UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

)

)

)

PJM Interconnection, L.L.C.

Docket No. ER19-244-000

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,¹ Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor ("Market Monitor") for PJM Interconnection, L.L.C. ("PJM"),² submits this answer to the answers submitted on December 5 and 6, 2018, by Advanced Energy Management Alliance ("AEMA") and PJM.

I. ANSWER

A. Hourly Meters Cannot Measure Five Minute Load.

PJM's proposal to "flat-profile" the hourly metered load to measure compliance during a Performance Assessment Interval (PAI) will not accurately measure five minute load. Flat profiling means that total MWh used in an hour are divided equally among the five minute intervals in the hour, regardless of the actual pattern of usage within the hour. PJM should require five minute interval meters for demand resources to accurately measure load during a PAI. The Commission recently approved moving the market to five minute

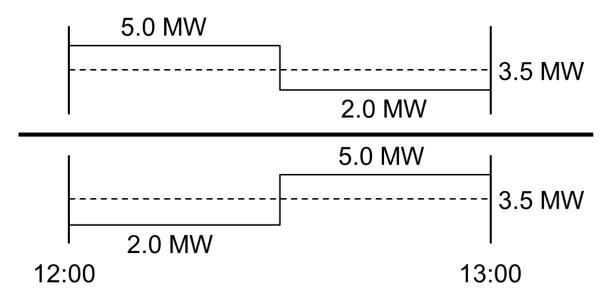
¹ 18 CFR §§ 385.212 & 385.213 (2018).

² 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 Relaibility Assurance Agreement ("RAA").

settlement.³ It is impossible to measure activity during a five minute interval with an hourly interval meter. An hourly meter measures activity for each hour. Actual load usage during a five minute interval must be estimated when using an hourly meter. There is no way to ensure a load reduction occurred during a five minute interval without using a five minute interval meter. For example, a customer that normally consumes 5.0 MW is dispatched for six PAIs at the end of the hour, from 12:30 to 13:00, and must reduce to 2.0 MW during this period. An hourly interval meter cannot measure five minute intervals. If an hourly interval meter is used, five minute results cannot be measured and must be based on assumptions about when a reduction occurred. Figure 1 shows that a customer consuming 5.0 MW from 12:00 to 12:30, and 2.0 MW from 12:30 to 13:00, would measure an hourly interval reading of 3.5 MW, and a customer consuming 2.0 MW from 12:00 to 12:30, and 5.0 MW from 12:30 to 13:00, would measure an hourly interval reading of 3.5 MW. An hourly interval meter cannot verify load usage on a five minute basis. A demand resource that follows dispatch instructions and a demand resource that does not follow dispatch instructions could receive the same performance results, as shown in Figure 1. All Capacity Resources are measured during a PAI based on a five minute meter, with the exception of demand resources. The failure to apply the same measurement standard to all Capacity Resources provides an unwarranted advantage for demand resources.

³ 155 FERC ¶ 61,276, (2016).

Figure 1 Two examples using a flat-profile to estimate load usage



B. Efficient Dispatch Requires Information on a Demand Resource's Electrical Location.

Contrary to the assertion by AMEA (at 7), a nodal registration requirement would not reduce participation for demand resources. The most essential characteristic of the PJM market is that the PJM markets are locational and nodal. The capacity market exists in order to help ensure that energy is available when needed at individual nodes. A well designed capacity market establishes the requirements to participate and allows all resources that satisfy the requirements to compete. The capacity market is nondiscriminatory and allows any capacity resource to meet the locational demand for capacity and the corresponding nodal energy. The costs to participate as a capacity resource include the costs of five minute metering and any other costs required to be a nodal resource, for all resources, except for demand resources. The preferential treatment of single resource type may increase participation by that resource type, but will correspondingly reduce the clearing of other capacity resources and will not result in the competitive market outcome.

PJM argues (at 3) that the proposed rule changes will grant "greater visibility and flexibility to dispatch only necessary end-use customer locations when required." When a PAI occurs in a local area, PJM will dispatch Capacity Resources by nodes within an affected area. As a result of the fact that demand resources are not mapped to individual nodes, PJM must guess the effectiveness of local demand resources based on a physical address. While the address may establish the resources' geographic location, it does not establish its electrical location. The requirement for demand resources to identify its electrical location, the relevant node, would make demand resources a more effective resource for PJM dispatchers, remove the guesswork from dispatch and improve efficiency.

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.⁴ 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.

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).

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,

Hey Mayes

Jeffrey W. Mayes

Joseph E. Bowring Independent Market Monitor for PJM President Monitoring Analytics, LLC 2621 Van Buren Avenue, Suite 160 Eagleville, Pennsylvania 19403 (610) 271-8051 *joseph.bowring@monitoringanalytics.com*

Skyler Marzewski Analyst Monitoring Analytics, LLC 2621 Van Buren Avenue, Suite 160 Eagleville, Pennsylvania 19403 (610) 271-8050 skyler.marzewski@monitoringanalytics.com

Dated: December 20, 2018

General Counsel Monitoring Analytics, LLC 2621 Van Buren Avenue, Suite 160 Eagleville, Pennsylvania 19403 (610) 271-8053 *jeffrey.mayes@monitoringanalytics.com*

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 20th day of December, 2018.

Abrey Marger

Jeffrey W. Mayes General Counsel Monitoring Analytics, LLC 2621 Van Buren Avenue, Suite 160 Eagleville, Pennsylvania 19403 (610) 271-8053 *jeffrey.mayes@monitoringanalytics.com*