

147 FERC ¶ 61,108  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;  
Philip D. Moeller, John R. Norris,  
and Tony Clark.

PJM Interconnection, L.L.C.

Docket Nos. ER14-1461-000  
ER14-1461-001  
EL14-48-000

ORDER REJECTING PROPOSED TARIFF CHANGES AND INSTITUTING A  
SECTION 206 PROCEEDING

(Issued May 9, 2014)

1. On March 10, 2014, as corrected on March 14, 2014, PJM Interconnection, L.L.C. (PJM), submitted revisions to the PJM Open Access Transmission Tariff (OATT or tariff) and the Reliability Assurance Agreement among Load Serving Entities in the PJM Region (RAA), pursuant to section 205 of the Federal Power Act (FPA).<sup>1</sup> PJM states that its proposed revisions are an integrated package intended to promote long-term reliability in its capacity market by barring speculative sell offers from being submitted into PJM's capacity market auctions. The Commission recognizes the importance of addressing the reliability issues described by PJM, but does not find PJM's proposed revisions just and reasonable and accordingly rejects the filing.

2. While we find the proposed package put forward by PJM to be unjust and unreasonable, we agree that PJM has identified a reliability issue that merits consideration, and we find that PJM's existing tariff provisions may be unjust and unreasonable in that they fail to promote long-term reliability in its capacity market by possibly permitting speculative sell offers to be submitted into PJM's capacity market auctions. Therefore, we will institute a proceeding under section 206 of the FPA,<sup>2</sup> in Docket No. EL14-48-000 and direct staff to convene a technical conference, with

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<sup>1</sup> 16 U.S.C. § 824d (2012).

<sup>2</sup> 16 U.S.C. § 824e (2012).

appropriate filing procedures, to facilitate the development of a just and reasonable solution, as discussed below. We will also establish a refund effective date as of five months from the date of the notice of this proceeding in the Federal Register.

## **I. Background**

### **A. Speculation in PJM's Capacity Market**

3. PJM states that, under its existing capacity market auction rules, speculative sell offers<sup>3</sup> are not explicitly barred and may, in fact, be incited. PJM states, however, that such offers threaten the ability of its capacity market to: (i) ensure reliability; and (ii) provide the long-term, forward investment signals needed to attract new generation investments and retain existing resources.

4. PJM also points out that the Resource Adequacy Planning that underlies the Reliability Pricing Model (RPM) is properly and inherently conservative to protect against the failure of the system to serve load. It explains that this inherent planning bias towards protection against loss of load likely has affected RPM Auction outcomes. It observes that over the three years leading to a delivery year, the net effect of all changes in planning parameter determinations seems more likely to move in a direction of lesser need for resource procurement than greater need for resource procurement. PJM indicates that, consequently, even after accounting for and addressing market design rules that may lead to incremental auction prices clearing below the corresponding Base Residual Auction prices, features inherent to any resource adequacy construct may still bias the incremental auction results towards lower clearing prices.

5. PJM notes that, currently, commitments made in its annual Base Residual Auction can be substituted by commitments made in its incremental auctions at clearing levels that encourage sellers to submit speculative offers in the Base Residual Auction. Specifically, PJM states that, under its existing rules, speculative sell offers submitted into the Base Residual Auction need not be tied to an underlying physical capacity resource. PJM states that these sell offers (and the increase in supply they represent) can suppress clearing prices.<sup>4</sup> PJM further states that suppressed clearing prices can potentially force resources that otherwise would have cleared to leave the market and/or

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<sup>3</sup> PJM defines a speculative offer as one not disciplined by reasonable expectations of delivery of the specific offered resource. PJM Transmittal at 1.

<sup>4</sup> PJM states that, given the steepness of the Variable Resource Requirement Curve used to clear its auction, a relatively small increase in the Base Residual Auction supply from non-physical supply offers can result in a substantial decrease in the clearing price.

discourage new entry. PJM asserts that, as a result, reliability may be threatened, contrary to the underlying objectives of PJM's capacity market.

6. PJM argues that the underlying intent of its capacity market auctions is to procure commitments of identifiable physical resources. PJM states that, as such, a capacity market seller should have only a limited ability to be later excused from its capacity commitment and should enter into the commitment with no reasonable expectation of profiting from its ultimately excused commitment.<sup>5</sup>

7. PJM states that, in its day-ahead and real-time energy markets, speculation can be beneficial to the extent it promotes price convergence, or price discovery.<sup>6</sup> PJM states, however, that the design of its capacity market does not involve either of these elements. PJM also states that it relies on the results of its Base Residual Auctions in determining whether specific projects, as identified by its regional transmission expansion planning process, require reevaluation. PJM argues that a high degree of forward certainty is needed regarding the delivery of capacity resources in order to ensure long-term reliability and the efficient administration of its transmission planning process.

8. PJM proposes a package of changes to address these issues, including: (i) clarification that a sell offer must be tied to a physical resource; (ii) specification of project development milestones, applicable to sell offers for planned generation of 20 MWs or more; (iii) rules addressing the failure to meet a delivery year obligation; (iv) revised provisions addressing the transition from a planned resource to an existing resource; (v) the establishment of a Replacement Capacity Adjustment Charge;<sup>7</sup> (vi) an

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<sup>5</sup> PJM notes that such an expectation is consistent with a bilateral-only resource adequacy construct where a resource looking to buy out of its supply commitment to a load serving entity would forfeit any revenues it may have received and may have to make additional payments to the load serving entity for any additional costs incurred for the load serving entity to ensure its reliability requirement.

<sup>6</sup> PJM filing at 9 (citing *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,057, at P 25 (2012)).

<sup>7</sup> Defined in the Tariff as an Incremental Auction Settlement Adjustment, PJM defines it as "a charge assessed on Capacity Market Buyers purchasing replacement Capacity Resources in an Incremental Auction under certain conditions." Proposed Tariff at section 2.34A.

increase in PJM's existing Capacity Resource Deficiency Charge<sup>8</sup>(as accompanied by conforming changes in PJM's capacity auction credit rates); and (vii) incremental auction rule changes.

