

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF ENERGY MARKET REGULATION

In Reply Refer To
PJM Interconnection, L.L.C.
Docket No. ER19-1012-000

Issued: 3/29/19

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Reference: Price Responsive Demand Update

On February 7, 2019, in Docket No. ER19-1012-000, PJM Interconnection, L.L.C. (PJM) submitted proposed revisions to its Open Access Transmission Tariff (OATT) and Reliability Assurance Agreement (RAA) to conform the rules and requirements for Price Responsive Demand (PRD) with the rules and requirements for Capacity Performance Resources.

Please be advised that your submittal is deficient and that additional information is required in order to process the filing. Please provide the information requested below. To the extent that some of the required information may contain confidential material, please submit a non-public version in addition to the public version for Commission review.

1. In your filing, you explain that the existing PRD rules have remained largely unchanged since PRD was first implemented in 2012, despite the fact that PJM implemented new requirements known as Capacity Performance for other capacity market resources beginning in 2015.¹ Further, you state in your filing that PJM is aligning the rules and requirements for PRD with those of Capacity Performance to “[avoid] any arbitrage opportunities when the same customer

¹ PJM Transmittal at 3-4 (citing *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,115 (2012) (PRD Order), *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208 (2015) (Capacity Performance Order)).

will reduce load either from the supply or demand side.”²

- a. Is there new reasoning, that did not exist when PJM first implemented Capacity Performance, for the current decision to align the requirements for PRD with the requirements for Capacity Performance Resources?
 - b. Please explain, using one or two examples, what arbitrage opportunities PJM hopes to avoid through the instant filing and whether these opportunities were previously not a concern or were unknown to PJM.
2. In your filing, you state that PJM proposes to require PRD to be available to reduce load year-round by changing how the Nominal PRD Value is calculated. Specifically, PJM proposes to replace the current determination of Nominal PRD Value as “the difference between the PRD Provider’s Zonal Expected Peak Load Value of PRD and the Maximum Emergency Service Level of Price Responsive Demand”³ with “the lesser of (a) peak load contribution minus (summer Firm Service Level times loss factor) or (b) (Winter Peak Load multiplied by Zonal Winter Weather Adjustment Factor minus winter Firm Service Level) times loss factor.”⁴
 - a. Please define “peak load contribution,” and explain how it is currently used in PJM billing and settlements. Is this term defined in the RAA or another Commission-jurisdictional PJM governing document? How is “peak load contribution” as given in the proposed revision distinct from the term “PRD Provider’s Zonal Expected Peak Load Value of PRD” defined in the RAA and used in the current calculation of Nominal PRD Value?
 - b. Please define “loss factor.” Is this term defined in the RAA or another Commission-jurisdictional PJM governing document? Please provide representative loss factors for various Electric Distribution Companies (EDCs) in the PJM region that illustrate the range of possible values.

² PJM Transmittal at 6.

³ PJM, Intra-PJM Tariffs, RAA, Schedule 6.1 § C (2.0.0).

⁴ PJM Transmittal at 6.

- c. PJM defines a single capitalized term Firm Service Level in its proposed revision. This could imply that a PRD Provider designates a single Firm Service Level for the entire year. At the same time, PJM uses the terms “summer Firm Service Level” and “winter Firm Service Level,” which could imply that a PRD Provider can specify two different Firm Service Levels for summer and winter. Please clarify whether or not a PRD Provider has the option to specify a different summer Firm Service Level and winter Firm Service Level.
 - d. It appears that PJM replaced the existing “PRD Maximum Emergency Service Level” with the term “Firm Service Level.” Please explain the difference between the two terms.
3. In your filing, you propose to change the trigger for PRD performance verification (and possible non-performance charges) from a “maximum emergency event” to a Performance Assessment Interval.⁵
- a. The current RAA initiates PRD performance verification during a “maximum emergency event,”⁶ which is not a defined term in PJM’s Commission-jurisdictional governing documents, but the instant filing states that, under PJM’s existing rules, PRD Providers are required to demonstrate performance during a Maximum Generation Emergency, which is a defined term in the PJM OATT.⁷ Please explain the difference, if any, between a “maximum emergency event” and Maximum Generation Emergency.
 - b. Please explain the difference between the PJM-defined terms Maximum Generation Emergency, Emergency Action (which triggers a Performance Assessment Interval), Emergency Condition, and “emergency conditions” and “pre-emergency conditions” as defined for Emergency and Pre-Emergency Load Response Programs.⁸ Please

⁵ PJM Transmittal at 6-9.

