

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

PJM Interconnection, L.L.C.)
) Docket No. ER16-1336-000
)

COMMENTS OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rule 211 of the Commission’s Rules and Regulations,¹ Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM² (“Market Monitor”), submits these comments responding to the filing submitted by PJM Interconnection, L.L.C. (“PJM”) on April 1, 2016 (“April 1st Filing”), which proposes an interim market rule that would excuse certain performance shortfalls by Capacity Performance (CP) resources. PJM had previously alluded to the proposed interim market rule in a footnote to its filing on December 22, 2015 (“December 22nd Filing”) explaining how it intends to implement the Capacity Performance rules for the 2016/2017 delivery year.³

The April 1st Filing asserts that it is meant to address the potential for excessive self-scheduling by resource owners at maximum output during Performance Assessment Hours

¹ 18 CFR § 385.211 (2015).

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 Reliability Assurance Agreement (“RAA”).

³ See PJM Interconnection, L.L.C., Informational Filing and Alternative Request for Action concerning PJM’s Capacity Performance Proposal, Docket Nos. ER15-623-000, et al. and EL29-000, et al., (December 22, 2015), at footnote 10.

(PAH) to avoid nonperformance charges. PJM explains (at 2) that it is concerned about creating incentives for sellers to operate in a manner contrary to its dispatch instructions.

The interim market rule proposed in the April 1st Filing would apply to CP resources operating at or above their Economic Minimum value (dispatchable resources). The interim rule would excuse a portion of the performance shortfall of a CP resource with a PJM-acceptable ramp rate that is following PJM's dispatch instructions. The portion of the performance shortfall that would be excused is the difference between a resource's Expected Performance and the ramp rate adjusted MW that the resource can achieve based on the PJM-acceptable ramp rate.⁴

The proposed interim market rule would require market sellers of CP resources to provide a ramp rate that reflects at least the average historical actual ramp rate achieved during a three-month reference period. PJM does not explain why historical ramp rates achieved prior to the implementation of Capacity Performance incentives should be used to attenuate Capacity Performance incentives.

The Market Monitor does not agree that PJM's concerns about creating incentives inconsistent with system operations are valid and the Market Monitor does not agree that PJM's proposed solution is appropriate. Incentives for self scheduling occur when supply is tight, and the number of units requiring dispatchers' special attention would be limited. The primary consequence of the interim proposal would be to create a new excuse for nonperformance in a market designed based on the core principle of no excuses. The issues now raised by PJM must have been considered during the development of PJM's Capacity Performance proposal. PJM offers no reason why a fundamental part of the Capacity Performance design incentives should be weakened now with no analytical basis and with no actual experience operating under the Capacity Performance design.

⁴ Expected Performance is defined as the Resource Committed Capacity times the Balancing Ratio. See OATT Attachment DD § 10A(c).

In addition to the rules included in the April 1st Filing, PJM has developed certain rules related to but omitted from the proposal.⁵ These rules would allow PJM to modify the ramp rate actually used to determine the level of performance penalty payments without specifying the method or the standards. These rules that PJM developed, but did not include in the April 1st Filing, are flawed and remain excessively subjective. It should not be acceptable to have performance incentives in the Capacity Performance construct determined in such a vague, opaque, ex post and subjective manner. The rules allow PJM and market sellers to establish negotiated ramp rates. These rules should have been filed in this proceeding for review under the rule of reason.

The April 1st Filing does not include detailed rules and is therefore inadequate and its actual impact cannot be determined. The April 1st Filing should not be accepted, apart from its significant flaws, because it is not complete.

For all these reasons, the April 1st Filing should not be approved.

I. COMMENTS

A. The April 1st Filing Should Not Be Approved.

The Market Monitor does not agree that PJM's concerns about excessive self-scheduling in the April 1st Filing are supported or that they are reason for the specific solution proposed by PJM. The Market Monitor responded to these concerns on January 13, 2016, in the Capacity Performance proceeding.⁶ PJM's proposal to take into account a resource's scheduled MW using the resource's "PJM-determined achievable ramp-rate" to excuse the resource from nonperformance charges is a collateral attack on the clear directive in the CP Order:

⁵ See Attachment, Performance Assessment Hour Ramp Rate, presented at the PJM Operating Committee, (March 8, 2016).

