

Notice of Transmission Owners Consultation with the Members Committee Regarding Proposed Amendment to Schedule 12, Section (b)(xviii) of the PJM Tariff

Pursuant to section 7.3.2 of the Consolidated Transmission Owners Agreement (“CTOA”), the CTOA Administrative Committee hereby initiates consultation with the PJM Members Committee with regard to a proposed change to Schedule 12 of the PJM Interconnection, L.L.C. (“PJM”) Tariff. As discussed herein, the PJM Transmission Owners are proposing revisions to Schedule 12, section (b)(xviii), which governs the assignment of cost responsibility for Required Transmission Enhancements that relieve stability related reliability issues (“Stability Projects”) for inclusion in the PJM Regional Transmission Planning Process (“RTEP”).

Background:

On February 28, 2019, the Federal Energy Regulatory Commission (“FERC”) found that the Stability Deviation Method is a just and reasonable method for assigning cost responsibility for RTEP Stability Projects, replacing Solution-based DFAX.¹ The FERC directed PJM to implement the Stability Deviation Method using tariff language proposed by PJM, with two modifications. The first modification was intended to address instances where a Stability Project resolves all fault conditions (such that there is no meaningful voltage angle deviation upon which to base a cost allocation). FERC added tariff language requiring that PJM assign the costs of the Stability Project based on the measurement of voltage angle deviation without the Stability Project included.² The second modification was designed to address concerns that voltage angle deviation may vary based on the nature of a stability-related issue. FERC added tariff language allowing PJM in such circumstances to use a case specific alternative to the 25 percent voltage angle deviation threshold used to assign cost responsibility.³

Both PJM and several PJM Transmission Owners (“Indicated PJM TOs”) petitioned for rehearing of the February 2019 Order. PJM argued that FERC’s ruling was premature. While PJM had suggested performing the Stability Deviation Method analysis without the proposed upgrade in place was a possible approach to situations where a Stability Project

¹ *Delaware Public Service Commission and Maryland Public Service Commission v. PJM Interconnection, L.L.C. and Certain Transmission Owners Designated under CTOA RS FERC No. 42*, 166 FERC ¶ 61,161 (2019) (“February 2019 Order”). As described by PJM, the Stability Deviation Method measures the voltage angle deviation at impacted load buses with the Stability Project in place, and assigns cost responsibility to those load buses. Load buses with a voltage angle deviation of less than 25 percent of the load bus with the largest voltage angle deviation are excluded from the cost allocation calculation. *See* February 2019 Order at P 13.

² February 2019 Order at P 48.

³ February 2019 Order at P 49.

resolves all fault conditions (such that there is no meaningful voltage angle deviation exceeding the 25 percent threshold upon which to base an allocation), PJM had qualified its suggestion noting that the approach would require further exploration. PJM reported that it had undertaken the further exploration and determined that performing the simulation without the upgrade may cause the model to become unstable and, therefore, fail to provide any meaningful information upon which to base the cost allocation. Accordingly, PJM asked FERC to either delete or suspend the first modification to section (b)(xviii) of Schedule 12 or at least confirm that it would entertain a filing under section 205 of the Federal Power Act (“FPA”) setting forth alternative language.⁴

The Indicated PJM TOs argued that the second modification, by giving PJM discretion to change a PJM Tariff cost allocation provision without a filing under Section 205 of the FPA by the PJM Transmission Owners violated both the PJM Transmission Owners’ exclusive and unilateral rights to file to modify the PJM transmission rate design and the filed rate doctrine. The Indicated PJM TOs also argued that the second modification was inconsistent with the requirements in Order Nos. 890 and 1000 that transmission providers establish clear, *ex ante* cost allocation methodologies for assigning the costs of reliability projects.⁵

Both PJM and the Indicated PJM TOs assured FERC that elimination of the modification upon which each respectively sought rehearing of the February 2019 Order would not prevent PJM from applying the Stability Deviation Method to assign cost responsibility for the Artificial Island RTEP project.

Proposed Changes to Schedule 12

Since issuance of the February 2019 Order accepting the Stability Deviation Method, PJM has developed a modification to the Stability Deviation Method that should result in meaningful results in all cases. The modification will thus address both concerns FERC sought to address with its two modifications of the proposed Stability Deviation provision. Specifically, PJM proposes that in performing the stability deviation analysis of the impact of a proposed upgrade, it will extend the duration of the worst fault condition by the maximum duration that the simulated transmission system could sustain while maintaining a stable condition. This will result in technically meaningful voltage angle deviations (*i.e.*, those exceeding 25 percent of the load bus with the largest voltage angle deviation) in all cases.

