

148 FERC ¶ 61,144
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,
and Norman C. Bay.

PJM Interconnection, L.L.C.

Docket No. EL14-37-000

ORDER INSTITUTING SECTION 206 PROCEEDING
AND ESTABLISHING PROCEDURES

(Issued August 29, 2014)

1. On June 10, 2013, PJM Interconnection, L.L.C. (PJM) filed revisions to its Open Access Transmission Tariff and Amended and Restated Operating Agreement to define Up-to Congestion (UTC) transactions as virtual transactions and clarify the rules concerning the use of such transactions.¹ On August 9, 2013, the Commission accepted PJM's proposal on condition that PJM submit a compliance filing setting forth, among other things, an explanation of how PJM intends to apply the Financial Transmission Rights (FTR) forfeiture rule in section 5.2.1 (c) of its Tariff to UTC transactions.² The Commission required PJM to explain whether and how its treatment of UTC transactions differs from the treatment accorded two other types of virtual transactions, INCs and DEC³, and, if so, to explain the different approach and rationale for UTC transactions.⁴

¹ PJM stated that its proposed revisions reflected the evolution of UTC transactions from financial hedges of real-time congestion charges associated with physical transactions to purely virtual products. PJM Interconnection, L.L.C., Docket No. ER13-1654-000, June 10, 2013 Filing, Transmittal Letter (Transmittal Letter) at 3-7.

² *PJM Interconnection, L.L.C.*, 144 FERC ¶ 61,121 (2013) (August 9 Order).

³ An INC is a virtual offer to sell energy at a specified source bus in the PJM Day-ahead market. A DEC is a virtual bid to purchase energy at a specified sink bus in the PJM Day-ahead market. See PJM Interconnection, L.L.C., Docket No. ER13-1654-001, September 6, 2013 compliance filing (Compliance Filing) at 14.

⁴ The Commission also required PJM to make an informational filing within six months describing the financial performance of UTC transactions, INCs, and DEC³s as well as their effects on uplift. PJM filed its report on February 7, 2014.

PJM submitted the compliance filing on September 6, 2013. On January 16, 2014, PJM submitted its answers to a December 18, 2013 Commission data request.

2. PJM's filings raise, but do not resolve, issues concerning its proposed treatment of UTCs as virtual transactions, in particular, the proposed application of the FTR forfeiture rule⁵ differently to UTCs and to INCs and DECs. Based on its review of the information provided thus far, the Commission is concerned that PJM's tariff may be unjust and unreasonable. Accordingly, the Commission institutes an investigation, pursuant to section 206 of the Federal Power Act (FPA),⁶ in Docket No. EL14-37-000, to address whether the way PJM's current tariff applies the FTR forfeiture rule to UTCs is just and reasonable. As further discussed below, the Commission directs staff to hold a technical conference to explore these issues with interested parties.

I. Background

A. UTC Transactions

3. In a UTC transaction, a market participant submits an offer to simultaneously inject energy at a specified source and withdraw the same megawatt quantity at a specified sink in the Day-ahead market, and specifies the maximum difference in locational marginal prices (LMP) at the transaction's source and sink that the market participant is willing to pay. PJM accepts the bid if the Day-ahead LMP differential, i.e., the difference in Day-ahead LMPs at the sink and the source, does not exceed the participant's UTC transaction bid.⁷ For example, if the UTC transaction bid is \$30/MWh, the UTC transaction will be accepted if the sink Day-ahead LMP does not exceed the source Day-ahead LMP by more than \$30/MWh.⁸ UTC transactions are not backed by physical resources. Thus, if a market participant's UTC transaction is accepted in the Day-ahead market, the market participant must sell back its position in the Real-time market at a price equal to the difference in the Real-time LMPs of the sink

⁵ See P 4 of this order for an explanation of the FTR forfeiture rule.

⁶ 16 U.S.C. § 824e (2012).

⁷ Transmittal Letter at 12-13.

