

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Indicated Generation Owners

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Docket No. EL19-70-000

**INITIAL BRIEF ON CAPITAL STRUCTURE AND COST OF CAPITAL  
OF INDICATED GENERATION OWNERS, ELECTRIC POWER SUPPLY  
ASSOCIATION, AND PJM POWER PROVIDERS GROUP**

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requirement. For the reasons explained below, the Commission should immediately declare that the capital cost and capital structure reflected in PJM’s Commission-approved “Cost of New Entry” study (“CONE Study”) is a reasonable proxy to use to determine a merchant generator’s capital structure and cost of capital, as requested by Indicated Generation Owners. Petitioners demonstrate herein that the CONE Study is not only a just and reasonable proxy for a merchant generator’s capital structure and capital costs, but it is also the best existing proxy for that purpose.

**I. The Commission Should Adopt, As The Most Reasonable Proxy For Merchant Generators, The Capital Cost And Capital Structure Used In The PJM Capacity Market.**

The Commission has authorized the use of a proxy by merchant generators to determine their cost of capital and capital structure when seeking a reactive power tariff.<sup>5</sup> Thus, a full-blown analysis using three different models with a proxy group of utilities is not required to establish a return on common equity (“ROE”) for a reactive power provider. Nor is an analysis required of every company’s capital structure or the structure of its parent, if any,<sup>6</sup> or a determination of the appropriate cost of debt of a reactive power provider.<sup>7</sup> However, the selection of an appropriate proxy has been a significant source of dispute in reactive power proceedings.<sup>8</sup> Recognizing this, the Commission has established paper hearing procedures to consider the issue “as raised by the Petition,” that is, whether PJM’s Cone Study is a reasonable

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<sup>5</sup> See *Bluegrass Generation Co.*, 118 FERC ¶ 61,214, at P 86 (2007); *Chehalis Power Generating, L.P.*, 123 FERC ¶ 61,038, at P 167 (2008).

<sup>6</sup> See *Constellation Mystic Power, LLC*, 165 FERC ¶ 61,267, at P 48 (2018), *order on reh’g*, 172 FERC ¶ 61,044, at P 132 (2020).

<sup>7</sup> *Chehalis*, 123 FERC ¶ 61,038, at P 167 (approving the generator’s proposal to use the cost of debt of two other generators as a proxy, rather than its interconnected utility).

<sup>8</sup> See, e.g., *Bluegrass*, 118 FERC ¶ 61,214, at P 86; *Chehalis*, 123 FERC ¶ 61,038, at P 167; *Dynegy Midwest Generation, Inc.*, 121 FERC ¶ 61,025 at P 55 (2007), *order denying reh’g in part and granting reh’g in part*, 125 FERC ¶ 61,280 (2008).

proxy for a merchant generator in establishing its capital structure and cost of capital in its reactive revenue requirement.<sup>9</sup>

The Commission also asks parties to consider responding to the question whether there are *other, better proxies* than that proposed by Petitioner.<sup>10</sup> This question is beyond the bounds of the declaration requested by the Petition, and, thus, is not a question that can be decided in this proceeding.<sup>11</sup> Petitioners nevertheless provide some comment below in response to the question posed.

A proxy is intended to approximate a filer's actual risk profile. As the Briefing Order recognizes, the Commission has repeatedly and unerringly found that merchant generators face more risk than their interconnected transmission utilities.<sup>12</sup> Yet for the last twenty years, almost all reactive power applicants have had to base their capital cost and capital structure on the capital structure and proposed overall return on the only available proxy, that of their

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<sup>9</sup> Briefing Order at P 27.

<sup>10</sup> See, for example, the questions (1) whether adjusting the rate of return in the CONE Study would be an appropriate proxy, (2) whether a proxy based on the ROE of a "utility subject to cost-based rates in PJM would be . . . better," (3) whether there are other possible proxies related to a transmission owner's ROE, and whether such proxies, if they exist, would be "better," (4) whether there are other possible proxies "the Commission should consider . . . such as the use of an ROE adder;" and (5) whether "publicly-available data on merchant generators . . . could be used to develop a proxy." Briefing Order at P 27, Questions (b)-(f).

<sup>11</sup> Before the Commission adopts a proxy other than the PJM CONE Study that was proposed by Petitioners, the Commission must provide appropriate notice and opportunity for comment to the industry. If the Commission seeks to determine the *best* proxy for all reactive cases as a statement of general applicability and for future effect that would be outside the scope of Petitioners' request. Notice of such action would be deficient if taken through the adjudicatory Petition for Declaratory Order process as in the instant case. See 5 U.S.C. § 553; *Safari Club Int'l v. Zinke*, 878 F.3d 316, 332-33 (D.C. Cir. 2017) (an agency action is a "rule" if it is "generally applicable" and has "only 'future effect'").

<sup>12</sup> Briefing Order at P 24; see, e.g., *Chehalis*, 123 FERC ¶ 61,038, at P 167 ("While the Commission has previously accepted generators' proposals to use the interconnected utility's rate of return as a proxy in reactive power cases, it has done so because it was proposed by the generator and the interconnected utility's return was a conservative estimate of the generator's return, as the generator essentially faces more risk than the interconnected utility."); *Dynegy*, 121 FERC ¶ 61,025, at P 54 ("merchant generator faces more risk" than interconnected utility).

interconnected transmission utility, a proxy that the Commission properly characterizes as a conservative estimate of merchant generators' risks.<sup>13</sup> Petitioners show that the interconnected utility proxy is not only a conservative measure of most merchant generators' risks but that it also systematically understates the reactive power revenue requirement.<sup>14</sup> Now the Commission-approved CONE Study proxy is available that closely reflects merchant generators' risks. As requested in the Petition, the Commission should declare that merchant generators may use the CONE Study capital structure and cost as a proxy in the reactive power context. That proxy is now available and best approximates filers' risks.

**A. The PJM CONE Study Is An Appropriate Proxy For Determining The Cost Of Capital For Reactive Power Rates And Needs No Adjustment.**

Longstanding Commission and judicial precedent requires that a public utility's return be set commensurate with enterprises facing similar risks at a level that allows the utility to attract the necessary capital.<sup>15</sup> This regulated rate of return is properly based on the totality of a utility's operations. Financing costs "typically are determined for a whole company based on its overall risk profile," rather than segregating out each component of a company's operations, or even services provided under a component of a company's operations, and assessing isolated risks.<sup>16</sup>

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<sup>13</sup> *Id.*

<sup>14</sup> Amended Affidavit of Michael R. Borgatti ¶ 13 ("Amended Borgatti Aff.") (Attached as Tab A); *see also* Petition at 16-17.

