123 FERC ¶ 61,232
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

PJM Interconnection, L.L.C. — Docket Nos. ER08-780-000, ER08-780-001

ORDER CONDITIONALLY ACCEPTING PROPOSED TARIFF REVISIONS

(Issued May 30, 2008)

1. On March 31, 2008, as amended on April 3, 2008, PJM Interconnection, L.L.C. (PJM) submitted revisions to its Open Access Transmission Tariff (Tariff) and Amended and Restated Operating Agreement (Operating Agreement)[1] to establish a market-based mechanism, known as the Day-Ahead Scheduled Reserves (DASR) market, to procure supplemental operating reserves for the PJM region. In this order, the Commission conditionally accepts PJM's filing.

I. Background

A. PJM's Filing

2. Under its current rules, PJM schedules supplemental operating reserves[2] as part of its day-ahead scheduling process for the day-ahead energy market. Resources that are selected to provide reserves rather than energy are compensated based on their offer

[1] *See* Appendix for a list of tariff sheets.

[2] The term supplemental operating reserves refers to 30-minute reserves. Supplemental reserve service is needed to serve load in the event of a system contingency; it is not available immediately to serve load but rather within a short period of time. Independently of supplemental reserves, PJM procures synchronized operating reserves, which provide 10-minute reserves, via a market-based mechanism. Synchronized reserve service is used to serve load immediately in the event of a system contingency.

prices. However, the Commission-approved settlement involving the Reliability Pricing Model required PJM to implement a market for the 30-minute supplemental operating reserve service by June 2008.[3]

3. Accordingly, PJM proposes to create a day-ahead market for supplemental operating reserves in which a 30-minute reserve product will be procured through a single clearing price. PJM states that the DASR market is conducted as part of the day-ahead energy market scheduling. Under PJM's proposal, a resource will be assigned to provide an amount of DASR corresponding to the amount of energy it could provide within 30 minutes of a request. The market price will be established through co-optimization with the day-ahead energy market, and the resource needed to meet the next incremental unit of DASR requirement will set the clearing price. Each resource's total offer will be computed as the sum of the unit's individual offer to provide DASR, plus any opportunity costs the unit would incur if assigned to provide DASR in that hour. Additionally, the proposed revisions allow demand resources to participate in the DASR market. DASR credits (i.e., compensation) for demand resources will be "based on the difference between the resource's MW consumption at the time the resource is directed by the Office of the Interconnection to reduce its load (starting MW usage) and the resource's MW consumption thirty minutes after the request (ending MW usage)."[4]

4. Further, because the 30-minute reserve product is a reliability service, if the market fails to meet the DASR requirement, PJM retains the authority to satisfy any shortfall pursuant to the existing non-market scheduling process.

5. PJM states that the DASR market costs will be allocated to load serving entities (LSEs) according to load ratio shares. However, LSEs can meet their DASR obligations through bilateral agreements, and DASR charges will reflect any such bilateral arrangements so the entity will only be charged for the net MWs of DASR actually purchased in the market.

6. PJM requests an effective date of May 30, 2008.

B. Procedural Matters

7. Notice of PJM's March 31 filing was published in the *Federal Register*, with motions to intervene, notices of intervention, comments and protests due by April 21, 2008.[5] On April 4, 2008, PJM also filed an amendment to its March 31 filing, which was

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[3] *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at P 29 n.32 (2006).

[4] PJM Operating Agreement, section 3.2.3A.01(c)(iii).

[5] 73 Fed. Reg. 19211 (2008).

published in the *Federal Register*, with motions to intervene, notices of intervention, comments and protests due by April 24, 2008.[6] The PSEG Power Companies, Duke Energy Corporation (Duke), Steel Dynamics, Inc. and Nucor Steel (collectively, Steel Producers), Dominion Resources Services, Ameren UE, American Municipal Power – Ohio, and Exelon Corporation filed timely motions to intervene. The Maryland Public Service Commission (Maryland Commission) filed a timely notice of intervention. Duke filed comments broadly supporting the filing. Steel Producers and the Maryland Commission filed protests. On May 6, 2008, PJM filed an answer to Steel Producers' and the Maryland Commission's protests.

8. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.214 (2007)), the notices of intervention and the timely-filed unopposed motions to intervene serve to make the entities filing 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) (2007), prohibits an answer to a protest or an answer unless otherwise ordered by the decisional authority. We will accept the answer filed by PJM, because it has provided information that assisted us in our decision-making process.