⁸ A cleared UTC transaction will pay the difference between the Day-ahead sink LMP and the source LMP and be paid the difference between the Real-time sink LMP and source LMP, so cleared UTC transactions in the direction of congestion are profitable when Real-time congestion is greater than Day-ahead congestion. In the counter-flow direction, UTC transactions are profitable when Real-time congestion decreases or reverses from the counter-flow direction toward the direction of congestion.

and source. UTC transactions have sometimes been described as “paired INCs and DEC,”⁹ since a UTC transaction is an offer to inject energy at a specified source and to withdraw a comparable amount of energy at a specified sink during the Day-ahead market which is then liquidated in the Real-time market.

B. FTR Forfeiture Rule

4. PJM proposed to extend the application of its FTR forfeiture rule (which currently applies only to INCs and DEC) to UTC transactions.¹⁰ Under the FTR forfeiture rule, market participants forfeit the profits on FTRs in excess of the auction price when virtual positions increase congestion so as to increase a participant’s FTR profits while increasing Day-ahead/Real-time price divergence. PJM determines this by examining two factors. First, PJM identifies whether a participant has cleared virtual transactions affecting congestion on FTR paths held by the participant. These are virtual transactions that are deemed to be at or near the constrained FTR paths.¹¹ Second, if a participant does have such virtual transactions, PJM must determine whether the participant’s FTR profits are likely to have increased as a result of these virtual transactions, by determining whether the Day-ahead congestion revenues along the FTR paths have increased compared to the Real-time revenues.

5. To estimate the effect of a transaction on flows over a constraint related to an FTR path (the “at or near the constrained FTR path” condition), PJM’s FTR forfeiture rule specifies both the source and sink buses of the transaction. However, because an INC or a DEC specifies only one bus, PJM must select a second bus in order to apply the FTR forfeiture rule. For a DEC, the second bus is an injection source to be paired with the withdrawal sink specified by the DEC. For an INC, the second bus is a withdrawal sink to be paired with the injection source specified by the INC. For these second buses, PJM chooses what it deems the worst-case bus to determine the impact of the INC or DEC on the FTR path. The worst-case bus is the bus that results in the transaction with

⁹ An INC will clear only if the LMP at the bus equals or exceeds the offer price. Similarly, a DEC will clear only if the LMP at the bus does not exceed the bid price. However, since clearing INCs and DEC depends on the absolute level of the LMPs at the relevant buses, a specified INC and a specified DEC may not both clear even if the difference in their LMPs matches the difference between the participant’s INC offer price and its DEC bid price.

¹⁰ Transmittal Letter at 12-16.

¹¹ For INCs and DEC, PJM’s tariff states that an INC or DEC will be “at or near” the constrained FTR path if at least 75 percent of the energy between the INC or DEC and a withdrawal or injection “at any other bus” flows on the constrained FTR path.

the highest net distribution factor with respect to the FTR path. This net distribution factor is the percentage of the total energy of the transaction that flows on the FTR path. Thus, the transaction with the worst-case bus is the transaction that sends the highest percentage of the transaction's total energy over the FTR path. PJM concludes that the "at or near the constrained FTR path" condition is met if the net distribution factor is 75 percent or higher.¹² A 75 percent increase could exacerbate the FTR path's congestion.

C. PJM's Submissions

6. In its transmittal letter, submitted with its compliance filing, PJM states that it will apply a 75 percent threshold net distribution factor for determining whether a UTC transaction path is at or near the path of the FTR, similar to its treatment of INCs and DEC's; however, PJM did not include any relevant additional Tariff language.¹³ PJM states that it will not need to apply the "at any other bus" requirement in section 5.2.1(c) to UTC transactions, as it does when applying the FTR forfeiture rule to INCs and DEC's, because fundamental differences exist between these types of transactions. Because INCs and DEC's do not have, respectively, a defined sink or source, PJM makes a "worst case" assumption about the location of the corresponding second bus, and then calculates the distribution factor for the resulting transaction to determine whether the net distribution factor with respect to the FTR path is 75 percent or higher. PJM argues that, because UTC transactions are defined explicitly from one specific source to one specific sink, both the source and sink buses in the transaction are known, and there is no need to consider an alternative worst-case bus in calculating the net distribution factor. PJM states that it can determine the impact of the UTC transaction on the FTR path based on the identified source and sink of the UTC, because PJM knows where the energy is flowing.¹⁴

7. In response to PJM's filing, Commission staff issued a data request on December 18, 2013, asking PJM to further describe the differences between the types of virtual transactions. The Commission also requested specific information about how the FTR forfeiture rule would be applied to different virtual transactions. On January 16, 2014, PJM responded to the data request.

