# 149 FERC ¶ 61,213 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;

Philip D. Moeller, Tony Clark,

and Norman C. Bay.

PJM Interconnection, L.L.C.

Docket No. ER15-68-000

#### ORDER ACCEPTING PROPOSED TARIFF REVISIONS

(Issued December 8, 2014)

1. On October 9, 2014, pursuant to section 205 of the Federal Power Act (FPA), PJM Interconnection, L.L.C. (PJM) filed revisions to its Open Access Transmission Tariff (Tariff) to update the new entry cost estimates for a combined cycle (CC) generation plant and a combustion turbine (CT) generation plant that are used to set the Minimum Offer Price Rule (MOPR) Floor Offer Price. As discussed below, PJM's proposed revisions are hereby accepted, effective December 8, 2014, as requested.

## I. Background

2. PJM is required to periodically review the Variable Resource Requirement (VRR) Curve that is used to clear capacity auctions, as well as the inputs to the curve, such as the Cost of New Entry (CONE) of a representative new power plant. To complete the 2014 periodic review, PJM retained the Brattle Group (Brattle) to review the parameters and key inputs to the VRR Curve. As part of its review, Brattle conducted a study of the CONE estimates for CT and CC generation plants in PJM. Based on Brattle's study and

(continued...)

<sup>&</sup>lt;sup>1</sup> 16 U.S.C. § 824d (2012).

<sup>&</sup>lt;sup>2</sup> See PJM Intra-PJM Tariff, OATT, Attachment DD, § 5.14(h)(3).

<sup>&</sup>lt;sup>3</sup> *Id.* at § 5.10(a)(i) – (iii). PJM's auctions are conducted three years prior to the start of a given delivery year, based on auction parameters to meet forecasted system demand, plus reserves, during peak periods.

<sup>&</sup>lt;sup>4</sup> Brattle, "Cost of New Entry Estimates for Combustion Turbine and Combined Cycle Plants in PJM" (2014 CONE Study), *available at* 

its own independent assessment, on September 25, 2014, PJM filed proposed changes to the VRR Curve and its parameters, including CONE estimates for a representative new power plant (2014 VRR Curve Filing), which the Commission accepted on November 28, 2014.<sup>5</sup>

## II. PJM's Proposed Revisions

- 3. In the instant filing, PJM is proposing to change the new entry cost estimates used in the MOPR to be consistent with the revisions in the 2014 VRR Curve Filing. PJM notes that the same Gross CONE estimates used to establish the VRR Curve are used to determine the net asset class CONE for the MOPR Floor Offer Price. PJM explains that sell offers in its annual capacity auction from CT, CC, and Integrated Gasification Combined Cycle (IGCC) units are compared to the net asset class CONE. This identifies offers that require individual review to guard the market from uneconomic, below-cost new entry.
- 4. PJM states that Brattle performed extensive engineering studies to estimate the cost to construct new, representative CT and CC plants within the PJM region. Brattle determined that the predominant CT plant in PJM uses two General Electric Frame 7FA turbines, while the CC plant uses a single-heat recovery steam generator and steam turbine configuration, also employing a General Electric Frame 7FA turbine.
- 5. Based on those configurations, PJM states that Brattle estimated the fixed capital costs of constructing the project for an in-service date beginning in the 2018/2019 delivery year, as well as the fixed operations and maintenance costs (O&M) over the project's assumed economic life. PJM states that estimated capital costs included, e.g.,

 $\underline{http://www.pjm.com/\sim/media/documents/reports/20140515-brattle-2014-pjm-cone-study.ashx}.$ 

<sup>&</sup>lt;sup>5</sup> *PJM Interconnections, L.L.C.*, 149 FERC ¶ 61,183 (2014) (VRR Curve Order).

<sup>&</sup>lt;sup>6</sup> PJM October 9, 2014 Filing, Transmittal at 2-3 (PJM Transmittal).

<sup>&</sup>lt;sup>7</sup> *Id.* at 2.

<sup>&</sup>lt;sup>8</sup> PJM states that it does not propose to change the IGCC new-entry cost, as Brattle only studies the CT and CC CONE values. *Id.* at n.7.

