



ARR Stage 1 Historical Resource Analysis

FTR/ARR Senior Task Force
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- Compare shared ownership retiring resource across multiple zones as well as single owner retiring resource within one zone
- Compare retiring resource to closest resource via DFAX and most valuable resource within zone
 - Using 2014/2015 Annual FTR Auction clearing prices
 - Mask actual resource name
- PJM recommendations

	RESOURCE	CLASSTYPE	AVG SOURCE LMP	AVG SINK LMP	SPREAD
Retiring Unit	GEN A	24H	\$ (30,042.25)	\$ (3,229.24)	\$ 26,813.01
Closest DFAX	GEN B	24H	\$ (30,490.21)	\$ (3,229.24)	\$ 27,260.97
Delta					\$ 447.96

	RESOURCE	CLASSTYPE	AVG SOURCE LMP	AVG SINK LMP	SPREAD
Retiring Unit	GEN A	24H	\$ (30,042.25)	\$ (3,229.24)	\$ 26,813.01
Most Valuable - Physical Zone	GEN C	24H	\$ (6,421.63)	\$ (3,229.24)	\$ 3,192.39
Delta					\$ (23,620.62)

- Resource has multiple owners that sink in multiple zones
- Closest DFax = 1.7% delta in LMP
- Most valuable within the zone where the unit resides = -88.1% delta in LMP

	RESOURCE	CLASSTYPE	AVG SOURCE LMP	AVG SINK LMP	SPREAD
Retiring Unit	GEN A	24H	\$ 1,784.53	\$ 10,856.64	\$ 9,072.11
Closest DFax	GEN B	24H	\$ 1,976.42	\$ 10,856.64	\$ 8,880.22
Delta					\$ (191.89)

	RESOURCE	CLASSTYPE	AVG SOURCE LMP	AVG SINK LMP	SPREAD
Retiring Unit	GEN A	24H	\$ 1,784.53	\$ 10,856.64	\$ 9,072.11
Most Valuable	GEN C	24H	\$ (117.31)	\$ 10,856.64	\$ 10,973.95
Delta					\$ 1,901.84

- A single resource within one zone
- Closest DFax = -2.1% delta in LMP
- Most Valuable = 21% delta in LMP

- Replacing a retiring resource with the closest DFAX resource results in a smaller delta in LMP than using most valuable resource in the zone
- DFax method more appropriate
 - Maintains value of shared resources
- Most valuable resource method provides higher benefit for resources that reside in the same zone

New Proposed Option for treatment of retirement of Stage 1 Historical Resources

- Provides closest equivalent while ensuring no increase in over allocation
- Recommended to add to all PJM packages

Historical Resources

- Retirements replaced with a capacity offered resource with the closest electrical proximity that is not already a historical resource and has been in service for a minimum of five years. If no resource has been in service for a minimum of five years then the next oldest resource as determined by in service date will be utilized as the replacement.
- Replacement resource MWs will be equivalent to the MWs of retired unit. If retired unit historical ARR MWs < replacement resource MWs then replacement resource MWs will be set equal to retirement resource MWs. If historical resource MWs > replacement resource MWs then additional replacement resources will be added up to the capacity of the retirement resource MWs.
- If the replacement resource creates Stage 1A infeasible MWs based on previous planning period ARR allocation or based on the 10 year Stage 1A analysis then the next capacity offered resource with the closest electrical proximity that does not cause Stage 1A infeasible MWs will be used as the replacement.