

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

|                                |   |                        |
|--------------------------------|---|------------------------|
| Brookfield Energy Marketing LP | ) | Docket No. EL19-34-000 |
|                                | ) |                        |
| v.                             | ) |                        |
|                                | ) |                        |
| PJM Interconnection, L.L.C.    | ) |                        |

**ANSWER AND MOTION FOR LEAVE TO ANSWER  
OF THE INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rules 212 and 213 of the Commission’s Rules and Regulations,<sup>1</sup> Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor (“Market Monitor”) for PJM Interconnection, L.L.C. (“PJM”),<sup>2</sup> submits this answer to, and moves for leave to answer, the answer filed by PJM in the above referenced proceeding on March 22, 2019. The Market Monitor also responds to the arguments raised in the supplemental answer filed by Brookfield Energy Marketing LP on April 4, 2019 (“Brookfield”). PJM correctly explains that units similarly situated geographically may not be similarly situated electrically. The M2M Flowgate Test is necessary to ensure PJM has the appropriate means to mitigate congestion in native balancing authority areas, and therefore is just and reasonable. PJM’s conclusions about the historical performance risks associated with the example of a breaker tripping and the inability of some of all of the Calderwood or Cheoah units to meet their capacity obligations illustrate why PJM’s current filed approach

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<sup>1</sup> 18 CFR §§ 385.212 & 385.213 (2018).

<sup>2</sup> Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”), the PJM Operating Agreement (“OA”) or the PJM Reliability Assurance Agreement (“RAA”).

is too lenient. The filed approach allows participation in the PJM capacity markets of resources that are not comparable to the internal resources they would displace if cleared. The rules should more clearly define a substitute capacity resource in order to protect the efficiency and competitiveness of the PJM capacity market. The criticism of how PJM applied the filed approach has no merit and the complaint should be denied.

## I. ANSWER

### A. Units that Are Similarly Situated Geographically May Not Be Similarly Situated Electrically.

PJM correctly explains that units similarly situated geographically to PJM cannot be assumed to be similarly situated electrically to PJM. As PJM explains in their response, a unit's electrical distance is a result of the transmission system to which it is interconnected. Electrical distance is based on the determination of the Thevenin Equivalent Theorem, which measures the impedance from each generator to the PJM footprint. This model was discussed with stakeholders at the PJM Underperformance Risk Management Senior Task Force (URMSTF) stakeholder meetings. In fact, the exact example of how electrical distance is affected by the interconnected transmission system was presented during an URMSTF meeting on August 17, 2016.<sup>3</sup> The Market Monitor agrees that the electrical distance test was performed consistent with the approach filed and approved by the Commission in the External Capacity Enhancements filings.<sup>4</sup> The Market Monitor believes that PJM conducted the M2M Flowgate Test in a just and reasonable manner that was not unduly discriminatory.

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<sup>3</sup> See PJM, *Electrical Distance Review (August 17, 2016)*, which can be accessed at: <<https://www.pjm.com/media/committees-groups/task-forces/urmstf/20160817/20160817-item-08-electrical-distance-review.ashx>>.

<sup>4</sup> See *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,197 (2017).

## **B. The M2M Flowgate Test Is Necessary To Ensure PJM Has Appropriate Means To Mitigate Congestion On Native Balancing Authority Areas**

The main purpose of requiring external resources to create a Pseudo Tie in order to participate in the PJM Capacity Market is to shield the delivery of energy from those units to PJM from external curtailments. Pseudo Ties are not required to be tagged.<sup>5</sup> Therefore, any congestion caused by a pseudo tied unit in a nonmarket area would be required to be mitigated by reducing market flows via a redispatch of generation. If PJM does not have adequate generation available to redispatch to alleviate congestion caused by the pseudo tie on the nonmarket area's balancing authority area (BAA), PJM would not be able to meet its obligations under the Congestion Management Protocol (CMP) or the NERC TLR process. Under this example, PJM's inability to meet its obligations to manage the congestion is not merely a contractual deficiency; it becomes an operational and reliability issue. If PJM does have adequate generation to mitigate the impact of the pseudo tied unit in a nonmarket area, there is no reason to impose costs on other PJM capacity resources in order to facilitate the entry of an external unit.

Brookfield argues (at 7) that due to its location in a nonmarket area, PJM would not be exposed to congestion costs resulting on flowgates attributable to imports to PJM on the pseudo tie. Brookfield's argument is relevant only to exposure to congestion costs and only to PJM's exposure. Brookfield does not explain why it is reasonable to permit it to impose congestion costs in the nonmarket area.<sup>6</sup> Brookfield does not address the other risks identified by PJM. In their external capacity enhancements filing, PJM expressed multiple concerns with local reliability limitations. Not only could these limitations subject PJM to the obligation to pay for congestion on external flowgates added as a result of pseudo ties,

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<sup>5</sup> *See id.*

<sup>6</sup> Congestion exists in nonmarket areas despite the fact that congestion is not priced through locational marginal prices.