<sup>&</sup>lt;sup>9</sup> *Id.* at 3.

the turbine and associated equipment and permitting costs, while estimated O&M expenses included, e.g., labor, property taxes and insurance. <sup>10</sup>

- 6. PJM notes that while it relied on the 2014 CONE Study to support the CT and CC values, it departed from Brattle's recommendations with respect to several issues. <sup>11</sup> First, during the stakeholder process, the PJM Independent Market Monitor (PJM IMM) proposed using certain alternative estimates to the cost of labor to construct new entry plants. PJM states that it reviewed the estimates, supplemented with publicly available data, and ultimately determined that PJM IMM's estimates were a reasonable alternative to use in the MOPR CC and CT estimates. PJM provides an affidavit from its chief economist to justify its use of the alternative costs in calculating CT and CC CONE. <sup>12</sup> Second, PJM states that it is maintaining the Commission-accepted practice of using the "nominal levelized" model to determine new entry costs, which has a mortgage-like cash flow stream. <sup>13</sup> Finally, PJM also proposes to keep dual-fuel capability as a cost for CONE Area 3, Rest of Market, rather than to adopt Brattle's recommendation to omit the costs of dual-fuel capability in that Area. <sup>14</sup>
- 7. Also, to be consistent with the 2014 VRR Review Curve Filing, which proposes to use a composite index to update the CT CONE between periodic required reviews, PJM states that the instant filing establishes different weightings that will be used for the composite index for the CC CONE. PJM provides an affidavit from its chief economist describing and supporting these CC weightings. PJM proposes to implement the changes presented in this filing starting with the 2018/2019 delivery year and for all subsequent delivery years.

<sup>&</sup>lt;sup>10</sup> *Id.* at 4.

<sup>&</sup>lt;sup>11</sup> *Id*.

<sup>&</sup>lt;sup>12</sup> PJM October 9, 2014 Filing, Attachment C, Affidavit of Dr. Paul M. Sotkiewicz (Sotkiewicz Affidavit).

 $<sup>^{13}</sup>$  PJM Transmittal at 5 (citing *PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,022, at P 34 n.28 (2011)).

<sup>&</sup>lt;sup>14</sup> *Id*.

<sup>&</sup>lt;sup>15</sup> *Id.* at 7-8.

<sup>&</sup>lt;sup>16</sup> Sotkiewicz Affidavit at P 32 and Table 3.

# III. Notice and Responsive Pleadings

8. Notice of PJM's filing was published in the *Federal Register*, 79 Fed. Reg. 62,611 (2014), with protests and interventions due on or before October 30, 2014. Old Dominion Electric Cooperative (ODEC) filed a timely motion to intervene and protest. Maryland Public Service Commission filed a notice of intervention. Delaware Division of the Public Advocate, Calpine Corp., Duquesne Light Co., American Electric Power Service Corp., NRG Companies, American Municipal Power, Inc., North Carolina Electric Membership Corp., and New Jersey Board of Public Utilities filed timely motions to intervene. PSEG Companies and Southern Maryland Electric Cooperative, Inc. filed motions to intervene out-of-time. Exelon Corporation (Exelon) filed a motion to intervene out-of-time and comments. PSEG Companies and NRG Companies (Joint Companies) and PJM filed answers to ODEC's protest.

#### A. Protest and Comments

- 9. ODEC states that PJM is considering a "Capacity Performance" proposal, which will involve a "fundamental restructuring" of PJM's capacity markets, and argues that the instant filing is premature and should be held in abeyance or rejected without prejudice. ODEC states that Capacity Performance adds new elements to PJM's capacity market and will have far-reaching effects on market participants. ODEC maintains that changing the capacity market parameters now prior to consideration of Capacity Performance could have long-term unintended consequences.<sup>17</sup>
- 10. ODEC states that if the Commission does not reject the instant filing or hold it in abeyance, then it should require PJM to adopt a 7 percent after-tax weighted average cost of capital (Cost of Capital) to set Gross CONE, instead of PJM's proposed 8 percent in the 2014 VRR Curve Filing. ODEC states that PJM's Cost of Capital contains a 13.8 percent return on equity (ROE) and that, under FPA section 205, PJM bears the burden of demonstrating that its proposal is just and reasonable. ODEC argues that PJM has failed to meet its burden in this regard, and that 8 percent is overstated. <sup>18</sup>
- 11. Exelon states that it largely supports PJM's proposal to update the MOPR values to be consistent with the revisions in the 2014 VRR Curve Filing. However, Exelon is opposed to PJM's calculation of the Cost of Capital submitted in the 2014 VRR Curve Filing, arguing that PJM's proposed 8 percent Cost of Capital is based on erroneous

<sup>&</sup>lt;sup>17</sup> ODEC Protest at 3-4.

