

Monitoring Analytics, LLC 2621 Van Buren Avenue, Suite 160 Valley Forge Corporate Center Eagleville, PA 19403

Phone: 610-271-8050 Fax: 610-271-8057

FOR IMMEDIATE RELEASE

2014 State of the Market Report for PJM: January through September Released

MARKET MONITOR FINDS PJM WHOLESALE ELECTRICITY MARKETS COMPETITIVE

(Eagleville, PA November 13, 2014) PJM Interconnection's wholesale electric energy and capacity markets produced competitive results during the first nine months of 2014, according to the 2014 State of the Market Report for PJM: January through September, 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. It analyzes market structure, participant behavior and market performance for each of the PJM markets.

"Our analysis concludes that the results of the PJM Energy, Capacity and Regulation Markets in the first nine months of 2014 were competitive," Bowring said.

A combination of increased, weather related, demand, and higher fuel costs in the first quarter led to a significant increase in average energy prices for the first nine months of 2014 compared to the first nine months of 2013 despite lower prices in the second and third quarters of 2014. The load-weighted average cost of energy (LMP) increased 47.4 percent in the first nine months of 2014 compared to the first nine months of 2013, from \$39.75 per MWh to \$58.60 per MWh.

The average price of natural gas increased while the average price of coal was relatively flat in the first nine months of 2014 compared to the first nine months of 2013, despite lower natural gas prices in the second and third quarters of 2014. If fuel costs in the first nine months of 2014 had been the same as in the first nine months of 2013, holding everything else constant, the load-weighted LMP would have been lower, \$50.62 per MWh instead of the observed \$58.60 per MWh in the first nine months of 2014, and the increase in LMP would have been 27.4 percent rather than 47.4 percent.

Energy prices in PJM in the first nine months of 2014 were set, on average, by units operating at, or close to, their short run marginal costs, although this was not always the case during the high demand hours in January. This is evidence of generally competitive behavior and resulted in a competitive market outcome.

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. Energy net revenues are affected by

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

fuel prices and energy prices. Natural gas prices and energy prices were significantly higher in the first three months of 2014 than in the first three months of 2013, resulting in large increases in net revenues in the first three months of 2014. The net result was substantial increases in net revenues for all technology types in the first nine months of 2014 compared to the first nine months of 2013, primarily as a result of the extremely high increases in net revenues in the first three months of 2014. Energy net revenues increased by an average of 275 percent for a new combustion turbine peaking unit, 114 percent for a new combined cycle, 202 percent for a new coal plant, 58 percent for a new nuclear plant, 28 percent for a new wind installation, and 10 percent for a new solar installation.

Energy uplift charges increased by \$258.8 million or 40.2 percent, from \$644.2 million to \$902.9 million in the first nine months of 2014 compared to the first nine months of 2013. The net result for the first nine months was the result of a large increase in uplift in the first three months offset by reductions in energy uplift charges in the second and third quarters.

Total payments for demand response programs increased by \$179.6 million or 52.3 percent, from \$343.2 million to \$522.8 million in the first nine months of 2014 compared to the first nine months of 2013. The capacity market is the primary source of revenue to participants in PJM demand response programs. In the first nine months of 2014, payments to demand response resources in the capacity market increased \$162.7 million while the balance was for energy market programs.

Congestion costs increased in PJM by \$1,195.7 million or 234.6 percent, from \$509.6 million to \$1,705.3 million in the first nine months of 2014 compared to the first nine months of 2013. Congestion reflects the underlying characteristics of the power system, including the capability of transmission facilities, the fuel cost and geographic distribution of generation facilities and the geographic distribution of load. Congestion is neither good nor bad, but is a direct measure of the extent to which there are multiple marginal generating units dispatched to serve load as a result of transmission constraints and the costs of operating those units. ARRs and FTRs served as an effective, but not total, offset against congestion in the first nine months of 2014. ARR and FTR revenues offset 80.4 percent of the total congestion costs in the Day-Ahead Energy Market and the balancing energy market within PJM for the first four months of the 2014 to 2015 planning period.

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/2014.shtml