<sup>15</sup> *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 551, 165 FERC ¶ 61,118, at P 2 (2018), *order on reh'g*, Opinion No. 569, 169 FERC ¶ 61,129 (2019), *order on reh'g*, Opinion No. 569-A, 171 FERC ¶ 61,154 (2020); *see also Boroughs of Ellwood City v. FERC*, 731 F.2d 959, 967 (D.C. Cir. 1984) (citing *FPC v. Hope Nat. Gas Co.*, 320 U.S. 591, 603 (1944) and *Bluefield Waterworks Improvement Co. v. Pub. Serv. Comm'n of W.V.*, 262 U.S. 679 (1923)).

<sup>16</sup> *Chehalis*, 123 FERC ¶ 61,038, at P 168.

Thus “a company typically would not identify the risks associated with each individual component of its operations and obtain debt capital for each of these components.”<sup>17</sup>

The Commission has recognized that “reactive power operations are not a stand-alone part of [a merchant generator’s] operations,” and has rejected arguments that a guaranteed rate of return from a cost-based reactive power tariff changes the generator’s risk profile.<sup>18</sup> Indeed, when determining the just and reasonable return for a merchant generator’s reactive power revenue requirement, the Commission assesses the risks and uncertainty that investors face in merchant generation facilities “whose primary purpose is to sell real power.”<sup>19</sup> In setting a proxy for a merchant generator’s rate of return in this proceeding, it should not deviate from that correct approach.

The Commission should find that the PJM CONE Study provides a proxy that is consistent with the Commission’s precedent and yet still conservative in measuring an individual merchant generators’ return given the *Hope-Bluefield* standard.<sup>20</sup> PJM’s studies of the Cost of New Entry, based on analyses by Brattle, calculate costs of capital and determine capital structure for a typical new merchant generator entering the PJM capacity market.<sup>21</sup> Brattle built

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<sup>17</sup> *Id.* at P 170.

<sup>18</sup> *Id.* For this reason also, the answer to the Commission’s question “whether the risks of a merchant generator providing reactive power service should be equated with the overall risk of a merchant generator in PJM” is a resounding “yes.” Briefing Order at P 27.

<sup>19</sup> See *Chehalis*, 123 FERC ¶ 61,038, at P 170.

<sup>20</sup> See Petition at 17 & n.43 (citing *N.Y. Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,028, at P 179 (2017)) (noting that the Commission found ROEs that “appropriately account[] for investor risks” in the range of 15 to 20 percent for stand-alone project finance approaches to generation development); *Id.* at 17 (contrasting that finding with the 2014 and 2018 CONE Studies that found ROEs of around 13 percent).

<sup>21</sup> See *PJM Interconnection, LLC*, 149 FERC ¶ 61,183, at P 60 (2014); *PJM Interconnection, LLC*, 167 FERC ¶ 61,029 (2019); see also *PJM Cost of New Entry*, The Brattle Group (Apr. 19, 2018), <https://www.pjm.com/~media/committees-groups/committees/mic/20180425-special/20180425-pjm-2018-cost-of-new-entry-study.ashx> (“CONE Study”).

its model around publicly-traded companies, predominantly in the merchant generation business, other estimates of returns for formerly regulated generation portfolios and fairness opinions resulting from merger and acquisition activity.<sup>22</sup> These were all generation facilities located solely in the PJM region.<sup>23</sup> In addition, the PJM CONE Study used the Capital Asset Pricing Model (“CAPM”) rather than the Discounted Cash Flow (“DCF”) analysis because a number of the independent power producers included in the analysis do not pay dividends.<sup>24</sup> The PJM CONE Study shows that a merchant generator requires a different capital structure with a higher cost of debt and a greater return on equity than a transmission owner.

In the Briefing Order, the Commission asks whether adjustments to the PJM CONE study would be appropriate to determine the cost of capital for reactive power providers.<sup>25</sup> The Commission’s precedent already answers this question for two of the most often raised objections to use of the PJM CONE Study.

First, the Commission has directly rejected the claim that a merchant generator’s rate of return from a cost-of-service reactive power tariff changes the generator’s risk profile and compels a separate analysis of the risks of merchant revenues and the risks involved in reactive revenue. As explained in Indicated Generation Owners’ Answer, the Commission put any consideration of this adjustment to rest in *Chehalis*.<sup>26</sup> “The Commission rejected an ‘approach [that] would be a separate risk analysis’ of ‘every component of a company’s operations,’ noting

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<sup>22</sup> Petition, Affidavit of Paul M. Sotkiewicz ¶ 14 (“Sotkiewicz Aff.”).

<sup>23</sup> Petition at 15.

<sup>24</sup> *Id.*, Sotkiewicz Aff. ¶ 14; *see id.* at ¶ 25 (explaining that the DCF methodology relies on the fact that investor-owned companies are publicly traded and pay dividends and have stock prices that are publicly available).

<sup>25</sup> Order Directing Briefing at P 27 (Question (b)).

<sup>26</sup> Motion for Leave to Answer and Answer of Indicated Generation Owners, Docket No. EL19-70, 16-17 (2019) (“Answer”).

that it was ‘an approach that the Commission has never taken.’”<sup>27</sup> Nor would it make any rational sense to separate out company operations for cost of capital purposes when a merchant generator in fact “raises money for its operations as a whole.”<sup>28</sup>

Second, the Commission has rejected arguments that the PJM CONE Study should be adjusted. For example, with regard to adjustments to the proxy group of utilities that were included in the CONE Study – an issue that the Commission poses in its Briefing Order, at paragraph 27, Question (f) – the Commission has already rejected an effort to reengineer the findings of the study by limiting the analysis to publicly available data.<sup>29</sup> The Commission rejected a call to look only at publicly available data in determining the cost of capital for Gross CONE, finding that alternative analysis “incomplete” because it “examined only a portion of Brattle’s data – publicly-traded [independent power producers] – and ignored other relevant information, such as fairness opinions for merchant generation divestitures.”<sup>30</sup> The Commission found that Brattle’s methodology was “based on transparent data and reasonable assumptions,”<sup>31</sup> and that the use of multiple data sources was a strength, rather than a weakness, emphasizing that the analysis “reflects all available reference points.”<sup>32</sup>

As the Commission’s own analysis shows, further adjustments to the CONE Study are unwarranted, unnecessary and have already been rejected by the Commission. The CONE Study is the product of considered expert judgment and has already received Commission approval. It

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<sup>27</sup> *Id. citing Chehalis Power Generating*, 123 FERC ¶ 61,038, at P 170.

<sup>28</sup> *Chehalis*, 123 FERC ¶ 61,038, at P 170.

<sup>29</sup> *PJM Interconnection LLC*, 149 FERC ¶ 61,183, at P 84.

<sup>30</sup> *Id.*

<sup>31</sup> *Id.* at P 94.