⁶ See Response of the Independent Market Monitor for PJM, Docket No. ER15-623-000 (January 13, 2016).

The revisions that we direct here ensure that resources are appropriately compensated for their operation in the energy market; they do not excuse a resource from failing to fulfill its capacity obligation. Providing such an exemption from Non-Performance Charges would blunt the incentives for providing energy and reserves during the hours when they are most needed. Additionally, a resource that is unable to produce energy or provide operating reserves during Performance Assessment Hours because of parameter limitations provides less capacity value to customers than a resource that is able to perform during these hours. Accordingly, it is reasonable for a resource that fails to perform because of parameter limitations to receive less net capacity revenue than a performing resource. 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.⁷

The April 1st Filing would, if approved, weaken the Commission's clear no excuses approach to the performance of capacity resources under the Capacity Performance market design. The no excuses approach is the bedrock of the CP approach to capacity markets. Effective rules for operating parameters are critical to ensure that Market Sellers cannot escape the consequences of nonperformance. Resources should not be paid for services that they do not provide. Resources that overperform to compensate for nonperforming resources should be compensated instead.

The proposed interim market rule should not be approved.

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

The assertion that self scheduling during high load periods would cause system control issues is unsupported. PJM has done no analysis and no simulations to support their assertions. PJM has not indicated what has changed since the filing of PJM's Capacity Performance rules. PJM has no actual experience operating under the Capacity Performance

⁷ PJM Interconnection, L.L.C., 151 FERC ¶ 61,208 at P 441 (2015) ("CP Order").

construct. If resource owners anticipate tight conditions in the energy market and self-schedule their resources, it is less likely that emergency procedures would be triggered. The nonperformance charges would work exactly as intended, by incenting generation to operate during high demand conditions so that PJM does not enter critical capacity shortage situations.

Performance Assessment Hours (PAH) are triggered when PJM calls a Pre-Emergency Mandatory Load Management Reduction or a more severe emergency action. In hours that are not PAH and are not expected to be PAH, resources do not have an incentive to self schedule at maximum output because there are no nonperformance charges assessed and there are no bonus payments during those hours.

PJM states:

Absent PJM's proposed modifications, dispatchable resources (i.e., those resources which are at or above their Economic Minimum) would move quickly to maximum output at the earliest indication of potential Performance Assessment Hours. PJM control room staff would quickly get bogged down in either denying a significant number of Market Seller requests to move generation resources up; or PJM having to move generation resources down to keep the methodical increase in load manageable throughout the day to maintain the reliability of the system.⁸

Under the Capacity Performance construct, resources have enhanced incentives to perform reliably, particularly during periods of high demand. With the Capacity Performance incentives in place, emergency procedures due to capacity shortage are only expected to be triggered when the expected peak load and reserve requirement in the energy market are close to the level of available capacity. Under such extremely tight supply and demand conditions, most or all of PJM generation capacity would be expected to be committed and performing at full output, by producing energy or providing reserves

⁸ See April 1st Filing at 4-5.

economically. In these conditions, the amount of additional capacity available to PJM dispatchers that could ramp up or start up is limited. Given the limited number of such resources, PJM's expectations of the control room staff being bogged down are not justified. No actual supporting analysis was provided.

Even if there were a potential issue of overgeneration during PAH or when PAH are expected, modifying ramp limits is at best an indirect, inexact and unpredictable way to manage the issue. PJM has the ability to back units down as necessary or to direct them to not ramp up and such direction would excuse units from performance penalties. This is the direct, effective way to manage the issue.

