

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C. )  
 ) Docket No. ER19-2722-000  
 )

**ANSWER AND MOTION FOR LEAVE TO ANSWER  
OF THE INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rules 212 and 213 of the Commission's Rules and Regulations,<sup>1</sup> Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor ("Market Monitor") for PJM Interconnection, L.L.C. ("PJM"),<sup>2</sup> submits this answer to the answer of PJM filed October 9, 2019 ("October 9<sup>th</sup> Filing"), and the answer of Vistra Energy Corp. and Dynegy Marketing and Trade, LLC, filed October 24, 2019 ("Vistra/Dynegy"), in connection with PJM's August 30, 2019, fast start pricing compliance filing.<sup>3</sup> <sup>4</sup>

In response to the Market Monitor's September 17<sup>th</sup> filing, the October 9<sup>th</sup> Filing defends the August 30<sup>th</sup> Filing's proposal to expand uplift payments in the PJM energy market. The proposed increase in uplift is both out of scope and in direct contradiction to one of the core goals of the Fast Start Order, to reduce uplift payments. The October 9<sup>th</sup> Filing provides no new evidence or valid arguments supporting the proposed uplift payments to virtual transactions and day ahead reserves. In response to the Market

---

<sup>1</sup> 18 CFR §§ 385.212 & 385.213 (2019).

<sup>2</sup> Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff ("OATT"), the PJM Operating Agreement ("OA") or the PJM Reliability Assurance Agreement ("RAA").

<sup>3</sup> Compliance Filing, Docket No. EL18-34 and ER19-2722 (August 30, 2019) ("August 30<sup>th</sup> Filing").

<sup>4</sup> Vistra acquired Dynegy, Inc. in 2018.

Monitor's September 17<sup>th</sup> filing, the October 9<sup>th</sup> Filing provides no new evidence or valid arguments supporting the payment of uplift to resources on a five minute basis or PJM's proposed discretion in defining fast start resources in real time.

Vistra/Dynegy proposes an infeasible implementation of the \$1,000 per MWh cap on the composite energy offer that would result in higher prices. Vistra/Dynegy wants to include unverifiable costs in the composite energy offer which would result in the exercise of market power. In addition, Vistra/Dynegy evidences its misunderstanding of the PJM proposal by requesting that the pricing run apply the offer cap on the composite energy offer. Vistra/Dynegy incorrectly asserts that the August 30<sup>th</sup> Filing does not comply with the Commission's Order No. 831, which requires verification of offers greater than \$1,000 per MWh before using those offers to calculate prices. The August 30<sup>th</sup> Filing includes an appropriate and compliant approach to ensuring that each start up and no load offer included in composite energy offers greater than \$1,000 per MWh is verified as consistent with PJM's cost-based offer rules prior to calculating prices.

## I. ANSWER

### A. PJM's Proposal Includes Excessive Uplift Payments

The October 9<sup>th</sup> Filing fails to address the concern, raised by the Market Monitor and others, that the August 30<sup>th</sup> Filing's proposed approach to fast start pricing would create excessive uplift through the creation of categories of uplift payments that are outside the scope of compliance and through the overcompensation of resources by incorrectly defining the uplift payments required for compliance so as to increase uplift payments. The August 30<sup>th</sup> Filing would create new categories of uplift payments for virtual transactions and for day-ahead reserves. The August 30<sup>th</sup> Filing would incorrectly define eligibility for dispatch deviation lost opportunity cost payments and incorrectly redefine the eligibility for uplift for resources on a five minute basis instead of on a daily/multihourly basis. Stakeholders have not had the opportunity to endorse or reject the new uplift provisions, so the proposed provisions are not due the deference of a 205 filing. Given that reducing uplift is the stated

objective of the Commission and of PJM, the Commission should require PJM to remove all of the extraneous uplift payments and incorrect and overly compensatory uplift eligibility rules from its proposed fast start compliance plan, as detailed in the Market Monitor's September 17<sup>th</sup>, 2019, filing.<sup>5</sup>

The Commission stated that fast start pricing "provide[s] price signals that better inform investment decisions; and provide more accurate and transparent price signals that better reflect the cost of serving load, minimize production costs, and reduce uplift."<sup>6</sup> PJM has not estimated the extent to which uplift will increase or decrease under the new payment structure. PJM cannot predict how the new rules will change market behavior. One of the primary benefits claimed by the proponents of fast start pricing is a reduction in uplift, so the uplift provisions associated with the implementation of fast start pricing should be minimized.

