153 FERC ¶ 61,344
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

PJM Interconnection, L.L.C. Docket Nos. EL16-6-001
ER16-121-000

ORDER ESTABLISHING A TECHNICAL CONFERENCE

(Issued December 28, 2015)

1. On October 19, 2015, as amended on October 30, 2015, PJM Interconnection, L.L.C. (PJM) submitted proposed changes to Schedule 1 of its Amended and Restated Operating Agreement (Operating Agreement), pursuant to section 206 of the Federal Power Act (FPA),[1] to address certain revenue inadequacy issues relating to its allocation of Auction Revenue Rights (ARR) and Financial Transmission Rights (FTR). In a contemporaneous companion filing submitted pursuant to FPA section 205,[2] PJM proposes parallel revisions to Attachment K-Appendix of its Open Access Transmission Tariff (OATT). PJM proposes that its tariff changes be made effective June 1, 2016.[3]

2. For the reasons discussed below, we find that material issues have been raised regarding PJM's claim that its existing ARR/FTR provisions are unjust and unreasonable and that its proposed revisions to its tariff addressing these matters are just and reasonable. Accordingly, we direct Commission staff to convene a technical conference.

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[1] 16 U.S.C. § 824e (2012).

[2] *Id.* at 824d.

[3] Because PJM's proposed OATT changes cannot be made effective, absent the required parallel revisions to PJM's Operating Agreement, as submitted by PJM in its section 206 complaint, in Docket No. EL16-6-000, *et al*., our consideration of PJM's joint filings, in this instance, must be made under FPA section 206.

I. **Background**

3. An FTR is a financial instrument that entitles its holder to a stream of revenues, i.e., to the payment of transmission congestion credits, based on the locational price differences in the day-ahead energy market when the transmission grid is congested. FTRs may be purchased by market participants in PJM's FTR Auctions or, as discussed below, may be obtained through the conversion of an ARR into an FTR.[4] ARRs are allocated to PJM's network and firm point-to-point customers in consideration of their payment of the embedded cost of the transmission system, providing holders the right to revenues resulting from the annual FTR Auction. Alternatively, and as noted above, ARRs may be converted into FTRs.

4. PJM allocates ARRs in a two-stage process, taking into account the total projected transmission capability. Stage 1 reflects the preference given to historical native load customers. Stage 2 allocates the remaining capability to qualifying network transmission customers and all other firm point-to-point transmission customers. PJM has also established a ten-year ARR mechanism, which divides Stage 1 of PJM's annual ARR allocation process into two separate components. In Stage 1A, PJM allocates the ten-year ARR product. In Stage 1B, PJM allocates the remaining ARRs, preserving the historical native load priority between the receipt and delivery points during the historical reference year.[5] PJM also has a mechanism for allocating certain ARRs on a monthly basis for transmission capability that becomes available during a planning period, after the annual ARR allocation.[6] PJM allocates Residual ARRs under the Stage 1 allocation priorities, including any pro-ration to participants under Stage 1B.

5. FTRs and ARRs must be simultaneously feasible, as determined by the use of power flow models of contingency-constrained dispatch. The modeling for the simultaneous feasibility determination requires that PJM make a determination as to whether transmission paths in the system will be available during the applicable planning year. If, as a result of the annual simultaneous feasibility test, the allocation of a

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[4] Each FTR is defined from a point of receipt (its source) to a point of delivery (its sink). A prevailing flow FTR is positively valued, with a lower congestion component of Locational Marginal Price (LMP) at the source than the sink. A counterflow FTR is negatively valued, with a higher congestion component of LMP at the source than the sink.

[5] *See* PJM Operating Agreement at Schedule 1, § 7.4.2(b).

[6] *Id.* at Schedule 1, § 7.9.

requested Stage 1A ARR is infeasible, PJM will be required to increase the capability limits on the restricted facilities in order to allocate all Stage 1A ARRs. If the amount of Stage 1B ARRs that were requested is infeasible, the amount of ARRs each market participant receives will be pro-rated so that the simultaneous feasibility test is satisfied. PJM recognizes that, where ARRs have been pro-rated as a result of the application of the simultaneous feasibility test, this may result in an allocation of ARRs in an amount that may be less to which that entity would have been entitled had adequate capacity existed at the time of the annual ARR allocation.