¹² Compliance Filing at 14-15.

¹³ Compliance Filing at 16.

¹⁴ Compliance Filing at 14-16.

8. PJM reiterated in its response that UTCs are not subject to the same “worst case” analysis as INCs and DEC. In comparing a UTC transaction to an equivalent INC/DEC pair, PJM stated that UTC transactions induce the same flows on the transmission network as any other injections and withdrawals, including generators, loads, and INCs and DECs, and that the distribution factors used to analyze UTC transactions are the same as for any other transaction utilizing injection and withdrawal points. PJM stated that an INC and DEC of equal size on the same source-sink pair as a UTC transaction will have the same impact on congestion and the Day-ahead power flow model. PJM noted that there is no guarantee that both the INC and the DEC would clear simultaneously and therefore, depending on which bids clear, the impact on unit commitment and dispatch could be “very different.”¹⁵ PJM asserted that, because UTC transactions are balanced injections and withdrawals, they cannot result in a net energy imbalance.¹⁶

D. Market Monitor Comments and Proposal

9. In its responses to PJM’s various submissions, the Market Monitor has argued that PJM’s proposed method for applying the FTR forfeiture rule to UTCs is inconsistent with the current FTR forfeiture rule for INCs/DECs and PJM’s nodal market design because it relies upon the contract path, rather than modeled flows. While the Market Monitor does not dispute PJM’s assumption that all energy injected at the source is withdrawn at the sink, the Market Monitor states that this assumption does not mean that the UTC bid is responsible for supplying the entire amount of energy at the delivery location, due to the physics of the grid which results in the energy injected flowing across multiple constraints in the direction of the path of least resistance. Instead, the Market Monitor argues that a UTC transaction’s injection or withdrawal results in energy flowing across multiple constraints depending on the distribution factor of the source or sink and its related constraints. In addition, the Market Monitor notes that PJM’s proposed method inappropriately considers only positive net distribution factors, which, in its view, cannot reliably indicate whether a UTC transaction hurts a constraint. The Market Monitor states that the “at or near any bus” component of the FTR forfeiture rule should be applied to INCs/DECs and UTC transactions in the same manner and proposes an alternative method which is not based on the contract path method.¹⁷

¹⁵ PJM January 14, 2104 Data Request Response (Data Request Response) at 3.

¹⁶ PJM Data Request Response at 2-3.

¹⁷ Market Monitor Comments at 5-16.

II. Commission Determination

10. PJM's FTR forfeiture rule has been in place since 2000 for INCs and DEC. Unlike INCs and DEC, which occur at a single point and for which PJM must hypothesize an associated sink or source under PJM's current FTR forfeiture rule, UTC transactions explicitly identify both the source and sink. PJM posits this distinction alone supports a difference in treatment between UTC transactions and INCs and DEC. We are unpersuaded based on the record before us.

11. The recent growth in UTC transactions,¹⁸ and the corresponding decrease in other virtual transactions, strongly suggests that many UTC transactions may be used in place of virtual transactions. To the extent that a UTC transaction is simply the combination of two virtual transactions that have been connected, it may not be appropriate to treat UTC transactions differently than INCs and DEC in applying the FTR forfeiture rule. For instance, where a UTC is submitted in combination with INCs and /or DEC and the associated flows on the constrained paths of the combined transaction may be different from those assumed when considering the transactions individually, the tariff may not protect against manipulative transactions.

