

158 FERC ¶ 61,093
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

PJM Interconnection, L.L.C.

Docket Nos. EL16-6-002
EL16-6-003
ER16-121-001

ORDER ON REHEARING AND COMPLIANCE

(Issued January 31, 2017)

1. In this order we address requests for rehearing of the Commission's September 15, 2016 order, in which the Commission determined under section 206 of the Federal Power Act (FPA), just and reasonable rate tariff provisions relating to the allocation of Auction Revenue Rights (ARR) and Financial Transmission Rights (FTR). We also address a compliance filing submitted by PJM Interconnection, L.L.C. (PJM) on November 14, 2016, in response to the September 15 Order. For the reasons discussed below, we deny rehearing of the September 15 Order. We accept PJM's compliance filing, as discussed below, with the tariff provisions to become effective on dates specified in the Appendix, as requested by PJM, and require PJM to make a compliance filing within 30 days of the date of this order.

I. Background

2. In its initial filings in this proceeding, PJM proposed to minimize certain cost shifts between the holders of ARRs and the holders of FTRs.¹ Specifically, PJM

¹ In its filing, in Docket No. ER16-121-000, PJM acknowledged that its proposed revisions to its Open Access Transmission Tariff (OATT) require parallel revisions to its Amended and Restated Operating Agreement (Operating Agreement). PJM stated, however, that its Operating Agreement changes, as submitted in Docket No. EL16-6-000, had received one less vote than the supermajority stakeholder vote needed to authorize a filing made pursuant to section 205 of the FPA, 16 U.S.C. § 824d (2012). Accordingly,

(continued...)

proposed to: (i) escalate current ARR results using a zonal load forecast growth adder of 1.5 percent in its Stage 1A 10-year simultaneous feasibility process; and (ii) eliminate the netting of negatively valued FTRs against positively valued FTRs within an FTR holder's portfolio. The Commission, in its December 28, 2015 order, set PJM's filings for a technical conference.² The technical conference was held on February 4, 2016.

3. The September 15 Order's findings addressing PJM's proposals and the issues raised at the technical conference are summarized more fully below as they relate to petitioners' rehearing requests and/or to PJM's compliance filing. But briefly, the September 15 Order found that PJM had met its section 206 burden, in part, by demonstrating that certain aspects of PJM's existing ARR/FTR market design had been rendered unjust and unreasonable due, among other things, to the modeling assumptions adopted by PJM in recent years to address FTR revenue inadequacy.³ The September 15 Order agreed with PJM that these modeling revisions, while promoting revenue adequacy, have nonetheless resulted in unwarranted cost shifts between ARR holders and FTR holders.⁴

4. However, the September 15 Order rejected PJM's proposed remedy as unjust and unreasonable. Specifically, the September 15 Order rejected PJM's proposal to reduce Stage 1A infeasible ARRs by increasing PJM's zonal load forecast growth rate. The Commission found that PJM's proposal would trigger unnecessary transmission enhancements based on a model that relies on outdated source and sink points. Instead, the Commission required PJM to revise its tariff to remove the use of historical

the Commission reviewed PJM's integrated filings pursuant to FPA section 206. *See PJM Interconnection, L.L.C.*, 156 FERC ¶ 61,180 at P 1 (2010) (September 15 Order).

² *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,344 (2015).

³ *See* September 15 Order, 156 FERC ¶ 61,180 at n.2 (noting that FTR revenue inadequacy occurs when there is insufficient revenue to fund all the prevailing flow FTRs, and that when FTRs are revenue inadequate, the prevailing flow FTR holder receives a reduced amount of Transmission Congestion Credits).

⁴ *Id.* n.4. The Commission noted that PJM, in a prior filing, had attempted to mitigate the effects of one of the causes of revenue inadequacy, namely a PJM requirement that PJM allocate, as part of its initial, or Stage 1A, ARR allocation, a minimum amount of ARRs for a 10-year period, even if infeasible (a requirement that leads to an over-allocation of ARRs and thus underfunding). To compensate for this over-allocation of Stage 1A ARRs, PJM implemented reforms to minimize its allocation of Stage 1B ARRs. *Id.*

generation resources for requested ARR in Stage 1A of the allocation process, to the extent those resources are no longer in service. The Commission also required PJM to develop a just and reasonable method of allocating Stage 1A ARR based on source points that reflect actual system usage. The September 15 Order also rejected, as unsupported, PJM's proposal to eliminate the step by which negatively valued FTRs are netted against positively valued FTRs within an FTR holder's portfolio. The Commission found that PJM had not met its burden in establishing that PJM's existing rules with respect to portfolio netting are unjust and unreasonable.

5. Finally, the September 15 Order agreed with PJM that FTR underfunding can be reduced by excluding from the FTR settlement process the real-time cost of a congestion imbalance, a cost that is not related to day-ahead congestion. Accordingly, the Commission found that the inclusion of balancing congestion in the definition of FTRs is unjust and unreasonable because it contributes to a cost shift between ARR holders and FTR holders that is unjust and unreasonable. The Commission therefore required PJM to allocate balancing congestion to real-time load and exports.

II. Requests for Rehearing

6. Rehearing of the September 15 Order was sought by Monitoring Analytics, PJM's independent market monitor (Market Monitor), jointly by the Direct Energy Business, LLC and the PJM Industrial Customer Coalition (Direct Energy/PJM-ICC), jointly by the New Jersey Board of Public Utilities and the Delaware Public Service Commission (collectively, Joint State Commissions), jointly by Old Dominion Electric Cooperative, Southern Maryland Electric Cooperative, Inc., Buckeye Power, Inc., Dominion Resources, Inc., North Carolina Electric Membership Corporation, and American Municipal Power, Inc. (collectively, Indicated LSEs). We address these requests below, relative to: (i) ARR Stage 1A over-allocations; (ii) portfolio netting; and (iii) balancing congestion.

7. Answers to rehearing requests were filed by the Market Monitor, DC Energy, LLC, *et al.*,⁵ the Financial Marketers Coalition, and J. Aron & Company. Rule 713(d)(1) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.713(d)(1) (2016), prohibits an answer to a request for rehearing. Accordingly, we reject the aforementioned answers.

⁵ Joined by: Inertia Power, LP, Saracen Energy East LP, and Vitol, Inc.

A. ARR Stage 1A Over-Allocations

8. PJM is required under its tariff to conduct an analysis and plan transmission upgrades to ensure that Stage 1A ARR requests will be physically feasible at least 10 years into the future.⁶ In addition, PJM allocates a minimum amount of ARRs for a 10-year period, in its Stage 1A ARR process, even if they are infeasible.⁷ At the time that PJM submitted its filings herein, PJM was required by its tariff to allocate Stage 1 ARRs based on source points linked to a historical reference year or 1998, unless otherwise specified.⁸

1. September 15 Order

9. The September 15 Order found that PJM met its FPA 206 burden in showing that its tariff is unjust and unreasonable with respect to ARRs and FTRs. However, the September 15 Order rejected PJM's proposal to escalate its ARR results using a zonal load forecast growth rate adder of 1.5 percent in its Stage 1A 10-year simultaneous feasibility analysis. Instead, the Commission required PJM to modify its tariff to remove the use of historical generation resources for requested ARRs in Stage 1A of the allocation process if those resources are no longer in service and develop a just and reasonable method of allocating Stage 1A ARRs based on source points that reflect actual system usage, i.e., actively used paths.⁹

10. In making these determinations, the Commission first addressed PJM's assertion that its existing tariff is unjust and unreasonable because the modeling assumptions it relies on to address FTR revenue inadequacy and the over-allocation of Stage 1A ARRs have resulted in unwarranted cost shifts between ARR holders and FTR holders. The Commission found that the market rules governing ARRs and FTRs lead to unjust and

⁶ Operating Agreement at Schedule 1, section 7.5(b).

⁷ *Id.* at section 7.4.2(i).

⁸ See PJM OATT at Attachment K-Appendix, section 7.4.2(b) and (i) (establishing a historical reference year of 1998, or, if later, the year that a zone is integrated into PJM, namely: (i) a reference year of 2002, for the Allegheny Power and Rockland Electric Zones; (ii) a reference year of 2004, for the AEP East, the Dayton Power & Light Co., and Commonwealth Edison Co. Zones; (iii) a reference year of 2011, for the ATSI Zone; (iv) a reference year 2012, for the DEOK Zone; and (v) a reference year of 2013, for the EKPC Zone).

⁹ September 15 Order, 156 FERC ¶ 61,180 at P 39 and P 45.

unreasonable results. The Commission noted that, currently, PJM is required by its tariff to use historical paths, which has resulted in PJM modeling dummy generators where the historic source points are no longer in service.

11. The Commission found that this modeling assumption presents a disconnect as between the Stage 1A ARR allocation and the actual system usage, which could result in infeasible Stage 1A ARRs, given that some pathways may appear to be infeasible even when, in actual system usage, these lines are not overloaded. The Commission found that because PJM has no mechanism in place by which to update this requirement, future changes in the resource mix and retirements would only further exacerbate this problem. Accordingly, the Commission found that PJM's existing provisions addressing requested 10-year ARRs are unjust and unreasonable, given the aforementioned disconnect between Stage 1A ARR allocation and actual system usage, and its resulting contribution to infeasible Stage 1A ARRs. The Commission further found that these limitations, in turn, have resulted in an unjust and unreasonable cost shift.

12. The Commission also addressed the operation and effect of Order No. 681, including the requirement that PJM meet the reasonable needs of load serving entities to satisfy their service obligations and secure firm transmission rights (or the equivalent tradable or financial rights) on a long-term basis.¹⁰ The Commission found that Order No. 681 does not require PJM to use historical paths that are no longer in service in its Stage 1A ARR allocation.¹¹

13. The Commission next addressed PJM's proposal to increase its zonal load growth, including PJM's assertion that such an increase to the assumed load reflected in its simultaneous feasibility analysis would also result in an increase in requested ARRs thereby increasing the potential for ARRs to be shown as infeasible in future analyses which PJM argued would help prevent infeasible Stage 1 ARRs by identifying transmission upgrades earlier for inclusion in PJM's Regional Transmission Expansion Plan (RTEP). The Commission found that utilizing escalated values is not a just and reasonable solution to prevent infeasible Stage 1A ARRs because it could trigger

¹⁰ See *Long-Term Firm Transmission Rights in Organized Electricity Markets*, Order No. 681, FERC Stats. & Regs. ¶ 31,226, *reh'g denied*, Order No. 681-A, 117 FERC ¶ 61,201 (2006).

¹¹ See September 15 Order, 156 FERC ¶ 61,180 at P 41 (citing Order No. 681, FERC Stats. & Regs. ¶ 31,226 at P 80, finding that long-term firm transmission rights attributable to both new and existing capacity are consistent with the firm transmission rights requirements of section 217 of the Energy Policy Act of 2005, 16 U.S.C. § 824q (2012)).

transmission enhancements to paths that are not needed for reliability and are not able to be justified through the benefits of relieving congestion through PJM's economic planning process.¹²

14. The Commission further found that any transmission enhancement identified under escalated load projections distorts the planning process, such that transmission planning is not based on expected system conditions.¹³ The Commission further found that, in some cases, these paths may reflect generators that no longer exist or generation that load no longer utilizes (due to sale of the generation unit or the termination of a bilateral contract). In addition, the Commission held that PJM's existing RTEP process would not identify a need to build transmission enhancements for projected reliability or market efficiency needs without using an adjustment unrelated to system needs. The Commission also found that developing transmission enhancements solely to address infeasible ARRs ignores the more fundamental issue of why PJM should continue to model requested ARRs based on historic generation paths that load no longer utilizes.¹⁴

15. The September 15 Order held that if the Stage 1A ARR pathways were projected to raise reliability concerns, PJM's RTEP procedures would identify that need. The Commission noted that most infeasible Stage 1A ARRs historically have been addressed through other projects in PJM's RTEP. For Stage 1A ARRs that are shown to be infeasible over the 10-year analysis, but are not otherwise shown as necessary in PJM's planning process, the Commission found that such an infeasibility is attributable in large part to a disconnect between requested Stage 1A ARR paths and actual system usage. The September 15 Order found that escalating current ARR results using a zonal load forecast growth rate would not resolve this disconnect, and could result in building unnecessary transmission enhancements.¹⁵ The Commission therefore rejected commenters' argument that PJM's proposed adder would be beneficial in identifying potential transmission projects sooner in the RTEP process.¹⁶

¹² September 15 Order, 156 FERC ¶ 61,180 at P 42.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.* P 43.

¹⁶ *Id.* P 44.

2. Rehearing Arguments

16. Rehearing of the September 15 Order's findings regarding PJM's proposed 1.5 percent adder and/or the Commission's requirement that PJM allocate Stage 1A ARR based on source points that reflect actual system usage was sought by the Market Monitor, Indicated LSEs, Direct Energy and the Joint State Commissions.