6. PJM states that when FTRs are fully funded, load serving entities (LSE) and firm point-to-point customers are able to fully hedge their congestion costs. PJM states, however, that when there is not enough revenue to fund all prevailing flow FTRs, the holder of that prevailing flow FTR will receive a reduced amount of transmission congestion credits, as occurred for the planning periods from 2010-11 through the 2013-14, when revenue adequacy ranged from 69-85 percent. PJM states that revenue inadequacy is caused, in part, by an existing provision in its tariff which requires PJM to allocate a minimum amount of ARRs for a 10-year period. PJM states that it is required to allocate these ARRs in its Stage 1A ARR allocation process, even if they are not feasible.[7]

7. PJM states that it has attempted to address FTR underfunding through its existing rules.[8] In addition, PJM notes that FTR funding issues have been addressed in complaint

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[7] *See* PJM Operating Agreement at Schedule 1, § 7.4.2(i). PJM adds that FTR revenue inadequacy is also caused when: (i) there is less transmission system capability available in actual operations than was assumed to be available in the FTR allocation and auction processes, as caused, for example, by an unexpected transmission outage; (ii) the day-ahead modeling on which FTRs are based does not match the performance of the real-time market; or (iii) interregional coordinated transmission facilities are not in the FTR and day-ahead market due to existing entitlements or the addition of new facilities that had not been reflected in PJM's modeling.

[8] Specifically, PJM notes that it has: (i) taken a more conservative approach to allocating Stage 1B ARRs by modeling a greater number of transmission outages; (ii) used enhanced measures of financial and flow impacts to more precisely model electrical (non-market) loop flow, identify modeling discrepancies, and better align FTR, day-ahead and real-time energy markets; (iii) achieved better market-to-market coordination in collaboration with the Midcontinent Independent System Operator, Inc. (MISO); and (iv) cleared more counterflow FTRs.

proceedings before the Commission.[9] PJM states that while revenue adequacy for the 2014-15 planning period and the first four months of the 2015-16 planning period has been restored (reaching revenue adequacy levels of 110 percent and 116 percent, respectively), the above-noted reforms producing this turn-around have failed to ensure that FTR holders will retain the value of their firm transmission service rights. PJM notes, for example, that as a result of its more conservative modeling of Stage 1 ARRs, a fewer number of Stage 1B ARRs have been allocated to firm transmission customers, notably LSEs – resulting in a corresponding reduction in FTRs and greater excess transmission congestion revenues, while degrading the hedging efficacy offered by FTRs to transmission customers.

8. PJM argues that an unjust and unreasonable cost shift has occurred – shifting revenues from ARR holders, through a reduction of the quantity of ARRs, to FTR holders, through increased FTR funding. PJM adds that the LSEs receiving reduced allocation of Stage 1B ARRs are predominantly different than the LSEs who are receiving the over-allocation of infeasible Stage 1A (10-year) ARRs. This is because the LSEs who are receiving the over-allocation of Stage 1A ARRs are already receiving more than what would otherwise be feasible on the transmission system. And as a result, other LSEs whose Stage 1A and Stage 1B ARRs would have been predominantly feasible, due to their location in a less congested area of the PJM transmission system, are impacted by PJM's restricting Stage 1B ARRs to help address the over-allocation of ARRs and related FTR revenue inadequacy issue. PJM characterizes this shift in allocation results as unjust and unreasonable.

II. <u>Proposed Revisions</u>

9. To address the asserted inequities summarized above, PJM proposes to: (i) eliminate negatively valued FTRs from netting against positively valued FTRs within an FTR holder's FTR portfolio;[10] and (ii) escalate current ARR results using a zonal load forecast growth rate of +1.5 percent in the Stage 1A 10-year simultaneous feasibility process.[11]

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[9] *See FirstEnergy Solutions Corp. v. PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,205 (2015) (*FirstEnergy Complaint Order*); *see also PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.*, 136 FERC ¶ 61,060 (2011).

[10] *See* proposed Operating Agreement at Schedule 1, §§ 5.2.3 – 5.2.7; and 7.4.4.

[11] *Id.* at proposed Schedule 1, § 7.5(b).

