is a consolidation of

(continued...)

b. PJM/Carolina Answer

36. PJM/Carolina state that the exclusion of nuclear and hydro units from the determination of the interface pricing was a deliberate preference of PJM/Carolina because the congestion management process is designed to respond to identified constraints in a timely manner and to incent those units that can respond both efficiently and effectively.³⁸ PJM/Carolina assert that nuclear and hydro units cannot do so and they will not be incented to ramp production in these instances.

37. Additionally, PJM/Carolina state that the proposed Joint Operating Agreement contemplates that the distinct pricing determinations that apply to transactions occurring to and from the Carolina Power control area apply to all parties, whether they are bilateral or third party transactions.

38. Finally, PJM/Carolina state that the proposed Joint Operating Agreement follows the PJM OATT, which already limits pricing when Carolina Power is exchanging power between other control areas. Therefore, a specific prohibition in the Joint Operating Agreement is unnecessary.³⁹

c. PJM Market Monitor Answer

39. PJM Market Monitor states that PJM does not exclude nuclear and hydro units from its LMP calculations and there is no support for providing preferential and inaccurate pricing to Carolina Power by excluding nuclear and hydro units in the LMP calculation under the proposed Joint Operating Agreement.⁴⁰ PJM Market Monitor notes that if the LMP at one of the excluded nuclear or hydro buses is greater than the marginal cost of the unit, Carolina Power would receive a lower price for purchases from PJM than it would if nuclear and hydro units were included.⁴¹ This price determination, PJM Market Monitor contends, affects both the price paid or received for energy from the PJM Energy Market, and it also affects the accuracy of the dynamic signal PJM is sending to Carolina Power for anticipated relief of congestion.

12 pricing nodes stretching from the Great Lakes in the Midwest ISO through Kentucky, Tennessee and the North Carolina coast.”).

³⁸ PJM/Carolina March 10 Answer at 10.

³⁹ *Id.* at 11.

⁴⁰ PJM Market Monitor Answer at 12.

⁴¹ *Id.*

d. Commission Determination

40. We agree with PJM/Carolina that the pricing provisions of the proposed Joint Operating Agreement are not unduly discriminatory. As PJM/Carolina noted above, and as stated in the May 1, 2009 Order, prices are calculated for the balancing authority area, not only for Carolina Power.⁴² We also note that parties that initially opposed the pricing provisions of the May 1, 2009 Order on the grounds of undue discrimination did not do so here.⁴³ Furthermore, the PJM OATT provides that prices “will revert to the applicable import or export pricing point that would otherwise be assigned to such external area or sub-area” when there are simultaneous imports into PJM and a neighboring balancing authority or simultaneous exports from PJM and a balancing authority area.⁴⁴ These provisions adequately address concerns relating to third parties.

41. However, the Commission requires further information in order to determine reasonableness of excluding hydro and nuclear from the calculation of prices paid to PJM for exports into North Carolina. Therefore, we accept the exclusion of nuclear and hydro units in the calculation of export prices on the condition that PJM/Carolina make a compliance filing within 30 days of the date of this order that provides additional information as described in Appendix A under the heading “Market Pricing.”

4. Make Whole Determination Issues

42. Sections 14.5.3-5.5 of the proposed Joint Operating Agreement contains a make whole provision, wherein Carolina Power will not lose money for following PJM’s dynamic signal. For the hours in a day that Carolina Power is following PJM’s dynamic signal, PJM will award Carolina Power Balancing Operating Reserves if the total daily cost of imports into PJM exceeds its total daily revenue or if the total daily cost of exports from PJM exceeds Carolina Power’s avoided costs for receiving the export. Section 14.5.3 of the proposed Joint Operating Agreement further provides that if Carolina Power follows PJM’s dispatch signal for at least eight 5-minute periods, it will be considered to have followed it for the entire hour. Section 14.5.5 of the proposed agreement provides that PJM/Carolina will reevaluate the make whole provisions if it is used for more than 10 percent of the hours that Carolina Power is following the dynamic signal.

⁴² See May 1, 2009 Order, 127 FERC ¶ 61,101 at P 45.

⁴³ *Id.* P 38-40.