9. PJM requests that its proposed changes be made effective May 10, 2014 (in advance of its Base Residual Auction), such that the first delivery year for which most of PJM's proposed changes will apply is the 2017-18 delivery year and the relevant delivery year for the May 2014 auction.

## **B. PJM's Proposal**

10. PJM states that its proposed revisions are designed as an integrated package. Specifically, PJM states that while each proposed provision can be justified on an individual basis, these provisions are designed to operate together to re-calibrate the incentives governing replacement capacity.

### **1. Expectation of Physical Delivery**

11. PJM proposes to add language to its OATT that every sell offer submitted into its capacity auctions constitutes a legally binding and enforceable representation by the seller that its offer contemplates physical delivery.<sup>9</sup> PJM also proposes to clarify in its tariff that this required representation will neither add to, nor subtract from, the obligations that apply to demand response sell offers.<sup>10</sup> PJM states that this representation must be true at the time the sell offer is made, must be made in good faith, and must consider known or reasonably expected external forces that might affect the resource's development.

12. PJM also proposes to require a seller that bases its offer on a planned resource greater than 20 MW to submit to PJM a project development schedule, specifying the date by which the project is expected to meet certain milestones, namely: (i) commencement of construction; (ii) irrevocable commitment of construction financing; (iii) delivery of major electrical equipment; (iv) receipt of all necessary permits;

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<sup>8</sup> The Commission required PJM to implement "a charge that appl[ies] whenever a member fails to meet its individual obligation (referred to as a capacity deficiency)." *Pennsylvania-New Jersey-Maryland Interconnection*, 81 FERC ¶ 61,257, at 62,275 (1997).

<sup>9</sup> See PJM OATT at Attachment DD, proposed section 5.5(b)(i).

<sup>10</sup> PJM filing at 27 (citing *PJM Interconnection, L.L.C.*, 146 FERC ¶ 61,150 (2014) (DR Sell Offer Order)).

(v) testing; (vi) full commercial operation; and (vii) commencement of interconnection service.<sup>11</sup> PJM states that it will review the project development schedule for reasonableness, and if necessary, will be authorized to seek assurances. PJM also proposes that the seller be required to update its schedules, showing any changes, before it submits an offer into any capacity auction for a subsequent delivery year.

13. PJM also proposes to require that an interconnection facilities study agreement be executed for a planned resource exceeding 20 MW that is seeking to participate in PJM's capacity market, effective as of the May 2015 capacity auction. In support of its proposed revision, PJM states that such a requirement will increase the likelihood that a given project will actually be completed and become available to PJM as capacity. PJM notes that, under its existing requirement, which requires that only a system impact study be completed, only 43 percent of such projects reach commercial operation. PJM states that, by contrast, 77 percent of projects with a completed interconnection facilities study agreement reach commercial operation.

14. PJM also proposes tariff provisions addressing the consequences that will be borne by a seller if its planned generation resource will not be completed and in service at the start of the delivery year for which it was committed. PJM proposes that, in that event, no offer from that seller will be accepted for any subsequent capacity market auction until the resource is completed and unless as otherwise specified. As exceptions to this proposed prohibition, PJM proposes that additional offers may be submitted if the seller: (i) represents in good faith that it will be in full commercial operation by the commencement of the subsequent delivery year, or for a future incremental auction for the original delivery year; (ii) demonstrates that it has expended at least ten percent of the total project cost; (iii) remains engaged in the continuous construction of the resource; and (iv) was unable to commence operation as of the required delivery year due to causes that the seller could not have avoided, or remedied, through the exercise of due diligence.<sup>12</sup>

## **2. Inter-Market Capacity Transactions**

15. PJM proposes to codify, in the RAA, an existing requirement applicable to an external resource seeking to participate in PJM's capacity auction. Specifically, PJM proposes to codify that the host balancing authority is required to sign the seller's letter of non-recallability to ensure that an external resource seeking to participate in PJM's capacity market will not be directed to serve load in the host region at a time when the PJM region requires the output of that resource.

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<sup>11</sup> See PJM OATT at Attachment DD, proposed section 5.5(b).

<sup>12</sup> *Id.* at proposed section 5.5.

16. PJM also proposes to require that a non-diversion agreement be executed, attesting that a seller that commits a resource to PJM as a capacity resource will not seek to replace that resource for the purpose of selling it to another area. PJM states that a seller that commits a physical resource to PJM will be obligated to deliver that resource as capacity, absent unanticipated circumstances that prevent it from doing so. PJM adds that the ability to obtain a higher price from another market after the resource has been committed to PJM will not constitute an unforeseen circumstance.

### **3. Must-Offer Requirement**

17. PJM's current must-offer requirement applies to "existing resources," including resources that have not yet achieved commercial operation and commenced interconnection service, so long as that resource has offered into and cleared an auction. PJM proposes to revise the requirement so that resources which have cleared in a capacity auction, but are not yet commercially operational will still be considered "planned resources" and are therefore not subject to the must-offer requirement in Base Residual Auctions. Under PJM's proposal, resources will become "existing resources," and therefore subject to the must-offer requirement, once they have achieved full commercial operation and commenced interconnection service.

18. PJM asserts that this rule change is appropriate because, currently, a resource that has not become commercially operational by the delivery year for which it is obligated to provide capacity is required to secure replacement capacity or face a deficiency charge. PJM argues that these requirements can place an undue reliance on PJM's incremental auctions and result in clearing prices for the Base Residual Auction that are based on capacity that cannot be delivered. PJM further states that its proposed allowance is generally consistent with an existing provision that allows a resource to certify (and request PJM's concurrence and approval, on an auction-by-auction basis) that it will not be commercially operational by the relevant delivery year.<sup>13</sup>

### **4. Buy-Out Rights and Related Incremental Auction Changes**

19. PJM proposes to limit a seller's existing right to buy out of its capacity commitment prior to the relevant delivery year. PJM notes that, currently, a seller is permitted to buy out of its commitment during any of the three incremental auctions that will be held prior to the delivery year. PJM proposes that this right be limited to a single incremental auction, in other words, to the incremental auction held closest to the delivery year. PJM states that placing the demand for replacement capacity in a single auction will provide a better match for supply and demand. In this auction, moreover,

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<sup>13</sup> *Id.* at section 6.6(g)(D).