10. With respect to PJM's proposed elimination of netting, PJM notes that, in the case of underfunded FTR credits under its existing rules, FTR holders receive a pro rata reduction in their credits, allowing a holder to net the value of negative versus positive valued FTRs. PJM states that such netting results in a lower value of positively valued FTRs among which to spread the pro rata reduction in Transmission Congestion Credits. PJM asserts that a higher reported value, as produced by the elimination of netting, will improve the integrity of its FTR product and its expected value. PJM adds that no efficiency or cost elimination would result in this case by continuing to permit the netting of negatively valued against positively valued FTRs, given that the netting, and indeed the underlying FTR transactions themselves, are entirely disassociated from the charges that arise in allocating reduced Transmission Congestion Credits.

11. With respect to PJM's proposed escalation factor, PJM explains that under its proposal, the 10-year simultaneous feasibility analysis will continue to utilize the PJM zonal base load values (i.e. the lowest daily peak load from the previous year for each zone) but then increase those values by 1.5 percent per year cumulatively over the 10-year period in determining ARR feasibility. By increasing the assumed load in the analysis, PJM's proposal also assumes an increase in the requested ARRs in the study. This increases the potential for ARRs to be shown as infeasible in future analyses and thus may identify transmission upgrades earlier for inclusion in PJM's Regional Transmission Expansion Plan.

12. PJM asserts that, while this should capture and identify potential transmission upgrade needs earlier, it is unlikely to lead to overbuilding of its system. PJM adds that its proposed escalation factor is set at an appropriate level, representing the historical average ARR 10-year growth rate since its inception in 2007. PJM argues that, with this escalation factor in place, the above-summarized cost shift will be removed due to the anticipated increase in Stage 1B allocations due to the transmission enhancements that will be built to prevent infeasible Stage 1A ARRs. PJM requests an effective date of June 1, 2016 for its filing.

III. Notice of Filings and Responsive Pleadings

13. Notice of PJM's filings was published in the *Federal Register*, with interventions and protests due on or before November 9, 2015. Notices of intervention and timely-filed motions to intervene were submitted by the entities listed in the Appendix to this order. A motion to intervene out-of-time was submitted on November 10, 2015 by the Mercuria Entities (Mercuria), on November 23, 2015, by the Maryland Public Service Commission (Maryland Commission), and on November 24, 2015, by the New Jersey Board of Public Utilities (New Jersey Board).

14. Comments generally supportive of PJM's filing were submitted by Dominion Resources, Inc. (Dominion), Old Dominion Electric Cooperative and American Electric

Power Service Corporation (ODEC/AEP), Direct Energy Business, LLC (Direct Energy), The Dayton Power and Light Company and FirstEnergy Service Company (Dayton/FirstEnergy), PSEG Companies (PSEG), and the Independent Market Monitor for PJM (Market Monitor). Protests were filed by J. Aron & Company (J. Aron), DC Energy, LLC, Inertia Power, LP, Saracen Energy East, LP, and Vitol (collectively, Financial Marketers), Elliott Bay Energy Trading, LLC. (Elliott Bay), Appian Way Energy Partners, LLC (Appian), and Shell Energy North America (US), LP. (Shell).

15. Answers to protests and answers to answers were filed on November 24, 2015 by PJM, the Market Monitor, the Maryland Commission and the New Jersey Board (Joint State Commissions), and ODEC/AEP, on December 2, 2015, by Financial Marketers, and on December 8, 2015 by Elliott Bay. The Market Monitor filed an additional answer on December 18, 2015. The Joint State Commissions filed an additional answer on December 23, 2015.

A. Comments

16. With respect to netting, commenters generally agree with PJM that PJM's existing tariff is unjust, unreasonable and unduly discriminatory, because it permits the holder of a negatively-valued FTR to pay less than 100 percent of its losses and then shifts this unpaid balance to the holder of a positively-valued FTR in the form of a reduced payout ratio.[12] Dominion asserts PJM's proposal will restore appropriate value to all prevailing flow FTRs. The Market Monitor asserts that all FTRs with positive target allocations should be treated equally, regardless of a participant's portfolio.

17. With respect to PJM's existing Stage 1A 10-year simultaneous feasibility process, the Market Monitor agrees with PJM that PJM's transmission system is not currently adequate to support the required level of Stage 1A ARR allocations.