17. Indicated LSEs argue that while the September 15 Order correctly determined that PJM's existing use of historic paths in the Stage 1A 10-year simultaneous feasibility analysis produces an unjust and unreasonable cost shift from ARR holders to FTR holders, the Commission failed to correct for this value shift by rejecting PJM's proposed remedy, i.e., PJM's proposed 1.5 percent adder, and by instead requiring PJM to rely only on actively used paths in its Stage 1A ARR modeling. Indicated LSEs argue that there was no evidence suggesting that the use of actual paths will, in fact, create the just and reasonable remedy required. Instead, Indicated LSEs assert that the likely result will be fewer feasible Stage 1A ARRs, a circumstance which will result in even less of a hedge against congestion for load, contrary to the requirements of FPA section 217.¹⁷

18. Indicated LSEs also argue that, in concluding that PJM's proposed 1.5 percent adder could trigger transmission enhancements to paths that are not needed for reliability, the Commission ignored PJM's assessment that its proposed adder will not necessarily result in the construction of additional transmission. Indicated LSEs further assert that the Commission ignored the record evidence presented demonstrating that PJM's proposed adder would identify transmission enhancements at an earlier point, thus producing a reliability benefit that can be justified on an economic basis.¹⁸

19. Indicated LSEs also point to the record evidence regarding the Grand Prairie Gateway transmission project, the only project built to address ARR infeasibility to date. Indicated LSEs argue that PJM's 10-year Simultaneous Feasibility Test did not provide an early identification of the Stage 1A infeasibility in the relevant zone applicable to this project (the ComEd Zone), resulting in an over-allocation of Stage 1A ARRs – an over-allocation that would have been mitigated had the project been brought into service a year earlier through the inclusion of PJM's proposed 1.5 percent adder.¹⁹

¹⁷ Indicated LSEs Rehearing Request at 6-7.

¹⁸ *Id.* at 8 (citing PJM's November 24, 2015 Answer at 6).

¹⁹ *Id.* at 7-9.

20. The Market Monitor argues that the September 15 Order's requirement that PJM allocate Stage 1A ARR's based on source points that reflect actual system usage fails to remedy the inappropriate disconnect between Stage 1A allocations and actual system usage. The Market Monitor asserts that while the September 15 Order correctly found that the use of long outdated generation to load paths was unjustified, the Commission's assumption that the use of updated generation-to-load paths, even were that possible in the context of a network system, would not reflect the actual arrangement of PJM's network, or the rules governing PJM's payment of congestion revenues. The Market Monitor argues that, as such, the very concept of generation-to-load paths is archaic and must be rejected.²⁰ The Market Monitor argues that the appropriate remedy to address the issue of inaccurate generation-to-load paths was the proposal set forth by the Market Monitor at the technical conference. Specifically, the Market Monitor asserts the PJM's prior approach, pre-dating the introduction of ARR's, should be reinstated, pursuant to which load received all congestion revenues and FTR's were directly allocated to load.²¹

21. The Joint State Commissions agree with the Market Monitor that it is not possible to update generation-to-load paths to reflect the way generation actually serves load, or to reflect the reasons that congestion is incurred across PJM's transmission network.²² The Joint State Commissions argue that the September 15 Order, in addressing the need for accuracy in this regard, failed to consider a proposal that would have ensured that loads receive all congestion revenue, regardless of the use of generation-to-load paths. The Joint State Commissions add that while the reforms required by the September 15 Order were appropriately targeted to the economic interests of load relative to congestion revenues, financial participants will be the beneficiaries of these changes.²³

3. Commission Determination

22. For the reasons discussed below we deny rehearing of the September 15 Order's findings regarding PJM's proposed 1.5 percent adder and the Commission's requirement that PJM allocate Stage 1A ARR's based on source points that reflect actual system usage.

²⁰ Market Monitor Rehearing Request at 8-9.

²¹ *Id.* at 26 (citing Technical Conference Transcript at 173:22-174:9).

²² Joint State Commissions Rehearing Request at 22-23.

²³ *Id.* at 23-24.

23. As explained in the September 15 Order, any transmission enhancement identified under escalated load projections distorts the planning process, such that transmission planning is not based on expected system conditions.²⁴ The use of the 1.5 percent adder would trigger an increase in requested ARR's relative to PJM's forecast and may result in the construction of additional transmission. Although we acknowledge that, as protestors note, this would not always result in the construction of additional transmission, we continue to find that using escalated load projections could result in unwarranted transmission enhancements. Further, protestors cite only a single example of a project that had it been triggered earlier, would have prevented annual revenue shortfall associated with Stage 1A ARR's. This is insufficient evidence to find that utilizing PJM's actual load forecast without escalation for the assumed load reflected in the simultaneous feasibility analysis is unjust and unreasonable. We continue to find that the use of PJM's load forecast model for the assumed load reflected in the 10-year simultaneous feasibility analysis is just and reasonable and consistent with its use in other market design elements. Finally, we reiterate that PJM's tariff does not prevent PJM from conducting studies on the potential impacts of different growth rates on Stage 1A ARR feasibility.

24. Indicated LSEs also argue that there is no evidence in the record that the use of only actively used paths in Stage 1 ARR modeling will rectify the underlying root cause and assert that the result will likely be fewer feasible Stage 1A ARR's, which will result in less of a hedge against congestion for load, stating that this is contrary to the requirement under FPA section 217.²⁵ We disagree. The removal of obsolete historical source points was supported in the record and necessary to address the underlying issues in Stage 1 ARR allocation. The Commission agreed with PJM that the result of 'proxy' generators is an inconsistent set of allocated ARR's and potentially corresponding FTR's that do not necessarily align with the usage of the existing transmission system, as transmission flows and associated congestion patterns have changed. To the extent the ARR paths do not align with the existing transmission system, we find that this could result in paths appearing to be infeasible in the simultaneous feasibility analysis, when in actual system usage, these lines are not overloaded.

25. We also reject the unsupported argument that removing obsolete historical source points would result in fewer feasible Stage 1A ARR's. We therefore also dismiss the argument that this will provide less of a congestion hedge for load or that this is contrary to the requirement under FPA section 217. In fact, we find that in aligning the ARR paths with the existing transmission system, this will enable PJM's existing transmission

²⁴ September 15 Order, 156 FERC ¶ 61,180 at P 42.

²⁵ 16 U.S.C. § 824q(b)(2)(2012).

planning process (RTEP) to help prevent infeasible Stage 1A ARR as the RTEP already conducts long-term (10-year) studies to meet reliability criteria and to relieve areas of congestion. Aligning the ARR paths with the system therefore also aligns the 10-year simultaneous feasibility analysis that can trigger transmission upgrades with the other RTEP studies. Further, we reiterate that FPA section 217 does not require that PJM use historical paths that are no longer in service in its Stage 1A ARR allocation.²⁶ Additionally, FPA section 217 also recognizes that rights do not have to be awarded to undeliverable paths.²⁷

26. The Market Monitor and the Joint State Commissions argue that it is not possible to update generation-to-load paths to reflect the way generation actually serves load. They also assert that the very concept of generation-to-load paths is archaic and must be rejected and instead PJM should allocate all congestion revenues directly to load. Instead, we find that it is possible and necessary to update generation-to-load paths to better reflect the system usage by replacing the megawatts associated with an obsolete source point with an appropriate replacement source. Although there are different potential approaches to implementing such an update, we find that the continued use of generation-to-load paths in the ARR/FTR construct is a just and reasonable allocation mechanism of transmission congestion rights. Although PJM's construct requires changes to address the unjust and unreasonable cost shift among ARR and FTR holders, we find that there is no evidence that the point-to-point construct is, in and of itself, unjust and unreasonable. Further, we find that maintaining a point-to-point construct is important to recognize bilateral arrangements in a Locational Marginal Price market.

27. Finally, the Market Monitor and Joint State Commissions reiterate the proposal, as made in their earlier filings,²⁸ that the Commission should support a market redesign to

²⁶ See September 15 Order, 156 FERC ¶ 61,180 at P 41 (citing Order No. 681, FERC Stats. & Regs. ¶ 31,226 at P 80, finding that long-term firm transmission rights attributable to both new and existing capacity is consistent with the firm transmission rights requirements of section 217 of the Energy Policy Act of 2005, 16 U.S.C. § 824q (2012)).

²⁷ Qualifying load serving entities are “entitled to use the firm transmission rights, or, equivalent tradable or financial transmission rights, in order to deliver the output or purchased energy, or the output of other generating facilities or purchased energy to the extent deliverable using the rights . . .” 16 U.S.C. § 824q(b)(2)(2012) (emphasis added).

²⁸ Market Monitor Post-Technical Conference Initial Comments at 2-3 and Joint State Commissions and Consumer Advocates Post-Technical Conference Reply Comments at 3-8.

ensure loads receive all congestion revenues. We reject the arguments that the sole purpose of FTRs is to return congestion revenue to load and the market should therefore be redesigned to accomplish that directive. FTRs were designed to serve as the financial equivalent of firm transmission service and play a key role in ensuring open access to firm transmission service by providing a congestion hedging function. The purpose of FTRs to serve as a congestion hedge has been well established. In the Energy Policy Act of 2005, Congress added section 217(b)(4) to the FPA,²⁹ directing the Commission to exercise its authority to “enable load serving entities to secure firm transmission rights (or equivalent tradable or financial rights) on a long-term basis for long-term power supply arrangements made, or planned, to meet such needs.”³⁰ In Order No. 681, the Commission clearly emphasized the significance of FTRs in hedging congestion price risk.³¹

28. The Joint State Commissions further assert that the September 15 Order arbitrarily overlooks evidence in the record supporting this redesign. As discussed in the September 15 Order, there were many suggestions made as to proposed changes to PJM’s ARR/FTR construct and, although the September 15 Order recognized that additional improvements may be warranted, those proposals did not require action under section 206 of the FPA and were directed to the PJM stakeholder process. There is no evidence that the ARR/FTR market warrants an entire re-design to return congestion to load and we find that the elimination of the use of obsolete historic source points and the elimination of balancing congestion from the FTR funding equation is a just and reasonable method of rectifying PJM’s unjust and unreasonable ARR/FTR market design.

B. Portfolio Netting

29. When FTRs are underfunded, PJM is required, under its existing rules, to allocate the pro-rata reduction in Transmission Congestion Credits in a way that allows an FTR holder to net the value of its negatively valued FTRs against the value of its positively valued FTRs. In its filings herein, PJM proposed to eliminate netting of negatively valued FTRs against positively valued FTRs within an FTR holder’s portfolio.

²⁹ 16 U.S.C. § 824q(b)(2)(2012)

³⁰ *Long-term Firm Transmission Rights in Organized Elec. Mkts.*, Order No. 681, FERC Stats. & Regs. ¶ 31,226 at P 169, *reh’g denied*, Order No. 681-A, 117 FERC ¶ 61,201 (2006), *order on reh’g and clarification*, Order No. 681-B, 126 FERC ¶ 61,254 (2009).

³¹ *See, e.g.*, Order No. 681-A, 117 FERC ¶ 61,201 at P 13.

1. September 15 Order

30. The September 15 Order found that PJM had not demonstrated that its existing rules with respect to portfolio netting are unjust and unreasonable.³² First, the Commission addressed PJM's argument that PJM's existing rules are unjust and unreasonable because a netting allowance, as applied in the case of underfunding, i.e., when PJM is required to allocate a pro-rata reduction in Transmission Congestion Credits, degrades the hedging ability contemplated by an FTR and thus results in a cost shift, or cross-subsidy.

31. The Commission found that PJM had failed to demonstrate that portfolio netting was unjust, unreasonable, or unduly discriminatory. Specifically, the Commission found that PJM had not shown that counterflow FTRs contribute to FTR revenue inadequacy or that the elimination of netting would improve FTR funding. The Commission further found that portfolio netting does not result in cross-subsidies among parties holding prevailing flow and counterflow FTRs and that PJM's proposal would only reallocate FTR revenue inadequacy among various market participants without addressing the fundamental issues associated with FTR revenue inadequacy.

32. The Commission also found that portfolio netting does not result in a cross-subsidization of counterflow FTRs, given that PJM's practice already guarantees that both positive and negative target allocations will be treated equally. The Commission further found that netting is the functional equivalent of applying the same payout ratio³³ to *both* prevailing flow and counterflow FTR target allocations on an individual basis for net positive FTR portfolios. Given this finding, the Commission rejected the Market Monitor's argument that a market participant could shield itself from potential FTR revenue inadequacy by holding counterflow FTRs for the purpose of shrinking its net positive target allocation, given that the value of these counterflow FTRs is reduced by the payout ratio in the same manner as the value of prevailing flow FTRs.

33. The Commission further found that the Market Monitor's argument ignored the fact that market participants take into account expectations of FTR revenue inadequacy when transacting in FTR auctions, as the Market Monitor had previously acknowledged

³² September 15 Order, 156 FERC ¶ 61,180 at P 65.

³³ The payout ratio is a measure of FTR revenue adequacy and it compares, as a percentage, the revenues from Transmission Congestion Credits available to satisfy the funding of the total (net) amount of FTR target allocations.

in a 2015 market report.³⁴ The Commission held that counterflow FTR holders receive the FTR auction clearing price and assume the obligation to pay congestion on the relevant path, and that the FTR auction clearing price itself reflects the market's expectation of future FTR revenue adequacy. The Commission found that, as such, counterflow FTRs do not systematically allow their owners to profit by paying less in congestion rents than they receive in the FTR auction as up-front payment for a counterflow FTR. Under this same logic, the Commission rejected the argument that holders of counterflow FTRs are not exposed to underfunding under PJM's existing portfolio netting rule.

34. The Commission also found that netting counterflow FTR target allocations against an FTR holder's prevailing flow target allocations does not contribute to FTR revenue inadequacy. In addition, the Commission found that when an FTR holder with a net positive position assumes a counterflow FTR obligation, the negatively valued FTR cancels out a proportionate amount of congestion credits that PJM would otherwise owe to the FTR holder at settlement. The Commission found that because these reductions for counterflow FTRs are equal and opposite, there is no subsidy, or inflation of credits owed.

