

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

PJM Interconnection, L.L.C.)
) Docket Nos. ER15-623-000
)

**RESPONSE OF THE
INDEPENDENT MARKET MONITOR FOR PJM**

Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM¹ (“Market Monitor”), submits this response to the informational filing submitted by PJM Interconnection, L.L.C. (“PJM”) in this proceeding on December 22, 2015.

On July 9, 2015, PJM made a compliance filing with the tariff revisions required in the Commission’s June 9, 2015, order in this proceeding.² A number of parties, including the Market Monitor, sought rehearing and/or requested clarification of the Commission’s CP Order.³

On December 22, 2015, PJM made an “Informational Filing, and Alternative Request for Action” urging the Commission to rule on the requests for rehearing on the CP Order (“December 22nd Filing”).⁴ But PJM also stated that PJM stakeholders have raised a number of questions on the interpretation and implementation of the CP Order, particularly as they

¹ Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”) or the PJM (“OA”).

² See *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208. (“CP Order”)

³ See IMM Limited Request for Rehearing of the Independent Market Monitor for PJM, Dockets Nos. ER15-623-000, -001 and EL15-29 (July 6, 2015).

⁴ See PJM Interconnection, L.L.C., Informational Filing and Alternative Request for Action concerning PJM’s Capacity Performance Proposal.

relate to the impact of operating parameters on non-performance charges and PJM requested that the Commission act consistent with the certain generator stakeholder positions to weaken the Commission's "no excuses" policy on capacity performance.

PJM's filing would weaken the Commission's clear "no excuses" approach to the performance of capacity resources under the Capacity Performance market design. PJM's request should be denied for that reason. The "no excuses" approach is the bedrock of the CP approach to capacity markets.

I. COMMENTS

A. The Term "Any Operating Parameters" Is Unambiguous and Requires No Interpretation.

The December 22nd Filing states that Market Sellers have raised questions as to PJM's interpretation of the language "any operating parameter limitations" and "whether it includes parameters not described in the Parameter Limited Schedules (PLS) under Operating Agreement, Schedule 1, Section 6.6, as those that would be subject to the excuse limitations."⁵ PJM states in footnote 10 that it "may need to further address this through a subsequent filing to ensure a resource scheduled by PJM in a manner that takes into account the PJM-determined achievable ramp rate of a resource would be excused from Non-Performance Charges."⁶

The Commission's directive in the CP Order on excusing non-performance due to operating parameter limitations is clear. The Commission established a "no excuses" policy for non-performance in the capacity performance market design. The Commission stated (at P 441):

Additionally, a resource that is unable to produce energy or provide operating reserves during Performance Assessment

⁵ *Id* at 7.

⁶ *Id* at footnote 10.

Hours because of parameter limitations provides less capacity value to customers than a resource that is able to perform during these hours...Thus, we do not agree with commenters that a resource's non-performance during Performance Assessment Hours due to accepted parameter limitations should be excused.

The CP Order described in detail how PJM's initial filing in the CP proceeding could be misinterpreted and language should be added to clarify that operating parameters could not be used as an excuse for performance shortfall. The Commission stated (at P 171):

First, we interpret the clause on seller-specified limitations on resource operating parameters to mean that if PJM does not schedule a resource during a Performance Assessment Hour due to any operating parameter limitation specified in a market seller's energy offer,[footnote 150 omitted] the resource will be subject to Non-Performance Charges.

The CP Order's footnote 150 to the above passage specifies "Including limitations consistent with the resource's pre-determined parameter-limited schedule in Attachment K, section 6.6, of the OATT." Parameters such as ramp rate and cooling times (hot to intermediate, hot to cold temperature states) are operating parameters specified in a seller's energy offer, even if they are not included in the pre-determined parameter limits that are part of the Parameter Limited Schedules (PLS). The Commission continues:

Thus, we find that the proposed wording, "limitations specified by such seller in the resource operating parameters," could be misinterpreted to mean only those operating parameter limitations that are less flexible than a resource's pre-determined parameter-limited schedule and, in turn, allow less flexible resources to avoid Non-Performance Charges more often than more flexible resources. To prevent misinterpretation, we find that a clarification is warranted to make clear what parameter limitations are at issue in this provision.⁷

⁷ *Id.*

The questions raised by PJM Capacity Market Sellers regarding the interpretation of the language “any operating parameter limitations” have already been clearly addressed in detail by the Commission in the CP Order. PJM’s proposal to further address an issue that is clearly and directly resolved in the CP Order is cause for concern. PJM’s proposal to take into account a resource’s scheduled MW using a “PJM-determined achievable ramp-rate” of a resource to excuse the resource from non-performance charges would be a collateral attack on the clear directive in the CP Order.