PJM also proposes to sell back any capacity it may have acquired in excess of its revised reliability requirement, or acquire additional commitments, as needed.<sup>14</sup>

20. PJM also proposes to replace its existing first and second incremental auctions. In their place, PJM proposes that it be authorized to hold up to two conditional incremental auctions to procure additional capacity, if an updated load forecast calls for upward revisions to PJM's reliability requirement and certain threshold shortfall levels are triggered.<sup>15</sup> PJM states that these auctions, if held, would occur twenty months and 10 months, respectively, prior to the relevant delivery year.

21. PJM states that, given its proposed revisions to the structure and functions of its incremental auctions, additional conforming changes are required regarding the operation of PJM's short-term resource procurement target (a procurement target that is currently allocated between the three existing incremental auctions). PJM states that, because it is required to hold only one incremental auction under its proposal, conditional (i.e., contingent) allocations of the procurement target will be required, as based on the number of incremental auctions that are held.<sup>16</sup>

##### **5. Replacement Capacity Adjustment Charge**

22. PJM proposes to assess on every replacement capacity transaction a charge equal to the difference between the annual Base Residual Auction clearing price and the incremental auction price, for any year in which the Base Residual Auction price is higher than the incremental auction price. PJM also proposes that this Replacement Capacity Adjustment Charge apply to all replacement capacity transactions, including bilateral trades.

23. PJM asserts that this charge is appropriate because it will ensure that a seller will not profit on its replacement capacity transaction and will not otherwise be encouraged to offer resources into the capacity market that the seller does not reasonably expect to be delivered as capacity in the relevant delivery year.

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<sup>14</sup> *Id.* at proposed section 5.4A(c)(2).

<sup>15</sup> *Id.* at proposed section 5.4A(e)(1). PJM adds that, to avoid confusion, its existing conditional incremental auction (which is held when backbone transmission upgrade is delayed) will be referred to, instead, as the backbone transmission conditional incremental auction. *Id.* at section 5.4A(e)(2).

<sup>16</sup> *Id.* at proposed sections 2.65A and 2.65B.

## 6. Capacity Resource Deficiency Charge

24. PJM proposes to increase its existing Capacity Resource Deficiency Charge, effective for the delivery year beginning June 1, 2017, in order to discourage the submission of speculative offers into PJM's annual Base Residual Auction. Specifically, PJM proposes to establish a deficiency charge equal to the weighted average capacity resource clearing price for the resource plus the greater of 0.5 times the clearing price, or \$50 per MW-day.<sup>17</sup>

25. PJM notes that, under its existing rules, a deficiency charge is assessed against a seller when a committed capacity resource is unavailable, or unable to deliver its committed capacity for all, or any part, of the relevant delivery year.<sup>18</sup> PJM further notes that, because a rational seller would not offer to be bought out of its capacity commitment in an incremental auction at a cost higher than the deficiency charge, the deficiency charge effectively serves as a cap on the buy bids submitted in the incremental auction. PJM asserts that the deficiency charge should be set a level that will appropriately incent sellers to honor their capacity commitments, as the Commission has recognized.<sup>19</sup>

26. PJM also proposes conforming changes to its existing credit requirements, which incorporate, as a component of the relevant equations, PJM's currently-effective deficiency charge.<sup>20</sup> PJM states that, currently, the resources subject to Attachment Q of its tariff are required to satisfy a credit requirement equal to the MWs offered times a credit rate, as calculated based on: (i) the expected final per-MW price to be paid to capacity resources in the relevant delivery year; and (ii) a seller's possible deficiency charge exposure. PJM asserts that because, under its proposal, the seller's deficiency charge exposure will rise, it is appropriate to revise the credit requirement for a seller seeking to participate in PJM's annual Base Residual Auction, such that the credit rate will be calculated based on the greater of: (i) 0.75 times the Net Cost of New Entry for the delivery year, in MW-day; or (ii) \$50 per MW-day, multiplied by the number of days

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<sup>17</sup> *Id.* at proposed section 8.2.

<sup>18</sup> *Id.* at proposed section 8.1. PJM's deficiency charge is currently set as the weighted average capacity resource clearing price plus the greater of 0.20 times such clearing price or \$20 per MW-day.

<sup>19</sup> PJM filing at 41 (citing *PJM Interconnection, L.L.C.*, 128 FERC ¶ 61,157, at P 119 (2009)).

<sup>20</sup> *See* PJM OATT at Attachment Q, section IV.A (requiring sellers offering certain resources, including planned resources, into PJM's capacity auctions to comply with a credit requirement).

in the delivery year. PJM proposes that, for a seller seeking to participate in an incremental auction, the credit rate will be calculated based on the greater of:

- (i) 0.75 times the Net Cost of New Entry for the delivery year, in MW-day; or
- (ii) 0.75 times the clearing pricing in the annual Base Residual Auction for the delivery year for the Locational Deliverability Area within which the resource is located, times the number of days in the delivery year.<sup>21</sup>

27. PJM states that its proposed revisions are appropriate to ensure that PJM's members are protected against the risk of default associated with the possibility of non-performance by a seller. PJM states that, given its proposed increase in deficiency charge, the net exposure of each seller and, in the event of the seller's default, PJM's members, will increase.

### **7. Sell-Back Floor**

28. PJM proposes to establish a floor price for PJM's sell-back of capacity, in the incremental auctions, equal to the clearing price for the relevant delivery year, as established in PJM's annual Base Residual Auction.<sup>22</sup> PJM asserts that the Base Residual Auction clearing price is the proper minimum price to use, because this clearing price reflects the intersection between the supply curve's representation of all supply and the Variable Resource Requirement Curve's representation of all PJM demand.