II. Discussion

9. As discussed below, we will accept PJM's filing, conditioned upon PJM submitting a compliance filing to accommodate batch loads in the DASR market in a manner similar to that used for batch load participation in the synchronized reserves market. PJM's proposal complies with the requirement of the RPM settlement that PJM implement a market to procure 30-minute supplemental operating reserves for the PJM region.

A. Intermediate Generation and Reserve Commitment Philosophy

1. Protest and Answer

10. While the Maryland Commission is not opposed to a DASR market, it contends that the DASR market involves a new commitment methodology that will result in PJM committing less intermediate generation to day-ahead supplemental operating reserves than is committed today. According to the Maryland Commission, intermediate generation will be displaced with higher incremental cost quick-start generation, resulting in substantially higher locational marginal prices. Further, the Maryland Commission contends that this higher-priced energy will be reflected in prices in forward markets and standard offer service auctions, which many states use to procure energy.

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[6] 73 Fed. Reg. 20282 (2008).

11. Further, the Maryland Commission requests that PJM explain how PJM's proposal conforms to PJM's existing operating reserve commitment philosophy or changes it and why the energy payment specifications in PJM's Operating Agreement are being removed. The Maryland Commission requests that the Commission either issue a deficiency letter or convene a technical conference to address its concerns.

12. In its answer to the protests, PJM states that under DASR, PJM will procure energy and most of the needed supplemental reserves together in the day-ahead market, with the explicit goal of the lowest total production cost. To maximize the benefits of this co-optimization in the day-ahead market clearing, PJM will apply its pre-established supplemental reserve percentage to the load forecast for the following day (currently, the reserve objective is based on a percentage of the "fixed" demand, i.e., the cleared demand in the day-ahead market from buyers with physical loads that submitted price-taking bids). PJM states that since reserves and energy will be procured simultaneously, baseload and intermediate resources will have more opportunity to provide reserves than they do today. PJM explains that today it usually relies first on peaking generation, typically with very low start-up and no load costs but high energy costs, to provide supplemental operating reserves. But the DASR market will seek to minimize total system production cost, and thus will consider a unit's energy costs rather than only its cost of providing reserves. PJM maintains that baseload and intermediate generation, with their lower energy costs, therefore will play a greater role in providing supplemental reserves than they do today.

2. <u>Commission Determination</u>

13. The Maryland Commission does not explain why it believes the DASR market will result in less intermediate generation being committed to the day-ahead operating reserves; nor does it offer any support for this assertion. Conversely, PJM's answer explains that the two changes associated with the DASR market should reduce PJM's reliance on peaking units for operating reserves, increase the use of intermediate generation, and minimize total system production costs. The DASR market will procure most of the region's needed reserves through a co-optimization process that minimizes total production costs (i.e., both energy and reserves), giving base load and intermediate generation greater opportunity to provide reserves than under today's rules. Additionally, the DASR market opens this ancillary service to competition from demand resources for the first time. Every megawatt of demand resources committed to supplemental reserves will reduce PJM's reliance on generating resources for this service, and potentially displace higher-cost generation.

14. The Maryland Commission also asks the Commission to direct PJM to explain in a supplemental filing "why the energy payment specifications in PJM's Operating Agreement are being removed." The Maryland Commission does not cite to any particular provision of the Operating Agreement in this connection, so it is not clear what

the Maryland Commission wants PJM to address. We therefore reject the Maryland Commission's request for a supplemental filing.

B. Penalties

1. Protest and Answer

15. The Maryland Commission objects to the proposed DASR market because it contains no provision for penalties for non-performance by DASR providers, even though PJM will incur additional real-time balancing operating reserve charges when bidders fail to perform. The Maryland Commission recommends that penalties for non-performance should be similar to those for non-performance in the synchronized reserve market.[7] The Maryland Commission also suggests that PJM be required to report DASR market failures to the Commission whenever the DASR market fails and the current operating reserve provisions are deployed to ensure reliability.

