

FirstEnergy's Perspective on PJM's Wholesale Electricity Markets: 2019

Q4 2019 ISSUES

This report will be updated on a quarterly basis (December 1, March 1, June 1, and September 1). The purpose of this report is to provide an overview of key FERC and PJM initiatives active in each quarter.

Executive Summary

In the Q3 2019 report, FirstEnergy noted that there was significant market uncertainty as FERC directed PJM to hold off on the already-delayed 2019 Base Residual Auction (BRA) for the 2022-2023 Delivery Year while the Commission determines an appropriate replacement rate in the Minimum Offer Price Rule (MOPR) proceeding. That uncertainty remains as it is still unclear when FERC will act on this key order. FERC's lack of a quorum among Commissioners will soon end as Commissioner Richard Glick's recusal period ended on November 29, 2019, and FERC General Counsel James Danly's nomination for a term ending June 30, 2023 will soon be voted on by the full United States Senate. If Danley is confirmed as Commissioner, Republicans would hold a 3-1 majority.

Notwithstanding the uncertainty associated with the pending market reforms, the FirstEnergy Utilities continue to advocate for holistic market reforms that will the long-term best interests of our Ohio customers rather than a series of piecemeal changes to PJM's markets.

Capacity Market Initiatives

Minimum Offer Price Rule / Capacity Auction Timing: On July 25, 2019, FERC issued an order directing PJM not to run the 2019 BRA that was scheduled to begin in mid-August 2019. FERC's Order noted that "delaying the auction until the Commission establishes a replacement rate will provide greater certainty to the market than conducting the auction under the existing rules." The auction, originally scheduled for May 2019, was previously delayed by PJM to August 2019 to allow FERC additional time to issue an order on the PJM capacity/minimum offer price rule (MOPR) filing. FERC's June 25 Order did not provide guidance on when the 2019 BRA will occur. The longer the 2019 BRA is delayed, the more uncertainty it creates for suppliers and customers associated with the retail auctions held by Ohio's electric utilities to provide full requirements service to "non-shopping" retail customers.

Fuel Security: On October 25, 2019 PJM presented early results of the Phase 2 analysis, which involved updating Phase 1 sensitivities based on stakeholder feedback. PJM evaluated 56 new scenarios that looked at (i) Pipeline disruption concurrent with event peak load; (ii) 14-day pipeline disruption; (iii) Initial oil inventory level at 50%; and (iv) Portfolio sensitivities with additional renewable replacement of retirements. The majority of the scenarios evaluated showed some increase in pre-emergency or emergency hours and GWh compared to Phase 1 scenarios. PJM also reviewed RTO-wide scenarios using Relevant Risk data from Historical Cold Snap Events. PJM determined that scenarios with increased renewables resulted in a greater possibility of load shed beginning with 1000 MW of disruptions, which was sooner than Phase 1 scenarios. PJM plans to make a recommendation on

December 19, 2019 as to whether market, operational, or planning changes are needed to ensure current of future fuel/energy/resource security.

Energy Market Issues

Carbon Pricing: PJM held two meetings of the Carbon Pricing Senior Task Force (CPSTF) this reporting period. PJM continued stakeholder education on the topic, including a review of New England's carbon pricing initiative, the effect of carbon pricing on energy prices, the impact of state renewable portfolio standards, and discussion from a panel of state representatives. The CPSTF will continue the education phase of the stakeholder process through the first quarter of 2020 and then will determine the next steps in the process.

Energy and Reserve Market Reforms: On March 29, 2019, PJM filed its expected energy market reform proposals at FERC. PJM's proposed energy market reforms include: (i) consolidation of Tier 1 and Tier 2 Synchronized Reserves into one Synchronized Reserve product; (ii) modification of its Operating Reserve Demand Curves ("ORDCs") by increasing the Reserve Penalty Factors used in the ORDCs and modifying the shape to add a downward sloping tail; and (iii) aligning its day-ahead and real-time reserve markets to ensure adequate forward procurement of reserves and related market efficiencies. FERC has yet to act on this filing.