#### **B. Uplift Payments to Virtual Transactions Are Not Necessary.**

In response to the Market Monitor's September 17<sup>th</sup> Filing, the October 9<sup>th</sup> Filing continues to fail to establish that uplift payments to virtual transactions are necessary. The October 9<sup>th</sup> Filing provides no new arguments addressing the Market Monitor's arguments that financial market participants are in the best position to manage their financial exposure to fast start prices and that the purpose of uplift in the PJM market is to ensure that physical resources do not operate at a loss. Instead, the October 9<sup>th</sup> Filing repeats two arguments from the August 30<sup>th</sup> Filing attempting to support uplift payments for virtual transactions. Neither argument justifies the cost to customers and the unwarranted risk to the market associated with uplift payments for virtual transactions.

---

<sup>5</sup> Comments of the Independent Market Monitor for PJM, Docket No. ER19-2722 (September 17, 2019).

<sup>6</sup> *PJM Interconnection, L.L.C.*, 167 FERC ¶ 61,058 (2019) ("Fast Start Order") at 10.

The October 9<sup>th</sup> Filing argues that fast start pricing necessitates uplift payments to virtual transactions because fast start pricing creates financial exposure through the intended price differences between the dispatch run and pricing run market solutions. This is not a valid argument. The differences between the dispatch run and pricing run are not created by uncertainty or risk in the market. The price differences are the intended market design with predictable, algorithmic outcomes that market participants can anticipate. Managing the financial implications is properly assigned to the market participants taking on financial positions in the market. It is not PJM's role to manage financial exposure for market participants at the expense of customers. Fast start pricing, like any market design change, may create new market risks for virtual transactions. The market participants engaging in virtual transactions must accept the associated financial exposure and are in the best position to manage the associated risks.

The October 9<sup>th</sup> Filing repeats the August 30<sup>th</sup> Filing's argument that to not provide uplift to virtual transactions would be discriminatory, because physical resources (generators and demand resources) receive uplift. This argument is incorrect and inconsistent with the purpose of uplift in the PJM market. PJM recognizes that "[u]plift payments are made to market participants for operating a unit under specific conditions as directed by PJM to ensure that they recover their total offered costs when market revenues are insufficient or when their dispatch instructions diverge from their dispatch schedule."<sup>7</sup> Virtual transactions do not have any operating costs or operating instructions. There are no physical costs associated with virtual transactions that must be recovered to ensure reliable operation of the PJM system. It is not discriminatory for PJM to maintain its principle that uplift payments are tied to operating costs and lost opportunity costs for physical resources.

The October 9<sup>th</sup> Filing also attempts to justify the proposed uplift payment to virtual transactions by referring to a similar payment in the MISO tariff. The existence of this

---

<sup>7</sup> PJM. Drivers of Uplift <<https://pjm.com/markets-and-operations/energy/drivers-of-uplift.aspx>>.

payment in the MISO market does not mean that the payment is either necessary or prudent for the PJM market. The uplift rules in the MISO tariff differ from those in the PJM tariff and MISO does not have an Up To Congestion (UTC) transaction product.

### **C. Five Minute Uplift Payments Are Unnecessary and Incorrect.**

Five minute uplift payments, whether lost opportunity cost payments or make whole payments, are never necessary for ensuring that resources do not operate in the market at a loss. Hourly uplift payments were not necessary under hourly settlements; uplift was and is implemented daily, or over multihour minimum run times or scheduled operation times. Five minute payments are not necessary to ensure the compensation of lost opportunity costs required by the Fast Start Order. PJM can ensure that all lost opportunity costs are covered by market revenues without a five minute revenue assurance payment. Nonetheless, the October 9<sup>th</sup> Filing defends five minute uplift payments as necessary for resources to follow dispatch instructions. The PJM Operating Agreement requires resources to follow dispatch.<sup>8</sup> PJM cannot currently tell whether units are actually following dispatch. Instead of overcompensating resources in hopes that they will follow dispatch instructions, as required, PJM should strengthen and enforce its dispatch deviation rules and develop a method for accurately identifying whether units are following dispatch. PJM customers should not be required to overcompensate resources in order for the resources to abide by the Operating Agreement.

With the current mismatch between the market clearing solution used to dispatch and price a market interval in PJM's Real-Time Energy Market, as described in the Market Monitor's September 17<sup>th</sup> comments, it is not clear that five minute uplift payments will support the incentive for resources to follow dispatch.<sup>9</sup> This is true for current lost

---

<sup>8</sup> PJM Operating Agreement, Schedule 1, Section 1.11.3(b).