Ramp rate is an operating parameter of a resource. Ramp rate is specified by the market seller in the energy market offer. Ramp rate does impact PJM’s ability to dispatch a unit up or down to a desired MW level. The Market Monitor requests that the Commission dismiss the proposals of PJM and some of its stakeholders to modify the CP order to weaken the no excuses approach to capacity performance and in particular as it relates to excusing non-performance based on inflexible parameters.

B. The Alleged Problem of Excessive Self-Scheduling Has Not Been Demonstrated or Supported.

The December 22nd Filing identifies concerns with the potential for excessive self-scheduling by resource owners at maximum output during Performance Assessment Hours (PAH) to avoid non-performance charges.⁸ PJM claims that these resource owners are willing to take on the risk of deviation charges from the energy market since they are only a fraction of the capacity non-performance charges.⁹ PJM argues that on January 7, 2014, the frequency of the Eastern Interconnection “may have” risen to 60.4 Hz if 6,000 MW of available generation had self-scheduled when PJM requested the two hour lead time emergency demand resources.¹⁰

⁸ See December 22nd Filing at 8.

⁹ *Id.* at 8, 9.

¹⁰ *Id.* at 8, 9.

PJM's argument is flawed. At 19:52 EST on January 6, 2014, PJM declared a voltage reduction action because the reserves estimated by PJM to be available did not materialize when called on, due to high forced outage rates (30,239 MW of forced outages).¹¹ These reserves were comprised primarily of gas fired resources that could not procure gas, or in some cases, were not willing to take on the risk of purchasing expensive gas, and coal fired resources that could not start. Given this lack of response from a significant level of generation, the next morning, on January 7, PJM declared emergency load management at 04:30 to dispatch emergency Demand Response to meet the morning peak.^{12 13} PJM called on demand resources (even though performance by demand resources in the winter was not mandatory) and took additional steps such as requesting the public to conserve electricity, due to a lack of confidence in the performance of 6,000 MW of generation that PJM now claims was available within 30 minutes.¹⁴

If the cleared capacity resources had actually been available to perform on January 7, 2014, PJM would not have been close to an emergency procedure. The peak load on the morning of January 7, 2014, was 138,733 MW, well below the forecast peak load (160,634 MW) and the reliability requirement (173,549 MW) used to procure capacity in the capacity

¹¹ See PJM, Response to the Commission's Data Request for January 2014 Weather Events, (January 10, 2014) at 8, which can be accessed at: <<http://www.pjm.com/~media/documents/reports/20140113-pjm-response-to-data-request-for-january%202014-weather-events.ashx>>.

¹² Prior to calling on demand response on January 7, PJM issued a Primary Reserve Warning at 00:55, and a Voltage Reduction Warning at 02:51. PJM also declared a Maximum Emergency Generation Action at 04:30.

¹³ See PJM, Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events (May 8, 2014) at 18, which can be accessed at: <<https://www.pjm.com/~media/documents/reports/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx>>.

¹⁴ *Id.* at 16.

market.¹⁵ If PJM and PJM capacity resources had been operating under the CP construct on January 7, 2014, the peak load that was forecast (and realized) would not have triggered any special procedures, and consequently would not have triggered resources to self-schedule. PJM's scenario and hypothetical consequences are misleading and unsupported.¹⁶

PJM is using data from a period when the performance incentives of capacity resources were demonstrably ineffective and insufficient, to make a point about what would happen under the capacity performance rules. But the point of the capacity performance rules is precisely to help ensure that PJM is not again in a situation where 6,000 MW of capacity resources does not perform and cannot be counted on to perform.

PJM has not supported its assertion that self scheduling during high load periods would cause any issues. PJM has not provided support for its proposal to modify the no excuses policy of the Capacity Performance construct. PJM has provided no support for the assertion that actual ramp rates have any relevance to the obligation of capacity performance resources to perform.

More likely sources of operational challenges for PJM are the use of a subjective trigger for Performance Assessment Hours and the lack of clarity in the determination of zonal and/or sub-zonal Performance Assessment Hours. The Market Monitor recommended and continues to recommend that PJM address these issues and others.¹⁷ If a Performance Assessment Hour were triggered using a calculated metric based on available

¹⁵ See Planning Parameters for Base Residual Auction for DY 2013/2014, which can be accessed at: <<http://www.pjm.com/~media/markets-ops/rpm/rpm-auction-info/2013-2014-planning-period-parameters.ashx>>.