18. Dominion supports PJM's inclusion of a +1.5 percent growth rate adder, asserting that it more accurately reflects the historic ARR growth rate and promotes enhanced transmission planning. Dominion adds that when ARR infeasibility is not identified early enough, PJM risks over-allocating ARRs, due to the lack of required transmission upgrades, thus enhancing the likelihood of underfunding.

[12] The Market Monitor asserts that, absent netting, the payout ratio for the 2012-13 planning period would been 84.5 percent, not 67.7 percent, as reported, while the payout ratio for the 2013-14 planning period would have been 87.5 percent, not 72.8 percent, as reported. *See* Market Monitor comments at 5 (citing 2015 State of the Market Report for PJM at Q2, section 13).

19. Direct Energy agrees that PJM's proposal will provide some incremental help. PSEG too characterizes PJM's proposal as a limited enhancement. The Market Monitor states that the adder approach will only slightly increase the identification of required upgrades to support future Stage 1A ARR requests and does not address the root cause of over-allocated Stage 1A ARRs. The Market Monitor suggests that another potential approach to the Stage 1A allocation is to do a careful review of the historical basis for the allocations and determine whether a more current basis would be appropriate.[13]

20. Commenters also address the required scope of this proceeding. Direct Energy urges the Commission to conditionally accept PJM's proposed tariff revisions, subject to the consideration of a broader set of related issues, in a PJM stakeholder proceeding, addressing: (i) the underlying cause of persistent negative balancing congestion and FTR underfunding as attributable to the FTR market model, the day-ahead energy market model, and real-time energy market model; (ii) interregional coordination; and (iii) the inappropriate impacts of Up-To Congestion Transactions (UTC) under PJM's conservative outage modeling.

21. Specifically, Direct Energy argues that UTC transactions allow entities to purchase or sell congestion spreads between the day ahead and real time energy market and to receive an inappropriate share of congestion revenues, to the extent these transactions are entered on paths subject to persistent, recurring congestion differentials that result from modeling inconsistencies between the day ahead and real time energy markets. ODEC/AEP asserts that, in the event the Commission determines that additional revisions to PJM's tariff may be required -- to more fully address FTR inadequacy -- these additional reforms should be considered first through PJM's stakeholder process, not by expanding the scope of the instant proceeding.[14]

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[13] The Market Monitor notes that under the current rules, Stage 1A source points are defined by historic resources in a zone in a given reference year, which can date back to 2008. Some of these facilities are no longer in service, but continue to be allocated Stage 1A ARRs.

[14] *Compare* Shell Comments at 3 (urging the Commission to take steps to address the fundamental issues that have caused FTR underfunding); J. Aron comments at 5 (urging that PJM be required to implement more comprehensive solutions addressing the allocation of ARRs and underfunding, to be made effective on a prospective basis).

B. **Protests**

22. J. Aron argues that while the Commission recently concluded, in the *First Energy Complaint Order*, that the tariff provisions at issue here were just and reasonable, circumstances have changed significantly. Specifically, J. Aron argues that PJM has now itself determined that its tariff is unjust and unreasonable, following the steps it took under its existing tariff, and as encouraged by the Commission, to improve FTR revenue adequacy.[15] J. Aron concurs that, on this basis, PJM's existing tariff is unjust and unreasonable. J. Aron adds, however, that PJM's proposed changes are too narrow and that a more comprehensive solution is required.

23. With respect to netting, Financial Marketers, Elliot Bay, Appian, and Shell argue that PJM's complaint fails to establish that PJM's currently-effective tariff is unjust and unreasonable. Elliott Bay argues that, in accepting the provisions at issue here, the Commission gave careful consideration to how netting should work.[16] Elliott Bay further asserts that PJM has provided no evidence suggesting that the elimination of netting will address the root cause of transmission congestion or underfunding. Shell adds that PJM has failed to explain how netting counterflow FTRs with prevailing flow FTRs for surplus/shortfall allocation reduces the value of FTRs as a congestion hedge or otherwise contributes to FTR revenue inadequacy. In addition, Financial Marketers and Shell argue that PJM fails to support its claim that LSEs do not hold counterflow FTRs.[17] Financial Marketers further argue that PJM has failed to demonstrate that netting FTR positions misallocates costs, distorts market outcomes, promotes inefficiency, or otherwise disrupts an orderly market.

