

ARR/FTR Market Review – High Level Basis for Statement of Work

Background

Under the LMP market instituted by PJM in 1998, congestion occurs on the transmission system when re-dispatch is necessary, resulting in congestion charges to those using the transmission system. The benefits of the LMP market design are well understood as providing transparent price signals that reveal the lowest-cost solution to serve load at each location on the transmission system. However, PJM recognized that the entities that pay for the embedded costs of the transmission system (primarily load) should retain the value of that investment, and thus PJM established the FTR product, which entitles LSEs a credit to offset congestion charges. In essence, FTRs provide a priority right to the transmission system and congestion revenues

The existing ARR/FTR construct has functioned as a key component of the Locational Marginal Pricing (LMP) market design for over 20 years, and it has been continuously refined to serve as a sophisticated and efficient method to provide the value of the transmission system back to those who pay its embedded cost. The original intent of the FTR product has been well established to serve as the financial equivalent of firm transmission service, and to ensure open access to firm transmission service by providing a congestion-hedging function. The existing construct was designed to promote load serving entity (LSE) and firm point-to-point customer participation, alongside financial participants, to efficiently value the transmission system and secure hedging mechanisms against congestion costs for up to three years in the future, while also providing a guarantee of a minimum hedge to firm transmission customers for ten years into the future.

In January 2020, a new task force was created by the PJM Markets Implementation Committee. The ARR/FTR Market Task Force (AFMTF) is authorized to explore areas for improvement in a holistic fashion, including, but not limited to, the alignment of transmission rights to actual congestion charges and the value of the current set of FTR biddable points. Over the last five months the task force has discussed the history, intent, and current value provided by the existing PJM ARR/FTR construct.

Scope of Work

PJM wishes to engage an external consultant to perform a holistic review of its Financial Transmission Rights (FTR) markets, including the Auction Revenue Rights (ARRs) utilized to distribute the revenues acquired through FTR auctions. The overarching question to be answered through this review is whether the current ARR/FTR processes employed by PJM, including the ARR allocation and FTR auctions, constitute an appropriate mechanism in an LMP based market by which to ensure that load receives the value of the transmission system for which it is paying through its transmission access charges (i.e. – Network Integration Transmission Service and Firm Point-to-Point Transmission Service charges.)

In answering this question, PJM requests that the consultant first acquire a thorough understanding of the PJM ARR/FTR mechanism and the FERC orders that instituted and shaped its current structure. PJM

then requests that the consultant examine the following issues and make recommendations for changes and/or improvements.

1. Is load systematically disadvantaged under the current mechanism? Are there aspects of the current mechanism that result in profits to non-load-serving participants without commensurate or associated benefit to load?
2. Is there a choice to be made between path-based vs. a network allocation of congestion rights? Does the market need a path-based FTR product in order to achieve the purpose of the congestion revenue right mechanism as articulated by the FERC? Would alternatives such as that proposed by the PJM Independent Market Monitor be an improvement over the current mechanism and still provide the complementary congestion hedging mechanism necessary in an LMP-based market?
3. Given that much of the negative balancing congestion in PJM can be attributed to financial products available in the day-ahead market, primarily Up-to-Congestion transactions (UTCs), is the current allocation of balancing congestion to load appropriate¹?
4. Are modeling (i.e. – network topology) differences between DA and RT a significant issue and are there processes PJM should implement to minimize the impact of such differences?
5. Is the current tenor of the products in the Long-Term FTR Auctions appropriate? Is there an appropriate quantity of participation in Long-Term FTR Auctions such that these auctions are competitive and therefore beneficial to load?
6. Should PJM add additional products in the FTR auctions, primarily related to their tenor such as weekend-only, seven-day on-peak hours, etc.?
7. Are there products PJM should remove from the FTR auctions?
8. Are the available points at which FTR market participants may submit FTR bids appropriate? Are there points that should be removed or more that should be added? Should FTRs be available only in certain directions between certain points or only if they have a certain threshold impact on a transmission constraint? Is the incremental efficiency provided by each FTR/certain paths/having nodes etc. being obtained at reasonable cost? Is the incremental liquidity provided by each FTR/certain paths/having nodes etc. being obtained efficiently?
9. Is the current ARR Allocation methodology appropriate and the most beneficial to load? Are there enhancements PJM should make to the current method in order to increase the value of ARRs to load?

¹ PJM notes that the current allocation of balancing congestion was just recently approved by FERC.