<sup>32</sup> *PJM Interconnection LLC*, 153 FERC ¶ 61,035, at P 59 (2015).

is the best proxy available as it assessed all reasonably available data, and properly reflects the risks that the average new merchant generator in PJM would face (whether or not some portion of its costs are recovered through regulated cost-of-service rates), while still providing a conservative proxy as compared to other studies and measures of these risks.<sup>33</sup>

**B. The PJM CONE Study Is The Best Proxy Given That It Is Commission-Approved, Current, Regularly Updated, Easy To Administer, And Comprehensive.**

The PJM CONE Study has many advantages over any other existing, or even hypothetical, proxy for the weighted average cost of capital for a merchant generator's reactive power revenue requirement.

First, the Commission has already accepted the capital structure and cost components as just and reasonable in 2014 and in 2019.<sup>34</sup> It closely examined and approved PJM's analyses on the basis that they reflect "transparent data and reasonable assumptions that balance consumer and investor interests."<sup>35</sup> Thus, existing Commission precedent and policy is powerful support for use of the PJM CONE Study as a just and reasonable proxy for the weighted average cost of capital for merchant generators in the reactive power context. Indeed, it is unnecessary for the Commission to reinvent the wheel and create a new proxy when the CONE Study has already been vetted and litigated. Similarly, even if the Commission wishes in a future rulemaking initiative to pursue the question whether an even better proxy than that in the CONE Study could be created, the Commission should, in the meantime, declare the CONE Study proxy to be a reasonable proxy to use.

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<sup>33</sup> See *supra* at n.20.

<sup>34</sup> *PJM Interconnection, LLC*, 149 FERC ¶ 61,183, at P 76; see *PJM Interconnection, LLC*, 167 FERC ¶ 61,029, at P 101.

<sup>35</sup> See *PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,183, at P 94; *PJM Interconnection, LLC*, 167 FERC ¶ 61,029, at P 101.

Second, these figures are of very recent vintage and, in fact, as explained by former PJM Chief Economist, Dr. Sotkiewicz, the 2018 study contains rate of return estimates for prospective projects that may start commercial operation between 2022 and 2025.<sup>36</sup> By contrast, there are some stale numbers in the current interconnected transmission owner proxy. In one instance, a long-time transmission owning member of PJM has just submitted a rate case and, prior to that, had not updated its rate of return since before 2004.<sup>37</sup> Cost of capital and capital structure that reflect current conditions, or estimates of conditions in the near future, are much more likely to reflect a filer's actual risk profile than figures that are over 15 years old. Indeed, the Commission would be wise to identify a proxy like the PJM CONE study that is current and will be continue to be current into 2025, rather than limit merchant generators to static historical data points that do not have to be regularly updated.

Third, PJM reviews the calculation of CONE every four years and submits any changes to FERC for approval.<sup>38</sup> Therefore, the PJM CONE Study is an appropriate proxy for the cost of capital and the capital structure for merchant generators' reactive rates because it will be updated periodically to consciously follow developing trends with regard to risks to merchant generator investors.

Fourth, the PJM CONE Study is the easiest proxy for the Commission to administer. As described, it is regularly reviewed and updated on a periodic basis by the independent RTO and

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<sup>36</sup> Petition, Sotkiewicz Aff. ¶ 22.

<sup>37</sup> *The Dayton Power & Light Co.*, 172 FERC ¶ 61,140, at P 15 (2020). In another example from a different Regional Transmission Organization ("RTO"), the majority of the transmission owners in Midcontinent Independent System Operator had the same return on equity and capital structure between 2005 and 2013, until the current complaint proceedings that gave rise to the Commission's current ROE methodology. *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, 165 FERC ¶ 61,118, *order on reh'g*, 169 FERC ¶ 61,129, *order on reh'g*, 171 FERC ¶ 61,154.

<sup>38</sup> Petition, Sotkiewicz Aff. ¶ 22 & n.15.

submitted for Commission approval. There is no need for the Commission to open additional proceedings to determine the generic investment risks for merchant generators in PJM or to update a stale number. Doing so would discount the significant efforts of parties in developing and vetting the PJM CONE Studies. Moreover, the methodology for determining Gross CONE has been fully litigated and is now generally accepted in its current form.<sup>39</sup>

Finally, the PJM CONE Study offers the most consistent methodology for determining all of the elements of the weighted average cost of capital for merchant generators. It is comprehensive in that it determines an appropriate capital structure, cost of debt and cost of equity using one set of data and a corresponding, consistent set of reasonable assumptions.<sup>40</sup> With the PJM CONE Study as the proxy, there is no need to cobble together a new and different study of the appropriate proxy ROE, with a different study of merchant generators' debt, with a third study to determine the debt-equity ratio, all of which may have differing assumptions and data sets. Doing so would not only create inconsistencies between the component part of the weighted average cost of capital – it also would invite litigation, as a cobbled-together proxy would be less coherent and consistent and more vulnerable to challenge. This in turn would undermine the goal served by allowing use of a reasonable proxy, that is, the avoidance of litigation and the promotion of settlement of reactive power cases.

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<sup>39</sup> See *Sotkiewicz Aff.* ¶ 18; see also Interim Decision, *In re PURA Implementation of June Special Session Public Act 17-3*, Docket No. 18-05-04, 25 (Conn. Pub. Utils. Reg. Auth. Dec. 5, 2018) (“Based on the analysis presented by Dominion discussed above, the Authority finds that the market-required return on the tied up investment is likely to be at least 15% under a merchant operation scenario. This is based on a comparison of an assumed rate of return requirement of 13.4% for a merchant natural gas plant, adjusted upward to account for some added risk associated with operating a merchant nuclear plant.” (footnote omitted)).

<sup>40</sup> *PJM Interconnection, LLC*, 167 FERC ¶ 61,029, at P 88; *PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,183, at PP 60, 78, 85; see also Petition at 15.

Given all these advantages of the PJM CONE Study, there is no doubt that it provides the “most reasonable proxy” for merchant generators to use in determining their reactive revenue requirements.<sup>41</sup>

## **II. Other Suggested Proxies, Hypothetical Or Actual, Are Inappropriate.**

### **A. The Interconnected Utility Proxy Is Too Conservative To Represent Higher Risks Faced By Merchant Generators.**

The Commission cannot require a utility to accept a capital structure and cost of capital that understates its risks. A rate is just and reasonable if and only if it accurately reflects the risk faced by the entity, “assure[s] confidence in the financial integrity of the enterprise,” and compensates a regulated utility for its full cost of raising capital.<sup>42</sup> The Commission has recognized that an interconnected transmission owner’s ROE and cost structure is a conservative measure of a merchant generator’s risk; nevertheless the Commission has allowed for its use as a proxy perhaps because no better alternative was offered.<sup>43</sup> Because of this imperfect fit, however, “merchant generators seeking cost-based recovery for providing reactive power continue to be forced to litigate extensively or settle on the cheap to avoid the prohibitive costs of litigation.”<sup>44</sup>

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<sup>41</sup> Amended Borgatti Aff. at 4; *see* Petition, Sotkiewicz Aff. ¶ 11 (explaining that before the PJM CONE Study that “the best proxies available were the authorized cost of equity of the interconnected transmission owner”).