29. PJM states that, currently, the sell offer price is set too low (below the marginal cost of the relevant capacity) and, for 66 percent of all offered MWs over the last four years, has been set at zero. PJM states that, under its currently-effective tariff, PJM is required to accept offers to buy out prior capacity commitments it no longer needs (to relinquish capacity exceeding its revised reliability requirement), starting at a price as set by the intersection of the current capacity commitment level with the Variable Resource Requirement Curve, as updated to reflect the reduced load forecast.

### **8. Incremental Auction Offer Caps**

30. PJM proposes to revise the existing offer cap for existing generation resources offering into PJM's incremental auctions. PJM notes that, currently, for the first and second incremental auctions, the offer cap for existing generation resources that have not cleared in a prior auction is the same as it is for the annual Base Residual Auction, namely, the avoidable cost rate less the projected PJM market revenues for that

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<sup>21</sup> *Id.* at proposed section IV.D.

<sup>22</sup> *Id.* at Attachment DD, proposed sections 5.12(b).

resource.<sup>23</sup> For the third incremental auction, such resources may elect an offer cap of 1.1 times the Base Residual Auction clearing price for the relevant delivery year.<sup>24</sup>

31. PJM proposes to retain the offer cap of 1.1 times the Base Residual Auction clearing price for the incremental auction it will be committed to hold (that is, for the incremental auction replacing its existing third incremental auction) and allow such resources to elect an offer cap, as set by the greater of the Base Residual Auction clearing price, or that resource's avoidable cost rate for offers into either of its proposed 20-month or ten-month conditional auctions.<sup>25</sup>

32. PJM asserts that is appropriate to allow existing generation resources with capacity that has not yet cleared in an auction for that delivery year to offer in at a cap, as set by the Base Residual Auction clearing price (if that cap exceeds the resource's avoidable cost rate).

## **II. Notice of Filing and Responsive Pleadings**

33. Notice of PJM's filing was published in the *Federal Register*, 79 Fed. Reg. 15,328 (2014), with interventions and protests due on or before March 31, 2014. Notices of intervention and timely-filed motions to intervene were submitted by the entities noted in the Appendix to this order.<sup>26</sup>

34. Protests and/or comments were submitted by PSEG Companies (PSEG); Consolidated Edison Companies (ConEd); H-P Energy Resources LLC (H-P Energy); NextEra Energy Power Marketing, LLC (NextEra); Capacity Markets Partners, LLC (CMP); Linden VFT, LLC (Linden); EMC Development Company (EMC); Indicated PJM Stakeholders (Brookfield, *et al.*); Maryland Public Service Commission (Maryland Commission); CPV Power Development, Inc. (CPV); PPL Companies (PPL); Comverge, Inc. (Comverge); Old Dominion Electric Cooperative and the PJM Industrial Customer Coalition (ODEC, *et al.*); Indicated PJM Utilities Commission (AEP, *et al.*); Invenergy Companies (Invenergy); Public Utilities Commission of Ohio (Ohio Commission);

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<sup>23</sup> *Id.* at section 6.4(a).

<sup>24</sup> *Id.* at section 6.4(d).

<sup>25</sup> *Id.* at proposed section 6.4(d). PJM also proposes to allow existing generation resources to utilize this offer cap in the first and second incremental auction through the 2016-17 delivery year. *Id.*

<sup>26</sup> The abbreviated names and/or acronyms by which these entities are referred to in this order are also noted in the Appendix to this order.

Monitoring Analytics, LLC (Market Monitor); Illinois Commerce Commission (Illinois Commission); Calpine Corporation (Calpine); PJM Power Providers Group (P3); American Municipal Power, Inc. (AMP); Electric Supply Association (EPSA); LS Power Associates, L.P. (LS Power); and Exelon Corporation (Exelon).

35. Answers to protests and comments and/or answers to answers were submitted on April 14, 2014 by P3 and the New Jersey Board of Public Utilities (New Jersey Board), on April 15, 2014, by PSEG and Exelon, on April 16, 2014, by PJM, on April 28, 2014, by Brookfield, *et al.*, on April 29, 2014, by EMC, on April 30, 2014, by the New Jersey Board, the Market Monitor, and Brookfield, and on May 1, 2014, by the Maryland Commission.

**A. Protests and Comments**

36. Comments generally supportive of PJM's proposal were submitted by AEP, *et al.*, P3, the Illinois Commission, Calpine, PSEG, EPSA, LS Power, and Exelon. These intervenors concur with PJM that PJM's capacity market rules should be revised to ensure that resource offers submitted into PJM's capacity market auctions are physical, not speculative. AEP, *et al.* agree with PJM that speculation in the capacity market suppresses clearing prices in PJM's annual Base Residual Auction and requires the revisions PJM has proposed. Exelon adds that PJM's proposed package of reforms is necessary to ensure that the operation of PJM's capacity market will effectively promote reliability by setting accurate price signals.<sup>27</sup>

37. Other intervenors, including the Illinois Commission, the Maryland Commission, Brookfield, *et al.*, ODEC, *et al.*, Comverge, and AMP, argue that all, or virtually all, of PJM's proposed tariff revisions should be rejected. The Illinois Commission argues that PJM has not submitted sufficient support for its contention that speculative offers are being submitted, and that PJM's package of proposals will discourage legitimate offers from competitive suppliers in PJM's annual Base Residual Auction by erecting

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<sup>27</sup> See also EPSA comments at 5 (arguing that PJM's package of reforms are reasonable and should be accepted); P3 comments at 6 (PJM's proposed tariff revisions, when considered as a package, represent a reasonable means of achieving PJM's desired goal of curtailing speculation in its capacity market); Calpine comments at 8 (supporting PJM's filing as a package representing the minimum reforms needed to address the concerns raised by speculation); Ohio Commission comments at 5 (arguing that PJM's proposed revisions, taken as a whole, will discourage speculative offers by emphasizing the physical nature of PJM's capacity market); PS Power comments at 9 (arguing that PJM's filing correctly recognizes that reforms are needed to prevent speculative offers from being submitted into PJM's capacity market).