The April 1st Filing also ignores the real sources of operational challenges for PJM dispatchers. For example, use of subjective triggers for Performance Assessment Hours and the lack of clarity in the determination of zonal and/or sub-zonal Performance Assessment Hours make it more difficult to manage the system and make it more difficult for generation owners to respond to market signals.⁹ If Performance Assessment Hours were triggered using an objective, calculated metric based on available reserves, resource owners would not have to react to a subjective, nontransparent and unpredictable trigger: PJM dispatchers' call for a Pre-Emergency Mandatory Load Management Reduction. The lack of precision and predictability in the trigger for a Performance Assessment Hour creates an incentive for generators to self-schedule.

2. PJM's Proposal Is Discriminatory and Would Disincent Flexibility.

The April 1st Filing includes (at 6) an example intended to explain the proposal to excuse resources from nonperformance charges due to ramp rates: A 100 MW resource with a 1 MW per minute ramp rate that is dispatched economically at 85 MW prior to a Performance Assessment Hour may be subject to nonperformance charges because of PJM's

⁹ See Comments of the Independent Market Monitor for PJM (January 20, 2015) at 19; IMM Limited Request for Rehearing (July 6, 2015) at 11.

dispatch instructions. This may occur because after PJM triggers a Performance Assessment Hour, the resource will take 15 minutes to reach 100 MW, its Expected Performance. Without PJM's proposal, the resource would not be excused from nonperformance charges for the first 15 minutes. PJM's argument is that because the resource is following PJM's direction prior to the Performance Assessment Hour, the resource should be excused.

Under this proposal, resources that are online would receive preferential treatment compared to offline quick start resources. In PJM's example, a 15 MW quick start resource with a 15 minute time to start that is offline at the time when a Performance Assessment Hour is triggered would not be excused from nonperformance charges. PJM proposes to allow ramp rate but not start time as an excuse for nonperformance during Performance Assessment Hours.

The proposal in the April 1st Filing also creates disincentives for flexibility. If PJM determines different acceptable ramp rates for two resources based on each resource's historical performance, the more flexible resource (resource with a faster ramp rate) would be held to a higher standard for expected incremental MW during a performance assessment hour and the less flexible resource would be held to a lower standard. The less flexible resource is excused from nonperformance charges even if both resources perform with exactly the same ramp rate during the performance assessment hour.

In PJM's example, if there were a second resource with a 2 MW per minute PJM determined ramp rate, when a performance assessment hour is triggered, the unit would be expected to increase its output by 30 MW in 15 minutes. If the second resource were to increase its output by 1 MW per minute, slower than its PJM determined ramp rate, it would be assessed a nonperformance charge for the 15 MW underperformance because its actual ramp rate is slower than its PJM determined ramp rate. This would create an incentive for resources to be less flexible, which directly contradicts the goal of the capacity performance construct.

Although PJM did not include the details of the method used to determine a PJM acceptable ramp rate in the April 1st Filing, PJM's presentations in stakeholder meetings

have included provisions for generators to negotiate a PJM acceptable ramp rate that is slower than the historical average in the three month reference period. The historical three month period that PJM proposed to use, from January 1 through March 31, 2016, is arbitrary and allowed generators an opportunity to change their ramp performance to influence the average during the period. PJM's proposal would incent CP resources to perform at slower ramp rates to affect the average historical performance and further negotiate a slower ramp rate compared to the historical average to excuse non-performance during Performance Assessment Hours.

PJM's approach illustrates the problems created by attempting to create specific exceptions to the no excuses policy. An individual exception may not appear irrational on its face, but each exception creates inconsistencies between the incentives for the units with exceptions and the incentives for the units with no exceptions. The result is either inconsistent incentives or a broad rejection of the no excuses policy which is the foundation of the Capacity Performance construct. The Commission should reject PJM's proposed exception and reaffirm the no excuses policy.

3. If the Commission Decides to Approve the Interim Solution as Proposed by PJM, It Should Order a Fixed Sunset Date for the Proposed Tariff Language.