⁶ PJM, Intra-PJM Tariffs, RAA, Schedule 6.1 § J (2.0.0).

⁷ PJM Transmittal at n.16.

⁸ See PJM, Intra-PJM Tariffs, OATT, Attachment K Appendix § 8.5 (2.0.0) (“For the purposes of Section 8, emergency conditions shall be defined either by the express
(continued ...)”)

explain how each of these are related to each other and to NERC-specified Energy Emergency Alerts.

- c. Noting that PJM has previously documented historical emergency procedures dating back to June 1, 2005,⁹ please provide historic data spanning June 1, 2005 to the present day on the frequency and duration of “maximum emergency events” and Emergency Actions (which trigger Capacity Performance Resource Performance Assessment Intervals).
4. In your filing, you propose to add the following language to RAA Schedule 6.1 regarding compliance measurement for PRD registrations:

For the 2022/2023 Delivery Year and subsequent Delivery Years, a PRD Provider is subject to a Non-Performance Assessment in accordance with the PJM Tariff, Attachment DD, section 10A. Compliance is measured for a PRD registration upon declaration of a Performance Assessment Interval in same sub-Zone/Zone of such PRD registration and when the PRD Curve associated with such registration in the PJM Real-time Energy Market has a price point at or below the highest Real-time LMP recorded during the Performance Assessment Interval at the associated pricing point.¹⁰

You also propose to add the following similar language to OATT Attachment DD, section 10A:

. . . a Price Responsive Demand registration shall not be considered in the calculation of a Performance Shortfall for a Performance Assessment Interval when the PRD Curve associated with such registration in the PJM Real-time Energy Market has a price point above the highest real-time LMP recorded during the Performance Assessment Interval.¹¹

terms of the Applicable Law or Regulation, or if not set forth therein shall be deemed to exist if PJM has declared a NERC Energy Emergency Alert Level 2, as defined in the applicable NERC Standards.”).

⁹ PJM Interconnection, L.L.C., *Historical Performance Assessment Hours* (Nov. 2015), <https://www.pjm.com/committees-and-groups/committees/elc.aspx>.

¹⁰ PJM Transmittal at 10.

¹¹ PJM Transmittal at 8-9.

- a. The proposed RAA language includes “...at the associated pricing point,” while the proposed OATT language does not. Please explain the meaning of “at the associated pricing point,” and why this language is included in the RAA revision but not the OATT revision. Specifically, please explain if “at the associated pricing point” refers to a price point on the PRD Curve or a Pricing Node in the PJM system.
- b. Please explain the meaning of “the highest real-time LMP recorded during the Performance Assessment Interval.” Specifically, why is there more than one recorded LMP during a particular interval for a given PRD registration? Does a PRD registration span multiple Pricing Nodes? Or does this language refer to the highest LMP observed at a given Pricing Node over the duration of a performance assessment event? Or does this language refer to the highest LMP observed across the PJM system—including outside the area of the PRD registration?
- c. Would a PRD registration be exempt from Non-Performance Charges for the Performance Assessment Interval when any price point in its PRD Curve (even the highest price point) exceeds the highest real-time LMP recorded during the Performance Assessment Interval?
- d. Would a PRD registration be required to verify its performance for the Performance Assessment Interval when any price point in its PRD Curve (even the lowest price point) is less than or equal to the highest real-time LMP recorded during the Performance Assessment Interval? At what level would it be required to perform to avoid Non-Performance Charges?
- e. Consider a hypothetical PRD Provider with a peak load (absent PRD) of 800 MW, a Nominal PRD Value of 200 MW, a Firm Service Level of 600 MW, and a PRD Curve with three price/quantity pairs as follows:

Real-Time LMP (\$/MWh)	Maximum Demand (MW)
Less than 1000	800
1000-1500	700
Greater than 1500	600

What maximum demand in MW would be required for this PRD Provider to avoid Non-Performance Charges when the highest real-time LMP recorded during a Performance Assessment Interval is less than

\$1000/MWh, between \$1000/MWh and \$1500/MWh, and greater than \$1500/MWh? In other words, is the PRD Provider expected to reduce its maximum demand to its Firm Service Level or to the quantity of MW specified in its PRD Curve corresponding to the prevailing LMP? Because PJM's proposed RAA revision states "compliance is measured for a PRD registration," please explain how PJM would measure compliance at individual registrations associated with the hypothetical PRD Provider specified above.