<sup>42</sup> *See FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944); *Petal Gas Storage, L.L.C. v. FERC*, 496 F.3d 695, 699 (D.C. Cir. 2007).

<sup>43</sup> In a recent case pending before the Commission on initial decision, Panda Stonewall proposes to use PJM CONE Study as a proxy for its capital structure, debt costs and cost of common equity. *See Panda Stonewall LLC*, 167 FERC ¶ 63,010 (2019). The Commission should approve Panda Stonewall’s proposed proxy in that case, as well as provide guidance in this proceeding that the PJM CONE Study is an appropriate proxy.

<sup>44</sup> Petition at 2.

Now that another, superior proxy is available in the form of the PJM CONE Study, there is no reason for parties to continue fighting over transmission owner ROEs. The PJM CONE Study is far superior in its representation of the actual risks that merchant generators experience in seeking investors in their projects.<sup>45</sup> And its use yields other benefits not offered by the interconnected transmission utility proxy.<sup>46</sup> The Commission should bring more predictability, balance, and common sense to the administration of the reactive rate proceedings, and allow the use of the PJM CONE Study for proxy capital structure and cost of capital.

**B. An Average Of Transmission Owner ROEs In PJM Does Not Reflect Any Better The Risks Faced By Merchant Generators In PJM.**

In the Briefing Order, the Commission asks whether an appropriate proxy could be developed by averaging transmission owner ROEs.<sup>47</sup> This proposed proxy suffers from the same problems that afflict the use of the interconnected transmission utility as the proxy. It merely uses a broader base of data to arrive at the same flawed picture: the Commission has already determined that merchant generators face more risks than transmission utilities.<sup>48</sup> There is nothing to indicate that *averaging* ROEs for transmission owners would address this issue, as all transmission owner ROEs would suffer from the same shortcoming. Were the process successful in determining the risk level for the average transmission owner in PJM (which itself is a difficult determination), it would not make that ROE more relevant to the risks faced by merchant generators' investors. The average risks of transmission utilities would still not be equal to the average risks of merchant generators.

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<sup>45</sup> See Amended Borgatti Aff. ¶¶ 14-15.

<sup>46</sup> See *supra* at pp. 8-11.

<sup>47</sup> Briefing Order at P 27 (Question (d)).

<sup>48</sup> See Briefing Order at P 24.

Moreover, establishing a proxy ROE is only one part of the rate of return and leaves unanswered the question of what capital structure and debt cost proxies are appropriate for merchant generators in PJM. The PJM CONE Study, however, answers these questions and provides the most reasonable proxy for merchant generators in reactive power proceedings by properly reflecting the specific risks faced by a new merchant generator in PJM.

**C. A ROE Adder Does Not Provide An Appropriate Proxy For The ROE Or Other Elements Of The Weighted Average Cost Of Capital.**

The Commission requests comments on whether there are other proxy approaches, including “the use of a ROE adder, to account for the higher risks associated with merchant generation.”<sup>49</sup> A ROE adder is no substitute for a baseline proxy that in the first instance provides an appropriate capital structure and cost of capital for merchant generators, as the PJM CONE Study does. Further, inevitable disputes over the analysis required to develop a ROE adder as well as the ultimate level of a ROE adder will create implementation barriers that do nothing to solve the problem of uncertainty that exists today for these generators.

There is no single ROE adder that would reasonably and reliably transform the interconnected transmission owner’s ROE and cost structure into a dependable and reasonable proxy for risks and costs of financing for merchant generators in PJM. To make the ROE appropriate for merchant generators, an adder would need to capture the difference in risk perceived by transmission owner investors and merchant generator investors. This would require comparative analyses, simplifying assumptions, and periodic updates to ensure the adder accurately reflects the differential over time – a whole new administrative process of its own. Yet the PJM CONE Study already achieves these objectives and does this work by identifying

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<sup>49</sup> Briefing Order at P 27 (Question (e)).

and quantifying the risks that merchant generators face in a more streamlined way. There is no reason to duplicate that effort by attempting to develop a ROE adder to account for the differences between transmission owners and merchant generators.

Moreover, one of the goals of establishing a more appropriate proxy for cost of capital for merchant generators providing reactive power, is to reduce litigation and enhance settlement opportunities. Since the beginning, when FERC first established ROE adders, they have been a source of significant litigation both at FERC and in the courts, as to both the level and the appropriateness of the adders.<sup>50</sup> There is no reason to believe that an effort to establish an adder in this context would be any different. Thus, the Commission should avoid protracted and costly litigation on the correct level and appropriateness of such an adder and instead adopt the PJM CONE Study, which has already been fully litigated, as the best proxy for merchant generators' ROE.

Finally, an adder would at most resolve the issue of what is an appropriate proxy ROE for merchant generators in PJM, although as explained above that is a doubtful proposition. It would not provide a cost of debt, which varies significantly between merchant generators and transmission utilities, or a capital structure that is more typical of a merchant generators' ratio of debt to equity. The best proxy is one that reflects a capital structure and costs of common equity

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<sup>50</sup> *Cal. Pub. Util. Comm'n v. FERC*, 879 F.3d 966 (9th Cir. 2018) (remanding to the Commission the application of a bonus of 50 basis points to the ROE of a transmission owner in an Independent System Operator); *Pub. Serv. Comm'n of Kentucky v. FERC*, 397 F.3d 1004, 1012 (D.C. Cir. 2005) (remanding to the Commission the application of a bonus of 50 basis points to the ROE of transmission owners in an RTO); *The Dayton Power & Light Co.*, 172 FERC ¶ 61,140, at P 22 (setting for paper hearing the justness and reasonableness of a the RTO Participation Adder); *Kansas Corp. Comm'n v. ITC Great Plains, LLC*, 172 FERC ¶ 61,037 (2020) (reducing the level of the ROE incentive adder for a Transco); *Consumers Energy Co. v. International Transmission Co.*, 165 FERC ¶ 61,021 (2018), *order denying reh'g*, 168 FERC ¶ 61,035 (2019), *appeal pending sub nom International Transmission Co. v. FERC*, D.C. Cir. Case No. 19-1190 (2019) (same).

and debt that are specific to merchant generators and uses a common set of assumptions and data.<sup>51</sup> The Commission-approved PJM CONE Study checks all of these boxes.