For the 2016/2017 delivery year, PJM procured only 60 percent of capacity requirement as Capacity Performance resources. The problem of excessive self-scheduling by CP resources is even less likely with the smaller share of CP resources for the 2016/2017 delivery year. The Market Monitor recommends that the Commission reject the interim proposed market rule proposed by PJM.

But if the Commission decides to approve PJM's proposed interim rule to excuse nonperformance on the basis of a resource's ramp rate, PJM should be ordered to set a sunset date for the rule at the end of the 2016/2017 delivery year. Based on operating experience during the upcoming delivery year, if self-scheduling and system control is an operational problem that needs to be addressed, PJM should be ordered to develop a long

term solution that includes redefining the triggers for a Performance Assessment Hour based on an analytical metric.

B. The April 1st Filing Is Incomplete.

The April 1st Filing does not include detailed rules and is therefore inadequate and its actual impact cannot be determined. The April 1st Filing should not be approved, apart from its significant flaws, because it is not complete.

In addition to the rules included in the April 1st Filing, PJM has developed related rules that have not been filed and are not included in the April 1st Filing.¹⁰ These rules detail a method for PJM to calculate an acceptable ramp rate to be used during Performance Assessment Hours, including through a negotiation with market sellers.

The method included in PJM's stakeholder presentation but not included in the April 1st Filing allows generators an opportunity to influence the average ramp rate during the reference period (January 1 through March 31, 2016) and to negotiate even slower ramp rates than those determined on the basis of historical performance. The method from PJM's stakeholder presentation is not included in the April 1st Filing, is not included in the PJM manuals and was not voted on or approved by stakeholders. Nevertheless, PJM appears to have already proceeded to implement it based on the dates in the PJM presentation.¹¹ The proposed approach would allow PJM to modify the ramp rate actually used to determine performance penalties without specifying the method or the standards. The proposed approach would allow a generation owner to propose the use of a slower ramp rate after the fact for determining performance penalties.

¹⁰ See Attachment at 6–7.

¹¹ *Id* at 5.

The April 1st Filing refers only to a “PJM-acceptable ramp rate.”¹² This language is unduly vague and allows excessive discretion in a process that calls instead for clarity and objectivity. The rules that PJM developed and presented to the stakeholders, but did not include in the April 1st Filing, are flawed and remain excessively subjective. It should not be acceptable to have performance incentives in the Capacity Performance construct determined in such a vague, opaque, ex post and subjective manner.

PJM’s proposed method for determining ramp rates to be used to excuse nonperformance during Performance Assessment Hours would be an important feature of CP market design, and, if accepted in any form, should be included in the filed market rules under the rule of the reason, which requires that “all practices that significantly affect rates, terms and conditions fall within the purview of section 205(c) of the FPA, and, therefore, must be included in a tariff filed with the Commission.”¹³

¹² April 1st Filing, Attachment A (proposed revision to OATT Attachment DD § 10A(d)).

¹³ *See, e.g., Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,076, at P 656 (2007) (“Our policy is that all practices that significantly affect rates, terms and conditions fall within the purview of section 205(c) of the FPA, and, therefore, must be included in a tariff filed with the Commission. Further, we have found that our ‘rule of reason’ test requires a case-by-case analysis....”); *see also Prior Notice and Filing Requirements Under Part II of the Federal Power Act*, 64 FERC ¶ 61,139 (1993), citing *City of Cleveland v. FERC*, 773 F.2d 1368, 1376 (D.C. Cir. 1985) (“[There] is an infinitude of practices affecting rates and service. The statutory directive must reasonably be read to require the recitation of only those practices that affect rates and service *significantly*, that are realistically susceptible of specification, and that are not so generally understood in any contractual arrangement as to render recitation superfluous. It is obviously left to the Commission, within broad bounds of discretion, to give concrete application to this amorphous directive.”); *Public Service Commission of New York, et al. v. FERC*, 813 F.2d 448, 454 (D.C. Cir. 1987) (held that the Commission properly excused utilities from filing policies or practices that dealt only with matters of “practical insignificance” to serving customers).