35. The Commission also found that its determinations in this proceeding as to portfolio netting are consistent with the Commission's previous finding that PJM's treatment of netting is a just, reasonable, and desirable feature in FTR markets.³⁵ Finally, the Commission rejected the argument that eliminating portfolio netting offers a more equitable approach to sharing the risks attributable to prevailing flow and counterflow FTRs. The Commission found that it need not decide this issue, given that PJM's currently effective allocation mechanism had not been shown to be unjust and unreasonable.

2. Rehearing Arguments

36. Rehearing of the September 15 Order's findings regarding PJM's portfolio netting proposal is sought by the Market Monitor, Indicated LSEs, and the Joint State Commissions.

³⁴ September 15 Order, 156 FERC ¶ 61,180 at P 69 (citing Monitoring Analytics, LLC, *2015 State of the Market Report for PJM: January through September*, at 473 (November 12, 2015)).

³⁵ *Id.* P 71 (citing *PJM Interconnection, L.L.C.*, 121 FERC ¶ 61,073, at P 16 (2007)).

37. The Market Monitor argues that PJM's portfolio netting rule was accepted by the Commission in a 2007 order,³⁶ but because that order and a subsequent order on clarification reveal confusion as to how the rule would operate and failed to assert a proper basis that might have supported the rule, the rule should not be accorded any deference in this proceeding. The Market Monitor further argues that portfolio netting is unjust and unreasonable because it provides unjustified subsidies to participants holding FTRs with negative target allocations.

38. The Market Monitor also challenges the September 15 Order's finding that no showing had been made in this proceeding that counterflow FTRs actually contribute to FTR revenue inadequacy or that elimination of netting would improve FTR funding. The Market Monitor argues that the examples the Commission cites (involving the use of payout ratios to reduce the value of both prevailing flow and counterflow FTRs) do not accurately reflect the FTR market. The Market Monitor argues that a symmetric application of the payout ratio to prevailing flow and counterflow FTRs has very different meanings that result in subsidies among participants. The Market Monitor argues that when the payout ratio is applied to prevailing flow FTRs, the revenue received by the participant is reduced, thereby reducing profits; the Market Monitor asserts that, by contrast, when the payout ratio is applied to counterflow FTRs, the revenue paid back by the participant is also reduced, but with the effect of both increasing profits and reducing available revenue to pay positive target allocations. The Market Monitor concludes that portfolio netting, when there is revenue inadequacy, unfairly reduces profits for prevailing flow FTRs while increasing profits for counterflow FTRs.

39. The Market Monitor adds that the September 15 Order's defense of portfolio netting erroneously relies on a single participant construct that is contrary to the reality of a multi-participant market. The Market Monitor asserts that while in a single participant market prevailing flow and counterflow FTRs could cancel out with no impact, in a multi-participant a counterflow FTR will not cancel out with a prevailing flow FTR, as shown in a table prepared by the Market Monitor.³⁷ Finally, the Market

³⁶ See *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,144, at P 71 (2007); *PJM Interconnection, L.L.C.*, 121 FERC ¶ 61,073 at P 16.

³⁷ Market Monitor Rehearing Request at 25 (showing the impacts of counterflow FTRs in a multi-participant market, where the megawatt-value target allocation for each FTR is \$1.00, from point A to B, with a total of \$2.00 in congestion collected from load).

Monitor reiterates various rebuttal arguments in response to protest arguments raised below.³⁸

40. Indicated LSEs argue that PJM's proposal to eliminate portfolio netting was appropriate and should have been accepted because it lessens the risk to FTR holders and is consistent with FPA section 217's mandate that load serving entities be provided a priority in hedging congestion charges. Indicated LSEs assert that, instead, the September 15 Order erroneously found that netting guarantees that both positive and negative target allocations are treated in the same manner. Indicated LSEs argue that the Commission's precedents and Congress's clear intent in FPA section 217 suggest otherwise. Indicated LSEs add that having erred in finding that there is no problem to be remedied when it comes to portfolio netting, the Commission then compounded that error by failing to address PJM's proposal on the merits.

41. The Joint State Commissions assert as error the Commission's reliance on revenue inadequacy, in rejecting PJM's claim that its portfolio netting rules are unjust and unreasonable. The Joint State Commissions argue that it is not the concern over revenue inadequacy that renders PJM's existing rules unjust and unreasonable, but rather the allocation of the available revenue among participants.³⁹ The Joint State Commissions add that, in fact, it was the concern over the misallocation of these revenues that formed the basis for PJM's proposal, as reflected in PJM's initial filing.⁴⁰

42. The Joint State Commissions further argue that the September 15 Order erred in not concluding that PJM's existing rule as to portfolio netting is unduly discriminatory, as between prevailing flow and counterflow FTRs. The Joint State Commissions argue that counterflow FTRs are not exposed to underfunding, i.e., market participants that successfully bid on counterflow FTRs are paid the FTR auction clearing price upfront for assuming variable congestion risk. The Joint State Commissions add that because these

³⁸ *Id.* at 22-23 (responding to the Post-Technical Conference Comments of Elliott Bay Energy Trading, LLC (Elliott Bay) at 19, that the elimination of portfolio netting would affect bid prices and cause participants to leave).

³⁹ *See also id.* at 20 (arguing that while portfolio netting does not directly affect overall revenue, it does affect the allocation of the available revenue among participant with the net result that funding is varied across participants based on the composition of their portfolio).

⁴⁰ Joint State Commissions Rehearing Request at 24-25 (citing PJM October 19, 2015 Filing at 19-20).

counterflow FTRs are an obligation, there is no reasonable way to connect the lack of revenues that affect prevailing flow to counterflow FTRs.

43. Finally, on the issue of cross-subsidization, the Joint State Commissions assert as error the September 15 Order's rejection of the Market Monitor's argument that a market participant could somehow shield itself from potential FTR revenue inadequacy by holding counterflow FTRs – for the purpose of shrinking its net positive target allocation. The Joint State Commissions assert that the Commission's finding is contradicted by the record evidence acknowledged even by the proponents of portfolio netting: that the holders of net negative and net positive portfolios are treated differently.⁴¹ The Joint State Commissions further assert that the disparate treatment as between prevailing flow and counterflow FTR holders was evidenced during the 2013-14 planning period.

3. Commission Determination

44. For the reasons discussed below, we deny rehearing of the September 15 Order on the issue of portfolio netting as we are not persuaded that the current treatment is unjust, unreasonable, or unduly discriminatory. Further, based on the substantial record in this proceeding, including four expert affidavits, there is sufficient evidence to find that the existing tariff treatment of portfolio netting continues to be just and reasonable.

45. As explained in the September 15 Order, portfolio netting is the functional equivalent of applying the same payout ratio to both prevailing flow and counterflow FTR target allocations on an individual basis for net positive FTR portfolios. To be clear, we define the payout ratio by calculating it as the available congestion credits as a percentage of the *net* target allocations, as defined under PJM's current rules, not as a percentage of *positive* target allocations as the Market Monitor redefines the payout ratio. Under PJM's current rules, whenever FTR holders with a net positive portfolio assume a counterflow FTR obligation (i.e., an FTR with a negative target allocation), the negatively settling FTR cancels out a proportionate amount of congestion credits that PJM would otherwise owe to these FTR holders at settlement. As these reductions for counterflow FTRs are equal and opposite for a market participant with a net positive FTR position, there is no subsidy or inflation of credit owed as asserted by the Market Monitor and others. We therefore also reject the contention⁴² that a market participant can somehow shield itself from potential FTR revenue inadequacy by holding counterflow FTRs for the purpose of shrinking its net positive target allocations, because the price

⁴¹ *Id.* at 26 (citing Shanker Affidavit at 8, n.4 and Pope Affidavit at 14).

⁴² Market Monitor Request for Rehearing at 7 and Joint State Commissions at 26.

paid for these FTRs will fully reflect the expected value of the payout ratio based upon market expectations.⁴³

46. Protestors asserting that counterflow FTRs receive a cross-subsidy continue to ignore the fact that FTR auction prices take into account any expectations of revenue inadequacy. Contrary to the Market Monitor's assertion, portfolio netting does not increase the profitability of counterflow FTRs as their owners do not profit by paying back less in congestion rents than they receive as an upfront payment in the auction.⁴⁴ In the absence of portfolio netting, there would be a mismatch in settlement values between prevailing flow and counterflow FTRs, and the elimination of netting would result in a fundamental mismatch in FTR values for market participants desiring to purchase prevailing flow FTRs or those willing to assume the obligations of counterflow FTRs in order to make the sale of additional prevailing flow FTRs possible.⁴⁵

47. Protestors now argue that the purpose of the portfolio netting proposal was not about revenue inadequacy itself, but instead that PJM's current rules for allocating the shortfall are unjust, unreasonable, and unduly discriminatory because they are not consistent with FPA section 217's mandate. This argument relies on the erroneous allegation that the September 15 Order maintains subsidies by load in favor of financial marketers when there is a symmetrical application of the payout ratio to both prevailing flow and counterflow FTRs in net positive portfolios. As explained above, there is no subsidy. While we acknowledge that net negative portfolios treat counterflow FTRs less favorably than those held in net positive portfolios during periods of FTR revenue inadequacy, we do not believe such treatment undermines the Commission's findings in the September 15 Order for FTR portfolios with net positive positions. Instead, we find that this treatment is consistent with FPA section 217, as load is unlikely to hold such a speculative portfolio of FTRs. Moreover, we believe that protestors read too much into FPA section 217 in their assertions that it guarantees discriminatory treatment for prevailing flow FTRs over counterflow FTRs whenever there is revenue inadequacy.

48. Further, we do not find persuasive the Market Monitor's multi-participant example purporting to demonstrate that the Commission misunderstood the application of portfolio netting.⁴⁶ We find that the example does not show that the current portfolio

⁴³ Elliott Bay Post-Technical Conference Reply Comments at 5-6.

⁴⁴ *Id.* at 2-3.

⁴⁵ *Id.* at 4.

⁴⁶ Market Monitor Rehearing Request at 24-25. Table 3 illustrates that the creation of an incremental prevailing flow and counterflow FTR among two market

netting rules result in unjust, unreasonable, and unduly treatment of prevailing flow FTRs; instead, it demonstrates that the elimination of portfolio netting “would only reallocate FTR revenue among various market participants”⁴⁷ without actually addressing the purported rationale for PJM’s proposal, FTR revenue inadequacy. The Market Monitor purports that the payout ratio would increase from 50 to 60 percent for all prevailing flow FTRs (i.e., those with positive target allocations) with the elimination of portfolio netting, but we find this result to be irrelevant as the relevant metric is *net* target allocations. As the Commission has stated, owners of counterflow FTRs do not systematically profit from paying back less in congestion rents than they receive as upfront payments.⁴⁸ In both of the Market Monitor’s scenarios, each market participant’s payout ratio *with* portfolio netting remains at 50 percent, when measured as a percentage of net target allocations. No party has demonstrated that such a symmetrical outcome, i.e., treating all FTRs held within a net positive portfolio the same, is unjust, unreasonable, or unduly discriminatory. Further, we reject the Market Monitor’s argument that the Commission relied solely on “single participant” examples, as Elliott Bay presented examples that clearly include multiple participants and demonstrate that all FTRs held in net positive portfolios are treated comparably.⁴⁹

49. Protestors assert that the fact that counterflow FTRs (i.e., FTRs with negative target allocations) are treated differently in a net negative portfolio means that all prevailing flow FTRs are not treated equally. While we agree that the payout ratio is not applied to counterflow FTRs in this limited case such that those market participants owe the full obligation, we disagree that this results in a different treatment for prevailing flow FTRs depending upon portfolio composition. We find that protestors are conflating the differences in the treatment of counterflow FTRs held in net positive and net negative portfolios with a different treatment of FTRs with positive (prevailing flow) and negative (counterflow) target allocations. Protestors have not shown that the payout ratio (on a net

participants increases total positive target allocations from \$4.00 to \$5.00 and total negative target allocations from \$0.00 to \$1.00. However, the overall net target allocations of \$4.00, the payout of \$2.00 (both with and without portfolio netting), and the FTR revenue inadequacy of \$2.00 (the \$4.00 net target allocation minus \$2.00 of congestion revenues) do not change. While Scenario 2 in Table 3 purports to show that all FTRs with a positive target allocation have the same payout ratio of 60 percent, it is unclear what calculations the Market Monitor performs to provide such an outcome.

⁴⁷ September 15 Order, 156 FERC ¶ 61,180 at PP 68-70.

⁴⁸ *Id.* P 69.

⁴⁹ *See, e.g.*, Elliott Bay December 8, 2015 Answer at 12-16.

basis) is not applied consistently to prevailing flow FTRs regardless of a market participant's portfolio. Therefore, we reiterate that PJM's current portfolio netting rules do not result in unduly discriminatory treatment for holders of prevailing flow FTRs.