**D. Using Merchant Generator Data In The Commission's Recently Announced ROE Methodology Does Not Solve The Current Proxy Problem.**

In the Briefing Order, the Commission asked whether an appropriate proxy could be developed using publicly available data and the Commission's current ROE methodology for electric utilities.<sup>52</sup> The Commission suggested the use of data on merchant generators or companies in PJM with a significant portfolio of generation.<sup>53</sup> This suggestion is not practical because (1) it would not establish an appropriate capital structure or cost of debt or a consistent approach to developing the weighted average cost of capital; (2) the DCF methodology is not appropriate for most merchant generators who do not pay dividends; and (3) with the significant uncertainty surrounding the Opinion 569-A methodology, and the promise of additional litigation, the application of this method would not lessen the unreasonable litigation burden currently shouldered by reactive power providers.

First, as discussed above, one of the advantages of the PJM CONE Study as a proxy is that it applies a consistent set of assumptions and data to determine all components of the weighted average cost of capital for a typical merchant generator. Use of the Commission's new methodology for determining ROE for electric utilities would provide only one of those components in isolation.

Second, the new ROE methodology evaluates ROE under three models, including the CAPM and the DCF. As Dr. Sotkiewicz attests:

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<sup>51</sup> See Petition, Borgatti Aff. ¶¶ 13-14.

<sup>52</sup> Briefing Order at P 27 (Question (f)) citing *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, 169 FERC ¶ 61,129, order on reh'g, 171 FERC ¶ 61,154.

<sup>53</sup> *Id.*

DCF relies on the fact that investor owned transmission companies are publicly traded and pay dividends that are known and have stock prices that can easily be obtained. In contrast, most merchant generators are privately held and do not have stock/equity that is publicly traded, nor do they pay dividends as investor owned transmission companies do. Moreover, even for the publicly traded merchant power owners, they generally do not pay dividends, and thus the DCF method would still not be feasible.<sup>54</sup>

By contrast, because most independent power producers do not pay dividends and are not publicly traded, CAPM offers a better comparison of risk-adjusted ROEs and choices the owners of capital face when deciding to make investments as the model does not require dividend payments to determine the ROE.<sup>55</sup> In the 2014 PJM Cone Study proceeding, the Commission similarly affirmed the reasonableness of the CAPM for merchant generators.<sup>56</sup>

Finally, an application of publicly-available merchant generator data to the Opinion 569- A methodology would not provide the certainty that merchant generators seek regarding a reasonable proxy for their equity costs. Such a determination is likely to be litigated. It is not clear how such a methodology would be any different from what would occur if a merchant generator decided to fully litigate its ROE and declined the use of a proxy altogether. In any event, it would appear that as the data changes over time, the Commission or perhaps individual merchant generators would have to revisit the ROE to establish a new proxy.<sup>57</sup> This result would be untenable when a much better proxy exists in the use of the PJM CONE Study. Thus, the

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<sup>54</sup> Petition, Sotkiewicz Aff. ¶ 25 (footnote omitted).

<sup>55</sup> *Id.* ¶ 14; *see also* Comments of the PJM Power Providers Group and the Electric Power Supply Association, Docket No. EL19-70, 6-7 (June 3, 2019).

<sup>56</sup> *See PJM Interconnection LLC*, 149 FERC ¶ 61,183, at P 76.

<sup>57</sup> *See* Petition, Sotkiewicz Aff. ¶ 26. (because the “results of a DCF analysis can change quickly over a 6 to 12-month period as stock prices fluctuate and/or dividend payouts change . . . DCF-based proxy returns would require revisiting the allowed ROE on a much more frequent basis”).

Commission should declare that the capital structure and cost of capital in the CONE Study is an acceptable proxy for this purpose.

### CONCLUSION

For the foregoing reasons and as set forth in Indicated Generation Owners' Petition and Answer, the Petitioners respectfully request that the Commission approve the cost of capital and the capital structure in the PJM CONE Study as a reasonable proxy for merchant generators' return in calculating a reactive power rate.

Dated: August 31, 2020

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*On behalf of the PJM Power Providers  
Group*

**CERTIFICATE OF SERVICE**

Pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010, I hereby certify that I have this day served the foregoing document upon the parties identified on the Commission's official service list by electronic means.

Dated at Washington, D.C. this 31st day of August, 2020.

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**TAB A**



reactive power. I have participated in the following dockets relating to reactive power tariff proceedings for resources located within the PJM territory:

<b><u>Description</u></b>	<b><u>Docket No.</u></b>
<b>Dynergy Lee II, LLC</b>	EL17-91-000
<b>Chambers Cogeneration, Limited Partnership</b>	ER17-2515
<b>Logan Generation Company, L.P.</b>	ER16-2217-000
<b>Carrol County Energy, LLC</b>	ER18-92-000
<b>St. Joseph Center, LLC</b>	ER18-1156-000
<b>Clean Energy Futures - Lordstown, LLC</b>	ER19-90-000
<b>Oregon Clean Energy, LLC</b>	ER19-31-000
<b>Invenergy Nelson, LLC</b>	ER19-266-000
<b>FPL Energy MH 50 L.P.</b>	ER16-2377-000
<b>FPL Energy Marcus Hook L.P.</b>	ER16-2376-000
<b>Dominion Energy Fairless, LLC</b>	ER19-38-000
<b>Moxie Freedom, LLC</b>	ER18-1266-000
<b>Lancaster County Solid Waste Management Authority</b>	ER19-342-000
<b>Birdsboro Power, LLC</b>	ER19-1409

6. I have significant first-hand experience with the issues that are the subject of this Petition. As detailed in the attached CV, Appendix A to this testimony, I am a regular participant in federal energy and utility proceedings. In addition to my engagement in the reactive service matters noted above, I recently supported my firm’s support of cost-of-service-based Reliability Must Run (“RMR”) Rate Schedule for a generation resource in PJM,<sup>1</sup> and provided testimony in a technical conference before the New Jersey Board of Public Utilities regarding cost responsibility and business model considerations for offshore wind enabling transmission facilities.<sup>2</sup>

<sup>1</sup> *RC Cape May Holdings, LLC*, Docket. No. ER17-1083 (2017).

<sup>2</sup> New Jersey Offshore Wind Transmission, NJBPU Docket No. QO19100068 (2019).

7. In recent years, since the Commission decided *American Electric Power Service Corp.*, 88 FERC ¶ 61,141 (1999) (Op. No. 440), merchant independent power producers that develop new generation assets, as well as those that acquire existing facilities, have routinely had their reactive power tariffs set for hearing. This process is becoming increasingly burdensome and time consuming for all parties, particularly as new policy issues have arisen in these cases. Entering the Declarations requested by this Petition would narrow the issues for litigation by resolving the policy disputes, mitigate unnecessarily contentious aspects of this process, and ameliorate the burden presented by reactive power cases.

