FirstEnergy's Perspective on PJM's Wholesale Electricity Markets: 2020

Q4 2020 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

FERC issued two key orders this reporting period which have allowed PJM to finally set a schedule for the 2022/2023 Base Residual Auction (BRA), which has been delayed since 2019. On October 15, 2020, FERC approved PJM's compliance filings in response to previous orders on the Minimum Offer Price Rule, and on November 12, 2020, FERC approved PJM's methodology to calculate a forward-looking Energy and Ancillary Services Offset, which is a key capacity market variable. Following the orders, PJM announced that the 2022/2023 BRA will take place from May 19 to May 25, 2021, with results posted June 2, 2021. PJM has proposed that it will cancel the first and second incremental auctions for both the 2022/2023 and 2023/2024 delivery years, as well as the first incremental auction for the 2024/2025 delivery year. The 2023/2024 BRA will take place December 2021. The normal auction schedule is not expected to resume until the BRA in May 2024 for the 2027/2028 delivery year.

Capacity Market Initiatives

Minimum Offer Price Rule Compliance Filings: On October 15, 2020, FERC issued an order accepting, in part, PJM's MOPR compliance filings and directing further changes from PJM via an additional compliance filing, which PJM filed on November 13, 2020. On November 16, 2020, Requests for Clarification and/or Rehearing regarding the October 15 order were filed by the New Jersey Board of Public Utilities and a group of consumer advocates. Both filings requested FERC to clarify a footnote in the order suggesting that the New Jersey state default service auctions may trigger the MOPR as the state process requires auction participants to comply with state Renewable Portfolio Standards.

Proposed Capacity Auction Timeline: Following the FERC Order approving PJM's method for a forward-looking Energy and Ancillary Services (E&AS) offset (see below), PJM released a schedule for key pre-auction activities for the 2022/2023 Base Residual Auction (BRA). Generation resources will have to certify whether they are receiving a state subsidy by January 19, 2021, make any first-time Fixed Resource Requirement (FRR) election by January 18, 2021 and recurrent FRR election by March 19, 2021, and make a competitive exemption election by April 19, 2021. The auction window for the 2022/2023 planning year will be May 19 to May 25, 2021, with results posted June 2, 2021.

Energy Market Issues

<u>Five Minute Dispatch</u>: On July 31, 2020, PJM submitted a filing to effectuate greater accuracy in the pricing and dispatch of resources in PJM's footprint through what was known in the stakeholder process as the "short-term" reforms. PJM submitted a corresponding informational filing in the fast start pricing docket

notifying FERC of the filing, explaining that the short-term reforms address the "pricing/dispatch misalignment" issue that the Commission had previously identified in its January 23, 2020 Order holding the fast start proceeding in abeyance, and requesting that the Commission rule on PJM's fast-start compliance filing as soon as possible. On August 5, 2020, PJM filed clarifying edits and other information to supplement the pricing and dispatch filing. On October 13, 2020, FERC accepted PJM's proposed Tariff revisions on five-minute pricing to resolve inaccuracy and dispatch misalignment issues.

Energy and Reserve Market Reforms: On March 29, 2019, PJM filed energy and reserve market reform proposals at FERC. PJM's proposed 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. On May 21, 2020, FERC issued an order that largely approved PJM's proposed reforms. PJM submitted compliance filings on July 6, 2020 and August 5, 2020. On November 3, 2020, FERC issued an order addressing arguments raised on rehearing in response to the order accepting PJM's proposed reserve market reforms. FERC ultimately reached the same result as the original order and rejected the arguments made on rehearing. On November 12, 2020, FERC approved a change to PJM's E&AS offset calculation and directed PJM to make an additional compliance filing within 15 days that includes revisions to its methodology to model the energy revenues of nuclear resources, with resource outages based on class averages.