unnecessary barriers to competitive entry, in protection of existing incumbent capacity sellers, with electricity consumers required to bear increased capacity costs and pay for PJM's inefficient and anti-competitive rules through higher electricity prices. It also contends that PJM's proposals are overly reliant upon administrative actions that are very likely to lead to unintended consequences. According to the Illinois Commission, the problem is that Base Residual Auction prices are clearing at a substantially higher level than the corresponding incremental auctions, and it would be better for PJM to focus on the underlying drivers of the price differential and/or on developing program features that offset elements that inherently drive up the price differential. AMP argues that PJM's filing fails to take into account the profound harm it will inflict on load serving entities and ultimate consumers through the capacity price increases.<sup>28</sup>

38. Other intervenors suggest that PJM's integrated rate revision package should not be accepted without revisions. The Market Monitor, for example, proposes revisions ensuring that PJM's rule changes: (i) apply prospectively to all capacity auctions; (ii) ensure that a seller will be prohibited from profiting from any replacement transaction; (iii) calculate PJM's proposed Replacement Capacity Adjustment Charge on the highest price applicable to the replaced MW, not the weighted average capacity resource clearing price; and (iv) continue to apply a must-offer requirement to exiting generation capacity resources which are not yet in service but have a capacity obligation for a prior delivery year and are developing on schedule.

39. PPL and PSEG object to PJM's proposal to impose charges on all replacement capacity transactions, rather than just speculative transactions. PPL argues that it is unjust and unreasonable to impose such a charge on an existing generation resource that has previously cleared in PJM's auction but may require replacement capacity for legitimate unforeseen circumstances. PSEG agrees, adding that imposing a replacement capacity adjustment charge on all types of replacements, including replacements among existing generation units under common ownership, could interfere with legitimate activities that do not involve speculative intent.<sup>29</sup>

40. Brookfield, *et al.* also object to PJM's proposal to impose charges on replacement capacity transactions and argue that an "efficiently designed" capacity market should

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<sup>28</sup> See also Brookfield, *et al.* protest at 1; ODEC, *et al.* protest at 2-3.

<sup>29</sup> In particular, PSEG questions whether generation owners with portfolios of plants subject to PJM's must-offer requirement that may have to shift MWs from one existing generation unit to another due to operating issues experienced after a Base Residual Auction, but before the corresponding delivery year, are engaging in speculative activities.

allow the substitution of resources providing an equivalent reliability benefit without an adjustment charge. Brookfield, *et al.* specifically object to the application of a charge on intra-portfolio adjustments by capacity suppliers, because those suppliers are not profiting by replacing capacity, and on excess capacity credits used as replacement capacity by load-serving entities, which Brookfield, *et al.* state would pay the replacement capacity charge in addition to having paid the full Base Residual Auction clearing price for the resource.

41. Intervenors assert that elements of PJM's proposal are unnecessary and/or overbroad, including PJM's proposed increase in its deficiency charge. Invenergy asserts that such an increase will erect undue barriers to entry. The Maryland Commission argues that there is no need to raise PJM's deficiency charge, given the operation of PJM's replacement capacity charge in foreclosing the possibility of profiting from an arbitrage transaction. The Maryland Commission adds that raising the deficiency charge also elevates the risks that will be imposed on the developers of new projects.

42. Intervenors also challenge PJM's proposed use of a non-diversion agreement. Invenergy asserts that a non-diversion agreement, as proposed, will operate in a way that unduly restricts the ability of a resource to respond to market forces and will unduly hinder legitimate bilateral transactions. Con Ed argues that a non-diversion agreement, as proposed, will restrict the ability to move surplus capacity from PJM into the New York Independent System Operator (NYISO) and, due to timing differences in the NYISO and PJM capacity markets, will create a bias against sales from PJM into NYISO.

43. LS Power objects to PJM's proposal to require a letter of non-recallability from the hosting balancing authority for external resources. LS Power asserts that PJM has failed to demonstrate the need for this provision, given the existing provisions in PJM's tariff addressing this issue. Regardless, LS Power questions whether sellers will be able to comply with PJM's proposed requirement, given that host balancing authorities (including non-jurisdictional entities) may have little incentive to provide the required documentation.

44. AMP argues that application of the Replacement Capacity Adjustment Charge to bilateral trades likely exceeds PJM's authority. Comverge adds that applying the Replacement Capacity Adjustment Charge to bilateral transactions cannot be justified as either a market-based rate or as a cost-based rate, and therefore is not permissible under section 205 of the FPA and is not jurisdictional to the Commission. Comverge further argues that applying the adjustment to a bilateral agreement violates the Mobile-Sierra doctrine that the Commission must determine that an adjustment to the rates agreed to pursuant to a bilateral agreement be "necessary in the public interest" before imposing that rate to parties that agreed to the rate bilaterally.

45. ConEd states that PJM's proposal would unfairly harm some load serving entities that do not own generation by denying them the opportunity to monetize any excess commitment credits<sup>30</sup> if PJM over-procures capacity, while load serving entities that own generation would be able to fully utilize their excess commitment credits.

46. Invenergy objects to PJM's proposed reduction in its incremental auctions, arguing that any such reduction will unreasonably reduce capacity resource flexibility.

47. Intervenors also challenge the underlying premise giving rise to PJM's filing, namely, the asserted harmful effects of speculation in PJM's capacity market. AMP disagrees that an offer bid pattern, by which a resource owner is paid more when selling capacity than it buys replacement capacity, is indicative of undue speculation. AMP further asserts that PJM's filing fails to demonstrate that the significant revisions PJM proposes are commensurate with the asserted market flaws on which its filing is based.

48. Brookfield, *et al.* asserts that PJM has failed to meet its FPA section 205 burden of demonstrating that speculation, as PJM defines it, is in fact occurring. Brookfield, *et al.* add that PJM's assumptions regarding speculation fail to recognize that there may be rational reasons, other than speculation, explaining why a resource that cleared in the annual Base Residual Auction would subsequently choose to replace its commitment with another resource.<sup>31</sup>

49. The Illinois Commission argues that all offers that are submitted into PJM's annual Base Residual Auction and that clear are beneficial, regardless of whether the offered resources can actually be delivered, given that cleared offers result in lower clearing prices and thus reduce costs to load. The Illinois Commission adds that the only risk to loads from possible non-delivery of the resource is the risk that the resulting deficiency charge revenues would be insufficient to offset the harm to the load of not having the committed MWs available. The Illinois Commission notes that, even in this instance, loads will benefit from a reduced clearing price. The Illinois Commission also

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<sup>30</sup> Excess capacity that PJM is unable to clear through its sell-back offers is given to load serving entities (LSEs), on a pro rata basis, in the form of excess commitment credits. These credits may be used as replacement capacity (for instance, should an LSE's generator suffer a de-rating) or traded bilaterally. *See* OATT Attachment DD § 5.12(b)(viii).