8. It is worth noting that generators are entitled to compensation for reactive power capability pursuant to Schedule 2 of PJM's FERC-approved Open Access Transmission Tariff ("OATT"). As such, contested reactive power cases center on whether the *AEP* methodology was used properly to calculate the rate – not whether the applicant should receive such revenues in the first place. Because several important questions remain unsettled, parties often are unable to properly evaluate pertinent terms needed to arrive at a mutually beneficial settlement agreement. Accordingly, merchant generators may not be appropriately compensated for their capability to provide reactive power.

9. Thus, a central challenge inherent in resolving contested reactive rate proceedings is contending with a lack of clarity on several questions relevant to the calculation of the revenue requirement. Many of these questions, like each of those at issue in this Petition, are pure questions of law and policy that are amenable to a decision by the Commission. However, because they are unlikely to be informed by factual development, merchant generators are unlikely to undertake the significant costs of litigation solely to obtain a Commission ruling on these questions. Parties more often elect to settle these matters, thereby depriving the

Commission of an opportunity to provide much needed guidance. In fact, it is worth noting that only recently was a reactive power case litigated through hearing (*Panda Stonewall LLC*, Docket No. ER17-1821), yet many of the same questions remain.

10. The Petition seeks guidance on a number of issues relevant to reactive power filings, for which Commission guidance is urgently needed. My affidavit discusses three of these issues in particular: (1) proxies for a merchant generator's weighted average cost of capital; (2) support for reactive power investment costs; and (3) the power factor a generator may use to calculate its annual revenue requirement.

**I. Cost of Capital: PJM CONE Is The Most Reasonable Proxy For Merchant Generators' Weighted Average Cost Of Capital**

11. Generators filing for a cost-based tariff are entitled to recover a return on their investment. To achieve this objective, merchant generators frequently determine their weighted average cost of capital, including return on equity, through a proxy.

12. Historically, merchant generators have been permitted to use a proxy for the weighted average cost of capital to support their reactive power rate. The Commission has generally accepted this approach. Additionally, to avoid controversy, limit the potential issues in dispute, and to simplify the process of settling the rate case, merchant generators have often used the interconnected utility's weighted average cost of capital as its proxy.

13. However, a merchant generator faces a much different risk profile than its interconnected utility. Whereas merchant generators sell most – if not all – of their energy into highly competitive spot markets, interconnected utilities benefit from captive customers through which the utilities are able to pass through most – if not all – of their operating and capital costs, inflated to recover a guaranteed rate of return. Merchant generators enjoy no similar captive customer base or authorized return, and, therefore, are not guaranteed to recoup their costs. As a

result, investors in merchant generation facilities face far greater risk and uncertainty, which should be compensated accordingly. The Commission has clearly indicated as much and has acknowledged that a merchant generator faces greater risk. Therefore, merchant generators should use a more representative proxy for their weighed average cost of capital than the conservative interconnected utility approach.

14. PJM's Cost of New Entry Study (the "CONE Study") now provides a Commission-approved proxy that more reasonably represents the weighted average cost of capital of a merchant plant in PJM. The purpose of this component of the CONE Study is to translate the inherent uncertainty associated with merchant generator cash flows into a discount rate that makes the project's net present value equal to zero. To make this determination, the CONE Study analyzed publicly-traded merchant generator companies, recent merger and acquisition transactions, and current tax policies across multiple reference points throughout the PJM region, which spans thirteen states and the District of Columbia. By developing a proxy weighted average cost of capital for merchant generators based upon their unique market risks and uncertainties, the CONE Study provides the most representative proxy available to the merchant generators at issue in reactive rate cases before the FERC.

15. The Commission has recognized this fact, endorsing PJM's approach for calculating the weighted average cost of capital for merchant generators beginning in 2014 and as recently as its April 15, 2019 Order approving PJM's latest Net CONE calculation.<sup>3</sup> Similarly, the United States Court of Appeals for the District of Columbia has also found this approach reasonable for purposes of estimating the proxy cost of new entry for a merchant

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<sup>3</sup> *PJM Interconnection, LLC*, 167 FERC ¶ 61,029 (2019).

generator in PJM.<sup>4</sup> For each of these reasons, the PJM CONE weighted average cost of capital should be the default proxy for merchant generators in reactive power filings before the FERC.

## **II. Investment Cost Support: EPC Contractor Cost Data Is The Most Reasonable Source For Investment Cost Support**

16. As a practical matter, the Commission requires merchant generators' reactive service tariffs to reflect actual construction costs. However, unlike regulated utilities, merchant generators do not record costs according to the Uniform System of Accounts ("USofA") nor are they obligated to.

17. While the Commission exempts merchant generators from adhering to USofA accounting standards, it does not exempt regulated utilities. Because these utilities benefit from captive customers and guaranteed cost recovery and rates of return for most, if not all, of their operations, the Commission mandates that these utilities follow a uniform and consistent basis to calculate their rates charged to customers.

18. Because merchant generators rely on competitive spot markets to earn revenue, these generators rarely, if ever, file rate cases with the FERC. However, even if a merchant generator files a reactive rate case with the FERC, the potential revenue from these rate cases typically comprises only a small minority of the merchant generator's total revenue – meaning the vast majority of the project's revenue is still highly uncertain and risky, unlike a regulated utility. Nevertheless, when filing a reactive rate case with the FERC, merchant generators must provide support for their reactive plant investment costs.

19. This tension naturally leads to significant challenges for merchant generators when litigants demand construction cost support data that strictly adheres to USofA accounting

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<sup>4</sup> *PJM Power Providers Group v. FERC*, 880 F.3d 559 (D.C. Cir. 2018).

conventions. Under the *AEP* methodology, many generators attempt to itemize certain identified production plant equipment costs into the various USofA accounts. However, this can be difficult – if not impossible – given merchant generators’ exemption from adherence to USofA accounting standards means that they and their contractors do not follow these conventions from the start. Because merchant generators record their costs in an entirely different manner, forcing the application of the USofA accounting standards after these costs have already been booked creates a burdensome, expensive, and highly uncertain process that can result in unrepresentative cost reallocations that harm merchant generators. To overcome these challenges when filing a reactive rate case with the FERC, merchant generators often rely on detailed cost accounting records provided by their own EPC contractors. Recognizing how EPC contractors develop these records and why this method is the most representative and reasonable approach is critical to ensure efficient and equitable settlement of reactive rate cases before the Commission.

20. Merchant generators regularly enter into contracting relationships with EPC contractors for the construction of turn-key generation facilities. These types of arrangements have become common since the electric generation industry was opened to competition.