<u>Uplift Allocation</u>: On July 16, 2020, FERC issued an order finding that PJM's current uplift allocation rules are unjust, unreasonable, and unduly preferential because they do not allocate uplift to Up-to-Congestion Transactions (UTCs). FERC directed PJM to submit a replacement rate that revises PJM's current uplift allocation rules to allocate uplift to UTCs in a manner that treats a UTC, for uplift allocation purposes, as if the UTC were equivalent to a Decremental Bid at the sink point of the UTC. On August 31, 2020, PJM submitted a filing in compliance with the July 16 Order, and recommended a prospective effective date of November 1, 2020. On September 17, 2020, FERC issued a notice that rehearing on this matter is denied, with details coming in a future order.

Ancillary Services Market Initiatives

See "Energy and Reserve Market Reforms" above.

Emerging Technologies

Electric Storage Participation: 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. The Commission approved PJM's model in October 2019, and the model went into effect in December 2019. FERC found, however, that the record was unclear on what was the appropriate minimum run time for ESRs to serve as capacity resources. Specifically, PJM proposed a minimum run time of 10 straight hours, while certain Parties proposed a minimum run time of 4 hours. Therefore, FERC instituted a new proceeding for parties to further evaluate the appropriate minimum run time metric. The proceeding was held in abeyance until October 30, 2020 to allow PJM stakeholders to continue discussions on the use of an Effective Load Carry Capability ("ELCC") methodology for ESRs as an alternative to PJM's proposed 10-hour minimum run-time rule. On July 16, 2020, FERC issued an order accepting certain PJM ESR compliance proposals, but directed PJM to make an additional compliance filing by October 30, 2020 to clarify how its proposed tariff provisions prevent

all distribution-connected ESRs from paying twice for the same charging energy or submit a new proposal to ensure such an outcome. PJM filed its stakeholder approved ELCC proposal on October 30, 2020 which included variable resources such as wind and solar in addition to electric storage.

<u>Distributed Energy Resource (DER) Aggregation</u>: On September 17, 2020 FERC issued Order 2222, enabling aggregated DER to compete in wholesale markets. The order allows multiple DERs to aggregate to satisfy size or performance requirements that they would not meet individually. The order requires RTOs to revise their tariffs to establish DER aggregators as a specific type of participant. The final rule is in effect December 21, 2020, and RTO compliance filings are due July 19, 2021.

Offshore Wind: On October 27, 2020, FERC held a technical conference to discuss offshore wind integration in Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs), with a focus on ISO New England, NYISO and PJM. Various transmission development options for integrating offshore wind generation were discussed, including: (1) the conventional approach in which Interconnection Customer Interconnection Facilities and Network Upgrades are developed in tandem with new generator interconnection requests; and (2) a "transmission first" approach in which large-scale transmission facilities are constructed onshore and/or offshore for anticipated generation in order to realize economies of scale. Other issues discussed included whether there should be a dedicated planning process designed for offshore wind generation only; and whether potential co-benefits of the proposed transmission projects such as improved reliability or greater capacity to integrate other resources, should be taken into consideration for cost allocation purposes.

Other

Carbon Pricing: On September 30, 2020, FERC held a technical conference to discuss considerations related to state-adoption of mechanisms to price carbon dioxide emissions, commonly referred to as carbon pricing, in regions with Commission-jurisdictional organized wholesale electricity markets (i.e., regions with regional transmission organizations/independent system operators, or RTOs/ISOs). This conference focused on carbon pricing approaches where a state (or group of states) sets an explicit carbon price, whether through a price-based or quantity-based approach, and how that carbon price intersects with RTO/ISO-administered markets, addressing both legal and technical issues. Additionally, on October 15, 2020, FERC proposed a policy statement to clarify that it has jurisdiction over organized wholesale electric market rules that incorporate a state-determined carbon price in those markets. The proposed policy statement also seeks to encourage regional electric market operators to explore and consider the benefits of establishing such rules.

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Summary: Report Quarterly Update Report Pursuant to Section V.C.2. of the Third Supplemental Stipulation and Recommendation electronically filed by Ms. Christine E. Watchorn on behalf of Ohio Edison Company and The Cleveland Electric Illuminating Company and The Toledo Edison Company