

## "Limited" ARR Stakeholder Discussion

Open Dialogue Based on Questions Received by PJM on February 3, 2021

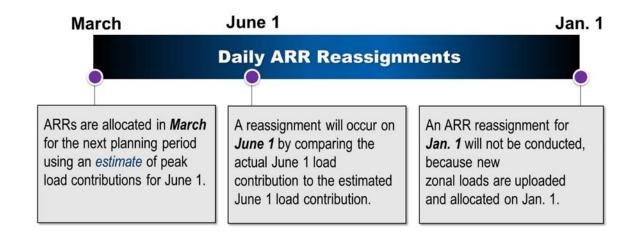
Version: March 23, 2021

- Q1 Please confirm that in instances when load is being transferred to an LSE for any reason, the receiving LSE will receive the ARRs if the position is "net positive economic," meaning that the value of the portfolio of ARR positions is greater than \$0.
- A1 Confirmed. Daily ARR Reassignment: ARRs allocated for the planning period will be reassigned daily on a proportional basis within a zone as load switches between LSEs within the planning period. An LSE that loses load in a zone will lose ARRs if the LSE has a *net positive economic* ARR position for that zone.
- Q2 Conversely, please confirm that in instances when load is being transferred to an LSE for any reason, the ARRs will remain with the transferring entity if the position is "net negative economic," meaning that the value of the portfolio of ARR positions is less than \$0.
- A2 Confirmed. Daily ARR Reassignment: ARRs allocated for the planning period will be reassigned daily on a proportional basis within a zone as load switches between LSEs within the planning period. An LSE that loses load in a zone will not lose ARRs if the LSE has a *net negative economic* ARR position for that zone.
- Q3 If an LSE providing POLR service is the last repository for ARRs when an LSE/TPS defaults or chooses to discontinue service, should that value be considered as a credit to the LSE's collateral requirement if they also hold FTRs?
- A3 This is the essence of our discussions.
- Q4 For questions 1 and 2, are these calculations made for each load zone or across all PJM zones?
- A4 These calculations are made for each load zone.



- Q5 Please confirm that in instances when a LSE/TPS defaults or chooses to discontinue service, the load serving obligation and ARRs are being returned to the POLR and are combined with other POLR service load, as are the associated ARRs held by that load. Subsequently, if all or a portion of the load migrates to a second LSE/TPS, a pro rata share of the positive ARRs (based upon the NSPL of those customers) is transferred to that second LSE/TPS. In that way, the ARRs that are associated with any change in provider will reflect a change to the ARRs associated with that load.
- **A5** Based on our understanding of the question, the answer is "yes."
- Q6 Please confirm that ARRs allocated for a planning period are "reassigned" daily within each load zone as they switch between service providers.
- A6 Confirmed: Daily ARR Reassignment: ARRs allocated for the planning period will be reassigned daily on a proportional basis within a zone as load switches between LSEs within the planning period as illustrated below:

## STEP 1 STEP 2 STEP 3 Who gains ARR? How does load shift? Who loses ARR? Compare each LSE's Analyze each LSE's net Assign total set of forfeited ARRs to daily deviation of economic position. LSEs that gain load in zone. For each LSE losing load AND have a network peak load in a. Determine percentage of ARRs to be net positive position for that zone zone. assigned to each LSE gaining load a. Determine load lost percent b. Assign LSE gaining load percent of b. Reduce each ARR owned each ARR in this set of forfeited by that percentage **ARRs**





Q7 Please describe the method that PJM uses to determine the value of the ARRs held by any member when PJM uses that ARR value as a credit to the member's collateral requirements.

How are residual ARRs valued?

## **A7** Valuation of ARRs

Auction Revenue Rights are defined from a source Price Node to a sink Price Node for a specific MW amount. The economic value of each ARR is based on the MW amount and on the Locational Price differences between the source and sink node for FTR Obligations resulting from the Annual FTR Auction. The economic value of an Auction Revenue Right can either be positive (a benefit) or negative (a liability). Annual FTR Auction revenue is distributed to Auction Revenue Rights holders in proportion to, but not to exceed, the economic value of the ARRs when compared to the clearing prices for FTR Obligations in each round of the Annual FTR Auction proportionally. The settlements for Auction Revenue Rights will be based on the clearing prices from each round of the Annual FTR Auction. The amount of the credit that the ARR holder should receive for each round is equal to the MW amount of the ARR (divided by the number of rounds) times the price difference from the ARR sink point (delivery point) to the ARR source point as shown in the following formula:

ARR Target Allocation = (ARR MW/# of Rounds) \* (LMP Sink – LMP Source)

Note 1: The LMP values in the above equation are results for FTR Obligations from the appropriate round of the Annual FTR auction.

Residual ARRs are valued on the prompt month auction clearing prices.

- Q8 Is PJM aware of any instances where its Tariff-based processes would potentially be in conflict with typical processes involved in the case of bankruptcy?
- A8 The Tariff doesn't specifically address treatment in the bankruptcy context of ARRs that are used to offset collateral requirements (can be used as a credit toward collateral that must be provided). There is nothing in the Tariff that specifies how those ARRs should be treated in a bankruptcy context.

Attachment Q does address the treatment of FTRs and bankruptcy, specifically: For the avoidance of doubt, upon the commencement of a voluntary or involuntary proceeding for a Participant under the Bankruptcy Code, and without limiting any other rights of PJM or obligations of any Participant under the Agreements, PJM may exercise any of its rights against such Participant, including, without limitation (1) the right to terminate and/or liquidate any FTR transaction held by that Participant, (2) the right to immediately proceed against any Collateral provided by that Participant, (3) the right to set off



any obligations due and owing to that Participant pursuant to any forward contract, swap agreement and/or master netting agreement against any amounts due and owing by that Participant with respect to an FTR transaction including as a result of the actions taken by PJM pursuant to (a) above, and (4) the right to suspend or limit that Participant from entering into future FTR transactions. For purposes of the Bankruptcy Code, all transactions, including but not limited to FTR transactions, between PJM, on the one hand, and a Market Participant, on the other hand, are intended to be part of a single integrated agreement, and together with the Agreements constitute a "master netting agreement." Tariff, Attachment Q, Section X. (emphases added).

## References:

Valuation of ARRs Source: PJM Manual 06: Financial Transmission Rights Revision: 21 Effective Date: Dec. 6, 2018, Prepared by the Market Simulation Department

Markets Boot Camp FTR-ARR Brian Chmielewski, Sr. Analyst, Market Simulation, May 8, 2017