<sup>31</sup> Brookfield, *et al.* note that a generation resource that has undertaken a capacity commitment, in PJM's Base Residual Auction, may become subject to unexpected operating changes that affect its capability to supply capacity in the relevant delivery year, while a demand response resource may also experience a change in its characteristics. *See also* EMC protest at 4.

notes that eliminating incentives to speculate may be accomplished by lowering prices in the Base Residual Auctions instead of increasing capacity prices in the incremental auctions.

50. EMC argues that energy efficiency resources are unique from other types of capacity resources and should be made exempt from PJM's proposed requirement that every sell offer must be based on a physical resource. EMC argues that no other type of capacity supplier faces a legally binding and enforceable requirement to precisely adhere to a detailed project schedule.

51. CPV argues that PJM's proposed project development schedule and the standards by which PJM proposes to police (and possibly bar) planned resources from participating in PJM's capacity market are overly vague, unjustifiably onerous, and provide insufficient procedural protections.<sup>32</sup> The Maryland Commission agrees that PJM's proposed standards for barring a generator developer from participating in PJM's capacity auctions are overly vague and subjective and would provide an unwarranted level of discretion to PJM. The Maryland Commission adds that there may be legitimate reasons why ten percent of a developer's project costs have not been expended at a given point in time, or why physical construction has not been continuous. The Illinois Commission argues that a requirement that includes estimated milestone achievement dates will serve only to discourage beneficial and competitive new entry and protect incumbent capacity owners from competition.

52. CPV and EMC object to PJM's proposed credit revisions, asserting that these proposed requirements represent a 150 percent increase over PJM's existing credit requirements and will effectively require planned resources (but only planned resources) to obtain credit in an amount that is 2.5 times the currently required credit amount. EMC argues that PJM's proposal discriminatorily increases credit requirements on some resource types while leaving credit requirements on other types unchanged.

53. Finally, intervenors argue that the asserted price convergence concerns raised by PJM in its filing, as between the annual Base Residual Auction and the incremental auctions, could be remedied by more effective, less intrusive means than those proposed by PJM. Brookfield, *et al.* argue that if PJM is concerned about price convergence, and the rational economic behavior that results from these differences, PJM would be better served by focusing on how load forecast and volumetric risk inputs are managed to produce more accurate forecasts.<sup>33</sup> Brookfield, *et al.* assert that, currently, PJM

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<sup>32</sup> See also ODEC, *et al.* protest at 9-10 (arguing that PJM should be required to inform a seller of any concern within two weeks of receipt of a schedule).

<sup>33</sup> See also AMP protest at 5.

consistently inflates its load requirements, thus inflating market clearing prices and requiring the need to sell excess capacity back in its incremental auctions. The Illinois Commission asserts that PJM could lower market clearing prices in the Base Residual Auction by holding back a larger percentage of demand from that auction.

**B. PJM's Answer**

54. PJM, in its answer, reaffirms that its proposed tariff changes represent an indivisible package that is intended to work together, on an inter-related basis. PJM argues that, as such, the Commission should accept its filing, without modification and without the establishment of hearing procedures.

55. PJM also responds to those intervenors who argue that PJM's proposal should be rejected in its entirety. PJM argues that none of the arguments advanced by these intervenors rebuts the fundamental facts that justify PJM's filing, namely: (i) PJM's capacity market depends on the availability of physical resources; (ii) PJM's existing capacity market rules do not sufficiently ensure that offers submitted into PJM's annual Base Residual Auction are for physical resources; and (iii) offers from resources that are uncertain are less likely to reflect physical resource costs, thereby suppressing clearing prices and eroding long-term price signals. PJM further argues that intervenors opposing its filing fail to explain why any entity that has undertaken a commitment to supply capacity in PJM's Base Residual Auction should be thereafter permitted to profit from having that commitment excused, or why a "paper resource" should ever be procured for a load serving entity in PJM's Base Residual Auction.

56. PJM also responds to Brookfield, *et al.*'s argument that greater price convergence could be achieved, as between the Base Residual Auction and the incremental auctions, if PJM were required to calculate a more accurate load forecast. PJM responds that this argument considers only one factor that has contributed to low clearing prices in PJM's incremental auctions, and fails to acknowledge that most of the variances between PJM's original forecast and its updated forecast are attributable to changes in third-party macroeconomic forecasts.<sup>34</sup>

57. PJM also responds to Brookfield, *et al.*'s argument that there may be legitimate reasons as to why a resource that has a capacity commitment, as undertaken in the Base Residual Auction, might seek to be excused from that commitment. PJM agrees, but

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<sup>34</sup> PJM adds that it would also be impractical to hold back demand, as suggested by the Illinois Commission. PJM asserts that this approach would be inconsistent with the underlying rationale of its market, which is to establish a market clearing price based on the cost of the marginal resource required to clear the market.

notes that any such need can continue to be met, under its proposal, by recourse to an incremental auction.

58. PJM also responds to EMC's assertion that PJM's proposal to subject resources to a legally binding and enforceable requirement that they adhere to a project schedule will apply to only certain resource types and will do so on an unduly selective and arbitrary basis. PJM argues, to the contrary, that its proposal will require all capacity sellers to be committed to either deliver the capacity for which they have been committed to supply in the Base Residual Auction, or find replacement capacity.

59. PJM also responds to the Illinois Commission's argument that PJM's proposed project schedules, and estimated milestone achievement dates, will deter new entry. PJM argues that, if a developer cannot provide a schedule with reasonable, expected dates for each category, such a project is unlikely to be in commercial operation as of the relevant delivery year.