50. We also reject the Indicated LSEs argument that the Commission erred in determining that it did not need to review further the merits of PJM's proposal to eliminate netting, given the finding that PJM's existing portfolio netting provision had not been shown to be unjust and unreasonable. This was not an error. In a complaint under FPA section 206, the burden is to first show that the current tariff is unjust and unreasonable. As the September 15 Order found that PJM did not meet that burden, the Commission, therefore, cannot modify PJM's tariff under FPA section 206.⁵⁰

C. Balancing Congestion

51. Congestion imbalance arises on a real-time basis when less transmission capability exists in the real-time energy market than was assumed to be available in the day-ahead energy market. At issue in this proceeding was whether continuing to include balancing congestion in the definition of FTRs is appropriate, or whether FTRs should continue to be defined and settled by reference to day-ahead congestion alone.

1. September 15 Order

52. The September 15 Order found that the inclusion of congestion imbalance costs in the definition of FTRs and thus, by extension, in the day-ahead FTR settlement process, is unjust and unreasonable. Accordingly, the Commission required PJM, in its compliance filing, to remove this term from its definition of an FTR and to allocate the relevant costs, instead, to real-time load and exports.⁵¹

53. In making this determination, the Commission rejected the argument that its finding was inconsistent with its rulings in a prior PJM complaint proceeding.⁵² The Commission found that while in the *FirstEnergy Solutions* cases, the Commission had

⁵⁰ PJM can file alternative provisions under FPA section 205 if it deems them just and reasonable.

⁵¹ September 15 Order, 156 FERC ¶ 61,180 at P 91.

⁵² *Id.* P 92 (citing *FirstEnergy Solutions v. PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,209, at P 43 (2013) (*FirstEnergy Solutions I*), *order denying reh'g*, *FirstEnergy Solutions v. PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,205 (2015) (*FirstEnergy Solutions II*)).

held that the parties had not established that PJM's then-existing methodology as to balancing congestion is unjust and unreasonable, that finding did not preclude the Commission from re-examining the issue in this proceeding based on the existence of changed circumstances.⁵³ The Commission found that such a showing had been made in this proceeding, given PJM's measures to remedy persistent underfunding of FTRs (i.e., its more conservative modeling of transmission outages in the simultaneous feasibility review process), and the effects of these measures (i.e., the reduction in the allocation of Stage 1B ARR and the resulting increase in FTR funding). The Commission found that, under these circumstances, the continued inclusion of balancing congestion in the definition of FTRs would result in either the chronic under-funding of FTRs, or the unrealized value of ARRs for certain load serving entities, to the detriment of both participants in PJM's real-time markets and, under certain circumstances, the holders of the underlying transmission rights.⁵⁴

54. The Commission also found that the inclusion of balancing congestion in the settlement of FTRs is not just and reasonable because it: (i) contributes to the cost shift between ARR holders and FTR holders, (ii) is inconsistent with cost causation principles; and (iii) reduces the efficacy of FTRs as a hedge.⁵⁵ The Commission noted that the value of an FTR is determined by day-ahead energy market prices that reflect day-ahead congestion costs. The Commission further noted that an FTR can serve as a hedge against day-ahead congestion. The Commission found that, by contrast, balancing congestion, whether positive or negative, is a settlement based on costs incurred in the real-time market. The Commission concluded that, as such, the inclusion of these real-time costs lowers the value of FTRs, thus limiting the efficacy of FTRs as a hedge against day-ahead congestion.⁵⁶

55. On the issue of cost causation, the Commission found that while balancing congestion is currently allocated to FTR holders, FTR holders do not cause and cannot predict the level of balancing congestion.⁵⁷ In addition, the Commission found that FTR holders are not the sole beneficiaries of balancing congestion. The Commission noted

⁵³ *Id.* (citing *Tesoro Alaska Petroleum Company v. FERC*, 234 F.3d 1286, 1290 (2000) and *Tagg Bros. & Moorhead v. United States*, 280 U.S. 420, 445 (1930)).

⁵⁴ *Id.* P 93.

⁵⁵ *Id.* P 94.

⁵⁶ *Id.*

⁵⁷ *Id.* P 95.

that negative balancing congestion occurs when real-time transmission capacity is less than day-ahead transmission and that it may occur due to congestion on PJM's borders, transmission outages, reductions in system capability, or loop flow. The Commission found, however, that FTR holders are not the cause of these occurrences, nor do they alone benefit from the payment of balancing congestion. The Commission found that, as such, the current allocation of balancing congestion to FTR holders is not consistent with cost causation principles.⁵⁸

56. The Commission also found that the inclusion of balancing congestion in the FTR settlement process has been a leading cause of FTR revenue inadequacy.⁵⁹ The Commission held that absent the removal of balancing congestion from the FTR settlement process, PJM would continue to take steps to ensure revenue adequacy by conservatively modeling outages and limiting the allocation of Stage 1B ARR, thereby perpetuating an unjust and unreasonable cost shift between ARR holders and FTR holders. Accordingly, the Commission found that removing balancing congestion in the FTR settlement process was necessary.⁶⁰

57. The Commission rejected commenters' argument that removing balancing congestion costs from the FTR settlement process would result in an unwarranted cost shift from FTR holders to load.⁶¹ The Commission found that requiring PJM to account for balancing congestion in its FTR modeling had resulted in inefficient ARR allocations to the detriment of load serving entities. The Commission also held that to the extent this existing allocation results in an underfunding risk, ARRs are devalued and load serving entities and their customers would receive a discounted value for the transmission network. The Commission found that, under PJM's existing definition, prospective FTR holders evaluating the expected economic value of FTRs incorporate a risk premium into their assessments that accounts for the underfunding risk attributable to balancing congestion. The Commission further found that incorporating balancing congestion into the FTR settlement does not insulate load from this cost and that, under PJM's existing allocation, load is economically worse off.⁶²

⁵⁸ *Id.*

⁵⁹ *Id.* P 96.

⁶⁰ *Id.*

⁶¹ *Id.* P 97.

⁶² *Id.*

2. Rehearing Arguments

58. Rehearing of the September 15 Order on the issue of balancing congestion is sought by the Market Monitor, Indicated LSEs, the Joint State Commissions, and Direct Energy/PJM-ICC.

59. Indicated LSEs assert as error the September 15 Order's rejection of the Commission's precedent, as set forth in *FirstEnergy Solutions I*.⁶³ Indicated LSEs argue that the September 15 Order failed to explain its departure from the finding made in *FirstEnergy Solutions I* that there is a rational basis for allocating real-time congestion costs FTR holders.⁶⁴ Indicated LSEs further argue that September 15 Order failed to explain its departure from the finding made in *FirstEnergy Solutions I* that real-time congestion should not be singled out for a different allocation.⁶⁵

60. Indicated LSEs also challenge the September 15 Order's finding that, due to changed circumstances, the Commission's precedent in *FirstEnergy Solutions I* need not be followed in this proceeding. Indicated LSEs note that the basis for this finding turned on an assessment of PJM's conservative modeling of transmission outages, a practice which has reduced the allocation of Stage 1B ARR to reduce the over-allocation of ARRs, thereby increasing the funding of FTRs.⁶⁶ Indicated LSEs further note the September 15 Order's conclusion that the pervasive problem associated with including balancing congestion in the definition of FTRs is either chronic underfunding or the unrealized value of ARRs from certain load serving entities. Indicated LSEs argue, however, that the Commission's second finding, as to ARR values, does not follow from the first (regarding underfunding) and that neither finding addresses, nor changes, *FirstEnergy Solution I*'s basis for finding that allocation of real time balancing congestion to FTR holders is reasonable.

61. The Market Monitor and Indicated LSEs assert that the September 15 Order's determination as to balancing congestion will unjustifiably require load (ARR holders) to

⁶³ See also Market Monitor Rehearing Request at 10.

⁶⁴ Indicated LSEs Rehearing Request at 12 (citing *FirstEnergy Solutions I*, 143 FERC ¶ 61,209 at P 43).

⁶⁵ *Id.*

⁶⁶ See also Market Monitor Rehearing Request at 11 (arguing that PJM's more conservative modeling assumptions was not a changed circumstance, as to balancing congestion, but rather a change in approach to addressing Stage 1A allocation issues).

subsidize FTR holders.⁶⁷ Indicated LSEs argue that this ruling, while benefitting financial market participants and a product used for speculation in the markets, will come at the expense of the ARR product needed by load serving entities to meet their obligations. The Market Monitor agrees, adding that such a cost shift is contrary to FPA section 217 and Commission precedent.

62. Indicated LSEs also challenge the September 15 Order's finding as to cost causation. Indicated LSEs assert that there was no evidentiary basis to conclude that balancing congestion is caused by real time load and exports. Indicated LSEs argue that, to the contrary – and as the September 15 Order acknowledged – balancing congestion can either be increased or decreased due to external influences, including the practices of PJM market participants, the PJM market operator, and/or outside systems. Indicated LSEs add that even assuming that FTRs are not responsible for balancing congestion, there was no justification for reallocating these costs in a different direction.⁶⁸

63. Direct Energy/PJM-ICC argue that the September 15 Order's determination as to balancing congestion will create both unavoidable and unhedgeable uplift costs to be paid by load, notwithstanding any offsetting value attributable to PJM's loosening of its conservative modeling assumptions and thus the allocation of additional ARRs. Direct Energy/PJM-ICC assert that PJM's existing definition is preferable because it allowed load serving entities to adequately hedge, or reduce, the cost of congestion for load deliveries because it included all congestion costs, including balancing congestion costs, with the ARR/FTR product.⁶⁹

64. Direct Energy/PJM-ICC also challenge the September 15 Order's cost causation findings, arguing that the Commission failed to consider all available methods to identify those market participants causing balancing congestion costs. Direct Energy/PJM-ICC assert that balancing congestion is a real time energy market imbalance that derives from all market transactions: both physical transactions, such as generation and load, and virtual transactions, such as increment offers, decrement offers, and up-to-congestion transactions. In particular, Direct Energy/PJM-ICC argue that it is not just and reasonable to allocate virtual transaction contributions to negative balancing congestion to load, if such transactions have not offset the deviations of a another market participant. Direct Energy/PJM-ICC add that while allocating balancing congestion costs to virtual

⁶⁷ Market Monitor Rehearing Request at 17-18; Indicated LSEs Rehearing Request at 13-14.

⁶⁸ Indicated LSEs Rehearing Request at 14.

⁶⁹ *Id.* at 3-4.

transactions, in this instance, would likely lead to exit from the market of virtual transaction that cause negative balancing congestion, such an exit would be both warranted and beneficial, given that it would remove a cause of negative balancing congestion with no negative impact on PJM dispatch, market efficiency, or reliability.⁷⁰

65. On the issue of cost causation, the Market Monitor and the Joint State Commissions argue that the September 15 Order failed to adequately address the argument, as previously adopted by the Commission in *FirstEnergy Solutions II*, that neither FTRs nor ARR holders create day-ahead or balancing congestion, which is caused, instead, by modeling differences as between the day-ahead and real time markets.⁷¹ The Market Monitor argues that the concept of cost causation is irrelevant to the allocation of congestion revenues, which is a right, not a cost. The Joint State Commissions add that while the September 15 Order concludes that FTR holders do not cause balancing congestion, the Commission fails to conclusively demonstrate that load, or any other entity, do so.

66. The Joint State Commissions further argue that in *FirstEnergy Solutions II*, the parties seeking rehearing had claimed that including balancing congestion costs in the calculation of congestion charges results in the underfunding of FTRs.⁷² The Joint State Commissions assert that this argument, while rejected in *FirstEnergy Solutions II*, was then accepted in the September 15 Order, without an adequate explanation for the reversal. Specifically, the Joint State Commissions disagree that the PJM's conservative modeling reforms can justify the Commission's reversal.

67. The Market Monitor and the Joint State Commissions also challenge, as inconsistent with *FirstEnergy Solutions I* and *FirstEnergy Solutions II*, the September 15 Order's finding that the inclusion of balancing congestion in the settlement of FTRs contributes to the cost shift from ARR holders to FTR holders. The Joint State Commissions argue that, in fact, as the Commission previously held, the value of FTRs is ultimately determined by the amount of total congestion revenue, including balancing congestion, not by the day-ahead energy market prices, which affect only FTR target allocations.⁷³ The Market Monitor agrees that there has been confusion about the

⁷⁰ *Id.* at 11-13.

⁷¹ Joint State Commissions Rehearing Request at 13 (citing *FirstEnergy Solutions II*, 151 FERC ¶ 61,205 at P 24 and P 26); Market Monitor Rehearing Request at 13.

⁷² *Id.* at 7 (citing *FirstEnergy Solutions II*, 151 FERC ¶ 61,205 at P 23).