16. In its answer, PJM states that contrary to the Maryland Commission's supposition, such failure to respond does not threaten reliability, because PJM procures sufficient supplemental reserves, based on a probabilistic analysis, to accommodate the failure of some resources to respond. Thus, PJM argues, if a resource committed through DASR does not perform, PJM can rely on another resource committed through this market. PJM also states that there are distinct differences between synchronized and supplemental reserves. As opposed to supplemental operating reserves, synchronized reserves must be made available within only ten minutes, in response to specific declared synchronized reserve events. If a resource that offers and clears synchronized reserves fails to respond to a synchronized reserve event and provide reserves within ten minutes, as directed by PJM, that failure does have adverse reliability implications, given the immediacy of that need, and the limited number of resources that can meet that need. Therefore, PJM believes that the penalties for synchronized reserves should be stricter than those for supplemental reserves.

2. Commission Determination

17. PJM's proposed Operating Agreement language states in section 3.2.3A.01(c) that resources that do not perform in accordance with PJM's rules, will not be eligible to receive DASR credits. Thus, if a resource does not perform, it will not be paid. We find that since operating conditions are not affected by non-performance of a unit, no further

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[7] In the synchronized reserve market, a Tier 2 resource that does not provide energy up to their assigned capacity within 10 minutes of a synchronized reserve event, is penalized by being required to provide shortfall amount of reserve for the next three business days without compensation. *See* Section 3.2.3A(j) of the Appendix to Attachment K of the Tariff.

penalties are required. PJM states in its answer that it commits a quantity of supplemental reserves resources (above expected loads) that can be made available in thirty minutes or less, to call upon as needed during the operating day. That quantity is calculated on the assumption that not all of the supplemental reserve resources will actually be available to respond when called upon. In other words, PJM expects that not all reserve resources will perform; and when one does not perform, that action does not adversely affect reliability. If, for example, PJM's load forecast changes, or a facility trips off-line after PJM has already cleared the DASR market, PJM will procure those additional needed reserves using the existing out-of-market provisions. In our view, this does not present a market failure, but a prudent contingency plan. As PJM explained, this is different from a synchronized reserve market, where a failure to provide reserves within ten minutes as directed by PJM, could lead to adverse reliability implications, given the immediacy of that need, and the limited number of resources that can meet that need. We expect that the DASR market will reduce, but not eliminate, PJM's reliance on the existing out-of-market payments, just as the day-ahead energy market greatly reduces, but does not entirely eliminate, market participants' reliance on the real-time energy market. We will therefore accept PJM's justification for not imposing penalties on DASR providers at this time.

18. In response to the Maryland Commission's request that PJM report whenever the DASR market "fails", PJM states that it already reports this amount every day, and will continue to report it.[8]

Market Monitor Participation

3. Protest and Answer

19. The Maryland Commission also expresses concern that PJM filed the DASR proposal without receiving comment from the Market Monitor. The Maryland Commission argues that it is critical that the Market Monitor be included at the earliest stages of market development, and states that it does not believe the Market Monitor was included in the development of the DASR program.

20. PJM, in its answer, states that representatives of the Market Monitoring Unit attended the stakeholder meetings at which this proposal was developed and considered. The DASR proposal was developed by the Reserve Markets Working Group last year, and then considered by the Market Implementation Committee, the Markets and

[8] PJM currently reports through its eMarket system on the results of the "reserve adequacy run" conducted by PJM system operators at 6:00 p.m. Eastern time each day before the operating day to determine if additional reserves are needed. PJM states that it will continue to provide those reports, which now will serve to indicate the extent to which PJM relies on the existing, out-of-market reserve provisions.

Reliability Committee and the Members Committee, and, according to PJM, the Market Monitor was represented at each of these groups.

4. Commission Determination

21. As PJM has shown, the Maryland Commission erred in its view that the Market Monitor was not included in the process of developing the DASR market. We therefore decline to address the Maryland Commission's request for relief on this issue.

C. Batch Load Participation in the DASR Market

1. Protest and Answer

22. Steel Producers, in their protest, state that they qualify as batch load demand resources as that term is defined in PJM’s Tariff,[9] and therefore may be eligible to participate in PJM’s proposed DASR market. However, Steel Producers contend that PJM’s proposal does not appear to adequately accommodate batch load demand resources. Specifically, as PJM’s proposal is currently structured, if a demand resource is down (i.e., its consumption of energy for its production processes is minimal or zero megawatts) when a DASR-related directive is issued, the DASR resource would not be eligible to receive any DASR credits for the day, notwithstanding that it may be a batch load that simply happens to be at that point in its manufacturing cycle. Steel Producers request that PJM add provisions to its Tariff and Operating Agreement that will accommodate participation of batch load demand resources in the DASR market.