60. PJM also responds to the arguments raised by CPV and ODEC, *et al.*, regarding the asserted lack of standards governing PJM's review of a project schedule. PJM argues that its existing tariff already authorizes PJM to seek supporting information from market participants, on comparable matters, and to do so on a case-by-case basis applying a reasonableness standard.<sup>35</sup>

### C. Additional Answers

61. The New Jersey Board, in its answer, argues that the existing imperfections in PJM's load forecasts, and the extent to which these forecasts are revised following the Base Residual Auction, are the primary drivers accounting for the lower clearing prices, as set in PJM's incremental auction. In addition, the New Jersey Board asserts that PJM's claims regarding the presence of speculation in its capacity market, remains unsupported. The New Jersey Board argues that, regardless, PJM has not demonstrated that the replacement capacity it has been required to procure in its incremental auction has not resulted in physical capacity for the relevant delivery year.

62. Exelon, in its answer, asserts that many of the intervenor arguments advanced in opposition to PJM's filing represent requested carve-outs from PJM's integrated package of reforms to accommodate the interests of specific portfolios, resources, or resource characteristics. Exelon asserts that these parochial concerns overlook the broader reliability benefits attributable to PJM's package of reforms.

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<sup>35</sup> PJM answer at 32 (citing PJM's authorization to review demand response sell offer plans, as accepted by the Commission in *PJM Interconnection, L.L.C.*, 146 FERC ¶ 61,150, at P 27 (2014)).

63. PSEG, in its answer, argues that the Commission's assessment of PJM's proposal should not turn on whether a shortfall in capacity has occurred in the past, but on whether the speculative behavior that PJM has documented poses a significant risk of causing such shortfalls in the future.

64. P3, in its answer, responds to LS Power's arguments in opposition to PJM's proposed letter of recallability, as applicable to external resources. P3 argues that PJM's proposal is appropriate and simply codifies PJM's existing policies.

### **III. Procedural Matters**

65. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure,<sup>36</sup> the notices of intervention and timely-filed, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

66. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure prohibits an answer to a protest and an answer to an answer unless otherwise ordered by the decisional authority.<sup>37</sup> We will accept the answers submitted by P3, PSEG, Exelon, PJM, Brookfield, *et al.*, EMC, the New Jersey Board, the Market Monitor, Brookfield, the Maryland Commission because they have provided information that has assisted us in our decision-making process.

### **IV. Discussion**

67. For the reasons discussed below, we reject PJM's proposed revisions as unjust and unreasonable. Nevertheless, PJM has identified a reliability issue that merits consideration and we find that pursuant to our authority under section 206 of the FPA, PJM's existing tariff provisions may be unjust and unreasonable in that they fail to promote long-term reliability in its capacity market by possibly permitting speculative sell offers to be submitted into PJM's capacity market auctions.

68. PJM states that its proposal is an integrated package designed to reduce or eliminate the incentives to make speculative offers in its capacity markets. While we recognize the need for PJM to ensure that offers into its market represent physical resources, PJM's proposed OATT and RAA revisions have significant undesirable effects such as increasing the risk for capacity market sellers, creating undue barriers to entry, limiting opportunity for beneficial trade, and unnecessarily raising the cost of capacity through the acquisition of excess capacity. Given these problems, coupled with PJM's

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<sup>36</sup> 18 C.F.R. § 385.214 (2013).

<sup>37</sup> *Id.* § 385.213(a)(2).

limited demonstration of the presence of speculative sell offers, we find that PJM's package of OATT and RAA revisions is not just and reasonable and accordingly is rejected.

69. We agree with PJM that offers into its capacity market should not be speculative. However, PJM has not demonstrated the degree to which purchases of replacement capacity are, in fact, the result of resources' inability to meet their capacity obligations for non-speculative reasons, or resources submitting physical offers and responding to subsequent economic signals, or overly-optimistic offers "insured" by consistent price spreads, or speculators looking to profit from consistent price spreads. We are mindful, in this regard, of intervenors who assert that suppliers may indeed have legitimate reasons to buy out their capacity obligations with other physical resources.

70. As PPL argues, even existing generation resources, typically the most "physical" of all resources, may seek to purchase replacement capacity as a result of unforeseen circumstances. More generally, both existing as well as planned capacity resources face a chance of being unable to meet their delivery year obligations due to unforeseen problems with a resource, or a resource's development, and thus may reasonably wish to recoup certain sunk costs. The opportunity to recoup some of those losses through the purchase of replacement capacity helps mitigate the risks associated with project maintenance or development.

71. PJM argues that the Replacement Capacity Adjustment Charge is justifiable as capacity market sellers do not need to be assured an opportunity to profit from the purchase of capacity. While there is no need to guarantee that any capacity resource make a profit through the purchase of replacement capacity, PJM's proposal denies the possibility of resources recouping at least some sunk costs through the purchase of replacement capacity. Thus, PJM's proposal will increase risk to capacity market sellers, risks that may only be partially mitigated through increased offers in the Base Residual Auction, and that may result in some resources exiting PJM's markets, even if they are supported by physical offers.<sup>38</sup>

72. We also find that PJM's proposal exposes load to additional risks due to the payment of higher costs for capacity. Specifically, PJM's current tariff provides that when PJM procures more capacity three years ahead than it ultimately requires, PJM sells the excess capacity back to the market when the price it receives is greater than the value of that capacity. Under PJM's proposal, however, PJM's sell offers of excess capacity will clear only if the clearing price equals or exceeds the original Base Residual Auction

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<sup>38</sup> For instance, offer caps in PJM's capacity markets may prevent some existing resources from pricing additional risk into their offers.

price. As PJM previously stated, the current rules “ensur[e] that PJM loads have an opportunity to obtain some value for [] capacity over-commitment.”<sup>39</sup> However, PJM’s filing eliminates much of such recoupment unless the price equals or exceeds the Base Residual auction price. PJM responds that it is protecting load because capacity market sellers will no longer be able to reap substantial profits resulting from the purchase of cheap replacement capacity, profits that PJM states are funded by load.<sup>40</sup> Yet PJM’s proposal seems to already address this issue through the Replacement Capacity Adjustment Charge which recaptures the profits that the sell-back offer changes are designed to address.