⁷³ *Id.* at 8-9 (citing *FirstEnergy Solutions I*, 143 FERC ¶ 61,209 at PP 42-44; *FirstEnergy Solutions II*, 151 FERC ¶ 61,205 at PP 23-25).

significance of FTR target allocations, which are defined by the day-ahead process, and the actual payments to FTR holders. The Market Monitor asserts that the value of FTRs is ultimately determined by the amount of total congestion revenue, which includes balancing congestion, but is not a guaranteed revenue stream, i.e., PJM's tariff (prior to September 15 Order) had provided no guarantee to FTR holders that they will be paid their target allocations.⁷⁴

68. The Joint State Commissions argue that the September 15 Order failed to establish that PJM's existing rate (its existing definition of balancing congestion) is unjust and unreasonable, unduly discriminatory, or preferential and that its proposed rate is just and reasonable. The Joint State Commissions argue that, in fact, the Commission never formally initiated a proceeding under FPA section 206 to remedy the asserted problem, and failed to provide the reasons for its proposed changes.⁷⁵

69. Regardless, the Joint State Commissions assert that as a basis for modifying PJM's balancing congestion definition, the Commission was not permitted to rely on its finding that chronic FTR underfunding has forced PJM to reduce the allocation of State 1B ARR, which contributes to an unjust and unreasonable cost shift from ARR holders to FTR holders. The Joint State Commissions argue that the allocation of Stage 1B ARRs is linked directly to the allocation of Stage 1A ARRs and that the allocation of Stage 1B ARRs was already addressed by the September 15 Order's requirement that PJM model only actively used paths. The Market Monitor agrees, adding that because the September 15 Order requires PJM to address the issues that gave rise to the Stage 1A allocations issues, the Commission's reversal of its holdings in *FirstEnergy Solutions I* cannot be supported on the grounds of changes circumstances.⁷⁶

70. The Joint State Commissions also argue that there was no reason to modify PJM's definition of balancing congestion, given that the Commission's asserted rationale for doing so (to support hedging tools) could have been accomplished by alternative means, including the development and sale of hedging instruments to PJM market participants by private entities on a bilateral basis outside of the PJM regulated construct.⁷⁷ The Joint State Commissions challenge, as unsupported, the September 15 Order's finding that

⁷⁴ Market Monitor Rehearing Request at 12.

⁷⁵ Joint State Commissions Rehearing Request at 9-12.

⁷⁶ *Id.* at 11-12.

⁷⁷ *Id.* at 18-19.

under PJM's then-existing definition of balancing congestion, loads are economically worse off than they will be under the revision required by the Commission.⁷⁸

71. Finally, the Market Monitor asserts that the September 15 Order does not explain the jurisdictional basis for regulating FTRs if they are recharacterized and regulated as hedging instruments. The Market Monitor argues that FTRs are jurisdictional because they are instruments to allocate overpayments by load resulting from the mechanics of a Locational Marginal Price market design and are intended to serve as the equivalent of firm transmission service.⁷⁹

3. Commission Determination

72. For the reasons discussed below, we deny rehearing of the September 15 Order on the issue of balancing congestion.

73. Indicated LSEs, the Market Monitor, and Joint State Commissions argue that the September 15 Order failed to support its departure from prior precedent in the *FirstEnergy Solutions* cases.⁸⁰ Indicated LSEs challenge the finding in the September 15 Order that circumstances have changed and argue that this finding does not address the basis for finding in the *FirstEnergy Solutions* cases that allocation of real time balancing congestion to FTR holders is reasonable. The Joint State Commissions also claim that there was inadequate explanation for the reversal and the Market Monitor asserts that the record includes no additional evidence that circumstances have changed.

74. As addressed directly in the September 15 Order, while in the *FirstEnergy Solutions* complaint proceeding the Commission held that the parties had not established that the current methodology is unjust and unreasonable, such a finding does not preclude the Commission from reexamining the issue when circumstances have been changed or additional evidence has presented. The September 15 Order found that there is new evidence and a substantial record establishing that PJM's current approach which allocates balancing congestion to FTR holders is unjust and unreasonable.

75. In PJM's October 2015 filing, PJM presented evidence that circumstances had changed considerably. As explained in the September 15 Order, PJM presented new

⁷⁸ *Id.* at 19-21.

⁷⁹ Market Monitor Rehearing Request at 18.

⁸⁰ Indicated LSEs Rehearing Request at 11-13; Market Monitor Rehearing Request at 9-15; Joint State Commissions Rehearing Request at 6-9.

evidence that the persistent yet unpredictable level of FTR underfunding caused by including balancing congestion in the FTR funding equation had caused PJM to take action to restore FTR revenue adequacy by conservatively modeling more transmission outages in the simultaneous feasibility analysis. These measures were taken to reduce the over-allocation of ARR, thereby increasing the funding of FTRs. However, these measures also reduced significantly the allocation of Stage 1B ARRs.⁸¹ The record in this proceeding clearly demonstrates that the inclusion of balancing congestion in the definition of FTRs results either in chronic revenue inadequacy of FTRs, or the unrealized value of ARRs for certain load serving entities. The problems associated with the inclusion of balancing congestion not only affect participants in the real-time market, but also holders of the original transmission rights under certain circumstances.

76. The Joint State Commissions further argue that the Commission never established a section 206 proceeding relating to balancing congestion and, if it did, failed to make a finding the existing treatment of balancing congestion is unjust and unreasonable. Contrary to the Joint State Commissions' assertions, the Commission did establish a section 206 proceeding concerning all aspects of FTR payouts including balancing congestion. In PJM's initial complaint in the proceeding, it discussed the failed stakeholder process with regards to balancing congestion.⁸² This topic was also addressed in multiple protests and comments to PJM's initial filing.⁸³ In response to PJM's filing and the comments received, the Commission ordered a technical conference and specifically included balancing congestion in ARR/FTR product design as one of the primary issues to be discussed at the technical conference.⁸⁴ Moreover, the September 15 Order found that PJM's tariff was unjust and unreasonable. Indeed, the September 15 Order makes an explicit finding that including the cost of real-time balancing congestion in the definition of PJM's FTR is unjust and unreasonable. Section 206(a) of the FPA provides that whenever the Commission finds that any rate is unjust, unreasonable,

⁸¹ September 15 Order, 156 FERC ¶ 61,180 at 93.

⁸² PJM October 2015 Filing at 10.

⁸³ *See, e.g.*, Motion to Intervene and Comments of J. Aron & Co., Docket No. EL16-6, *et al.* (November 9, 2015); DC Energy, LLC, *et al.*, Docket No. EL16-6, *et al.* (November 9, 2015); and Appian Way Energy Partners, LLC, Docket No. EL16-6, *et al.* (November 9, 2015).

⁸⁴ Supplemental Notice of Technical Conference, Docket No. EL16-6, *et al.* (January 28, 2016).

unduly discriminatory, or preferential, the Commission shall determine the just and reasonable rate.⁸⁵

77. The Market Monitor, Joint State Commissions, Indicated LSEs, and Direct Energy/PJM-ICC challenge the September 15 Order's allocation of costs to real-time load and exports. Specifically, Indicated LSEs assert that the evidence failed to show that real-time load and exports caused balancing congestion.⁸⁶ Direct Energy/PJM-ICC add that the September 15 Order failed to consider all available methods to identify market participants causing balancing congestion. The Joint State Commissions further add that the September 15 Order failed to demonstrate conclusively that load, or any entity causes these costs to be incurred. The Market Monitor adds that the concept of cost causation is irrelevant to the allocation of congestion revenues, which it argues is a right and not a cost.

78. As explained in the September 15 Order, the multi-faceted nature of balancing congestion does not easily permit a granular allocation to those parties causing and directly benefiting from balancing congestion.⁸⁷ Additionally, limiting the allocation to any subset of market participants that are not fully responsible for the costs associated with balancing congestion would be inconsistent with cost causation principles. As the costs incurred have system-wide benefits, it is just and reasonable to allocate such costs on a pro-rata basis to real-time load and exports. This is consistent with the Commission's policy to assign costs to customers broadly on a pro-rata basis where specific beneficiaries or the parties causing the cost cannot be identified.⁸⁸

79. We reject the argument that the purpose of the FTR market is to provide a hedge against "total congestion" which commenters argue is comprised of day-ahead and real-time balancing congestion. Instead, we accept PJM's explanation in this record that balancing congestion does not represent congestion but rather an imbalance in real-time compensation. Further, we maintain that allocating such costs to FTR holders creates an inconsistency between how FTRs are valued in the day-ahead market and settled based

⁸⁵ *MD. Pub. Serv. Comm'n v. FERC*, 632 F.3d 1238, 1285 n.1 (D.C. Circ. 2011) ("It is the Commission's job – not the petitioners – to find a just and reasonable rate.")

⁸⁶ Indicated LSEs Rehearing Request at 14.

⁸⁷ September 15 Order, 156 FERC ¶ 61,180 at P 98.

⁸⁸ *See e.g., California Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,076, at P 44 (2007) (holding that where it is not possible to determine the contribution of any individual customer to over-collection to all customers on a load-ratio basis).

on day-ahead and real-time imbalance congestion values. Therefore, contrary to the rehearing requests, including balancing congestion in the funding definition of FTRs is not necessary to maintain a financial hedge, and in fact unjustly and unreasonably undermines the effectiveness of that hedge.

80. The Market Monitor and Indicated LSEs further assert that the September 15 Order will unjustifiably require load (ARR holders) to subsidize FTR holders.⁸⁹ The Market Monitor adds that this “cost shift” is contrary to FPA section 217 and Commission precedent. We reject the argument that the removal of balancing congestion will result in load subsidizing FTR holders. Load ultimately bears the cost of congestion whether it is included in the FTR funding equation or if it is directly allocated to load. As explained in the September 15 Order, including balancing congestion in the FTR funding equation does not insulate load from its costs. The persistent and unpredictable level of FTR underfunding causes FTR auction participants to include a risk premium in their bids to account for underfunding. These lower FTR auction bids de-value ARR, which are allocated to load serving entities. Additionally, PJM’s efforts to restore funding by conservatively allocating Stage 1B ARRs led to approximately \$257 million of unallocated ARRs for the 2014/2015 Planning Period, which otherwise would have been to the benefit of load serving entities, and then ultimately load.⁹⁰ Removing balancing congestion from the funding definition of the inclusion of real time imbalance costs in the funding mechanism for FTRs improperly shifted real time costs to market participants buying and selling a product whose price was derived from the day-ahead market. Removing balancing congestion from FTRs restores the integrity of the FTR product as a hedge against day-ahead congestion and also results in a more economically efficient means of allocating balancing congestion as it does not add imprecise risk premiums and inequitable cost shifts between classes of ARRs.

81. We also reject the argument that the September 15 Order violates section 217(b)(4) of the FPA by undermining the value of FTRs as a hedge.⁹¹ Section 217(b)(4) requires that the Commission facilitate the planning and expansion of transmission facilities to meet the reasonable needs of load serving entities and enable load serving entities to secure firm transmission rights (or equivalent tradable or financial rights) on a long-term basis. The Commission’s order in this proceeding complies with this provision

⁸⁹ Indicated LSEs Rehearing Request at 13-14; Market Monitor Rehearing Request at 17-18.

⁹⁰ PJM October 2015 Filing at 14.

⁹¹ Indicated LSEs Rehearing Request at 4.

as it facilitates the use of FTRs by removing balancing congestion costs that undermine the value of those FTRs. All load serving entities that receive ARR in the market are able to convert those ARRs into FTRs, and this order ensures that those holding FTRs receive the value of those FTRs, with no reduction for balancing costs not caused by the awarding of FTRs. The order therefore enhances the hedging value of FTRs. As explained earlier, allocating the balancing costs to real-time load better allocates those costs to the parties benefitting from the incurrence of those costs, since the parties causing those costs to be incurred cannot be easily identified.

82. We reject the Market Monitor's argument that if balancing congestion is removed from the FTR funding equation, PJM's FTRs will become "hedging instruments" that are financial products outside the Commission's jurisdiction. The Commodity Futures Trading Commission (CFTC) has clarified – through a specific exemption - that the Commission has jurisdiction over FTRs, where the volume of available FTRs is limited by the physical capability of the transmission system, the FTRs are auctioned by the jurisdictional Regional Transmission Operator (RTO)/Independent System Operator (ISO) to their registered market participants, and the transaction does not require the physical delivery of electricity.⁹² Removing balancing congestion does not change the basic nature of FTRs in that they are no longer covered by the exemptive order. The CFTC recently issued a similar finding specific to the Southwest Power Pool (SPP) where Transmission Congestion Rights act as a hedge to day-ahead congestion with values based solely on day-ahead market prices.⁹³ The relevant statutory provision to the CFTC order is in the Commodity Exchange Act granting an exemption from CFTC jurisdiction to any "agreement, contract, or transaction that is entered into pursuant to a tariff or rate schedule approved or permitted to take effect by the Federal Energy Regulatory Commission," as long as the CFTC make a "public interest" determination.⁹⁴ There is no limitation as asserted by the Market Monitor and it is clear that removing balancing congestion does not alter the jurisdictional status of FTRs.

83. Finally, the Joint State Commissions argue that there was no reason to modify PJM's definition of balancing congestion, given that the rationale for doing so (to support hedging tools) could have been accomplished by alternative means such as through

⁹² *Final Order in Response to a Petition from Certain Independent System Operators*, 78 Fed. Reg. 19,880 at 19,912-19,913 (Apr. 2, 2013) (defining the scope of FTRs covered by the exemptive order).

⁹³ *Final order Regarding Southwest Power Pool, Inc. Application To Exempt Specified Transaction*, 81 Fed. Reg. 73,065 (Oct. 24, 2016).

⁹⁴ 7 USC § 6(c)(6)(A)(2016).

financial hedging instruments outside of the PJM market. As discussed earlier, we find PJM's allocation of balancing congestion to FTRs to be unjust and unreasonable as it distorts the value of FTRs by allocating to them costs that holders of FTRs are not responsible for causing. Whether other hedging mechanisms exist does not justify an unjust and unreasonable cost allocation mechanism.

