



Long-term Firm Transmission Service Task Force: Final Proposal Summary

Aaron Berner
Manager, Interconnection Analysis
Markets & Reliability Committee
December 17, 2015

Summary of Problem Statement

Due to the current methodology by which the impacts of different projects are calculated, there is an opportunity for certain types of projects, specifically Long Term Firm Transmission Service, to avoid participation in the calculations which establish the need for reinforcements. The aggregation of the impacts from multiple Long Term Transmission Service Requests would require reinforcement where the individual projects are not assigned the need. This would result in base line studies identifying the need for transmission reinforcements which are caused by the aggregation of the Long Term Transmission Service Request impacts to the system, thereby requiring load customers and Transmission Owners to fund future upgrades as a result.

Planning Committee Subgroup and Task Force

- 6 meetings from June – November 2015
- Single proposal, endorsed unanimously by LFTSTF
 - PJM Staff proposal, improved with stakeholder input
 - No alternatives offered
- Requires Manual changes, no Tariff revisions
 - Manuals 14A & 14B

Base Case Studies

- Model transmission reservations explicitly
- Model imports and exports at 100%
- Reduce imports and exports that back off overloads to a percentage based on historical utilization (currently ~65%) to reduce the counter flow of confirmed service for generation deliverability and common mode outage testing. This utilization percentage shall be updated annually by PJM to be implemented in the Base Case studies for any study year.
- Model the Capacity Benefit Margin at each seam based on percentages determined during initial Base Case development

Queue Studies

- Model all existing service as above (service which had been modeled for the base case development & studies)
- Model all queue requests at 100% (import and export) to determine individual impacts
- Model the Capacity Benefit Margin

3% Distribution Factor or 3% Line Rating

- A 3% distribution factor or a 3% line rating will be used across all transmission voltages for internal PJM facilities when studying a transmission service import as well as being used for external facilities when reviewing transmission service exports or imports.

NOTE: This is a change from the previous use of a 5% distribution factor and 5% line rating used on voltages less than 500 kV, and the use of a 10% distribution factor and a 5% line rating on voltages greater than 500 kV when reviewing impacts to internal facilities.

Incorporating Capacity Import Limit Impacted Facilities during Queue Studies

- If the proposed long-term firm service has greater than or equal to a 3% distribution factor impact on any of the CIL impacted facilities that were identified in the CIL study, the full impact of the transmission service on that facility, using the distribution factor and MW quantity of the transmission service, will be used to determine the final loading of that facility.
- All valid constraints identified at that point will require mitigation by the queue customer.

Incorporating Capacity Benefit Margin in Base Case

- CIL studies incorporate CBM in order to preserve this reliability margin
- CBM will be allocated to each of the five directional transfer paths in proportion to the ratio of their transfer amount divided by the simultaneous Capacity Import Limit plus the PJM CBM