73. The interplay between PJM’s proposed OATT and RAA revisions suggests that their operation will result in market changes that will simultaneously increase risk to suppliers and costs to load, without guaranteeing equally offsetting benefits to the PJM grid as a whole. The proposal as a whole goes beyond what is reasonable to ensure that offers are supported by physical resources. As such, we find that PJM has not provided sufficient evidence that the concerns giving rise to its filing merit this disruptive a proposal, and therefore find that PJM’s proposed package of reforms, taken as a whole, is not just and reasonable.

74. While we find the proposed package put forward by PJM to be unjust and unreasonable, we agree that PJM has identified a reliability issue that merits consideration, and therefore find that PJM’s existing tariff provisions may be unjust and unreasonable in that they fail to promote long-term reliability in its capacity market by possibly permitting speculative sell offers to be submitted into PJM’s capacity market auctions. Accordingly, we will institute a proceeding under section 206 of the FPA, in Docket No. EL14-48-000, and direct staff to convene a technical conference, with appropriate filing procedures, to facilitate the development of a just and reasonable solution.

75. In cases where, as here, the Commission institutes a section 206 investigation on its own motion, section 206(b) of the FPA<sup>41</sup> requires that the Commission establish a refund effective date that is no earlier than publication of the notice of the Commission’s initiation of its investigation in the *Federal Register*, and no later than five months after the publication date. We will also establish a refund effective date as of five months from the date of the notice of this proceeding in the Federal Register.

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<sup>39</sup> Transmittal in Docket No. ER09-412-007 at 8.

<sup>40</sup> Answer at 56.

<sup>41</sup> Energy Policy Act of 2005, Pub. L. No. 109-58, § 1285, 119 Stat. 594, 980-81 (2005).

76. Section 206(b) of the FPA also requires that if no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of the section 206 proceeding, the Commission shall state the reason why it has failed to render such a decision and state its best estimate as to when it reasonably expects to make such a decision. We expect that that we should be able to render a decision within five months of the submission of post-technical conference pleadings.

The Commission orders:

(A) PJM's filing is hereby rejected, as discussed in the body of this order.

(B) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Commission by section 402(a) of the Department of Energy Organization Act and by the FPA, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the FPA (18 C.F.R., Chapter 1), the Commission hereby institutes a proceeding in Docket No. EL14-48-000, as discussed in the body of this order.

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

(D) The Secretary shall promptly publish in the *Federal Register* a notice of the Commission's initiation of section 206 proceedings in Docket No. EL14-48-000.

(E) The refund effective date established pursuant to section 206(b) of the FPA will be five months after the date of publication in the *Federal Register* of the notice discussed in Ordering Paragraph (D) above.

By the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.

## Appendix

**List of Intervenors**

Advanced Energy Management Alliance (Brookfield, *et al.*) \*  
American Electric Power Service Corporation (AEP, *et al.*)  
American Municipal Power, Inc. (AMP) \*  
Brookfield Energy Marketing LP (Brookfield, *et al.*) \*  
Buckeye Power, Inc.  
CPV Power Development, Inc. (CPV) \*  
Calpine Corporation (Calpine) \*  
Capacity Markets Partners, LLC (CMP) \*  
Citizens Utility Board of Illinois (Brookfield, *et al.*) \*  
Comverge Inc. (Comverge) (Brookfield, *et al.*) \*  
Consolidated Edison Companies (Con Ed)\*  
The Dayton Power and Light Company (AEP, *et al.*) \*  
D.C. Office of the People's Counsel (Brookfield, *et al.*) \*  
Delaware Division of the Public Advocate (Brookfield, *et al.*) \*  
Delaware Public Service Commission  
Dominion Resources Services, Inc.,  
Duke Energy Corporation (AEP, *et al.*) \*  
Dynergy Marketing and Trade, LLC (Brookfield, *et al.*) \*  
East Kentucky Power Cooperative, Inc. (AEP, *et al.*) \*  
Electric Power Supply Association (EPSA) \*  
EMC Development Company, Inc. (EMC) \*  
EnergyConnect, Inc. (Brookfield, *et al.*) \*  
EnerNOC, Inc.  
Exelon Corporation (Exelon)\*  
FirstEnergy Service Company (AEP, *et al.*) \*  
H-P Energy Resources, LLC (H-P Energy) \*  
Homer City Generation, L.P.  
Illinois Commerce Commission (Illinois Commission) \*  
Invenergy Companies (Invenergy) \*  
LS Power Associates, L.P. (LS Power) \*  
NRG Companies  
New Jersey Board of Public Utilities \*  
NextEra Energy Power Marketing, LLC (NextEra) \*  
Maryland Office of People's Counsel (Brookfield, *et al.*) \*  
Maryland Public Service Commission (Maryland Commission) \*  
Monitoring Analytics, LLC, acting as PJM's independent market monitor (Market Monitor) \*  
New Jersey Division of Rate Counsel

NextEra Energy Power Marketing, LLC  
North Carolina Electric Membership Corporation (Brookfield, *et al.*) \*  
North Carolina Utilities Commission  
Old Dominion Electric Cooperative (ODEC, *et al.*) (Brookfield, *et al.*) \*  
PHI Companies  
PJM Industrial Customer Coalition (ODEC, *et al.*) (Brookfield, *et al.*) \*  
PJM Power Providers Group (P3) \*  
PPL Companies (PPL) \*  
PSEG Companies (PSEG) \*  
Pennsylvania Office of Consumer Advocate (Brookfield, *et al.*) \*  
Pennsylvania Public Utility Commission  
Public Utilities Commission of Ohio (Ohio Commission) \*  
Rockland Electric Company  
Southern Maryland Electric Cooperative, Inc. (Brookfield, *et al.*) \*  
Sustainable FERC Project (Brookfield, *et al.*) \*  
West Virginia Public Service Commission (Brookfield, *et al.*) \*

\* Entities submitting protests or comments, whether individually or jointly.