III. Compliance Filing

84. As summarized above, the September 15 Order required PJM to remove from its tariff an ARR allocation mechanism that relies on the use of historical generation resources for requested ARRs in Stage 1A of the allocation process if those resources are no longer in service. As a replacement mechanism, the September 15 Order required PJM to allocate Stage 1A ARRs based on source points that reflect actual system usage.⁹⁵ The September 15 Order also required PJM, in its compliance filing, to remove the term balancing congestion from its definition of an FTR and to allocate the relevant costs, instead, to real-time load and exports.⁹⁶

85. For the reasons discussed below, we accept PJM's compliance filing with the tariff provisions to become effective on dates specified in the Appendix, as requested by PJM, and require PJM to make a compliance filing within 30 days of the date of this order.

A. PJM's Proposal

86. PJM states that it has complied with the September 15 Order (for the reasons summarized below), and seeks the following effective dates for its proposed tariff revisions. First, PJM proposes an effective date of February 1, 2017 for its tariff revisions addressing the replacement of historical source points for ARR allocations. Second, PJM proposes a June 1, 2017 effective date for its tariff provisions addressing PJM's Balancing Congestion Charge allocation. PJM states that this combination of effective dates is appropriate relative to the actions that it must take in advance of its 2017-18 planning period. PJM's compliance proposals are further summarized, below.

87. As a general matter, PJM's compliance filing addresses: (i) ARR Stage 1A over-allocations, including the removal of PJM's previously-proposed zonal load forecast growth rate adder of 1.5 percent and the adoption of a modeling methodology based upon actively-used paths;⁹⁷ (ii) the removal of PJM's portfolio netting proposal;⁹⁸ and (iii) a

⁹⁵ September 15 Order, 156 FERC ¶ 61,180 at P 39 and P 45.

⁹⁶ *Id.* P 91.

⁹⁷ PJM Compliance Filing at 4-7.

revised mechanism to allocate balancing congestion costs on a pro-rata basis to real-time load and exports.⁹⁹

B. Notice of Filing, Responsive Pleadings and Procedural Matters

88. Notice of PJM's compliance filing was published in the *Federal Register*, 81 Fed. Reg. 80,659 (2016), with interventions and protests due on or before December 5, 2016. A timely-filed motion to intervene was submitted by Dominion Resources Services, Inc. Protests were filed by Joint Protestors,¹⁰⁰ American Electric Power Service Corporation and Old Dominion Electric Cooperative (AEP/ODEC), the Market Monitor, and American Municipal Power Inc. (AMP), raising issues that are summarized below. In addition, a pleading submitted by the Joint State Commissions and denominated as a protest challenges the underlying compliance directive as set forth in the September 15 Order.¹⁰¹

89. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2016), the aforementioned motion to intervene serves to make the entity that filed it a party to this proceeding. In addition, we deny the Joint State Commissions' protest as an untimely request for rehearing of the September 15 Order.¹⁰²

90. On December 21, 2016, a motion for leave to answer and an answer was submitted by PJM. On January 9, 2017, the Market Monitor submitted a motion for leave to answer and an answer. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure,¹⁰³ prohibits an answer to a protest or an answer to an answer unless otherwise ordered by the decisional authority. We will accept the aforementioned answers because they have assisted us in our decision-making process.

⁹⁸ *Id.* at 9.

⁹⁹ *Id.* at 10-11.

¹⁰⁰ DC Energy, LLC; Saracen Energy East LP; and Vitol Inc.

¹⁰¹ *See, e.g.*, Joint State Commissions Protest at 7 (“PJM’s compliance filing interprets the directive issued in the September 15 Order and reveals it to be flawed.”).

¹⁰² We note, however, that the Joint State Commissions also submitted a timely-filed request for rehearing of the September 15 Order, which is addressed above.

¹⁰³ 18 C.F.R. § 385.213(a)(2) (2016).

C. Stage 1A Over-Allocations

91. As summarized above, the September 15 Order required PJM to modify its tariff to remove the use of historical generation resources for requested ARR in Stage 1A of the allocation process, to the extent these resources are no longer in service. In place of this existing methodology, the September 15 Order required PJM to allocate Stage 1A ARRs based on source points that reflect actual system usage.¹⁰⁴

1. PJM's Proposal

92. PJM proposes to revise its Operating Agreement, at Schedule 1, section 7.4.2, as described below, to replace historical source points with source points that reflect actual system usage, as applicable to PJM's allocation of Stage 1A ARRs. PJM adds that because, in its view, the Commission did not intend to limit the reach of its compliance directive to Stage 1A allocations alone -- given that the use of historical source points creates a comparable problem as applied to Stage 1B allocations -- PJM's proposed revisions apply to Stage 1B ARR allocations as well.

93. With respect to source point replacements, PJM proposes to replace an equivalent number of megawatts from source points that: (i) are based on generation resources that have been deactivated; or (ii) reflect a decrease in an historical generation resource's megawatts of installed capacity relative to the historical reference year. PJM asserts that it is appropriate to replace megawatts that are no longer considered to be capacity because such megawatts have not been studied for deliverability and thus do not reflect actual system usage. PJM adds that, by calculating the megawatt value of the resources that require replacement, PJM can ensure that each zone's Stage 1 capacity will be capped at total historical value, so as to: (i) recognize and preserve pre-FTR market transmission investments incurred by a load serving entity to deliver pre-FTR market total historical capacity value to serve its zonal demands; and (ii) ensure that PJM will allocate Stage 1 ARRs with a sufficient degree of pre-FTR granularity.

94. PJM states that the next step in its proposed methodology will be to identify, on an annual basis (in advance of the relevant Planning Period), all replacement megawatts by zone, a designation that will be referred to as a Qualified Replacement Resource. PJM further proposes that each zone's total capacity values, inclusive of all replacement megawatts, will be equal to its level of ARR source capacity, as based on the historical reference year. PJM also proposes that, to be treated as a Qualified Replacement Resource, the relevant resource pass PJM's Simultaneous Feasibility Test, to maximize the economic value of ARRs. PJM proposes to further describe this process in its

¹⁰⁴ September 15 Order, 156 FERC ¶ 61,180 at P 39.

Manuals. PJM asserts that it is appropriate that a Qualified Replacement Resource pass PJM's Simultaneous Feasibility Test to ensure that such a resource does not increase the megawatt flow on facilities binding in the current ARR allocation, or in future Stage 1A allocations, and does not cause megawatt flows to exceed applicable ratings on any other facilities in either set of conditions.

95. PJM states that seeking capacity resources that are economically valued, by stacking potential replacement capacity resources in a least- to highest-cost manner, is consistent with PJM's dispatch protocols. PJM states that it will use proxy day-ahead energy market Location Marginal Prices for such stacking by looking at the three most recent year's Locational Marginal Price data, consistent with PJM's FTR credit requirements.¹⁰⁵ PJM argues that prioritizing source points in this manner will ensure that the replacement sources will reflect actual system usage because the difference between the Locational Marginal Prices at the sources themselves and the load to which they will be assigned are an indication of the value of those resources to those loads.

96. PJM states that it will take additional steps to ensure that Qualified Replacement Resources are appropriately identified. Specifically, PJM states that, under its proposal, it will determine if the Qualified Replacement Resource should be either: (i) a capacity resource that has been included in the rate base of a specific load serving entity in a particular zone; or (ii) from a non-rate-based capacity resource. PJM asserts that this determination will help ensure that historical generation resources that were initially funded by specific loads will be replaced by Qualified Replacement Resources identified as funded by specific loads, and that rate-based generation funded by an entire zone will be available as Stage 1 ARR points only for those loads. PJM adds that, conversely, megawatts from historical generation resources that have not been identified as funded by specific loads can be replaced by Qualified Replacement Resources that are non-rate-based and will be available as Stage 1 source points on a system-wide basis.

97. PJM argues that it is important to preserve rate-based generators for the loads that are funding these generators to maintain the value of these sources for the specific loads that fund them. PJM asserts that, likewise, it is important to make source points that are not identified as having been funded by specific loads available to the entire region, given that such generators are not funded by loads in any specific zone.

¹⁰⁵ PJM Compliance Filing at 6 (citing PJM OATT at Attachment Q, section V). PJM explains that, in doing so, it would look to "Expected [Locational Marginal Price] Values," which are defined at PJM Manual 6, section 6.7, as the weighted monthly average historical value over three years for the path using the following weightings: 50 percent for the most recent year; 30 percent for the prior year; and 20 percent for second prior year. *Id.*

2. Responsive Pleadings

98. AMP argues that PJM's proposed revisions, which make reference to Manual revisions that have yet to be developed, are incomplete in their detail. AMP also challenges PJM's reliance on a rate-based designation (i.e., treating as an eligible Qualified Replacement Resource a resource that has been included in the rate base of a load serving entity in a particular zone or from a non-rate-based capacity resource). AMP argues that PJM has failed to explain how it will make the required determination and for what purposes that determination will be used. AMP notes, for example, that it is unclear how a generation capacity resource that was developed to serve load, but is in a zone that has since been deregulated, would be designated. AMP adds that it is further unclear how municipal power generation capacity resources will be designated, or whether merchant generation capacity alone will be treated as non-rate-based. AMP concludes that the lack of definition, as to rate-based versus non-rate-based resources, renders PJM's proposal unjust and unreasonable.¹⁰⁶

99. AMP also challenges PJM's proposal to the extent it preserves the source and sink path selection in a way that is neither reflective of actual system usage nor responsive to the Commission's underlying objective: the need to ensure that load serving entities that have historically funded the transmission system and continue to pay its costs through network transmission service will be able to meet their service obligations via a reliable hedge against congestion. AMP argues that PJM should be directed to consider an alternative, namely, a generic zonal allocation whereby a load serving entity would be awarded its respective share of PJM's total congestion revenues. AMP argues that this approach would better align the cost (the payment for the transmission system) with the benefit (the allocation of the relevant congestion revenue). AMP requests that PJM be directed to use its stakeholder process to implement this approach.¹⁰⁷

100. AEP/ODEC argue that PJM's asserted compliance with the September 15 Order must be measured based on whether PJM's proposal: (i) recognizes and maintains full value for the transmission customers that paid for the transmission system in a given zone by first conducting an intra-zonal source replacement process, followed by inter-zonal source replacements; (ii) avoids unjust and unreasonable reallocations due to the arbitrary classification of resources and customers as rate-based or non-rate-based; and (iii) is transparent, fully vetted, and provides market participants with adequate time to evaluate

¹⁰⁶ AMP Protest at 3-4; *see also* Market Monitor Protest at 4 (arguing that there is no reasonable basis to distinguish generators as rate-based or non-rate-based for consideration as possible source points for specific zones or customers).

¹⁰⁷ AMP Protest at 5-6.

its implications. AEP/ODEC assert that PJM's proposal, to treat rate-based and non-rate-based resources differently, will reassign inappropriately a significant amount of historical transmission paths (paid for by a load serving entity's firm transmission customers within a given zone) to transmission customers outside that zone.¹⁰⁸

101. AEP/ODEC also argue that PJM's compliance filing raises unanswered questions regarding how the replacement process will work, including how PJM will determine infeasibility in Stage 1A and scarce capability in Stage 1B, and by what standards PJM will classify customers as rate-based, or non-rate-based. Finally, AEP/ODEC characterize PJM's proposed February 1, 2017 implementation date as unnecessarily and unreasonably rushed.¹⁰⁹

102. The Market Monitor argues that PJM's proposed tariff revisions will result in significant changes in the availability and value of ARR, and therefore FTR, but that PJM's proposal lacks sufficient specificity. In particular, the Market Monitor notes that, under PJM's proposal, there is no way to know the direction of the ARR paths, no means to estimate the megawatts associated with the new ARR source positions, and no basis by which to estimate the value of the new ARR source and sink paths. The Market Monitor further notes that PJM's proposal leaves unaddressed when and how PJM will make its determinations, or whether or how such a determination, once made, may be subject to reconsideration. The Market Monitor requests that PJM be directed to develop, among other things, a detailed method to calculate the distributional impact on load compared to the status quo.¹¹⁰

103. The Market Monitor also argues that, while PJM's existing tariff outlines how Stage 1A rights are assigned when new zones are added, PJM's proposal fails to address how ARR will be allocated in this instance. The Market Monitor adds that PJM's proposal fails to address how PJM will guarantee the status of 10-year ARR for currently allocated ARR, or how ongoing retirements will be treated. The Market

¹⁰⁸ AEP/ODEC Protest at 5. AEP/ODEC note, for example, that if a rate-based transmission customer that is located in another zone far away from a deactivated ARR source is forced to accept a Qualified Replacement Resource located within its zone, such a recognition would potentially free up transmission capability for a similarly-situated non-rate-based transmission customer that has not funded the applicable transmission facilities, and permit it to select a distant Qualified Replacement Resource and thereby unjustly receive a higher ARR value than the rate-based transmission customer. *Id.*

¹⁰⁹ *Id.* at 6-7.

¹¹⁰ Market Monitor Protest at 2-3.

Monitor also objects to PJM's proposal to rely on Manual provisions to implement key details included in its proposals. The Market Monitor argues that these provisions should not be included in PJM's Manuals.¹¹¹

104. Finally, the Market Monitor challenges PJM's proposal to use Locational Marginal Price differences in ranking the possible economic value of Qualified Replacement Resources (and thus calculate the value of ARR over defined paths), based on three years of historical Locational Marginal Price data. The Market Monitor argues that PJM's proposal has nothing to do with the actual usage of the defined path and nothing to do with congestion for the identified load.¹¹²

3. PJM's Answer

105. On December 21, 2016, PJM filed an answer to the protests filed on compliance. In its answer, PJM addresses protests that claim that its proposal to remove and replace obsolete historical source points in allocating Stage 1 ARRs is not in compliance with the September 15 Order. PJM also disputes claims that its proposal lacks detail and argues that such arguments should be rejected. In its answer, PJM provides further detail on its rationale for the distinction between rate-based and non-rate-based replacement resources and the process for determining new source points.

