



FOR IMMEDIATE RELEASE

2020 State of the Market Report for PJM: January through March

MARKET MONITOR FINDS PJM WHOLESALE ELECTRICITY MARKETS COMPETITIVE

(Eagleville, PA May 14, 2020) PJM Interconnection's wholesale electric energy market produced competitive results during the first three months of 2020, according to the *2020 State of the Market Report for PJM: January through March* released today by Monitoring Analytics, LLC, the Independent Market Monitor for PJM.

The Independent Market Monitor, Joseph Bowring, announced findings of the report today. The report is the Independent Market Monitor's assessment of the competitiveness of the wholesale electricity markets managed by PJM in 13 states and the District of Columbia. The report includes analysis of market structure, participant behavior and market performance for each of the PJM markets.

"Our analysis concludes that the results of the PJM Energy Market were competitive in the first three months of 2020," Bowring said.

Energy prices were lower in the first three months of 2020 than in the first three months of any year since the creation of PJM markets in 1999. The load-weighted average real-time LMP was 34.2 percent lower in the first three months of 2020 than in the first three months of 2019, \$19.85 per MWh versus \$30.16 per MWh. Of the \$10.31 per MWh decrease, 46.4 percent was a direct result of lower fuel costs. The other major contributor to the decline in energy prices was the significant drop in demand as a result of both the mild winter weather and COVID-19. On a cumulative basis, PJM load was down 6.8 percent, and heating degree days, a measure of how cold the weather was, were down 21.8 percent, in the first three months of 2020 compared to the first three months of 2019.

Energy prices in PJM in the first three months of 2020 were set, on average, by units operating at, or close to, their short run marginal costs, although this was not always the case. This is evidence of generally competitive behavior and competitive market outcomes, although high markups for some marginal units did affect prices.

Net revenue is a key measure of overall market performance as well as a measure of the incentive to invest in new generation to serve PJM markets. Net revenues are significantly affected by fuel prices, energy prices and capacity prices. Net revenues decreased for all unit types in the first three months of 2020 compared to the first three months of 2019 as a result of lower energy prices. For example, theoretical net revenues decreased by 32 percent for a new

Page 2 of 2 MARKET MONITOR FINDS PJM WHOLESALE ELECTRICITY MARKETS COMPETITIVE

combustion turbine, 29 percent for a new combined cycle, 98 percent for a new coal unit, and 34 percent for a new nuclear plant, compared to the first three months of 2019.

The trend toward more energy from natural gas and less from coal accelerated in the first three months of 2020. The capacity factor of coal units fell from 46.4 percent to 32.6 percent and the share of total PJM energy produced from coal fell from 26.9 percent in the first three months of 2019 to 18.0 percent in the first three months of 2020 while the share of gas increased from 33.2 to 40.0 percent.

Total energy uplift charges decreased by \$12.1 million or 62.6 percent, from \$19.3 million in 2018 to \$7.2 million in 2019.

When there are binding transmission constraints and locational energy price differences, load pays more for energy than generation is paid to produce that energy. The difference is congestion. Congestion costs decreased by \$78.8 million or 48.1 percent, from \$163.9 million in the first three months of 2019 to \$85.1 million in the first three months of 2020. Congestion reflects the underlying characteristics of the power system, including the capability of transmission facilities, the fuel costs and geographic distribution of generation facilities and the geographic distribution of load.

Total ARR and self-scheduled FTR revenues offset 129.1 percent of total congestion costs for the first 10 months of the 2019/2020 planning period because FTR bidders paid more in the auctions than actual day-ahead payments for the same paths. The goal of the FTR market design should be to ensure that load has the rights to offset 100 percent of congestion costs.

The Independent Market Monitor (also known as the Market Monitoring Unit or MMU) evaluates the operation of PJM's wholesale markets to identify ineffective market rules and tariff provisions, proposes improvements to market rules and tariff provisions when needed, monitors compliance with and implementation of the market rules, identifies potential anticompetitive behavior by market participants and provides comprehensive market analysis critical for informed policy and decision making. Joseph Bowring, the Market Monitor, ensures the independence and objectivity of the monitoring program.

For a copy of the State of the Market Report, visit Monitoring Analytics at: http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2020.shtml