21. To ensure cost certainty, EPC contracts frequently provide a fixed-price for the development and construction of the facility – meaning the entire transaction is booked as a single, aggregate value instead of being itemized and invoiced for each individual investment component. These arrangements benefit both parties to the contract. For one, the cost certainty ensures that merchant generators will be able to reliably secure financing for the project. Because the costs of construction are known, sources of debt and equity financing can be assured that there will be sufficient capital committed to a project to fund that project’s completion. Second, utilizing a single, aggregate bid value ensures that the EPC contractor is able to

successfully bid to develop and construct the facility without disclosing sensitive information (e.g., EPC profit margins built into the overall cost of the project investment). Disclosing this information while providing more granularity into the EPC's unique valuation of distinct cost categories could undermine market competitiveness and harm merchant generators. Therefore, EPC contractors are extremely hesitant to provide data that could compromise their ability to compete for the opportunity to secure new contracts. Because EPC contracts are regularly awarded in competitive bidding processes, EPC contracting relationships also ensure that new facilities are constructed at the most efficient cost level possible.

22. There are numerous EPC contractors in the market today competing for the opportunity to lead the construction of new facilities throughout the United States. Therefore, EPC contractors have an incentive to offer a competitive price which provides them with a margin at which they can construct the facility but still earn a profit. This makes EPC contractor margins and cost valuations highly sensitive business information. As a result, EPC contractors have a strong competitive incentive *not* to disclose this information to their respective merchant generator contracting party. If a merchant generator is able to access its EPC contractor's cost data – and thus learn information about the EPC contractor's cost margins and valuations – the merchant generator will be able to significantly improve its bargaining position with that EPC contractor when negotiating future contracts for other facilities. Additionally, EPC contractors may worry that disclosure of their cost data (to contractors or in public proceedings) might allow their competitors to obtain that data, putting the EPC contractor at a competitive disadvantage.

23. For these reasons, many EPC contracts are closed-book – or “black box” – contracts. In these instances, merchant generators are not contractually provided with access to their EPC contractor's books or detailed records of their contractor's costs. Moreover, EPC

contractors are not required to follow USofA accounting practices and, therefore, do not maintain separate accounting records solely for the limited potential application of supporting a reactive ratemaking proceeding.

24. It also is very difficult to recreate the USofA accounting practices after the fact. For example, the USofA requires jurisdictional utilities to separate the costs associated with constructing the turbine-generator from the remaining balance of plant. Likewise, the *AEP* Methodology requires generators to separate the costs associated with constructing different components of the total production plant such as isolating generator-exciter direct and indirect costs from the remaining turbine equipment, among other component-specific cost breakouts. However, as stated previously, EPC contractors develop their bids assuming aggregate values for line-items like common material costs (e.g. structural concrete), labor work-hours, and other indirect overhead costs. What is more, they do not specifically itemize information they consider commercially sensitive, like profit margin, risk premiums and contingency reserves. They do not separately identify the costs associated with these discreet plant components because they are not obligated to keep their books according to the USofA and doing so would be unnecessary, burdensome, and expensive – further undermining the attractiveness of potential market opportunities. Given these market realities, a merchant generator’s reliance on an EPC contractor to construct a facility limits the availability of detailed cost information.

25. Traditionally, regulated merchant generators are able to identify the major equipment categories relevant to the *AEP* methodology (the generator-exciter, the generator step-up transformers, and the accessory electric equipment) using their own cost data, which is booked according to the specific accounts under the FERC USofA – which they are required to follow. By contrast, a merchant generator filing for a reactive power rate faces challenges in

identifying the specific portions of the plant that should be assigned to the major equipment categories relevant to the *AEP* methodology. When a closed-book contract is involved, a merchant generator does not have insight into the specific costs the EPC contractor incurred to build different components of the facility. Compounding this challenge is the fact that neither a merchant generator nor its EPC contractor are required to use the USofA to maintain their books and records.

26. As a result, merchant generators must support their reactive rate filings by relying on information supplied by their EPC contractors. For purposes of apportioning the total costs of the plant investment among the major equipment categories that are relevant to the *AEP* methodology, merchant generators typically have no alternative but to rely on the EPC contractor to identify the portions of the total construction costs relevant to each category. However, the EPC contractor can approximate these allocations (either in terms of percentages of the overall investment or as dollar totals) *after the fact* by utilizing its first-hand knowledge of the project investment as well as its extensive experience in these matters.

27. Alternatively, if a merchant generator is unable to obtain any cost information through its EPC contractor, a proxy for the discreet investment costs could also be used, but this approach may not provide the same level of accuracy or representativeness provided by the EPC contractor approach. In any event, all parties involved in a reactive rate proceeding are reliant upon the same cost information made available – most often, in the form of EPC contractor accounting records. Disputes, therefore, arise, not just over what cost support to use, but over how to interpret the costs: with FERC litigation Staff preferring to force the application of USofA accounting standards despite the inherent challenges and policy inconsistencies

previously described, and generators preferring to rely on the EPC contractor cost records as the sole and most representative source of cost support available.

28. Commission precedent currently provides insufficient guidance on how a merchant generator can reasonably support its reactive power costs when it uses an EPC contractor. Disputes about the level of information a merchant generator must provide to support its reactive tariff filing poses a significant hurdle to the settlement of reactive power cases. This is particularly acute when parties fail to fully appreciate the practical limitations merchant generators face as a result of EPC contracting relationships, as detailed above, in which reactive power filers may be asked to provide information that does not exist or is simply unavailable. In these circumstances, the parties are frequently unable to resolve differences regarding the dollar figures for the major equipment categories used to calculate the applicant's reactive service rate.

29. The Commission's guidance on this issue, recognizing that EPC contractor cost data – when available – is the most representative and reasonable information available to reactive power filers, would be welcome as it would help facilitate the settlement of reactive power cases, ensure that reactive power revenue requirements sufficiently compensate merchant generators for their provision of reactive power for the benefit of the power grid, and reduce the burdens placed on all stakeholders in these proceedings.

### **III. Power Factor: The IMM Has Insisted On Litigating The Use Of The Power Factor, Despite Existing Commission Precedent**

30. Even after identifying the costs associated with the major equipment categories of the total project investment, the *AEP* methodology requires that reactive power filers further reduce their investment costs to isolate only the share of the total project investment associated with reactive power production, consumption, and support. As a result, developing the

allocation factor used to perform this apportionment is an integral element of reactive power rate filings.

31. The *AEP* Methodology develops the reactive power allocation factor using the project's nameplate power factor. Nameplate represents the project's maximum rated capability, which is consistent with the objective of reactive power filings in developing a capability-based revenue requirement. Mechanically, the lower the power factor, the higher the reactive capability. For example, whereas a power factor of 100% implies that the project provides only real power (measured in megawatts or "MW"), a power factor of 85% implies that the project can provide both real power and reactive power (measured in mega volt amperes reactive or "MVAR"). Therefore, the closer a power factor is to 100%, the lower the reactive power allocation will be – resulting in a lower reactive revenue requirement because a smaller share of costs will be attributed to the reactive power capability of the project.

