



BOUNDLESS ENERGY™

AEP's Proposal for ARR/FTR Enhancements

AEP

October 1, 2021

AEP Proposal

- About 60% identical to the proposal made by PJM/Joint Stakeholders.
- Differences in the following areas:
 - Granular ARR/FTR product design
 - ARR allocation design
 - IARR design
 - Implementation timeline

Major Differences

#	Design Components	Priority	Status Quo	E (AEP)	PJM/Joint Stakeholders Compromise Package	Difference
2	Product Definition		24 H product for entire year	status quo plus the option of quarterly peak and off-peak ARR products.	Status Quo	Commit to implement granular ARR products.
3	Allocation mechanism		Stage 1A, 1B – source points only from designated active historical resources or Qualified Replacement Resources Stage 2, 3 rounds – source points any available generator, interface, hub, zone Must always sink at load settlement point/aggregate	status quo	Stage 1A, 1B, Stage 2 over 2 rounds 50% capability availability each round. Stage 1A guaranteed; remainder subject to SFT, up-to total NSPL	Maintain 3 rounds of ARR nomination in stage 2 for path discovery.
5	ARR nomination point availability		Stage 1 – source points only from designated active historical resources or Qualified Replacement Resources Stage 2 – source points any available generator, interface, hub, zone Must always sink at load settlement point/aggregate	same as PJM's proposed design plus the availability of reference bus for stage 1B and stage 2.	Stage 1A – status quo; Stage 1B – status quo sources plus Hub, Zone and Interface, sink load settlement point. (May request up to 100% NSPL) Stage 2 – Relinquish and/or additional requests with any source/sink combination capped at total NSPL.	Add the reference bus as one of valid points for hedging congestion costs associated with power purchases from day-ahead market.
10	Amount of guaranteed ARRs		Stage 1A up-to ZBL share on historical source and sink paths only.	status quo plus an enhanced monthly Residual ARR process based on unawarded ARR nominations in S1B and S2. The amount of Residual ARR awards for ARR holders in any month can't exceed their remaining nomination caps.	Maintain Stage 1A and 1B, 1A as-is, but guarantee 60% NSPL in 1A, 1B expand resources up-to NSPL, subject to SFT. Retain residual monthly ARR process.	<ol style="list-style-type: none"> 1. Avoid aggravation of transmission infeasibility in stage 1A ARR process. 2. Include unawarded ARR nominations from stage 2 in monthly Residual ARR process to increase residual ARR awards.

Major Differences (cont-)

#	Design Components	Priority	Status Quo	E (AEP)	PJM/Joint Stakeholders Compromise Package	Difference
11	Incremental ARR product types		EE, Merchant, RTEP	status quo	Retain customer funded IARR process but limit eligible path selections for study to valid Stage 1 ARR paths (Gen, zone, interface – Load aggregate)	This item is still unclear because there is no specific example to illustrate the potential gaming concern.
12	IARR model development and SFT assumptions and procedures		Model document available here: https://www.pjm.com/-/media/markets-ops/ptr/pjm-iarr-model-development-and-analysis.ashx	For IARRs of any type, the source and sink shall remain valid, biddable nodes (not subject to retirement/replacement) in all FTR auction types and for all periods, for the life of the IARR. Provision retroactive to current IARRs.	Status Quo	Guarantee the definition of an IARR for the life of an IARR as long as the associated transmission upgrade is not retired.
16	FTR product & class types		- 24H, On peak, Off peak (M-F 2300-0700, Weekend all day). Monthly or Annual product.	ATC, weekday peak hours, weekend/holiday peak hours, and everyday off-peak hours for monthly or annual products plus quarterly products for annual FTR auctions.	Weekday peak hours (HE 8-23), Weekend/holiday peak hours (HE 8-23), Everyday off-peak hours (HE 1-7, HE 24), ATC. Month or Annual product. PJM to facilitate technology workshops to deliver a recommendation to stakeholders (MIC or ARMTF?) on how to pursue infrastructure enhancements to support new product types.(including ARRs and FTRs)	Commit to implement granular FTR products.
23	Implementation date		N/A	6/1/2022 for the enhancements easier to implement and concurred by PJM. 6/1/2023 for the remaining enhancements.	6/1/23 for ARR changes; as soon as practical all others	Any benefits should be delivered as early as possible regardless of ARR or FTR enhancements.

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