106. PJM explains that it will first determine which source points are no longer viable and then will replace such source points with what PJM terms Qualified Replacement Resources (i.e., capacity resources that pass the Simultaneous Feasibility Test and which are economic). PJM clarifies that resources which have been paid for directly by load through a load serving entity's rate base will be classified as rate-based replacement resources, but that it does not intend to look at the jurisdictional status (rate-based or non-rate-based) of the transmission customer.¹¹³

107. PJM further explains that its proposal to first utilize rate-based resources in the replacement process is based on the fact that rate-based resource operations and deliveries are consistent with a vertically integrated utility model and consistent with the historical reference year-based Stage 1 ARR resource selection in the current construct. PJM argues that, therefore, such resources could be classified as historical reference year-

¹¹¹ *Id.*

¹¹² *Id.* at 3-4.

¹¹³ PJM December 21, 2016 Answer at 6.

based Stage 1 resources and should be used to replace retired source points prior to using non-rate-based generators.¹¹⁴

108. PJM argues that distinguishing the status of the replacement resource itself is necessary to preserve rights for transmission expansion investments made by rate-based customers to deliver rate-based generators to serve their demands. Absent such a distinction, PJM asserts that transmission rights associated with such expansions would be available for all network customers inequitably when those rights only should be available to those rate-based customers who directly funded those expansions.

109. PJM also states that after it has identified all of the historical source points which need to be replaced, that it will use the following process for determining new source points:¹¹⁵

(1) PJM will compile a list of all capacity resources that are not currently designated as source points and will post such list on the PJM website prior to finalizing the Stage 1 eligible resource list for each transmission zone for review by market participants;

(2) All market participants will be asked to review the posted resource list and provide evidence of the posted resources that shall be classified as rate-based resources;

(3) PJM will finalize the replacement resource list and create two categories of resources for each Stage 1 transmission zone based on economic order: one for rate-based (including load contracts); and a second for non-rate-based. In determining economic order, PJM will utilize the historical value which will be based on the previous three years of source and sink day-ahead energy market congestion Locational Marginal Prices weighted at 50/30/20 percent for the three previous years. To the extent there are not three years of historical data, weighting will be performed at 50/50 percent in the case of two years, or at 100 percent in the case of one year's worth of historical data;

(4) PJM will begin to replace Stage 1 zonal retirements with the replacement resources by first utilizing rate-based resources in the economic order while respecting transmission limitations; and

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 7-8.

(5) After rate-based resource determination is concluded, PJM will then utilize non-rate-based resources, in economic order, while respecting transmission limitations.

110. PJM also argues that the claims that market participants will not have details about where the new paths are or in what direction they flow should be rejected. PJM explains that it will post this information on the PJM website, just as it currently posts available source/sink paths for its ARR allocations and FTR auctions.¹¹⁶

4. Additional Answers

111. On January 9, 2017, the Market Monitor filed an answer and motion for leave to answer. The Market Monitor argues that the proposed changes to the allocation of Stage 1A ARRs remain unclear and that PJM's proposal does not meet the directives of the September 15 Order.¹¹⁷ The Market Monitor asserts that PJM's proposed approach does not allocate Stage 1A ARRs based on source points that reflect actual system usage and states that PJM's proposed approach to distinguish replacement resources as rate-based and non-rate-based is based on an inapposite rationale. The Market Monitor explains that ARRs are intended to return congestion payments to load and that customers pay for all generating resources, including rate-based and market generating resources. Further, the Market Monitor states that electricity for rate-based generation does not flow differently and is not priced differently than generation from non-rate-based generation on the system, and that in a network system, it is not possible to tell whether congestion paid by any load serving entity is the result of rate-based generation or any specific generator.¹¹⁸

112. The Market Monitor maintains that PJM's proposal also remains unclear in several areas: (i) the criteria for determining rate-based and non-rate-based units; (ii) who, among multiple entities that may be ARR holders in a single control zone, should be responsible for making the determination; (iii) how PJM's proposed method will handle the 10-year requirement for Stage 1A ARRs and if or how the newly assigned resources will be integrated into the RTEP process to build new transmission; and (iv) how PJM will adjust ARRs in the future as more units retire.¹¹⁹ The Market Monitor argues that the assignment of Stage 1A ARRs is a complicated process which affects the entire

¹¹⁶ *Id.* at 8.

¹¹⁷ Market Monitor January 9, 2017 Answer at 4-5.

¹¹⁸ *Id.* at 5.

¹¹⁹ *Id.* at 6.

ARR/FTR market and PJM's proposal has not addressed many of the interdependencies between Stage 1A ARRs and other areas of the market. The Market Monitor states that PJM's proposed implementation date does not provide participants with a way to anticipate how new rules will affect them before they are implemented and asserts that PJM should study the impact of these proposed changes, make the results available to participants, and include participants in the discussion and development of these rules.

5. Commission Determination

113. For the reasons discussed below, we accept PJM's proposal concerning the removal and replacement of obsolete historical source points in allocating Stage 1 ARRs as consistent with the requirements of the September 15 Order, subject to the conditions explained below.

114. PJM asserts, and we agree, that its proposal is a just and reasonable method of replacing historical source points with source points that reflect actual system usage to be able to more appropriately allocate Stage 1 ARRs. PJM asserts that to effectuate the September 15 Order, it must replace the megawatts which are no longer considered to be capacity because such megawatts have not been studied for deliverability and therefore are not reflective of actual system usage. We agree. We also find that the PJM proposal to replace such source points with the criteria for what PJM terms Qualified Replacement Resources, as well as the steps PJM has outlined to ensure that appropriate Qualified Replacement Resources are identified, is a just and reasonable approach that will ensure that the allocation of Stage 1A ARRs is based on active source points that reflect actual system usage.

115. AMP and the Market Monitor challenge PJM's proposal in asserting that its proposal to update source points is not reflective of how load is served and does not meet the requirements of the September 15 Order. We disagree. As PJM explained in its December 21 Answer, it is appropriate to replace all megawatt source points that are either based on generation resources that have been deactivated or reflect a decrease in a historical generation resource's megawatts of installed capacity relative to the historical reference year, as such megawatts have not been studied for deliverability and therefore do not reflect actual system usage. PJM's proposal to replace these resources with qualified resources in a least- to highest-cost manner will ensure that the replacement sources reflect actual system usage because the difference between the Locational Marginal Prices at the sources themselves and the load to which they will be assigned are an indication of the value of those resources to those loads. We disagree with the claim that PJM's proposed method of updating source-sink paths has nothing to do with actual system usage. Least-cost resources are most likely to be economically dispatched. Further, if load was seeking to enter into a bilateral contract, load would seek to enter into such agreements with the least-cost resource. Replacing historical resources with

resources based on expected Locational Marginal Price values recognizes the role of bilateral agreements in the path-based entitlements.

116. AMP, AEP/ODEC, and the Market Monitor object to PJM's proposal to distinguish rate-based replacement resources and non-rate-based replacement resources. Specifically, AMP argues that the lack of definition, as to rate-based versus non-rate-based resources, renders PJM's proposal unjust and unreasonable. Similarly, the Market Monitor argues that there is no reasonable basis to distinguish generators as rate-based or non-rate-based for consideration as possible source points and ODEC/AEP argues that such a classification of resources is arbitrary.

117. PJM is using the terms rate-based and non-rate-based to distinguish between load that owns or has contracts with specific generation resources and load that is buying in the PJM market. We find this definition consistent with FPA section 217 and just and reasonable as it permits load whose original generation has been deactivated to replace that generation with generation it owns or for which it has a contract.¹²⁰ Absent such a distinction, PJM would not be able to preserve rights for transmission expansion investments made by rate-based customers to deliver rate-based generators to serve their demands. We agree with PJM that transmission rights associated with generation investments would be available for all network customers *inequitably* if preference is not provided to those rate-based customers who directly fund the generation. We therefore are also not persuaded by the AEP/ODEC assertion that by distinguishing resources into these categories, PJM's proposal will inappropriately reassign a significant amount of historical transmission paths to transmission customers outside that zone. We find it appropriate to reserve rate-based resources for load serving entities that directly fund the expansions and AEP/ODEC has provided no evidence of how this could result in an inappropriate reassignment of transmission paths.

118. Further, the designation of resources as rate-based is already contemplated by PJM's tariff. Currently, PJM's tariff provides for network service users to request the addition of new Stage 1 Resources and also provides for the request to replace one or more of its existing Stage 1 resources and its associated megawatt amount of ARRs. These tariff provisions require that resources are limited to, "generation resources owned

¹²⁰ See FPA § 217 (b)(1)(A)-(B) (emphasizing that financial rights should be provided to load which "by reason of ownership of transmission facilities, or one or more contracts or service agreements for firm transmission service holds firm transmission rights for delivery of the output of the generation facilities or the purchased energy to meet the service obligation").

by the requesting party or bona fide firm energy and capacity supply contracts.”¹²¹ We therefore find that the ability to designate resources related to rate-based resources funded by loads is supported by PJM’s tariff.

119. We reject the Market Monitor’s arguments that there is no way to know the direction of the ARR paths, no means to estimate the megawatts associated with the new ARR source positions and no basis by which to estimate the value of the new ARR source/sink paths. As PJM explained in its December 21 Answer, it will post information about the updated paths on the PJM website, just as it currently posts available source/sink paths for its ARR allocations and FTR auctions. We are not persuaded that further information is needed. We also reject the Market Monitor’s argument that PJM’s proposal fails to address how ARRs will be allocated in the instance of PJM’s expansion. We find that the current annual process for ARR allocation and source point review would apply to any expanded PJM zones, as it does to PJM’s current zones, and do not find that such a scenario needs to be further addressed by PJM.

120. We are also not persuaded by the Market Monitor’s unsupported argument that PJM needs to explain how it will guarantee the status of 10-year ARRs for currently allocated ARRs. The Market Monitor provides no further explanation or support for its concern, and as such it is rejected.

121. We reject, as beyond the scope of this compliance proceeding, intervenors’ requests that PJM be required to consider alternative remedies, whereby a load serving entity would be awarded its respective share of PJM’s total congestion revenue or that PJM be directed to develop a detailed method to calculate the distributional impact on load compared to the status quo.

122. We agree with those that contend PJM has not provided sufficient detail in its tariff with respect to the designation of rate-based and non-rate-based resources. We find it appropriate that PJM use the criteria for rate-based as specified currently in its tariff for New Stage 1 Resources and Alternate Stage 1 Resources.¹²² We therefore require PJM to submit a compliance filing within thirty (30) days of the date of this order, revising its tariff to include (i) detail for the designation of Qualified Replacement Resources as rate-based, as currently described for New Stage 1 Resources and Alternate Stage 1 Resources; and (ii) the process outlined in its December 21 Answer for determining new

¹²¹ PJM Operating Agreement, Schedule 1, sections 7.6 and 7.7; PJM OATT, Attachment K-Appendix, sections 7.6 and 7.7.

¹²² PJM Operating Agreement, Schedule 1, sections 7.6 and 7.7; PJM OATT, Attachment K-Appendix, section 7.6 and 7.7.

source points, including the stakeholder process for establishing replacement resources as rate-based.

123. Finally, we reject the argument that PJM's proposed February 1, 2017 implementation date is unnecessarily and unreasonably rushed. We find that such changes are necessary to remedy the Commission's section 206 finding and can be implemented in advance of the 2017 auction for the 2017-2018 delivery year.

D. Balancing Congestion

124. As summarized above, the September 15 Order found that the inclusion of congestion imbalance costs (a real-time cost) in the definition of FTRs (and thus, by extension, in the day-ahead FTR settlement process) is unjust and unreasonable, and directed PJM, as a remedy, to allocate balancing congestion costs on a pro-rata basis to real-time load and exports.¹²³

1. PJM's Proposal

125. PJM states that, in its proposed tariff revisions, it has removed balancing congestion from the day-ahead FTR settlement process and, as a replacement mechanism, allocates balancing congestion to real-time load and exports.¹²⁴ PJM adds that in removing balancing congestion from the settlement of FTRs, it determined that it was appropriate to ensure that, in the case of resulting overfunding of FTRs, such surplus is appropriately allocated to ARR holders.¹²⁵ PJM asserts that this treatment is appropriate because the only cause that would lead to FTRs being overfunded would arise in a circumstance in which there are too few ARRs allocated during the Stage 1 and Stage 2 ARR allocations, such that there would be more transmission system capability available in the day-ahead energy market than ARRs allocated.

126. PJM adds that, while it is not reasonable to expect that the precise level of ARRs will be awarded, returning value back to ARR holders equal to the surplus will mitigate the underfunding allocation in the first instance, to the extent FTRs are overfunded at the

¹²³ September 15 Order, 156 FERC ¶ 61,180 at P 91.

¹²⁴ See proposed Operating Agreement at Schedule 1, sections 1, 5.1.7, 5.2.1, 5.2.5-7, 5.3, 7.1.3, and 7.2.3, and the parallel provisions of the PJM OATT at Attachment K-Appendix.

