

PROPOSED CHANGE TO PJM COST OFFER PROCESS

4-30-2019

Calpine recommends PJM to implement a more simplified approach that reduces dependencies on Market Participants in determining cost offers. Calpine recommends PJM to abolish individualized Fuel Cost Policy to encourage a fair system by eliminating any potential unintended market advantage of any MP over others resulting from the negotiated FCPs, and utilize PJM-internal infrastructure to calculate default cost offers similar to other ISOs/RTOs, while still allowing for a mechanism for Market Participant (“MP”) to submit adjustments with documentation. These changes will help expedite the day ahead offer submittal and market clearing process, minimize market consequences resulting on incorrect submissions, and reduce risks of penalty with the MPs on incorrect cost offers.

MPs are currently bound by what appears to be an antiquated cost offer process that generally requires the MP to do the following:

- Submit a PJM/IMM negotiated Fuel Cost Policy (“FCP”), and continue to maintain such FCP, which outlines the pricing index used and general approach to determining replacement cost;
- Submit cost inputs in MIRA, and continue to update for changes;
- Submit Cost Offers in the day-ahead and additionally in the intra-day, based on the cost inputs already submitted in MIRA, and fuel replacement cost determined via the FCP

In order to simplify and streamline both the Day Ahead offer process and the Ex-Post cost offer review process, Calpine is proposing a paradigm shift to the current cost offer process whereby PJM (1) implements a standard methodology in identifying fuel cost consistent among all MPs, thereby abolishing the requirement for an individualized FCP, and (2) calculates the relevant costs internally based on validated cost inputs already provided in MIRA, to be used either as reference levels or as the calculated default cost offers, as opposed to requiring Market Participants calculate and submit cost offers in Markets Gateway. In consideration of the fact that PJM would be needing to know the either or both primary or secondary fuel sources, the proposal includes the process by which an MP will identify such fuel source in MIRA or another application designated by PJM, with ability for an MP to request fuel cost modification with appropriate documentation support.

The proposed process, we believe, will yield the following benefits:

- Standardized process consistently across MPs -- PJM will have a standard automated process which ensures appropriate calculation of cost, which can set the LMP, consistent among all MPs. Whereas current process maintained by MPs is susceptible to mistakes because the standard of practice among MPs is clearly not the same

resulting from complexities brought about by varying negotiated FCPs and company infrastructure.

- Reduction of error and consequence to the market and its participants -- MP's capabilities in automating this process pales in comparison to what PJM can do with its experts, thereby alleviating both potentially consequential impact to the market if cost offers are incorrectly submitted by MPs, and reactionary consequence to MPs, such as the assessment of penalties, which are likely resulting from administrative errors.
- Expedited and more accurate Market Clearing --- With less data to be consumed by PJM from MPs with varying standard of use on its web services, the market clearing process can be expedited, resulting from an expedited submittal process by MPs limited to Price and Ancillary Offers only into Markets Gateway.
- Mandatory implementation of IDP -- Participation in the intra-day process will likely be mandatory as opposed to optional, which helps the market set RT LMP that is consistent to market movement intraday because the undue burden to MPs is essentially removed.

The importance of accurate and valid cost-offer construction is indisputable. For MPs, especially those with large and diversified fleets, the administrative requirements related to daily cost offer construction and submission, and subsequent penalties associated with even the smallest of errors, represents a substantial burden and risk for even those unintentional mistakes that have no bearing on the market.

On days when extreme weather conditions are forecasted, some fuel markets develop much later than experienced on routine operating days. The delayed market development reduces the amount of time MPs have to upload Day Ahead offer data. In the past, the "last minute" submittal of offer data has burdened the PJM system and created complications for MPs and PJM. As well, in an effort to determine a fuel cost and still allow enough time to upload offer data, some MPs may have to use market assumptions and would not have the most accurate cost data provided to PJM.

Consequently, the IMM investigates discrepancies between cost schedules offered by MPs and those same cost offers calculated by the IMM, informing the respective MP that there is a violation and requiring verification and fundamental reasoning for each discrepancy. The MPs have, in some cases, had to allocate a burdensome amount of resources to collect, compile and respond to IMM requests. Many of these could be reduced by this proposed process.

Finally, the FCP process is unduly discriminatory for MPs with natural gas fleet compared to MPs with renewable resources only in their portfolio since they would not have to endure the same requirements of determining fuel cost and all relevant documentation when identifying such costs.