



**Problem / Opportunity Statement**

FTR revenue inadequacy occurs when there is less transmission system capability available in actual operations than was assumed to be available in the FTR allocation and auction processes. There are several drivers that result in this reduced system, capability. First is the ongoing volume of scheduled maintenance and construction-related transmission outages, many of which are overlapping, which has diminished the transmission capacity margins. External loop flows take up transmission system capability that would otherwise be utilized by internal market participant activity. To the extent that these loop flows are greater than what was expected and modeled in the annual processes, they will contribute to FTR underfunding. PJM continues to expect the transmission system performance to improve as construction projects finish, but the volume of ongoing new transmission projects indicates this improvement is still three to four years into the future.

A related driver is that the PJM Tariff requires that PJM allocate transmission rights that are known to be infeasible in the annual process in the first stage of the allocation referred to as "Stage 1A". PJM is also required to ensure that transmission upgrades are planned in order to ensure that Stage 1A rights are made and remain feasible for ten years into the future. These Tariff provisions stem from the PJM implementation of a FERC requirement, which in turn flows from the requirements of the Energy Policy Act of 2005, to ensure sufficient availability of long-term transmission rights to Load Serving Entities. The requirement was put in place with the expectation that infrequent allocation of such infeasible ARR's would not have significant or prolonged impact of revenue inadequacy. However, given the evolution of the transmission system and its utilization particularly in certain areas of PJM, this Tariff requirement for over-allocation is significantly impacting the revenue adequacy of FTRs. As can be seen from the Table 1 below, PJM estimates that Stage 1A over-allocation is responsible for up to 73% of FTR underfunding for the last two planning years.

Table 1 – FTR Revenue Shortfall for 2012/2013 and 2013/2014 Planning Years

Planning Period	Congestion dollars (\$millions)	Total FTR Revenue Inadequacy (\$ millions)	FTR Revenue Inadequacy %	FTR Revenue Inadequacy from Stage 1A Infeasible ARR's (\$ millions)	Stage 1A Infeasible ARR's % of FTR Revenue Inadequacy
2012/2013	\$622.6	\$288	68%	\$75	26%
2013/2014 (June thru March)	\$1,698	\$575	75%	\$420	73%

The third and more recently significant major driver of FTR revenue inadequacy involves the evolving operating procedures PJM has initiated in order to ensure resources appropriately set LMP when required to operate for reliability. These procedures require PJM to operate for transmission constraints when flows are significantly below the physical ratings in order to reflect the resources being dispatched in the calculated marginal prices. Such resources can be large generating units with restrictive operating parameters, or demand response deployed in anticipation of or during emergency conditions. When LMPs reflect these resources' operation and the flows on the constrained facilities are well below their ratings, significant FTR underfunding can result.

Given that FTR funding has remained very low and the drivers appear to be expanding due to the power system operational and supply transition, PJM believes a comprehensive overhaul of the FTR allocation and funding mechanism may be warranted.

**Issue Source**

PJM initiated this problem statement based on the continuing trend of FTR underfunding and the increasing level to which the infeasibility of allocated Stage 1A ARR's has contributed the level of FTR underfunding.