II. CONCLUSION

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

Respectfully submitted,



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Dated: April 22, 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 22nd day of April, 2016.



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ATTACHMENT

Performance Assessment Hour Ramp Rate


Rebecca Stadelmeyer
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Operating Committee
March 8, 2016

OC




Performance Assessment Hour (PAH) Ramp

PLS/
Unit-Specific



Real Time Values

Real Time



Unit Specific Adjustment Process

MIC



Conforming Changes to Manual 11 for Capacity Performance



Operating Parameter Definitions



Exceptions to PLS Process



Ramp Rate Inclusion Option Paths

Ramp Excluded

Ramp Rate Option Path

Ramp PLS

Status Quo (CP Order)

- Excused MW:
- Approved Planned / Maintenance Outage
 - Not Scheduled by PJM
 - Scheduled Down by PJM

Non-Performance Charge calculated from 'desired' non-ramp limited basepoint

Transitional Problem Statement

- Excused MW:
- Approved Planned / Maintenance Outage
 - Not Scheduled by PJM
 - Scheduled Down by PJM
 - **Following PJM Dispatch that includes ramp rate**

Non-Performance Charge calculated from ramp limited basepoint

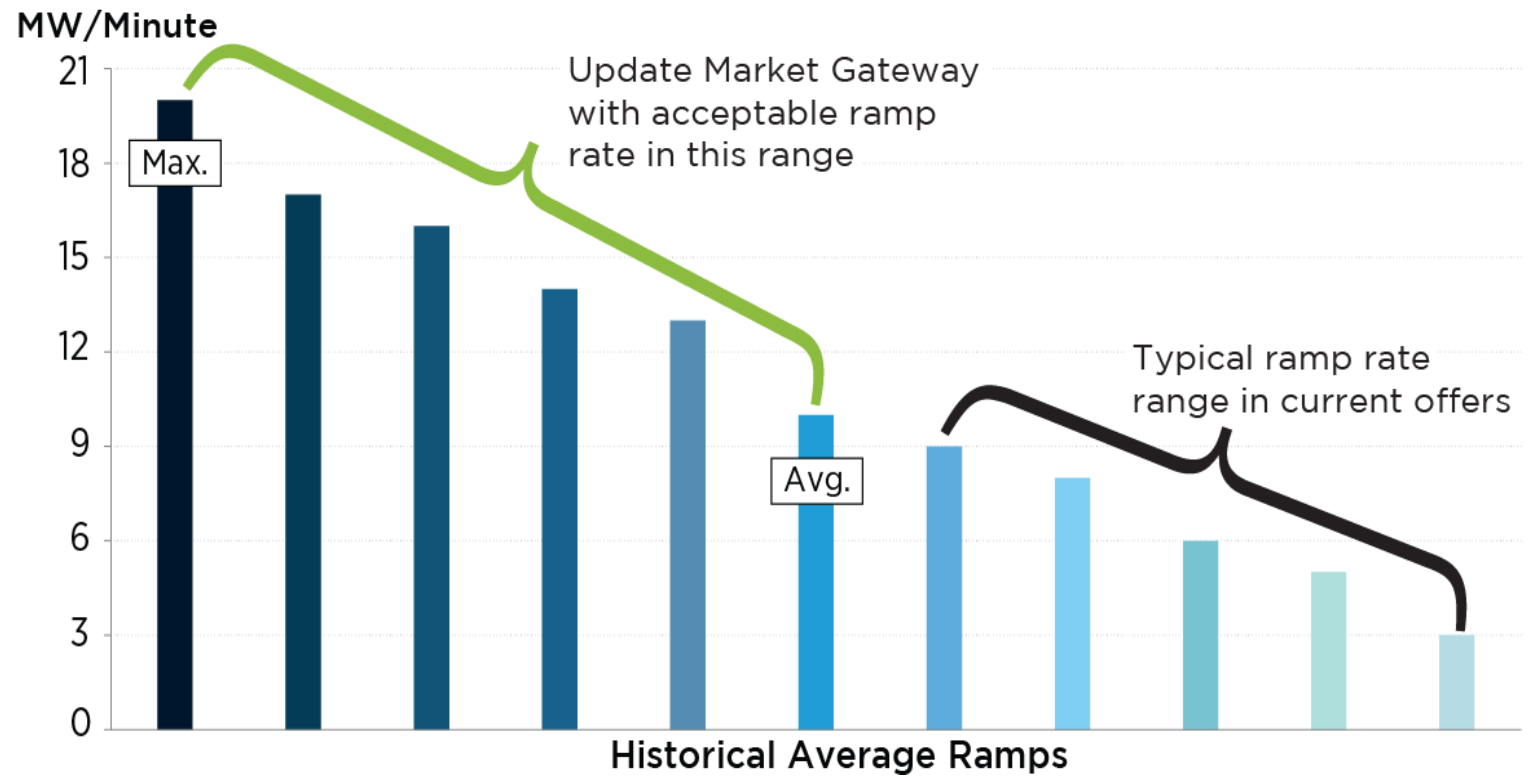
Potential Long Term

- Excused MW:
- Approved Planned / Maintenance Outage
 - Not Scheduled by PJM
 - Scheduled Down by PJM
 - **Following PJM Dispatch that includes ramp rate**

Non-Performance Charge calculated from ramp limited basepoint

- Ramp or Segmented Ramp value established between the historical ramp/segmented ramp average and historical ramp/segmented ramp maximum based on the unit's actual ramp performance between January 1 and March 31, 2016. If the unit was not dispatched in that timeframe, then the three month span will be between June 1 – August 31, 2015. This value will be entered in Markets Gateway by the Market Seller and approved by PJM.

- PJM observed that many of the actual ramp rates from resources are faster than the inputted ramp rate values.
- The diagram to the right shows conceptually the range of ramp rate values that may be used as a PJM acceptable ramp rate.