24. Elliott Bay and Shell argue, to the contrary, that netting promotes market efficiency. Elliott Bay asserts that netting creates an FTR market structure that allows LSEs and other market participants to hedge congestion risk from locational price differentials in the day-ahead market in an efficient manner. Elliott Bay explains that the

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[15] J. Aron Comments at 6 (citing *FirstEnergy Complaint Order*, 151 FERC ¶ 61,205 at P 26).

[16] Elliott Bay Protest at 8 (citing *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,144, at P 54 (2007) and *PJM Interconnection, L.L.C.*, 121 FERC ¶ 61,073, at P 16 (2007)).

[17] Financial Marketers argue, to the contrary, that LSEs do hold counterflow FTRs. *See* Financial Marketers Protest at 10 (citing Stevens Aff. at Table 6 (showing that LSEs typically acquire up to 5 percent of total counterflow FTR obligations at auction)).

current market structure should result in an efficient market outcome regardless of the funding ratio, provided that transaction fees are small and the FTR market is competitive.[18] Shell asserts that netting ensures that any revenue inadequacies are allocated in a manner that recognizes that counterflow FTRs and prevailing flow FTRs economically cancel each other out, thus eliminating their financial impact on the market.

25. Financial Marketers assert that PJM's sole basis for eliminating netting appears to be an effort to either eliminate counterflow FTRs indirectly, or spread the risk of under/overfunding disproportionately and in an unduly discriminatory manner to market participants that hold both counterflow FTRs and prevailing flow FTRs. Financial Marketers argue, however, that counterflow FTRs operate as a benefit to the FTR market and, as the Commission has recognized, promote liquidity, enhanced risk management, and lower auction clearing prices.[19]

26. Financial Marketers argue that PJM's existing approach to netting appropriately recognizes the value of counterflow FTRs to the PJM market and the fact that long and short positions do, by their nature, have a net effect on each other economically and on the PJM system, such that the allocation of either an FTR funding surplus or shortfall should only occur after netting. Financial Marketers add that, absent netting, portfolios that are mathematically equivalent for purposes of actual congestion revenue will result in surplus/shortfall allocations that will differ – an unwarranted result.

27. Financial Marketers further assert that without netting, the risks of underfunding will shift to market participants that take on counterflow FTR obligations intentionally, or wind up holding counterflow FTRs due to market outcomes, thus creating a strong disincentive to assume counterflow FTRs obligations and thus reducing market benefits. Financial Marketers further argue that the elimination of netting could result in increased potential market manipulation whereby market participants could devise more complicated schemes to cancel-out congestion revenue risk in their FTR portfolios for the sole purpose of increasing their gross positive position and capturing more surplus credits.[20] Elliott Bay adds that the elimination of netting will create significant market inefficiencies, during periods of underfunding, given the projected decline in mutually beneficial off-setting transactions.

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[18] Elliott Bay Protest at 17 (citing Lonergan Aff. at P. 30).

[19] Financial Marketers Protest at 7 (citing *PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,279, at P 6 (2008)).

[20] *Id.* at 13-14.

28. Shell argues that PJM's proposal to eliminate netting does nothing to ensure revenue sufficiency going forward. Elliott Bay adds that, if netting is eliminated, an additional cost will be imposed on purchasers of counterflow FTRs, which could be factored into bids for counterflow FTRs. Specifically, Elliott Bay asserts that the elimination of netting will raise the price at which a market participant will be willing to take on congestion risk through counterflow FTRs. Elliott Bay adds that, in such circumstances, prevailing flow FTR bidders may not be willing to pay the price required by counterflow bidders and thus their bids may not clear in the market, thereby resulting in a foregone, mutually beneficial exchange of congestion risk between the counterflow FTR bidder and the prevailing flow FTR bidder.