<sup>9</sup> See Comments of the Independent Market Monitor for PJM, Docket No. ER19-2722 (September 17, 2019) at 7-8.

opportunity cost payments for reserves and for the proposed fast start pricing payments. It occurs because PJM does not actually settle resources using the prices associated with the dispatch instruction for the vast majority of five minute intervals. If the price does not correspond to the dispatch instruction, no uplift payment derived from that price corresponds to the dispatch instruction. In which case, the five minute uplift payments do not correctly compensate explicit costs or opportunity costs and do not provide correct incentives for following dispatch.<sup>10</sup> A detailed description of PJM's dispatch and pricing processes, which the August 30<sup>th</sup> Filing does not include and the October 9<sup>th</sup> Filing defends withholding, would clarify this issue.<sup>11</sup>

#### **D. PJM Discretion in Defining Fast Start Resources Should Be Rejected.**

The October 9<sup>th</sup> Filing acknowledges that PJM proposes to have discretion in determining which resources are fast start resources for the purposes of setting the LMP. The October 9<sup>th</sup> Filing argues that the discretion is to "prevent sellers of resources which are unable to meet the basic fast-start operating characteristics from accidentally or intentionally triggering fast-start pricing for such resource by submitting offer parameters that erroneously indicate the resource could provide energy within an hour and have a Minimum Run Time of an hour or less."<sup>12</sup> This discretion reduces the compliance risk faced by generators and increases the compliance risk faced by PJM.

The risk of submitting incorrect operating parameters should always be borne by generators. PJM should have screens and rules in place to identify those instances and

---

<sup>10</sup> See Monitoring Analytics, "Market Operations and Settlements Areas Affected by SCED and LPC," presentation to the Markets Implementation Committee Special Session on Five Minute Dispatch and Pricing, October 2, 2019, <[http://www.monitoringanalytics.com/reports/Presentations/2019/IMM\\_MIC\\_Special\\_Session\\_Market\\_Operations\\_and\\_Settlement\\_Areas\\_Affected\\_by\\_SCED\\_and\\_LPC\\_20191002.pdf](http://www.monitoringanalytics.com/reports/Presentations/2019/IMM_MIC_Special_Session_Market_Operations_and_Settlement_Areas_Affected_by_SCED_and_LPC_20191002.pdf)>.

<sup>11</sup> October 9<sup>th</sup> Filing at 12–13.

<sup>12</sup> October 9<sup>th</sup> Filing at 20.

communicate the discrepancies to the generators. PJM appears to ignore the operational implications of incorrect operating parameters and only focuses on the pricing impacts. Generators have an obligation to provide correct operating parameters. Failure to do so constitutes a violation of the Commission's Market Behavior rules.<sup>13</sup>

The October 9<sup>th</sup> Filing asserts that PJM's discretionary Tier 1 Synchronized Reserve eligibility determination is a good example of how PJM would use its discretion in determining the fast start status of individual resources.<sup>14</sup> Unfortunately, the discretionary process used by PJM to select Tier 1 eligible resources is evidence of the problems with an approach that affords such excessive discretion. PJM currently deselects resources from providing synchronized reserve as Tier 1 without any clearly documented rules. Tier 1 ineligibility should apply only to resources than cannot provide synchronized reserve. However, PJM allows some Tier 1 ineligible resources to provide Tier 2 synchronized reserves, which are paid more than Tier 1 synchronized reserves for providing the same service, illustrating the failure of PJM's discretion which PJM now wishes to extend. The Tier 1 eligibility selection process is not transparent or consistent or correct. It illustrates the problems with, rather than the benefits of, an undocumented discretionary process. The August 30<sup>th</sup> Filing's proposal to include a similar discretionary process for determining fast start resources is not just and reasonable.

#### **E. Vistra/Dynegy's Offer Verification Arguments Are Incorrect.**

Vistra/Dynegy seeks to include unverifiable costs in composite energy offers which would permit the exercise of market power. Vistra/Dynegy incorrectly states that PJM's current cost-based offer verification process occurs in the pricing run.<sup>15</sup> In fact, PJM's

---

<sup>13</sup> 18 CFR § 35.41.

<sup>14</sup> October 9<sup>th</sup> Filing at 20-21.