23. PJM states in its Answer that it intends batch load demand resources to be able to participate in providing DASR in the same manner as they participate in providing synchronized reserves. According to PJM, the detailed DASR business rules make this clear. However, to eliminate any uncertainty in this regard, PJM agrees to revise section 3.2.3A.01(c)(iii) of its Tariff[10] accordingly.

[9] Section 1.3.1A.001 of PJM Tariff defines Batch Load Demand Resource as “a Demand Resource that has a cyclical production process such that at most times during the process it is consuming energy, but at consistent regular intervals, ordinarily for periods of less than ten minutes, it reduces its consumption of energy for its production processes to minimal or zero megawatts.”

[10] PJM notes that conforming changes may also be required to section 1.5A.8 of Schedule 1 of its Operating Agreement.

2. Commission Determination

24. We find that PJM's proposal to revise section 3.2.3A.01(C)(iii) to accommodate batch loads in the DASR market in a manner similar to that used for batch load participation in the synchronized reserves market satisfactorily addresses the concern raised by Steel Producers. We therefore direct PJM to refile the relevant Tariff and Operating Agreement provisions and include this language, within 30 days of the date of this order.

D. Tariff Sheets

25. As discussed above, the Commission accepts all the tariff sheets indicated in the Appendix to this order. However, the Commission will require PJM to submit a compliance filing within 30 days of the issuance of this order to correct Fifth Revised Sheet No. 360 of the Tariff, because the clean version of this sheet does not match the redlined version of the same sheet. In addition, PJM should explain in its filing whether it plans to use the term “supplemental operating reserves” and the new term “scheduling operating reserves” interchangeably and whether any changes to Schedule 6 of the Tariff (and elsewhere in the Tariff and the Operating Agreement), to reflect the new terminology, are required.

The Commission orders:

(A) PJM’s filing is hereby conditionally accepted effective May 30, as discussed in the body of this order.

(B) PJM is directed to refile the Tariff and Operating Agreement provisions and relevant tariff sheets discussed above, within 30 days of the date of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

Appendix

PJM Interconnection, L.L.C.
Tariff Sheets Accepted Effective May 30, 2008

Docket No. ER08-780-000

FERC Electric Tariff, Sixth Revised Volume No. 1

Third Revised Sheet No. 27A
Eighth Revised Sheet No. 323
Third Revised Sheet No. 323A
Third Revised Sheet No. 344
Fifth Revised Sheet No. 360[11]
Fourth Revised Sheet No. 379

Third Revised Rate Schedule FERC No. 24

Sixth Revised Sheet No. 6
Third Revised Sheet No. 6A
Tenth Revised Sheet No. 9
First Revised Sheet No. 64A
Original Sheet No. 64B
Fifth Revised Sheet No. 84
Third Revised Sheet No. 95A
Ninth Revised Sheet No. 111

Docket No. ER08-780-001[12]

FERC Electric Tariff, Sixth Revised Volume No. 1

Seventh Revised Sheet No. 27
Substitute Ninth Revised Sheet No. 29A
Substitute Sixth Revised Sheet No. 345
Original Sheet No. 359B
Eighth Revised Sheet No. 380
Substitute First Revised Sheet No. 384B.001
Substitute Original Sheet No. 384B.002

[11] Conditionally accepted subject to further compliance as specified in the body of the order.

[12] Acceptance of the tariff sheets submitted in Docket No. ER07-780-001 renders moot the following tariff sheets submitted in Docket No. ER07-780-000: Ninth Revised Sheet No. 29A, Sixth Revised Sheet No. 345, First Revised Sheet No. 384B.001, and Original Sheet No. 384B.002 under FERC Electric Tariff, Sixth Revised Volume No. 1, as well as Fourth Revised Sheet No. 83, Second Revised Sheet No. 116.01, and Original Sheet No. 116.02 under Third Revised Rate Schedule FERC No. 24.

Appendix

Third Revised Rate Schedule FERC No. 24

Substitute Fourth Revised Sheet No. 83
Substitute Seventh Revised Sheet No. 116.01
Substitute Original Sheet No. 116.02