12. The various pleadings also raise questions concerning the broader issue of whether PJM's current FTR forfeiture rule is designed and implemented in a way that makes it meaningfully effective. For example, the current FTR forfeiture rule does not assess the combined impact a market participant's portfolio may have on its FTR positions. A portfolio, for example, could consist of multiple UTC transactions and INC/DEC positions. Finally, the FTR forfeiture rule does not consider trading of INCs/DEC and UTC transactions for the purpose of preventing congestion in order to benefit a short FTR position.¹⁹

13. Further, PJM states that both INCs and DEC and UTC transactions affect uplift; however, only INCs and DEC are currently subject to uplift charges.²⁰ Since PJM now proposes to treat UTCs as virtual transactions, this section 206 proceeding should also

¹⁸ Transmittal Letter at 7-9.

¹⁹ A short FTR position is acquired by selling counter-flow FTRs, i.e., FTRs in the opposite direction from the direction of congestion. Contrary to normal-flow FTRs, the profitability of the counter-flow FTR increases if the congestion on the path decreases or reverses direction in the Day-ahead market.

²⁰ We note that, contrary to its initial statements in its June 10 Filing, PJM's February 14, 2014 Informational Filing states that UTC transactions affect unit commitment and dispatch.

examine how uplift is, or should be, allocated to all virtual transactions. We conclude that the information provided to date is insufficient to determine whether differences exist between UTC transactions and INCs/DECs which justify a difference in the application of the FTR forfeiture rule, or to determine whether the current forfeiture rule continues to be just and reasonable when applied to INCs, DEC, and UTCs. Further, our review of PJM's informational filing on uplift indicates that an examination of how uplift is allocated to all virtual transactions is warranted.

14. Accordingly, we hereby institute a section 206 proceeding to afford PJM and interested parties an opportunity to provide information and develop a record upon which the Commission may address these issues.²¹ In order to explore fully the issues related to UTC transactions and uplift as discussed above, we direct Commission staff to convene a technical conference. The details of the technical conference will follow in a subsequent notice.

15. In cases where, as here, the Commission institutes a section 206 investigation on its own motion, section 206(b) of the FPA requires that the Commission establish a refund effective date that is no earlier than the date of the publication by the Commission of notice of its intention to initiate such proceeding nor later than five months after the publication date.²² In such cases, in order to give maximum protection to customers, and consistent with our precedent, we have historically tended to establish the section 206 refund effective date at the earliest date allowed by section 206, and we do so here as well.²³ That date is the date of publication of notice of initiation of this proceeding in the *Federal Register*.

16. Section 206(b) of the FPA also requires that if no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of the section 206 proceeding, the Commission shall state the reason why it has failed to render such a decision and state its best estimate as to when it reasonably expects to make such a decision. We expect that we should be able to render a decision within five months of the submission of post-technical conference pleadings.

²¹ We note that PJM stakeholders are currently working on tariff revisions to address the uplift issue. We will require PJM to report the progress of these discussions at the technical conference discussed below.

²² 16 U.S.C. § 824e (b) (2012).

²³ See, e.g., *Idaho Power Company*, 145 FERC ¶ 61,122 (2013); *Canal Electric Co.*, 46 FERC ¶ 61,153, *order on reh'g*, 47 FERC ¶ 61,275 (1989).

The Commission orders:

(A) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by section 402(a) of the Department of Energy Organization Act and by the Federal Power Act, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the Federal Power Act (18 C.F.R., Chapter I), the Commission hereby institutes a proceeding in Docket No. EL14-37-000 concerning the justness and reasonableness of PJM's existing tariff provisions, as discussed in the body of this order.

(B) Commission Staff is hereby directed to convene a technical conference to be held at a date specified in a subsequent notice, as discussed in the body of this order.

(C) Any interested persons desiring to be heard in the proceedings should file a notice of intervention or motion, as appropriate, with the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426, in accordance with Rule 214 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.214) within 30 days of the date of this order.

(D) The Secretary shall promptly publish in the *Federal Register* a notice of the Commission's initiation of section 206 proceedings in Docket No. EL14-37-000.

(E) The refund effective date established pursuant to section 206(b) of the Federal Power Act will be the date of publication in the *Federal Register* of the notice discussed in Ordering Paragraph (D) above.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.