29. Elliott Bay and Shell argue counterflow FTRs do not cause or exacerbate underfunding when portfolio netting is permitted. Elliott Bay asserts, to the contrary, that netting counterflow FTR target allocations (which are negative) against an FTR holder's prevailing flow target allocations (which are positive) is consistent with cost causation. Financial Marketers further argue that PJM's proposed FTR netting change will operate in way that unduly discriminates between LSEs and all other FTR holders. Financial Marketers further assert that PJM's proposed FTR netting change introduces discriminatory treatment as between market participants doing business in different PJM-administered markets. Specifically, Financial Marketers argue that PJM's proposed changes would leave in place portfolio netting rules applicable to PJM's capacity market and the assignment of peak-hour availability changes.[21]

30. Elliott Bay argues in the alternative that, if the Commission declines to reject PJM's proposal to eliminate netting, hearing procedures will be required to address the disputed issues of material fact summarized above. Financial Marketers argue that, if the Commission accepts PJM's proposal, such a change should apply to newly acquired FTRs only, given the outstanding, long-term FTRs that were previously acquired under PJM's existing rules.

31. Financial Marketers and Appian also object to PJM's proposal to escalate current ARR results using a zonal load forecast growth rate of +1.5 percent in the Stage 1A 10-year simultaneous feasibility process. Appian argues that PJM's proposal would distort the transmission expansion process by introducing a non-reliability and non-economic variable, resulting in some transmission customers/LSEs paying for upgrades to allow other transmission customers/LSEs to obtain an increase in ARR allocations. Financial Marketers argue that PJM's proposal fails to demonstrate that, in the absence of such an adder, PJM's existing tariff is unjust and unreasonable. Financial Marketers add

[21] *Id.* at 6 (citing PJM OATT at Attachment DD, section 10(g).

that PJM's proposal ignores the root causes of Stage 1B ARR under-allocation and Stage 1A ARR over-allocation. Specifically, Financial Marketers argue that PJM's proposed adder would allow PJM to continue to include inaccurate assumptions about system capabilities in its modeling and to accept infeasible Stage 1A ARRs at the outset of its ARR allocation process. Financial Marketers assert that, contrary to this approach, an accurate simultaneous feasibility test would avoid the over-allocation of Stage 1A ARRs and allow for a more equitable allocation of Stage 1B ARRs.

32. Finally, Financial Marketers argue that, even assuming that PJM has met its burden with respect to its status quo practices, numerous alternative approaches would be available to address underfunding and the fair allocation of ARRs based on actual system capabilities, thus warranting the establishment of settlement judge or hearing procedures to address these issues. Financial Marketers assert that disputed issues of material fact have been raised regarding the following specific issues: (i) the appropriateness of eliminating all infeasible ARRs and ARR over-allocations; and (ii) the application of cost causation principles to real-time balancing congestion.

C. PJM's Answer

33. PJM responds to Financial Marketers' argument that PJM's netting proposal will have a chilling effect on counterflow FTRs, which are beneficial to the market. PJM does not dispute that counterflow FTRs provide a benefit to the market, but asserts that there is no reason to net counterflow FTRs from prevailing flow FTRs in determining how to allocate FTR underfunding.

34. PJM also responds to Financial Marketers' argument that PJM's netting proposal would lead to unduly discriminatory treatment of mathematically equivalent portfolios, and that even where two portfolios have an identical congestion credit target settlement, PJM's proposal would result in significantly different and arbitrary allocations of any surplus or shortfalls. PJM argues that, in fact, FTR funding will increase under its proposal. PJM adds that, while the denominator will increase because of the increased positive FTR allocations, the numerator will also increase because of the increase in negative target allocations that are no longer netted. PJM adds that the total net dollars of underfunding or overfunding will not change.

35. PJM also responds to intervenors' alternative proposals to address FTR underfunding. PJM argues that while these alternatives may have merit, PJM's approach is just and reasonable and appropriately targeted.

36. PJM responds to the comments submitted by PSEG and Direct Energy, suggesting that PJM's proposed escalation factor will have only a minimal impact. PJM argues that if this escalation factor had been effect, it could have identified the Grand Prairie Gateway transmission project earlier and have avoided at least one of the infeasibilities

one year earlier. PJM asserts that, because it did not, Stage 1A ARRs were over-allocated. Finally, PJM responds to Financial Marketers' argument that PJM's proposed escalation factor does not address the underlying issue of allocating infeasible Stage 1A ARRs. PJM argues that the purpose of its adder is not to address its reliability analysis, but to supplement that process by identifying potential infeasibilities earlier in the process.

