

Incremental Auction Revenue Rights

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Purpose

 Provide stakeholders with some background information on the miscellaneous IARR products and layout a plan for enhancing process

Key Takeaways

- IARRs are supported by transmission upgrades that can provide additional capability on the transmission system
- Effort aims to clarify the current processes and to identify opportunities for process improvement



Incremental Auction Revenue Rights (IARRs)

Incremental Auction Revenue Rights (IARRs) are additional Auction Revenue Rights not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements.



- PJM offers various IARR products for transmission expansions that add incremental capability to the PJM system
- All IARR products have the following characteristics
 - IARR MWs are awarded for the incremental capability created for the life of the facility or 30 years, whichever is less
 - Must be simultaneously feasible with all existing Stage 1 ARRs
 - Valued each year based on Annual FTR Auction clearing prices



Methods to Acquire IARR Products

(1) Generator / Merchant Transmission Facility interconnections (2) Customer funded network upgrade requests (via Attachment EE of OATT)

(3) RTEP Incremental Rights-Eligible Required Transmission Enhancements



Overview for Stakeholder-Driven Requests

(1) Generator / Merchant Transmission Facility interconnections

- Available if Merchant Transmission Project creates additional transfer capability associated with transmission upgrades.
- Available if transmission built associated with generator interconnection creates additional transfer capability beyond what is necessary for the generator interconnection request.
- IARR 3-round source/sink pair request process.
- Customer determines source and sink locations for IARR request.
- Customer can elect or deny available IARRs each round.



Overview for Stakeholder-Driven Requests (cont.)

(2) Customer funded network upgrade requests (via Attachment EE of OATT)

- Customer submits IARR source/sink pair request through attachment EE of OATT.
- PJM in collaboration with the transmission owners determine the transmission upgrades necessary to support the IARR request.
- Customer does not determine the transmission upgrades.
- Customer may elect to fund the necessary upgrades to ensure feasibility of the request with all existing ARRs.



Overview of PJM Annual RTEP IARR Analysis

(3) RTEP Incremental Rights-Eligible Required Transmission Enhancements

- PJM Operating Agreement requires annual RTEP IARR analysis.
- The analysis may trigger IARRs for following RTEP upgrades.
 - Backbone Upgrades
 - Non-Backbone Upgrades: cost responsibility that is assigned to 1) noncontiguous zones or 2) Merchant Transmission Providers
- The analysis must be completed before Annual ARR process.
- IARR awards follow cost allocations for projects percentage by zone, then by Network Service Peak Load (NSPL).



Set up for Annual RTEP IARR Analysis

 Prior to awarding an IARR path for an eligible RTEP project, PJM evaluates a constraint that is most relieved by an RTEP upgrade (i.e. "Impacted Facility")

- Once an impacted facility is identified, PJM will then evaluate an eligible IARR path that could be awarded subject incremental transfers based on following:
 - IARR Source Points are aggregated pricing points (comprised of up to ten generator busses) with most flow increase
 - Sink Points are aggregated pricing point consisting of the zone with the most flow increase

Effective RTEP IARRs available here

www.pjm.com | Public 9



Concerns and Next Steps

- The FTR group spends significant time and resources throughout the year building IARR models, although very few study requests are made
 - Since 2016, 0 out of 6 requests were awarded due to SFT violations
- IARR stakeholder driven requests often provide minimal or zero transfer capability to the transmission network
 - Attempt to acquire a potential high-value IARR with low-cost ineffective upgrades
 - Not the intent of the original market design
- The IARR products should be re-evaluated and enhanced or mitigated, where possible