32. Because the *AEP* Methodology is fundamentally a capability-based rate, generators must be compensated for their full reactive capability. Measuring reactive power capability using the generator's nameplate reactive capability ensures compliance with the *AEP* methodology and that the transmission system has sufficient flexibility to overcome routine requirements and unexpected contingencies. In PJM, regular transmission system operations require reactive power support within a generator's nameplate power factor range in order to balance routine fluctuations in voltage levels throughout the grid. However, unexpected volatility and system emergencies can also necessitate immediate grid support through higher reactive power output – up to and even exceeding a generator's nameplate capability in some cases.

33. As a result of these requirements, reactive power filers use their nameplate power factor to isolate the costs associated with the reactive power investment. However, the Independent Market Monitor (“IMM”) for PJM has recently insisted on litigating this issue – despite the existence of clear and consistently on-point Commission precedent.<sup>5</sup> For example, in a recently litigated reactive power case, the IMM has taken the position that a reactive power-capable facility may only seek compensation up to the minimum power factor required by PJM’s Interconnection Service Agreement – even if that minimum power factor threshold represents a lower reactive power capability than the generator is actually capable of demonstrating.<sup>6</sup> The IMM’s position, if adopted, would result in a rate that is unjust and unreasonable because it would preclude generators from recovering the costs associated with their full reactive capability while continuing to allow PJM to benefit from the generator’s full reactive capability when it supports unexpected system needs and reliability concerns.

34. In my experience, the IMM frequently intervenes in reactive power cases. It is likely that the IMM will continue to raise this issue in reactive cases going forward, despite the fact that this is a long-settled issue. Because this issue is a pure question of the IMM’s disagreement with Commission policy, it is not one readily amenable to resolution during settlement judge procedures or at hearing. Requiring parties to, nevertheless, litigate the question increases the burden and cost to litigants.

35. The Commission’s reiteration of its binding precedent, which clearly specifies that reactive power filings should be based upon a generator’s nameplate capability, will provide

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<sup>5</sup> See, e.g., *Am. Elec. Power Serv. Corp.*, 88 FERC ¶ 61,141, 61,456-57 (1999); *Am. Transmission Sys., Inc.*, 119 FERC ¶ 61,020, at P 27 (2007).

<sup>6</sup> See *Panda Stonewall LLC*, Initial Brief of the Independent Market Monitor for PJM at 24-26, Docket No. ER17-1821-002 (Dec. 6, 2018).

needed clarity for the parties and promote efficient and mutually beneficial settlements of these cases.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and accurate.

Dated: August 31, 2020

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Michael R. Borgatti

## APPENDIX A

## Overview of Experience

Michael Borgatti, Vice President of RTO Services and Regulatory Affairs, has over 12 years of experience on energy and policy related issues. He is the firm's principal representative addressing the operations, procedures, and markets of regional transmission organizations (RTO). RTOs serve as the foundation of competitive wholesale electricity markets in the United States.

Mr. Borgatti is an expert on the complex, technical operations of RTOs and has been a leader in the development of RTO rules related to energy, capacity, and other structural issues. He translates the technical complexities of RTOs into the business plans of his clients and helps them evaluate the risks, costs, and revenue associated with tariff changes. He also works on project development and risk analysis including generation interconnection, merchant transmission, and credit issues.

Mr. Borgatti is knowledgeable on various RTOs within the country including PJM Interconnection (PJM), Electric Reliability Council of Texas (ERCOT), Midcontinent Independent System Operator (MISO), Southwest Power Pool (SPP), New England (ISO-NE), California ISO (CAISO), and New York (NYISO).

He is active in a number of RTO committees and working groups including those addressing energy markets, capacity markets, renewable markets, storage, ancillary services, and transmission interconnection issues throughout the wholesale market space. These groups are integral to developing and refining RTO rules, policies, and processes and resolving difficult market and technical issues. As a result, Mr. Borgatti maintains up-to-date detailed expertise on RTO operations and wholesale energy markets.

Although Mr. Borgatti is versed on RTOs throughout the country, he possesses specialized expertise on PJM (the largest RTO in the country). He recently served as the Chair of PJM's Members Committee, which is considered the highest-ranking stakeholder committee at PJM, as well as vice-chair of PJM's Liaison Committee, which is the primary forum where stakeholders discuss strategic concerns with the PJM Board of Managers. He currently serves as the PJM Generation Owner Sector Whip. He was also extremely active in PJM's reforms to its capacity market through its Capacity Performance model.

Mr. Borgatti facilitates generation interconnection studies and interconnection service agreements among new generation resources, the local transmission system owner, and the RTO. His expertise allows the firm's clients to effectively advance and protect their business interests in the wholesale and retail energy markets.

Mr. Borgatti has provided market analysis, risk assessment, and developed financial strategies associated with both the energy and capacity market. He also helps to inform long term forecasting and other analytical efforts.

Mr. Borgatti possesses a strong understanding of regulatory and ratemaking issues and policy based on his assistance with project development activities and his previous years as a legal specialist.

Prior to his role at Gabel Associates, Mr. Borgatti worked as a federal energy litigation and policy legal specialist for the New Jersey Board of Public Utilities, where he advised senior leadership, including the Board President, Chief Counsel, and Governor's Office regarding various issues related to federal energy policy. He developed and executed litigation strategies for matters before the Federal District Courts, United States Circuit Courts of Appeals, and the Federal Energy Regulatory Commission. Mr. Borgatti also managed a multi-disciplinary team that provided policy and litigation advice on all federal energy matters.

## Professional Qualifications

*J.D., Rutgers University School of Law, 2011*

*B.A., Environmental Biology,  
The University of Colorado Boulder,  
2006*



**Years of Experience: 12**

**Michael Borgatti**  
**Vice President of RTO Services & Regulatory Affairs**

**Expertise Overview / Notable Projects**

- Provides regulatory and policy support
- Advises on wholesale market changes
- Provides ongoing expert advice and advocacy services for numerous clients on RTO issues
- Supports and evaluates specific projects for entities transacting within the RTO markets
- Assists clients with grid interconnection issues
- Strong understanding of wholesale market rules and structure, including regulation services (i.e., ancillary services)
- Assists clients in developing bid and offer strategies for the PJM energy and capacity markets for both demand response and traditional generation resources
- Supports financial analysis associated with asset valuation and power plant development activities
- Served a past role as New Jersey's representative to PJM and FERC for all wholesale market activities



**Gabel Associates, Inc.**

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