D. Additional Answers

37. ODEC/AEP respond to the argument, as made by Financial Marketers, Shell, Elliott Bay, and Appian, that PJM's filing fails to demonstrate that its ARR/FTR provisions are unjust, unreasonable, unduly discriminatory, or preferential. ODEC/AEP argue that the sufficiency of PJM's filing, in this regard, should not be measured, as intervenors suggest, on whether it addresses revenue inadequacy, but whether PJM's existing mechanisms, as put in place to improve FTR revenue inadequacy, have been rendered unjust and reasonable. ODEC/AEP assert that, as viewed in this context, PJM's filing sufficiently demonstrated that PJM's existing netting mechanism is unjust and unreasonable because it gives rise to an unwarranted subsidy. ODEC/AEP add that PJM's tariff, absent its proposed escalation adder, is unjust and unreasonable, because it provides insufficient notice of potential feasibility issues, as tied to PJM's transmission planning process.

38. The Joint State Commissions respond to arguments made by Appian, J. Aron, and Financial Marketers, regarding the need to revisit issues addressed in the *FirstEnergy Complaint Order*, including the issue of whether FTR underfunding should be corrected by imposing the cost of balancing congestion on end users. The Joint State Commissions argue that this issue was asked and answered in the *FirstEnergy Complaint Order* and should not be revisited here, given that: (i) end users are not the cause of claimed FTR underfunding and should not be responsible for ensuring the profitability of FTR holders; and (ii) balancing congestion is properly an element of the FTR market, offsetting market profitability, as opposed to a responsibility to be borne by loads.

39. The Market Monitor responds to Financial Marketers' characterization of PJM's exiting netting methodology as fair and symmetrical. The Market Monitor asserts that it is neither, given that PJM's existing methodology creates a subsidy from holders of positively valued FTRs to holders of negatively valued FTRs. The Market Monitor adds that treating all negative target allocations as a source of revenue before netting is the appropriate way to allocate the revenue collected in the FTR market because it treats all positive target allocation FTRs the same, regardless of portfolio construction.

40. The Market Monitor also responds to Elliott Bay's argument that PJM's proposed elimination of netting is unaccompanied by any analysis of its likely market impact. The Market Monitor argues that, in fact, there is substantial evidence that portfolio netting has

resulted in a significant shift of revenues away from holders of positively valued FTRs to the holders of FTRs with negative target allocations.

41. The Market Monitor also disputes Financial Marketers' claim that changes affecting the profitability of financial participants' FTR positions will have a negative impact on liquidity. The Market Monitor argues, to the contrary, that even in planning periods in which decreased revenue adequacy is experienced, there has been a steady, or increased, volume of bid counterflow FTRs. The Market Monitor adds that, under PJM's proposal, there is no reason to expect a change in liquidity, given that counterflow FTRs are, and will remain, profitable.

42. The Market Monitor also disputes Financial Marketers' claim that, under PJM's proposal, there is the possibility of end-of-planning period surplus manipulation. The Market Monitor argues that this possibility is unlikely because at the end of the planning period, any excess congestion revenue, or required uplift, is allocated to participants in proportion to their position at the end of the planning period, with any planning period gains distributed over all FTR participants. The Market Monitor adds that predictions about the end-of-planning period excess, or shortfall, would be risky.

43. Financial Marketers respond to the Market Monitor's assumption that the example set forth in in Financial Marketers' protest (addressing possible FTR positions under different scenarios) necessarily refers three separate market participants. Financial Marketers clarify that their example highlights three different scenarios where any single market participant could hold "mathematically equivalent" FTR positions. Financial Marketers reiterate that eliminating netting merely shifts costs among market participants, depending on whether they hold counterflow FTRs, and does not change the total cost of underfunding.

IV. Procedural Matters

44. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. In addition, given their interests, the early stage of these proceedings and the absence of undue prejudice or delay, we grant the unopposed, late-filed intervention submitted by Mercuria, the Maryland Commission, and the New Jersey Board.

45. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure prohibits an answer to a protest and an answer to an answer unless otherwise ordered by the decisional authority. We accept the answers submitted by PJM, the Market Monitor, the Joint State Commissions, ODEC/AEP, Financial Marketers, and Elliot Bay, because they have provided information that has assisted us in our decision-making process.

