



**Monitoring  
Analytics**

Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Valley Forge Corporate Center  
Eagleview, PA 19403  
Phone: 610-271-8050  
Fax: 610-271-8057

**VIA ELECTRONIC FILING**

March 26, 2014

Kimberly D. Bose, Secretary  
Nathaniel J. Davis, Sr., Deputy Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20426

Re: PJM Interconnection, L.L.C., Docket No. ER14-1144-000

Dear Secretary Bose:

Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM, submits the attached informational filing as directed by the order issued in the above reference proceeding on March 25, 2014.<sup>1</sup>

If you have any questions or concerns about this filing, please call the undersigned at (610) 271-8053.

Sincerely,

Jeffrey W. Mayes, General Counsel

---

<sup>1</sup> 146 FERC ¶ 61,041 at P 6.



Monitoring  
Analytics

**Informational Filing re Waiver to  
Permit Make-Whole Payments  
Docket No. ER14-1144-000  
Period Analyzed: January 28, 2014**

The Independent Market Monitor for PJM

March 26, 2014

This page intentionally left blank.

# Report of the Independent Market Monitor for PJM

Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM (IMM), submits this informational filing pursuant to the order issued January 25, 2014 (“January 25<sup>th</sup> Order”).<sup>1</sup> The January 25<sup>th</sup> Order approved “waiver of the Operating Agreement, Schedule 1, sections 1.10.1A(d) and 3.2.3; the equivalent Tariff sections of Attachment K-Appendix; and any other related Operating Agreement and Tariff provisions, as necessary to permit sellers that submit cost-based offers from Generation Capacity Resources for whom the price of natural gas results in documented costs that exceed PJM’s \$1,000/MWh offer cap to receive a make-whole payment covering the difference between their costs and the clearing price.”<sup>2</sup> Because the January 25<sup>th</sup> Order became effective on January 24, 2014, and terminated February 11, 2014, upon approval of a limited waiver of the \$1,000 system offer cap in Docket No. ER14-1145,<sup>3</sup> the IMM analysis concerns a single day, January 28, 2014. This was the only day when the \$1,000 system offer price cap potentially prevented the recovery of costs.

## Market Monitor Approach

The issues addressed in this report relate only to the question of whether generation owners spent more on natural gas after January 24, 2014, than was covered by offers in the energy market at \$1,000 per MWh, the cap on such offers. The standard applied by the IMM is whether actual out of pocket expenditures exceeded a level equivalent to an energy offer of \$1,000 per MWh. The standard applied by the IMM is not what an actual offer could have been if the offer cap did not exist. The standard applied by the IMM is whether generators actually spent more than they could recover from the market as a result of the offer cap. The standard applied by the IMM is consistent with the Commission’s order.<sup>4</sup>

The standard applied by the IMM results in the IMM’s recommendation that almost all of the requested make whole payments be rejected. The primary reasons for such

---

<sup>1</sup> 146 FERC ¶ 61,041 at P 6.

<sup>2</sup> *Id.* at P 5.

<sup>3</sup> *Id.*; 146 FERC ¶ 61,078.

<sup>4</sup> See January 25<sup>th</sup> Order at P 3 (“PJM notes that the seller’s marginal costs must be as determined and documented in accordance with the cost development guidelines and procedures in PJM’s Manual 15.”); Motion for Clarification of the Independent Market Monitor for PJM, pending in Docket No. ER14-1144 (January 29, 2014) at 2–3 (“IMM Motion for Clarification”).

payment reductions include the fact that the ten percent adder is not a cost and including actual expenditures on gas rather than imputing a spot cost of gas which exceeded the actual cost paid.

The IMM sent a list of questions to all market participants that requested waivers under the January 25<sup>th</sup> Order about the input assumptions used in their January 28 cost-based energy offers and the actual fuel purchase costs, including natural gas transactions relevant to January 28 and any hedges used to protect against gas price volatility. Participants responded.