BEFORE JUNE 1

- Members will update their ramp rate values in Markets Gateway with a PJM acceptable ramp rate that is greater than the current ramp rate based on their individual assessment of their units' historical ramp performance between January 1 and March 31, 2016. If the unit was not dispatched in that timeframe, then the three month span will be between June 1 – August 31, 2015.
 - Capacity Performance – effective for the April 21 Operating Day (offers made on April 20)
 - Non-Capacity Performance – effective for the June 1 Operating Day (offers made on May 31)
- If a Member keeps its current bid-in ramp rate or inputs a slower ramp rate, the Member must provide documentation to PJM for justification.
- PJM will start to monitor the changes of inputted ramp rates for all resources starting March 1 through April 20
 - Capacity Performance - if a ramp rate is updated after April 20, the Member must notify PJM
 - Non-Capacity Performance – if a ramp rate is updated after June 1, the Member must notify PJM
- PJM, in conjunction with the IMM, will review the newly inputted ramp rates between April 21 and May 15 and ensure the ramp rate reflects the resource's recent operational history.
 - If agreement is not achieved, PJM will provide the value to be entered

AFTER JUNE 1

- When a Hot Weather/Cold Weather Alert is issued on that Operating Day, PJM will run a report comparing the current day's offer ramp rate to the April 21 Operating Day ramp rate
 - PJM will notify specific Members by Noon if a slower ramp rate is detected
 - After being notified, Members must provide documentation explaining the reduction (deadline TBD)
 - If PJM does not agree with the reduction, then PJM will assess Non-Performance Charges based on the 'desired' non-ramp limited basepoint
- Performance Shortfalls will be reduced if:
 - An acceptable ramp rate is approved by PJM; and
 - Resource is operating at or above its Economic Minimum

- First Read of OATT and M18
 - OC: February 24 - completed
 - MRC: February 25 - completed

- Endorsement of OATT and M18
 - OC: March 8
 - MRC: March 31
 - MC: March 31 (OATT only)

- OATT revision FERC Filing on April 1 with requested May 31 effective date