⁴ *PJM Interconnection*, Docket Nos. EL15-95-003, 004, Request For Clarification Or, In The Alternative, Limited Request For Rehearing of PJM Interconnection, Inc. (filed April 1, 2019).

⁵ *Delaware Public Service Commission and Maryland Public Service Commission v. PJM Interconnection, L.L.C. and Certain Transmission Owners Designated under CTOA RS FERC No. 42*, Docket No. EL15-95-003, Limited Request for Rehearing of the Indicated PJM Transmission Owners (filed April 1, 2019).

This would render unnecessary any need to perform the Stability Deviation Method without the proposed upgrade in place (FERC's first modification) or to use an alternative case specific voltage angle deviation threshold (FERC's second modification).

The PJM Transmission Owners propose to ask FERC to approve modifying section (b)(xviii) of Schedule 12 to remove FERC's two modifications and to add the following language developed by PJM to replace FERC's first modification:

In order to develop technically meaningful voltage angle deviations with the stability upgrade included, the Transmission Provider shall extend the duration of the worst fault condition by the maximum duration that the simulated transmission system could sustain while maintaining a stable condition.

By giving PJM the ability to extend the duration of the worst fault condition maximum duration that the simulated transmission system could sustain while maintaining a stable condition, there should be no situation in which application of the Stability Deviation Method would fully resolve all stability-related issues or fail to yield results exceeding the 25 percent threshold. Accordingly, if FERC approves the proposed modification of section (b)(xviii) the issues raised in both the PJM and Indicated PJM TO rehearing requests would be resolved and both rehearing requests would be rendered moot.

The PJM Transmission Owners have included as Attachment A to this stakeholder notice a revised version of Schedule 12, section (b)(xviii) showing the proposed changes. The PJM Transmission Owners are proposing that the proposed revisions be made effective 60 days after filing.

Written comments on the proposed provisions may be submitted for consideration by email to: (Comments_for_Transmission_Owners@pjm.com) on or before August 5, 2019.

Attachment A

Proposed Modification to Schedule 12, Section (b)(xviii) of the PJM Tariff

(xviii) Required Transmission Enhancements Designed to Address Stability Issues.

For purposes of the assignment of cost responsibility for Reliability Projects designed to address stability issues under subsection (b)(i)(A)(2)(a) and subsection (b)(ii)(A) of this Schedule 12, the Transmission Provider shall, using the same inputs and assumptions from the simulation that originally drove the need for the stability upgrade, perform a stability simulation that includes the stability upgrade under the worst fault condition. The worst fault condition shall be the fault condition in the simulation that produces the maximum rotor angle swing with the stability upgrade included. ~~If the Transmission Provider determines that a technically meaningful voltage angle deviation can no longer be observed with the stability upgrade included, the Transmission Provider shall perform the stability simulation without the stability upgrade included, using a voltage angle measurement consistent with the duration of the worst fault condition of the stability disturbance analysis.~~ In order to develop technically meaningful voltage angle deviations with the stability upgrade included, the Transmission Provider shall extend the duration of the worst fault condition by the maximum duration that the simulated transmission system could sustain while maintaining a stable condition. For each load bus on the system, the difference between the highest and lowest voltage angle that occurs during the simulation of the worst fault condition will be recorded. Load buses having a voltage angle deviation less than 25 percent of the load bus with the largest voltage angle deviation will not be included in the cost allocation calculation, ~~unless the Transmission Provider determines that an alternative, case-specific voltage angle deviation threshold is supported for the specific conditions (i.e., generation dispatch, system topology, load patterns).~~ For the remaining load buses, the voltage angle deviation will be multiplied by the megawatt load at the bus obtained from the stability simulation model, or, in the case of a Merchant Transmission Facility, the Firm Transmission Withdrawal Rights at the bus. The products of the voltage angle deviation and megawatt load at each bus will be summed for each Responsible Zone. The Stability Deviation cost allocation for a Responsible Zone or Merchant Transmission Facility will be determined by dividing the sum of the load-weighted angle deviations for the Responsible Zone or Merchant Transmission Facility by the sum of the load-weighted angle deviations for each Responsible Zone and Merchant Transmission Facility. Transmission Provider shall round cost responsibility assignments to the nearest one-hundredth of one percent.