The IMM's review of energy offers exceeding \$1,000 per MWh on January 28 focused on the following components:

- Heat rates define the efficiency of units in converting fuel heat input into electric output. Heat rates are used in determining the actual cost per MWh for units based on fuel burned and the cost of the fuel. For the units requesting waivers, the fuel consumption and net electrical output are known for January 28. The IMM calculated the actual heat rate and used this heat rate to calculate the cost-based energy offers in dollars per MWh consistent with the actual cost of gas.
- The IMM used the actual price of the natural gas consumed on January 28 and the transportation and other surcharges actually incurred, to calculate the actual cost-based offer for energy.<sup>5</sup>
- The actual cost of providing energy may include emission credit allowances and variable operating and maintenance costs. Any claimed element of cost that was not actually incurred or was not includable in the cost of energy was removed from the calculation of the cost-based offer based on actual costs.
- A make whole payment waiver is required only if the calculated cost of generation is greater than \$1,000 per MWh.

## Results

For January 28, 2014, there were seven units belonging to three different market participants in three PJM control zones which had cost-based offers at the \$ 1,000 per MWh cap that initially requested payment in this docket, of which three units withdrew their requests prior to the date of this report.

---

<sup>5</sup> Actual costs do not include a ten percent adder. A ten percent adder is included in the calculation of offer price caps based on the uncertainty of calculating operating costs for combustion turbines under changing ambient conditions. PJM Operating Agreement Schedule 1 § 6.4.2(a)(ii). It is not appropriate to include the ten percent adder in make whole payments to generation owners in this situation because it is not an actual cost and the generation owners did not pay it. *See* IMM Motion for Clarification at 2–3.

- The seven units have already received \$3,890,624 in make whole payments compensating for operation when energy prices were below the \$1,000 per MWh unit offers.
- The requested waivers were for an additional \$583,774 in compensation.
- Based on the IMM's calculation of actual cost-based offers using actual fuel costs, observed heat rates, and removal of the 10 percent adder, the IMM recommends that the total additional make whole payments that should be paid to these units is \$9,118.43.
- Three of the originally requesting units have withdrawn their offers.

Make-whole payments for January 28, 2014	
Paid for January 28, 2014:	
Cost as offered	\$5,090,932.46
Energy produced (MWh)	4,045.32
Rate (\$/MWh)	\$1,258.48
Make-whole payment	\$3,890,624.12
Requested by participants:	
Cost as offered	\$5,681,517.91
Energy produced (MWh)	4,045.32
Rate (\$/MWh)	\$1,404.47
Make-whole payment	\$4,474,398.50
Additional make-whole payment:	\$583,774.38
Recalculation by MMU:	
Cost as offered	\$4,579,479.89
Energy produced (MWh)	4,045.32
Rate (\$/MWh)	\$1,132.05
Make-whole payment	\$3,432,069.00
Additional make-whole payment:	\$9,118.43

## Conclusions

The day-ahead scheduling and real-time commitment of generators in PJM depends on cost and price-based offers developed from fuel costs and unit heat rates. The high gas prices observed on January 28, 2014, resulted in units being offered with estimated costs that appeared to exceed the \$1,000 per MWh cap.

The IMM's calculations show that for the units requesting waivers in this docket, there were total uncompensated costs of only \$9,118.43.

A more detailed examination of the facts by the IMM did not support most of the waiver requests.

As an example, the owner of a unit actually purchased gas at a price which was 45 percent less than the estimate on which it based its waiver request. When combined with an actual heat rate four percent better than included in the waiver request and removal of the 10 percent adder, the actual cost of the unit was about 52 percent lower than the cost included in the waiver request, lower than the \$1,000 per MWh offer cap. All seven of the units requesting waivers for January 28 purchased gas for less than the estimated price on which their cost-based offers were based, and five of the seven had better heat rates than submitted, with the result that the actual cost per MWh of producing power was less than reflected in their original offers.

Another identified issue is the treatment of low cost gas. If a unit had low cost gas which it could have burned to meet its obligation to make a day-ahead offer, should it be compensated for actual out of pocket costs based on that low cost gas or should it be permitted to sell that gas and be compensated based on the spot cost of gas which it then purchased to replace the low cost gas? The IMM's position is that for this situation and for purposes of this waiver calculation the actual out of pocket cost of gas should be used and not the spot cost of gas.