but these local reliability limitations could also subject PJM and other PJM generators to out of merit dispatch and curtailments resulting from inadequate dispatch options.<sup>7</sup> Without adequate generation to redispatch to alleviate the market flow caused by the pseudo tie, the only controlling action available to PJM would be to redispatch the pseudo tied unit itself. That means that the full output of the unit is not actually operationally available to PJM which means that the unit is not a full substitute for an internal unit. The M2M Flowgate test was implemented to ensure adequate resources are available for PJM to dispatch to manage congestion caused by the Pseudo Ties, and to ensure that that the external units can be considered full replacements for the internal generation that they would be replacing. The Market Monitor agrees that there are multiple significant risks associated with pseudo tied units, and that the M2M Flowgate Test is necessary to ensure PJM has appropriate means to mitigate congestion on native BAAs.

**C. The Filed Approach Is Too Lenient; External Capacity Resources Must Be Full Substitutes for Internal Capacity Resources.**

If the PJM Capacity Market is to function to create efficient and competitive prices and to provide appropriate incentives for entry and exit, all capacity resources must be substitutes. This is a fundamental principle of market design. External capacity resources, if allowed, must provide the same reliability and operational attributes as internal capacity resources. If external capacity resources cannot fully substitute for internal capacity resources, they are inferior products and should not be permitted in the PJM capacity market because they will suppress the price for internal resources and produce inefficient market outcomes.<sup>8</sup> That is counter to the interests of the PJM market, counter to the interests of PJM

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<sup>7</sup> PJM Filing. ER17-1138 (March 9, 2017) at 10.

<sup>8</sup> The Market Monitor has demonstrated this impact in its review of the Base Residual Auctions. *See* Market Monitor, Analysis of the 2021/2022 RPM Base Residual Auction: Revised (Aug. 24, 2018) at 5-6; 27-28; 78-82, which can be accessed at

generation and counter to the interests of PJM load. PJM market rules governing the role of external units have evolved substantially in recent years to be substantially more consistent with this market design principle. PJM's filing on the requirements for pseudo tied units is the latest step in that evolution.

A pseudo tie should be a minimum requirement for external capacity resources to offer in the PJM Capacity Market. A pseudo tie is a necessary but not sufficient condition to be a full substitute for internal capacity resources. A pseudo tie gives PJM significant but not complete dispatch control over the energy from capacity resources and ensures that the energy output, when available, belongs to PJM by incorporating that energy output in PJM's Area Control Error (ACE). But the rules do not make such external units the equivalent of internal units based on their contribution to the reliability and operational requirements of PJM. External units are subject to transmission constraints that are outside the control of PJM and external units can be directed to take actions inconsistent with PJM dispatch under some circumstances. The rules established in the External Capacity Enhancements filings were put in place to allow external generation to participate in the PJM Capacity Markets by defining units that can meet certain reliability and operational guidelines. The filed rules requiring pseudo ties are an improvement over the prior rules. However, the Market Monitor believes that even these requirements fall significantly short of providing the needed protection. PJM should not permit participation in the PJM Capacity Market by external units that do not meet the fundamental requirement of being a full substitute for internal generation regardless of electrical distance or any other current criteria. Arguments criticizing PJM's enforcement of the current inadequate rules for evaluating pseudo ties have no merit and should be disregarded.

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*<[http://www.monitoringanalytics.com/reports/Reports/2018/IMM\\_Analysis\\_of\\_the\\_20212022\\_RPM\\_BRA\\_Revised\\_20180824.pdf](http://www.monitoringanalytics.com/reports/Reports/2018/IMM_Analysis_of_the_20212022_RPM_BRA_Revised_20180824.pdf)>.*

## II. MOTION FOR LEAVE TO ANSWER

The Commission's Rules of Practice and Procedure, 18 CFR § 385.213(a)(2), do not permit answers to answers or protests unless otherwise ordered by the decisional authority. The Commission has made exceptions, however, where an answer clarifies the issues or assists in creating a complete record.<sup>9</sup> In this answer, the Market Monitor provides the Commission with information useful to the Commission's decision-making process and which provides a more complete record. Accordingly, the Market Monitor respectfully requests that this answer be permitted.

## III. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to this answer as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,



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<sup>9</sup> See, e.g., *PJM Interconnection, L.L.C.*, 119 FERC ¶61,318 at P 36 (2007) (accepted answer to answer that "provided information that assisted ... decision-making process"); *California Independent System Operator Corporation*, 110 FERC ¶ 61,007 (2005) (answer to answer permitted to assist Commission in decision-making process); *New Power Company v. PJM Interconnection, L.L.C.*, 98 FERC ¶ 61,208 (2002) (answer accepted to provide new factual and legal material to assist the Commission in decision-making process); *N.Y. Independent System Operator, Inc.*, 121 FERC ¶61,112 at P 4 (2007) (answer to protest accepted because it provided information that assisted the Commission in its decision-making process).

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Dated: April 11, 2019

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,  
this 11<sup>th</sup> day of April, 2019.



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