<sup>15</sup> Vistra/Dynegy at 4-5.

compliance with Order No. 831 requires that PJM cap offers prior to the pricing run, and by extension, prior to the dispatch run. Vistra/Dynegy's arguments regarding PJM's failure to comply with Order No. 831 are incorrect. As explained by PJM in the October 9<sup>th</sup> Filing, Order No. 831 requires that all offers above \$1,000 per MWh must be verified and must be cost-based prior to setting prices.<sup>16</sup> Without fast start pricing, this means that only incremental offer curves have to be verified and the price-based incremental offer curve is capped at the higher of the verified cost-based incremental offer curve or \$1,000 per MWh. The offer verification and offer capping takes place when offers are submitted, before the market runs and calculates prices.

With the implementation of fast start pricing, all three parts of the offer (incremental offer curve, no load cost and start cost) of fast start resources have to be verified, and the price-based composite energy offer will be capped at the higher of the verified cost-based composite energy offer or \$1,000 per MWh.<sup>17</sup> Under Order No. 831, the offer verification and offer capping must continue to take place when offers are submitted, before the market runs and calculates prices. This means that PJM must verify each part of the three part offer separately, not knowing what ultimate value the pricing run will compute for the composite energy offer.

Vistra/Dynegy's comparison to the current offer verification of non-fast start resources proves nothing. PJM does not verify each of the inputs used in the offer verification process. PJM uses some inputs submitted by Market Participants in the Market Monitor Member Information Reporting Application (MIRA), such as heat rate curves and performance factors. PJM uses a fuel cost estimate (plus 10 percent) for each unit and calculates a cost based on those inputs. PJM does not verify maintenance adders, does not verify operating costs, does not verify emissions costs, and does not verify opportunity cost

---

<sup>16</sup> October 9<sup>th</sup> Filing at 24.

<sup>17</sup> All verified offers are capped at \$2,000 per MWh.

adders. PJM verifies that resources do not submit a cost-based offer that exceeds the cap calculated by PJM.<sup>18</sup> The offer verification takes place before the market runs and determines prices, as required by Order No. 831. Vistra/Dynegy's suggestion that this occurs during the pricing run is incorrect and would not be consistent with Order No. 831.

PJM's approach is consistent with Order No. 831 in that resources can only set the LMP above \$1,000 per MWh (from all supply resources) when the start up costs, the no load costs, and the incremental energy costs included in the composite energy offer have each been verified by PJM before those offers are used by the market.

## II. MOTION FOR LEAVE TO ANSWER

The Commission's Rules of Practice and Procedure, 18 CFR § 385.213(a)(2), do not permit answers to answers or protests unless otherwise ordered by the decisional authority. The Commission has made exceptions, however, where an answer clarifies the issues or assists in creating a complete record.<sup>19</sup> In this answer, the Market Monitor provides the Commission with information useful to the Commission's decision making process and which provides a more complete record. Accordingly, the Market Monitor respectfully requests that this answer be permitted.

---

<sup>18</sup> See OA Schedule 1 § 6.4.3.

<sup>19</sup> See, e.g., *PJM Interconnection, L.L.C.*, 119 FERC ¶61,318 at P 36 (2007) (accepted answer to answer that "provided information that assisted ... decision-making process"); *California Independent System Operator Corporation*, 110 FERC ¶ 61,007 (2005) (answer to answer permitted to assist Commission in decision-making process); *New Power Company v. PJM Interconnection, L.L.C.*, 98 FERC ¶ 61,208 (2002) (answer accepted to provide new factual and legal material to assist the Commission in decision-making process); *N.Y. Independent System Operator, Inc.*, 121 FERC ¶61,112 at P 4 (2007) (answer to protest accepted because it provided information that assisted the Commission in its decision-making process).

### **III. CONCLUSION**

The Market Monitor respectfully requests that the Commission afford due consideration to this answer as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,



---

Jeffrey W. Mayes

Joseph E. Bowring  
Independent Market Monitor for PJM  
President  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8051  
*joseph.bowring@monitoringanalytics.com*

General Counsel  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8053  
*jeffrey.mayes@monitoringanalytics.com*

Catherine A. Tyler  
Senior Economist  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
*catherine.tyler@monitoringanalytics.com*

Joel Romero Luna  
Senior Analyst  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
*joel.luna@monitoringanalytics.com*

Dated: October 25, 2019

## **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,  
this 25<sup>th</sup> day of October, 2019.



---

Jeffrey W. Mayes  
General Counsel  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8053  
*jeffrey.mayes@monitoringanalytics.com*