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Andrew L. Ott
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April 11, 2018

Dear PJM Stakeholders:

For many years, PJM has employed single clearing price markets to incentivize physical asset owners to act in a manner that reinforces grid reliability. Locational Marginal Pricing in the energy market and the clearing price approaches applied to the reserve markets are rooted in this fundamental principle. In order to maximize the effectiveness of the markets in achieving this objective, the actions system operators take to maintain grid reliability must be reflected as transparently as possible in these market clearing prices. While this is certainly the case the majority of the time and there is ample evidence that the PJM markets are working efficiently to reinforce grid reliability, there are also instances where operator actions are not reflected in market prices. Therefore, there is room for improvement in how these energy and reserve prices are formed. Specifically, there are times when operators commit resources to ensure reliability but these commitments are not reflected through market clearing prices such that those prices can be suppressed and result in undesirable outcomes¹. The PJM Board therefore believes that energy and reserve market pricing issues must be examined.

Discussion on addressing this issue has centered on two distinct price formation initiatives. The first, about which PJM staff published a paper in November of 2017, deals with how LMPs are calculated². Specifically, PJM staff believes the LMP calculation can be improved to better support the efficient, least production cost commitment and dispatch solution while minimizing out-of-market uplift payments. However, the Board is well aware of questions stakeholders have raised regarding this proposal. The Board has listened to stakeholders and appreciates that changes to the LMP calculation require careful consideration. The Board also recognizes that a distinct subset of this issue, namely, implementation of PJM's proposed integer relaxation proposal applied only to the limited category of units that FERC has indicated are current candidates for price formation reform (fast start resources), is already before FERC awaiting action in the fast-start pricing docket (EL18-34-000). The Board therefore believes that in the near term, PJM and stakeholders should continue to work on implementation details associated with fast-start pricing as the FERC docket moves toward resolution³.

The second price formation initiative deals with the manner by which PJM procures and prices reserves, including how reserves are priced during shortage conditions when reserve requirements cannot be met.

¹ For example, from late December 2017 through the first two weeks of 2018, the region PJM serves experienced an extended stretch of cold weather. During this period, PJM experienced increased uplift costs partly due to resources operating for reliability that were not reflected in price (see the PJM Cold Snap Performance report at the following link: <http://www.pjm.com/-/media/library/reports-notices/weather-related/20180226-january-2018-cold-weather-event-report.ashx>). Most uplift represents out-of-market payments to generation resources that follow PJM commitment and dispatch instructions but for which LMP and reserve payments are insufficient to cover their operating costs. Because these out-of-market uplift payments cannot be hedged by Load Serving Entities, they result in increased risk and therefore increased costs to consumers.

² See Proposed Enhancements to Energy Price Formation at the following link: <http://www.pjm.com/-/media/library/reports-notices/special-reports/20171115-proposed-enhancements-to-energy-price-formation.ashx>

³ The PJM Board notes that the IMM has opposed PJM's proposed changes to the LMP calculation and has opposed the fast-start pricing changes proposed by FERC in this docket.


The Board understands that PJM staff and the IMM largely agree that changes to reserve procurement and shortage pricing practices would address this issue. We have been informed that PJM staff and the IMM agree that PJM should implement a 30-minute reserve product in real time to comport with the current Day-Ahead Scheduling Reserve product, address issues with the current implementation of the synchronized reserve market, implement a more dynamic establishment of reserve requirements so as to better capture operator actions taken to maintain reliability, and enhance the Operating Reserve Demand Curves used to price reserves during reserve shortage conditions. PJM staff and the IMM have indicated that these enhancements would result in more transparent energy and reserve price signals that better reflect operator actions.

The Board understands that this issue, like the prior issue, would benefit from stakeholder focus and input as the Board considers this issue in the near future. However, given the level of agreement between the IMM and PJM staff, the Board believes that this more targeted issue may present an excellent opportunity for the stakeholder community to come together and demonstrate that the PJM stakeholder process can deliver thoughtful and timely consensus action. We are hopeful that on an issue such as this one where there appears to be ample, empirical evidence that a market design change is needed, where there is significant alignment between PJM staff and the IMM concerning the need for change, and where there is clear direction as to the nature of the improvement required, such timely consensus can be achieved.

The Board is respectful of the fact that all of these issues are complex and that stakeholders are tackling many issues. Given the intense public scrutiny surrounding these issues, the Board has directed PJM management to identify those components of the reserve procurement and pricing issues that can be implemented for the winter of 2018/19. The Board respectfully requests stakeholders to deliberate timely and work to develop the details of market rule changes to address those components of the reserve procurement and pricing issues outlined above by the third quarter of 2018 such that the Board may direct a PJM Section 205 filing to implement those changes in time for the winter of 2018/19. The Board has further directed PJM management and requests stakeholders to continue work to develop the details of the remaining components of the reserve procurement and pricing issues by the first quarter of 2019 for Board action, filing with FERC and implementing the proposal by the summer of 2019. Such timely action, if it can be achieved, will reinforce confidence in the ability of the stakeholder process to deliver timely consensus solutions.

The Board thanks the stakeholders for their dedication and their consideration of this request from the PJM Board.

Sincerely,

A handwritten signature in cursive script that reads "Andrew L. Ott".

Andrew L. Ott