¹²⁵ *Id.* at proposed Operating Agreement at Schedule 1, sections 5.2.6 and 7.4.1, and the parallel provisions of the PJM OATT at Attachment K-Appendix.

end of the planning period. PJM further asserts that the Commission's required change puts load at risk for the allocation of additional costs attributable to the real-time energy market. PJM argues that, as such, load should have the off-setting right to receive any surplus FTR funding that may result from an under-allocation of ARR's prior to the relevant delivery year.

2. Responsive Pleadings

127. Joint Protestors argue that PJM's proposal to reallocate congestion revenue surpluses that are not due to balancing congestion exceed PJM's compliance mandate and therefore must be rejected.¹²⁶ Joint Protestors argue, in the alternative, that PJM's proposal should be rejected as unduly discriminatory. Joint Protestors assert that this is so, given PJM's proposal, to allocate only the surplus (i.e., credits) associated with the non-balancing congestion day-ahead sources of FTR funding to ARR holders, while allocating any shortfall (i.e., charges) associated with these same day-ahead related sources to FTR holders. Joint Protestors further assert that while FTR holders will continue to bear potential underfunding due to factors other than balancing congestion, under PJM's proposal, FTR holders would never benefit from any overfunding due to non-balancing congestion sources.¹²⁷

128. Joint Protestors also challenge PJM's claim that the only cause that would lead to FTRs being overfunded would be due to the under-allocation of ARR's. Joint Protestors respond that FTR under- or over-funding may occur independently of ARR allocation levels, as PJM itself has recognized.¹²⁸ Joint Protestors add that other factors may include: (i) the modeling in the day-ahead market of new, unforeseen system constraints; (ii) the modeling of higher or lower limits in the day-ahead market versus that used in either the ARR allocation or the FTR allocation; (iii) a major change in unit commitment, dispatch and/or power flow in the day-ahead market that is inconsistent with the net injections and withdrawals of the ARR allocation and FTR auction; (iv) the unexpected loss of transmission or generation assets; (v) a major change in inter-tie flow assumptions in the day-ahead market with respect to the ARR allocation and FTR auction, including

¹²⁶ Joint Protestors Protest at 3 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,156, at P 57, n.51 (2008), *et al.* (holding that compliance filings must be limited to the specific directives ordered by the Commission)). *See also* Market Monitor Protest at 6 (arguing that the September 15 Order did not require PJM to allocate market-to-market payments to load).

¹²⁷ Joint Protestors Protest at 7.

¹²⁸ *Id.* at 9 (citing *PJM Options to Address FTR Underfunding* (Apr. 30, 2012)).

the incidence of unexpected loop flow; (vi) a change in the coordination of day-ahead constraints with neighboring regional markets; or (vii) increased allocation of Stage 1B or Stage 2 ARR that due to unforeseen events result in infeasible ARRs and ultimately under-funding.

129. Joint Protestors also argue that in the event the Commission accepts PJM's proposal, PJM should be required to establish and maintain a reserve to accumulate the surplus from the over-funded years, subject to a cap (e.g., \$100 million), prior to allocating the surplus to ARR holders.¹²⁹ Joint Protestors assert that such a reserve would help smooth the effects on funding imbalances over time as PJM calibrates ARR allocation and FTR auction capacity from year to year.

130. The Market Monitor argues that PJM's proposal fails to specify how PJM will allocate day-ahead congestion revenue plus excess FTR auction revenue that is less than FTR target allocations. The Market Monitor asserts that it is essential to maintain separation between revenues received by ARR and FTR holders, but that PJM's proposal inappropriately mixes the two sources of revenue and in ways that are likely to require load to subsidize FTR holders.¹³⁰ The Market Monitor also asserts that PJM's proposed changes go beyond the scope of the September 15 Order as the Commission did not require PJM to allocate to market-to-market (M2M) payments to load. The Market Monitor argues that PJM arbitrarily has decided to charge load for M2M payments and since these payments are historically negative, PJM's proposal introduces a new unpredictable charge that erodes load's ability to predictively offset their congestion charges.¹³¹

3. PJM's Answer

131. On December 21, 2016, PJM filed an answer to the protests filed on compliance. In its answer, PJM addresses claims that its proposal for balancing congestion is outside the scope of the September 15 Order.

132. PJM argues that protests claiming that its proposal went beyond the September 15 Order by including M2M payments as part of balancing congestion must be rejected. PJM explains that M2M has both day-ahead energy market and real-time energy market congestion components and further clarifies that any congestion revenues that arise due to

¹²⁹ *Id.* at 12 (citing Electric Reliability Council of Texas Protocol 7.9.3.5).

¹³⁰ Market Monitor Protest at 5-6.

¹³¹ *Id.* at 6-7.

day-ahead energy market M2M constraint controls are categorized as day-ahead energy market congestion and are allocated to FTR holders. PJM explains that any M2M congestion imbalance in the real-time energy market is settled between the RTOs as real-time energy market M2M payments and that absent any imbalance between day-ahead energy market and real-time energy market, there would not be any real-time energy market M2M payments. PJM therefore argues that the real-time energy market component of M2M is an integral part of the imbalance accounting between RTOs and is part of balancing congestion.¹³²

133. PJM also argues that its proposal to allocate the surplus in FTR funding to ARR holders is within the scope of the September 15 Order, and necessary to prevent an inappropriate cost shift from FTR holders to ARR holders. PJM maintains that the Simultaneous Feasibility Test requirement *ex ante* is designed to ensure, under normal circumstances, that there could be only under-allocation and no over-allocation of ARRs. PJM argues that this is an appropriately conservative approach to ensure revenue adequacy and prevents allocating more ARRs than what it knows the system can handle as of that point in time. However, PJM argues that the surplus is then by definition the congestion collected for which no risk hedge was allocated and therefore to which the congestion could be distributed. Therefore, PJM argues that it is appropriate to provide that value back to ARR holders since it was caused by not having allocated the ARRs in the first instance. PJM further argues that allocating the surplus to FTR holders will overvalue these FTRs when the cause of the surplus is the under-allocation of ARRs. To correct for these effects, PJM proposes to allocate the surplus to the ARR holders. PJM further argues that treating shortfalls differently than surpluses is consistent with the FTR design principle, which it argues is to provide a financial hedge against expected day-ahead energy market transfer limitations and associated congestion.¹³³

4. Additional Answers

134. On January 9, 2017, the Market Monitor filed an answer and motion for leave to answer. The Market Monitor reiterates its concern that the allocation of M2M charges is not addressed in the September 15 Order. The Market Monitor reiterates its claim that PJM mischaracterizes M2M charges as balancing congestion charges and states that PJM's current tariff and manual do not identify M2M charges as a component of balancing congestion. The Market Monitor explains that M2M charges are caused by PJM exceeding, in real time, its allowable entitlement on M2M flowgates on another ISO's system. The Market Monitor argues that this is not congestion, is not in the scope

¹³² PJM December 21, 2016 Answer at 2-3.

¹³³ *Id.* at 3-5.

of the September 15 Order and that PJM should instead address the allocation of M2M payments through the stakeholder process.

135. The Market Monitor further argues that since FTR holders can price risk into their offers based on their expectation of funding levels that there is no need to shield FTR holders from risk – including expected levels of M2M payments, FTR auction revenue and day-ahead congestion excess or deficiency – as these can be priced into bids for FTRs.

136. Finally, the Market Monitor contends that PJM’s argument that it is appropriate to treat surpluses differently from shortfalls fails to respect the differences between ARR and FTRs. The Market Monitor argues that proposing to allocate day-ahead congestion revenue that exceeds the FTR target allocations to FTR holders blurs the lines between ARRs and FTRs in ways that are inconsistent with efficient market design. Specifically, the Market Monitor argues that FTR holders should be allocated all day-ahead congestion revenue, excess and deficiency explaining that ARR holders sold their rights to day-ahead congestion revenue in exchange for the FTR auction revenue. As a result, ARR holders are not entitled to day-ahead congestion revenue and are entitled to FTR auction revenue. The Market Monitor contends that PJM should directly improve its allocation of ARRs if it continues to under allocate ARRs.

5. Commission Determination

137. For the reasons discussed below, we accept PJM’s compliance filing concerning balancing congestion with respect to the requirements of the September 15 Order, and require PJM to make a compliance filing within 30 days of the date of this order. We accept PJM’s tariff provisions to remove balancing congestion from the settlement of FTRs. However, we find PJM’s tariff revisions to modify the allocation of congestion revenue surplus as out of the scope of the compliance filing.

138. PJM explains that in its proposed tariff revisions, it determined that it was appropriate to ensure that, in the case of resulting overfunding of FTRs, such surplus is allocated to ARR holders. PJM adds that the September 15 Order puts load at risk for the allocation of additional costs attributable to the real-time energy market and therefore, load should have the off-setting right to receive any surplus FTR funding that may result from an under allocation of ARRs prior to the relevant delivery year. We find this proposed change is beyond the scope of this compliance proceeding. There was no finding in the September 15 Order that the current design with respect to surplus allocation is unjust and unreasonable, and there is no evidence that the changes required in the September 15 Order result in the current allocation of surplus funds as being unjust and unreasonable. Therefore, we find this aspect of PJM’s proposal as out of scope, without prejudice, and refer consideration of such changes to PJM’s stakeholder process.

139. The Market Monitor argues that PJM's proposed change to balancing congestion exceeds the bounds of the September 15 Order by allocating M2M payments to real-time load and exports. As PJM explains, M2M has day-ahead energy market and real-time energy market congestion components, similar to other energy market transaction congestion calculations. We find it appropriate to continue to allocate any congestion revenues that arise due to day-ahead energy M2M constraint controls to FTR holders, as day-ahead congestion. However, we agree with PJM that M2M congestion imbalance in the real-time energy market is accurately considered real-time imbalance costs and therefore, consistent with the September 15 Order, should be allocated to real-time load and exports.

IV. Effective Dates

140. In its compliance filing, PJM proposes the tariff revisions addressing the replacement of historical source points for ARR allocations should become effective February 1, 2017. PJM requests the February 1, 2017 effective date so that the revisions can be implemented for the 2017 ARR allocation. PJM proposes that its tariff provisions addressing PJM's Balancing Congestion Charge allocation become effective on a June 1, 2017. PJM requests these effective dates to coincide with actions that must be taken in advance of the 2017/2018 Planning Period which begins on June 1, 2017. We will therefore establish these effective dates for the tariff provisions as listed in the Appendix.

The Commission orders:

(A) Rehearing of the September 15 Order is hereby denied, as discussed in the body of this order.

(B) PJM's compliance filing is hereby accepted, as discussed in the body of this order, with the tariff provisions to become effective on February 1, 2017 and June 1, 2017 as detailed in the Appendix, subject to an additional compliance filing within 30 days of the date of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

The following tariff provisions are effective 2/1/2017. The provisions indicated with an asterisk require changes as directed in this order.

- *PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT Atch K Appx Sec 7.4, OATT Attachment K Appendix Sec 7.4 Allocation of Auction Re, 10.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT ATT K APPX Sec 7.6, OATT Attachment K Appendix Sec 7.6 New Stage 1 Resources, 1.0.0.
- *PJM Interconnection, L.L.C., Intra-PJM Tariffs, OA Schedule 1 Sec 7.4, OA Schedule 1 Sec 7.4 Allocation of Auction Revenues., 10.0.0.

The following tariff provisions are effective 6/1/2017. The provisions indicated with an asterisk require changes as directed in this order.

- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT A-B, OATT Definitions – A - B, 7.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT C-D, OATT Definitions – C - D, 9.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT ATT K Appx Sec 5.1, OATT Attachment K Appendix Sec 5.1 Transmission Congestion, 5.0.0.
- *PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT OATT ATT K APPX Sec 5.2, OATT Attachment K Appendix Sec 5.2 Transmission Congestion, 13.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT OATT ATT K APPX Sec 5.3, OATT Attachment K Appendix Sec 5.3 Unscheduled Transm, 4.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT OATT ATT K APPX Sec 7.1, OATT Attachment K Appendix Sec 7.1 Auctions of Financial, 2.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT OATT ATT K APPX Sec 7.2, OATT Attachment K Appendix Sec 7.2 Financial Transmission Ri, 3.0.0.
- * PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT OATT Atch K Appx Sec 7.4, OATT Attachment K Appendix Sec 7.4 Allocation of Auction Re, 11.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT OATT ATT K APPX Sec 7.5, OATT Attachment K Appendix Sec 7.5 Simultaneous Feasibility, 2.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Definitions A - B, 4.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT C-D, OA Definitions C - D, 11.0.0.

- PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 5.1, OA Schedule 1 Sec 5.1 Transmission Congestion Charge, 5.0.0.
- * PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 5.2, OA Schedule 1 Sec 5.2 Transmission Congestion Credit Cal, 13.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 5.3, OA Schedule 1 Sec 5.3 Unscheduled Transmission Serv (Loop), 3.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 7.1, OA Schedule 1 Sec 7.1 Auctions of Financial Transmission Ri, 2.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 7.2, OA Schedule 1 Sec 7.2 Financial Transmission Rights Charact, 3.0.0.
- * PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 7.4, OA Schedule 1 Sec 7.4 Allocation of Auction Revenues., 11.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 7.5, OA Schedule 1 Sec 7.5 Simultaneous Feasibility, 2.0.0.
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, Operating Agreement, OA Schedule 1 Sec 7.6, OA Schedule 1 Sec 7.6 New Stage 1 Resources., 1.0.0.