<sup>&</sup>lt;sup>18</sup> *Id.* at 5-6.

assumptions.<sup>19</sup> Exelon claims that the Cost of Capital should be higher to reflect the true cost of entry for new generation developers who typically require private equity funding at higher discount rates. Hence, Exelon requests that the Commission accept the instant proposal subject to the modifications it proposed in the 2014 VRR Curve Filing.<sup>20</sup>

## B. Answers

- 12. In response to ODEC's argument that the instant filing should be held in abeyance, PJM states that the Commission cannot defer action on a FPA section 205 filing, and that even if it could, it should not defer action since an independent review showed that PJM's currently effective auction parameters will not meet the applicable reliability objectives. <sup>21</sup> PJM states that the revisions proposed in the 2014 VRR Curve Filing and in the instant filing are not dependent on changes under consideration in its Capacity Performance initiative which deals with performance rather than commitment. <sup>22</sup> PJM states that the Commission should also reject ODEC's reiteration of its Cost of Capital protest, asserting that ODEC's analysis is flawed and does not rebut PJM's showing that its Cost of Capital value is just and reasonable. <sup>23</sup>
- 13. Joint Companies request that the Commission reject ODEC's protest regarding PJM's proposed 8 percent Cost of Capital because the justness and reasonableness of that issue is being considered in the 2014 VRR Curve Filing. However, if the Commission deems the issue to be within the scope of this filing, Joint Companies contend that PJM's proposed Cost of Capital is "significantly understated" and, therefore, the issue should be set for hearing and settlement procedures. <sup>25</sup>

<sup>&</sup>lt;sup>19</sup> Exelon Comments at 4.

<sup>&</sup>lt;sup>20</sup> *Id.* at 3-4.

<sup>&</sup>lt;sup>21</sup> PJM Answer at 2-3.

<sup>&</sup>lt;sup>22</sup> *Id.* at 4.

<sup>&</sup>lt;sup>23</sup> *Id.* at 5.

<sup>&</sup>lt;sup>24</sup> Joint Companies' Answer at 4-5.

<sup>&</sup>lt;sup>25</sup> *Id.* at 5-6.

#### IV. Discussion

#### A. Procedural Matters

- 14. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2014), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Additionally, pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2014), the Commission will grant the late-filed motions to intervene filed by Exelon, PSEG Companies and Southern Maryland Electric Cooperative, Inc. given their interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.
- 15. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2014), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept Joint Companies' and PJM's answers because they have provided information that assisted us in our decision-making process.

# **B.** Substantive Matters

- 16. As discussed below, we accept PJM's proposed Tariff revisions, to become effective December 8, 2014, as requested. PJM uses its triennial review filings to assess the ongoing appropriateness of its capacity auction clearing mechanism, including the shape of its VRR Curve and its components. In the VRR Curve Order, the Commission accepted PJM's revisions to its VRR Curve as just and reasonable, finding, among other things, that PJM's revisions to its VRR Curve are reasonably needed for PJM to achieve an acceptable level of reliability, given evolving market conditions. In the instant filing, we find that the proposed Tariff revisions are necessary, given the need for consistency between the CONE values used in the VRR Curve and the new entry cost estimates used as an offer screen in MOPR. The Commission previously recognized this need for consistency and stated that "the MOPR values should be updated to be in line with the [VRR] Curve values." <sup>27</sup>
- 17. We disagree with ODEC that PJM's proposed revisions are premature. As discussed above, the proposed revisions are necessary to make conforming changes in the

<sup>&</sup>lt;sup>26</sup> VRR Curve Order, 149 FERC ¶ 61,183 at P 52.

<sup>&</sup>lt;sup>27</sup> *PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,022, at P 45 (2011) (citing *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275, at P 192 (2009)); see also *PJM Interconnection, L.L.C.*, 137 FERC ¶ 61,145, at PP 24-33 (2011).

Tariff to be consistent with the values the Commission already accepted in the VRR Curve Order. We do not agree that ruling on the instant filing should be deferred pending a proposal that has not been submitted to the Commission. If ODEC believes a future proceeding affects the Tariff revisions accepted here, it may reassert its arguments at that time.

18. Finally, we agree with Joint Companies that the issue of PJM's Cost of Capital is outside of the scope of this proceeding. That particular issue has been addressed in the VRR Curve Order, where the Commission found that PJM's proposed 8 percent Cost of Capital is a just and reasonable estimate for the purpose of estimating Gross CONE. Therefore, we reject any arguments on whether PJM has overstated or understated the Cost of Capital in its 2014 VRR Curve Filing; such challenges are not pertinent to the proposed Tariff revisions in the instant filing.

#### The Commission orders:

PJM's proposed Tariff revisions are hereby accepted, effective December 8, 2014, as discussed in the body of this order.

By the Commission.

(SEAL)

Kimberly D. Bose, Secretary.

<sup>&</sup>lt;sup>28</sup> VRR Curve Order 149 FERC ¶ 61,183 at PP 76-84.