¹⁶ PJM also ignores the fact that the performance obligation of a capacity resource in the capacity performance construct is $B * \text{capacity value}$, where B is approximately the ratio of total load to total capacity and is clearly significantly less than 1.0 in the winter even with the high winter load in this example.

¹⁷ See Comments of the Independent Market Monitor for PJM (January 20, 2015) at 19; IMM Limited Request for Rehearing (July 6, 2015) at 11.

reserves as the Market Monitor recommended, resource owners would not simply react to the fact that PJM called on Pre-Emergency Mandatory Load Management Reduction which is now a trigger. The lack of precision in the trigger for a Performance Assessment Hour may incent generators to self schedule.

If resource owners anticipate tight conditions in the energy market and self-schedule their resources, it is less likely that there would be an emergency procedure triggered. The non-performance charges would work exactly the way they are intended to, to incent generation to operate during tight conditions so that PJM would not enter critical capacity shortage situations. Performance Assessment Hours are triggered when PJM calls a Pre-Emergency Mandatory Load Management Reduction or a more severe emergency action. In hours that are not Performance Assessment Hours, resources do not have an incentive to self-schedule at maximum output because there are no non-performance charges assessed and there are no bonus payments during those hours. In fact, as PJM stated, resources have an incentive to follow PJM dispatch instructions since units not following PJM dispatch instructions would not be made whole for running uneconomically and would be exposed to deviation charges.¹⁸

C. Allowing Excuses for Non-performance Is Not the Solution for Aligning Energy and Capacity Market incentives.

If one believes that excessive self-scheduling by generators is a potential operational concern, the way to address it is not to allow more excuses for non-performance. PJM's new, undeveloped proposal described in footnote 10 to use PJM-determined achievable ramp rates to excuse resources from non-performance would weaken the incentives in the CP construct and would be inconsistent with the clear language of the CP Order.¹⁹

¹⁸ See December 22 Filing at 8.

¹⁹ See December 22 Filing at n.10.

In PJM's original CP filing, PJM proposed to include certain unit specific parameters that would reflect the physical operational limits of a resource. PJM proposed that these parameters be used to determine the eligibility for energy uplift payments but would not be an excuse for non-performance despite the requests of some resource owners.²⁰ PJM pointed out the use of such parameters as an excuse for poor performance would shift to load the risks associated with poor performance caused by the economic decisions made by resource owners.²¹

The Market Monitor supported PJM's proposal in the original CP filing, but with some suggested changes.²² The Market Monitor recommended that ramp rate and boiler temperature retention times be included as parameters with pre-defined limits in addition to the parameters proposed by PJM. The Market Monitor also recommended that resources be subject to Original Equipment Manufacturer (OEM) operating parameters rather than parameter limits based on the historical operation of resources. Under Capacity Performance, the role of parameters is not a measure of what a unit can do or has done recently based on the physical condition of a unit that resulted from years of weak incentives. Under CP the role of parameters is as the standard of performance that a unit must meet to deliver capacity and to be paid.

Under the original proposal, with the Market Monitor's recommended changes, resources would not be assessed non-performance charges as long as the operating parameters complied with the pre-defined limits and as long as resources followed dispatch consistent with those operating parameters. The energy market and capacity market incentives would be aligned under such a framework to permit resources to operate flexibly

²⁰ See, e.g., Protest and Comments of Coalition of Gas Generators and Project Finance Resources, Docket No. ER15-623-000, et al. (Jan. 20, 2015) ("Gas Coalition") at 18–21.

²¹ See Answer of PJM Interconnection L.L.C., Docket No. ER15-623-000 (February 13, 2015) at 70.

²² See Comments of the Independent Market Monitor for PJM (January 20, 2015) at 27–29.

and follow PJM dispatch instructions. As long as the parameter limits are defined based on OEM limitations for the technology type and do not accommodate economic choices by resource owners, resources have an incentive to invest to operate flexibly and reliably.

The CP Order changed PJM's proposal to exclude "any operating parameter limitations" as an excuse for non-performance.

Nonetheless, if the Commission believes that excessive self-scheduling by generators is a potential operational concern, the way to address it is to use the original PJM provisions in the CP proposal with the Market Monitor's proposed modifications.

II. CONCLUSION

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

Respectfully submitted,



Jeffrey W. Mayes

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

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

Dated: January 13, 2016

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 13th day of January, 2016.



Jeffrey W. Mayes

General Counsel

Monitoring Analytics, LLC

2621 Van Buren Avenue, Suite 160

Valley Forge Corporate Center

Eagleville, Pennsylvania 19403

(610)271-8053

jeffrey.mayes@monitoringanalytics.com