Energy Market Uplift for Up-to-Congestion Transactions: On October 17, 2019, FERC issued an order directing PJM to file additional briefs regarding Up-to Congestion transactions (UTCs) given the potential change in circumstances resulting from related UTC proceedings. FERC's order directed PJM to respond to ten questions related to UTCs impact on uplift in the PJM market. On November 18, 2019, PJM filed its responses with FERC. PJM's response tweaked its original proposal to allocate uplift to UTCs by proposing to allocating UTCs only some amount of uplift. Specifically, UTCs would be treated as a single transaction as opposed to a paired Increment Offer and Decrement Bid (INC and DEC). This modified proposal would nonetheless be an improvement from the status quo. PJM's preference would be to treat a UTC like a DEC because it would then be charged both Day Ahead and Real Time uplift.

Ancillary Services Market Initiatives

No major changes this reporting period.

Emerging Technologies

Electric Storage Participation: On October 17, 2019, FERC issued an order approving PJM's proposed Energy Storage market participation model. In 2018 FERC issued a rulemaking that required each RTO/ISO in the United States to develop a participation model for energy storage resources ("ESRs") that will remove barriers to their participation in the wholesale markets. In December 2018, PJM filed its proposed participation model for ESRs. FERC's October 17 Order found that PJM's proposal, subject to certain modifications, complied with FERC Order 841. FERC deferred the most controversial aspect of the PJM proposal; specifically, FERC's order found that the record was unclear on what was the appropriate minimum run time for ESRs and, therefore, FERC instituted a new proceeding under Section 206 of the FPA (Docket No. EL19-100) for Parties to further evaluate the appropriate minimum run time metric. PJM's Energy Storage Participation Model will become effective December 3, 2019.

[Distributed Energy Resource \(DER\) Aggregation](#): On October 7, 2019, PJM, along with the other FERC-jurisdictional ISOs/RTOs, filed responses to a series of questions posed by FERC related to Distributed Energy Resources (DERs). FERC's questions dealt with specifics of the interconnection process, DER aggregation and data on the amount of DER installed on the transmission and distribution systems. On November 6, 2019, parties filed reply comments. The FirstEnergy Utilities and Eastern Kentucky Power Cooperative filed joint-comments reiterating concerns that the rules developed for the PJM market to address DER aggregation may materially impact the distribution systems in each State.

Other

[PJM CEO](#): The PJM Board of Managers announced on November 19, 2019 that it has appointed Manu Asthana to serve as PJM Interconnection's President and CEO, effective January 1, 2020. Mr. Asthana brings to PJM leadership experience from across the electricity industry, including power generation operations, optimization and dispatch, competitive retail electricity, electricity and natural gas trading, and risk management, which he acquired in his more than 21 years in the energy industry. Most recently, Mr. Asthana served as President of Direct Energy Home in North America.

[GreenHat](#): On October 9, 2019, PJM and numerous parties filed a settlement offer to resolve all issues concerning liquidation of the GreenHat Energy, LLC's Financial Transmission Rights (FTRs) as a result of GreenHat's default, and the July 2018 FTR auction. The settlement provides that an aggregate of \$12.5 million would be paid to two-specific FTR market participants and creates a separate \$5 million fund to provide compensation to other FTR market participants that can demonstrate financial harm as a result of PJM's actions. FERC has yet to act on the filed settlement offer. On October 20, 2019, Shell Energy filed a Petition for Review with the United States Court of Appeals for the DC Circuit of FERC's orders denying Shell's motion for out-of-time intervention in the GreenHat default proceedings. FERC is required to certify the record in the proceeding to the DC Circuit by Monday, December 2, 2019. After FERC certifies the record, the DC Circuit will establish a briefing schedule for the parties to the proceeding.

[Financial Risk Mitigation](#): The Financial Risk Mitigation Senior Task Force (FRMSTF) was formed to evaluate the recommendations in the Report of the Independent Consultants on the GreenHat Default. Six meetings were held during this reporting period. PJM provided stakeholders with a timeline of the various work products associated with each of the four work streams and has produced a series of papers in accordance with the timeline. Topics discussed include comparisons of credit rules and products in other ISO/RTOs, Auction Revenue Rights (ARR) and Financial Transmission Rights (FTR) market design, governance of PJM's financial markets, the option to implement an external clearing house, position limits, and liquidity risk.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/2/2019 12:45:45 PM

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Case No(s). 14-1297-EL-SSO

Summary: Correspondence Quarterly Update Pursuant to Section V.C.2. of the Third Supplemental Stipulation and Recommendation electronically filed by Mr. Scott J Casto on behalf of Ohio Edison Company and The Cleveland Electric Illuminating Company and The Toledo Edison Company