⁴⁴ PJM OATT, Appendix to Attachment K at section 2.6A(b)(2)(B).

a. Comments

43. PJM Market Monitor recommends that the proposed make whole payments for the export portion of the dynamic schedule be removed from the agreement as it is not consistent with the way PJM treats other export transactions.⁴⁵ PJM Market Monitor contends that PJM does not currently have make whole provisions for export transactions and creating this export make whole payment specifically for Carolina Power is not equitable to other market participants. PJM Market Monitor also contends that the PJM/Carolina filing does not explain how the “eight 5-minute periods in an hour” criterion was determined or identify any precedent for this criterion. PJM Market Monitor recommends that the Commission require Carolina Power to follow PJM dispatch for all 5-minute periods in an hour to qualify for make whole payments. PJM Market Monitor also recommends that the Commission require a clarification of the time period that PJM/Carolina will use for reevaluation of the make whole provisions.⁴⁶

b. PJM/Carolina Answer

44. PJM/Carolina state that, unlike other PJM export transactions, the transactions under the Joint Operating Agreement are the result of Carolina Power following a PJM dispatch signal. PJM/Carolina state that there is ample justification to treat exports from PJM differently to ensure that Carolina Power is properly compensated and has the proper incentives to follow that dispatch signal.⁴⁷

45. PJM/Carolina further state that the eight 5-minute periods in an hour criterion for evaluating whether Carolina is following dispatch is analogous to how PJM determines whether “internal generators” are following dispatch per the PJM OATT. PJM/Carolina state that, similarly, internal generators are not held to a perfect dispatch signal, but are expected to respond to a dispatch signal within an acceptable bandwidth.⁴⁸

46. PJM/Carolina state that further clarification of the time period that PJM/Carolina will use for reevaluation of the make whole provisions is difficult to provide because such clarification requires an initial finding by PJM/Carolina that the make whole evaluation is being used for over 10 percent of the hours that Carolina Power is responding correctly to relieve PJM congestion. PJM/Carolina state that it is unclear

⁴⁵ PJM Market Monitor Comments at 14.

⁴⁶ *Id.* at 11-12.

⁴⁷ PJM/Carolina March 10 Answer at 13.

⁴⁸ *Id.* at 12-13 (citing PJM OATT, Appendix to Attachment K, section 3.2.3(o)).

whether the settlement process will need to be reevaluated in the future and therefore, “proscribing a set time period and criteria for reevaluating the make whole settlement process is premature.”⁴⁹

c. PJM Market Monitor Answer

47. PJM Market Monitor states that the proposed Joint Operating Agreement provisions for make whole payments are unduly discriminatory. PJM does not currently allow for make whole payments for exporting transactions, and thus the inclusion of this provision in the Joint Operating Agreement grants discriminatory preference to Carolina Power and should be rejected.

48. PJM Market Monitor states further that PJM/Carolina’s criteria for following dispatch may be “analogous,” but it is not identical to the criteria in the PJM OATT⁵⁰ and there is no explanation of why the weaker, eight 5-minute periods in an hour criterion is appropriate here.⁵¹

d. Commission Determination

49. In order to make a determination regarding the make whole provisions in the Joint Operating Agreement, the Commission requires further information. Therefore, we accept the make whole provisions on the condition that PJM/Carolina make a compliance filing within 30 days of the date of this order providing further information as described in Appendix A under the heading “Make Whole Determination Issues.”

5. Supporting Documents

50. Several supporting documents are associated with the proposed Joint Operating Agreement. First, proposed article 12 describes the management of parallel flow on the VACAR/PJM Interface (Parallel Flow Agreement). Second, proposed article 13 states that PJM/Carolina will develop a process to address loss compensation for non-firm power flows within one year after the effective date of the proposed Joint Operating Agreement (Losses Agreement). Third, proposed section 14.3 states that an implementation document (Implementation Document) will govern how PJM/Carolina will exchange data as necessary to implement the dynamic schedule.

⁴⁹ *Id.* at 13-14.

⁵⁰ PJM Market Monitor Answer at 13.