- f. PJM proposes to define Actual Performance for a PRD Provider as "the actual load reduction provided by the PRD Provider during a Performance Assessment Interval, determined in accordance with the PJM Manuals."¹² Please explain how PJM proposes to calculate a PRD Provider's Actual Performance during a Performance Assessment Interval, including how PJM will measure performance for a PRD Provider with multiple PRD registrations.
 - g. Has PJM analyzed the potential effect upon customer responsiveness to retail rates, and any potential effect upon real time energy markets or operations, of the modifications it proposes in the filing?
5. PJM proposes to revise the existing compliance charge rate¹³ for PRD to match the Non-Performance Charge Rate¹⁴ for Capacity Performance Resources.¹⁵
- a. Please provide the dollar value of the Non-Performance Charge Rate for Capacity Performance Resources and the existing compliance charge rate for PRD for one or more prior Delivery Years and one or more Locational Deliverability Areas (LDAs).
 - b. Please provide one or more examples to demonstrate the total amount in dollars that a PRD Provider would be charged for non-performance

¹² PJM Transmittal, Attachment A at 45.

¹³ See PJM, Intra-PJM Tariffs, RAA, Schedule 6.1 § K (2.0.0).

¹⁴ See PJM, Intra-PJM Tariffs, OATT, Attachment DD § 10A(e) (5.0.0).

¹⁵ PJM Transmittal at 9-10.

under both the existing PRD rules and the proposed PRD rules. Would PRD Providers always be charged more under the proposed rules, always be charged less under the proposed rules, or does it depend on the duration of Performance Assessment Interval(s)/maximum emergency event(s)?

6. PJM proposes to revise the credit requirement for PRD to align the credit rate with all Capacity Performance Resources.¹⁶
 - a. The PJM OATT discusses how the RPM Auction Credit requirement is reduced as a Capacity Performance Resource attains certain milestones.¹⁷ For PRD, the Tariff states that the credit requirement “shall be reduced as and to the extent the PRD Provider registers PRD-eligible load at a PRD Substation level to satisfy its Nominal PRD Value commitment, in accordance with Reliability Assurance Agreement, Schedule 6.1.”¹⁸ Please explain why there is a different process to reduce the credit requirement for PRD and Capacity Performance Resources. Please also provide examples detailing how the credit requirements are reduced for a PRD Provider as it achieves milestones in the run up to the Delivery Year.

This letter is issued pursuant to 18 C.F.R. § 375.307 (2018) and is interlocutory. This letter is not subject to rehearing under 18 C.F.R. § 385.713 (2018). A response to this letter must be filed with the Secretary of the Commission within 30 days of the date of this letter by making a deficiency filing in accordance with the Commission’s electronic tariff requirements. For your response, use Type of Filing Code 170 if your company is registered under program code “M” (Electric Market Based Rate Public Utilities) or Type of Filing Code 180 if your company is registered under program code “E” (Electric Traditional Cost of Service and Market Based Rates Public Utilities).¹⁹ In

¹⁶ PJM Transmittal at 12-14.

¹⁷ *See, e.g.*, PJM, Intra-PJM Tariffs, OATT, Attachment Q, § IV.B.3(c) (35.0.0).

¹⁸ PJM, Intra-PJM Tariffs, OATT, Attachment Q, § IV.B.3 (35.0.0).

¹⁹ The filing must include at least one tariff record to restart the statutory timeframe for Commission action even though a tariff revision might not otherwise be needed. *See generally Electronic Tariff Filings*, 130 FERC ¶ 61,047, at PP 3-8 (2010) (explaining that the Commission uses the data elements resulting from the tariff filing (*continued ...*))

addition, submit an electronic version of your response to Robert Fares at robert.fares@ferc.gov. The information requested in this letter will constitute an amendment to your filing and a new filing date will be established.²⁰ A notice will be issued upon receipt of your filing.

Pending receipt of the above information, a filing date will not be assigned to your filing. Failure to respond to this letter order within the time period specified may result in a further order rejecting your filing.

Issued by: Kurt M. Longo, Director, Division of Electric Power Regulation - East

process to establish statutory filing and other procedural dates).

²⁰ See *Duke Power Co.*, 57 FERC ¶ 61,215, at 61,713 (1991) (“[T]he Commission will consider *any* amendment or supplemental filing filed after a utility’s initial filing . . . to establish a new filing date for the filing in question.”).