V. **Discussion**

46. PJM asserts that, while its recent efforts to restore adequate FTR funding through its existing rules have been successful, in part, by utilizing a more conservative approach to allocating Stage 1B ARRs, among other revisions, these reforms have failed to ensure that FTR holders will retain the value of their firm transmission service rights. Specifically, PJM notes that revenues have been shifted from ARR holders to FTR holders, through a reduction of the quantity of ARRs. PJM characterizes this cost shift as unjust and unreasonable, and proposes, as a remedy, to eliminate negatively valued FTRs from netting against positively valued FTRs within an FTR holder's FTR portfolio and escalate current ARR results using a zonal load forecast growth rate of +1.5 percent in the Stage 1A 10-year simultaneous feasibility process.

47. Protestors, however, challenge PJM's assertion that its netting provisions are unjust and unreasonable, or that the elimination of netting will address the root cause of transmission congestion or underfunding. Protestors point to concerns that affect Stage 1A over-allocations, including ARR modeling assumptions (the reliance on historical data) and the impact of balancing congestion on FTR underfunding.[22] Protestors similarly question whether PJM has met its burden of proof by demonstrating that, in the absence of its proposal to escalate current ARR results using a zonal load forecast growth rate of +1.5 percent in the Stage 1A 10-year simultaneous feasibility process, PJM's existing tariff is unjust and unreasonable. Some protestors, while not expressly objecting to PJM's proposal, assert that the use of an escalation factor will have only a limited impact on preventing infeasible ARRs. Protestors also propose alternatives, including a comprehensive review of PJM's ARR/FTR design, as discussed in their affidavit testimony and additional intervenor analysis and argument. These positions, in turn, are challenged by PJM and others, in their answers.

48. We find that the issues raised by PJM, in its complaint, cannot be resolved based on the record before us. Accordingly, to provide for the development of a more complete record on these issues, we direct Commission staff to convene a technical conference. The technical conference will focus on PJM's claim that its existing ARR/FTR provisions are unjust and unreasonable and that its proposed revisions to its tariff addressing these matters are just and reasonable, including tariff remedies, as may be appropriate. Issues to be addressed include, but are not limited to: (i) ARR modeling and allocation

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[22] Negative balancing congestion occurs when real-time transmission capacity is less than day-ahead transmission capacity. FTRs are allocated negative balancing congestion charges, which in turn can result in FTR underfunding because the revenues allocated for meeting the FTR funding target amount are decreased.

processes; (ii) treatment of portfolio positions in allocating underfunding or surplus among FTR holders and the potential for market manipulation; and (iii) balancing congestion in ARR/FTR product design. Following the technical conference, the parties will have an opportunity to file written comments that will be included in the formal record of this proceeding, which together with the record developed to date, will form the basis for further Commission action.

The Commission orders:

Commission staff is hereby directed to convene a technical conference, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

List of Intervenors

American Electric Power Service Corp. (ODEC/AEP) *
American Municipal Power, Inc.
Appian Way Energy Partners (Appian) *
Boston Energy Trading and Marketing, LLC
Exelon Corporation
DC Energy, LLC (Financial Marketers) *
Dayton Power and Light Company (Dayton/FirstEnergy) *
Delaware Division of the Public Advocate
Direct Energy Business, LLC (Direct Energy) *
Dominion Resources Services, Inc. (Dominion) *
Elliott Bay Energy Trading, LLC (Elliot Bay) *
Financial Marketers Coalition
FirstEnergy Service Co. (Dayton/FirstEnergy) *
Independent Market Monitor for PJM (Market Monitor)*
Inertia Power I, LLC (Financial Marketers) *
J. Aron & Company (J. Aron) *
Maryland Public Service Commission (Joint State Commissions)
Mercuria Entities (Mercuria)
NRG Power Marketing LLC and
  GenOn Energy Management, LLC
New Jersey Board of Public Utilities (Joint State Commissions)
North Carolina Electric Membership Corp.
Old Dominion Electric Cooperative (ODEC/AEP) *
PSEG Companies (PSEG) *
PJM Industrial Customer Coalition
Saracen Energy East LP (Financial Marketers) *
Shell Energy North America (US), L.P. (Shell) *
Southern Maryland Electric Cooperative
Transource, LLC
Vitol Inc. (Financial Marketers) *

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* comments or protests