⁵¹ *Id.* at 12-13.

a. Comments

51. PJM Market Monitor contends that the details of the Parallel Flow Agreement should be made available.⁵² PJM Market Monitor also requests that the parties be required to file with the Commission the Losses Agreement prior to implementation,⁵³ as well as the details reserved for inclusion in the Implementation Document.⁵⁴

b. PJM/Carolina Answer

52. PJM/Carolina state that Carolina Power and Duke Energy Carolinas filed the Parallel Flow Agreement with the Commission on February 22, 2010, at Docket Number ER10-789-000.⁵⁵ PJM/Carolina state that they will file the Losses Agreement with the Commission as an amendment to the proposed Joint Operating Agreement.⁵⁶ PJM/Carolina state that filing the Implementation Document would serve no useful benefit as it is intended to set forth the data to be exchanged among the parties to facilitate implementation of the dynamic schedule, but they do not oppose making the Implementation Document publicly available on PJM's website.⁵⁷

c. PJM Market Monitor Answer

53. The PJM Market Monitor states in its answer that so long as the Implementation Document does nothing more than identify the data items that parties exchange, PJM/Carolina's proposed public posting is sufficient.⁵⁸

⁵² PJM Market Monitor Comments at 5.

⁵³ *Id.* at 6-7.

⁵⁴ *Id.* at 8.

⁵⁵ PJM/Carolina March 10 Answer at 3.

⁵⁶ *Id.* at 4.

⁵⁷ *Id.* at 7-8.

⁵⁸ PJM Market Monitor Answer at 14.

d. Commission Determination

54. The Parallel Flow Agreement was approved by the Commission under delegated authority.⁵⁹ We will condition our acceptance of PJM/Carolina's filing subject to their filing the Losses Agreement within one year of the effective date of the Joint Operating Agreement, as they have committed. With respect to the Implementation Document, we find that PJM/Carolina's offer to post it on the PJM website is sufficient and accept the filing on the condition that this document be posted on the PJM website within 30 days of the date of this order.

The Commission orders:

(A) The proposed Joint Operating Agreement is hereby conditionally accepted and suspended for a nominal period, to become effective June 1, 2010, subject to refund, as discussed in this order.

(B) PJM/Carolina are hereby directed to make a compliance filing within 30 days of the date of this order, as discussed in this order.

By the Commission.

(S E A L)

Kimberly Bose
Secretary.

⁵⁹ *Carolina Power and Light Co.*, Docket No. ER10-789-000 (Apr. 26, 2010) (unpublished letter order).

APPENDIX

Dynamic Scheduling

1. Please explain how after the fact transmission reservations to accommodate the PJM dynamic schedule are consistent with NERC reliability standards.
2. Please explain why it would be appropriate to allow after the fact transmission reservations to accommodate the dynamic schedule to some, but not all, PJM Market participants.
3. Please explain power interchange impacts from the dynamic schedule in the situation where no ATC would exist on either the PJM or Carolina Power transmission system side.
4. With respect to the OASIS:
 - a. Please explain whether reservations that PJM makes are posted on the OASIS or held to modify existing interchange schedules.
 - b. Are the point to point reservations verified using OASIS ATC values or are they verified by ATC values calculated by PJM?

Market Pricing

5. With respect to the exclusion of hydro and nuclear units in the calculation of export prices in the PJM/Carolina Joint Operating Agreement:
 - a. Please explain in detail the rationale for excluding Carolina Power's hydro and nuclear plants from the calculation of PJM export prices. Include in your answer the effect, if any, that this exclusion has on Carolina Power dispatch.
 - b. Please explain how excluding Carolina Power's nuclear and hydro units from the calculation of export prices will provide the proper incentive for Carolina Power's plants to back down in order to receive an export from PJM. Explain also why the price signal is accurate.
 - c. Please clarify why that the Carolina Power's nuclear and hydro plants are unable to respond to constraints.
6. How would a third-party participant obtain the price specified in the Joint Operating Agreement, assuming, as PJM Market Monitor believes, that a third-party cannot react as quickly as Carolina Power's units can?

Make Whole Determination Issues

7. What would be the impact, if any, of creating an export make whole payment for Carolina Power, but not for other market participants?
8. Make Whole Eligibility Issues
 - a. Is there any precedent for the use of the “eight 5-minute periods in an hour” criterion for eligibility for make whole payments? If not, is there a specific source for this criterion?
 - b. Please explain why Carolina Power need not follow the dynamic signal as within a certain band for all five minute periods in an hour to be eligible for make whole payments.
 - c. Please explain whether Carolina Power is eligible to receive make whole payments if the price reverts to SOUTHIMP/SOUTHEXP, the PJM default interface prices, and if so, why?