

External Capacity Performance Enhancements

Problem / Opportunity Statement and Issue Charge

Since the November 18, 2015 Joint and Common Markets (JCM) committee meeting, PJM has discussed various internal (PJM) and external (MISO and other external entities) operational, markets and planning challenges associated with the integration of external Capacity Performance (CP) resources into PJM. In an attempt to reconcile these challenges, PJM believes there is a need to implement enhancements to its external CP resource evaluation construct. Specifically, PJM would like to explore a comprehensive solution to address external CP resource complications regarding:

1) *Operational, reliability and compliance risks associated with network model expansion (operational)*

External CP resources (i.e. Pseudo Ties) are dispatched by PJM; therefore they are modeled in PJM's network model for operational control purposes. In order to reliably model these resources, significant external network modeling expansions may be required. Such significant external modeling expansions may cause PJM to extensively rely on impacted neighboring entities and in the process introduce unintended consequences to its network model solution accuracies.

2) *Congestion management challenges and compliance risks resulting from the delivery of external capacity and energy (operational and markets)*

External system impacts associated with External CP resources need to be transparent to impacted neighboring systems. When accommodating impact transparency, PJM has discovered 3 challenges:

i) Need to introduce significant amount of regionally coordinated Market-to-Market and Market-to-non Market Flowgates: PJM's external capacity deliveries are exposed to impacted external bottlenecks and PJM is challenged with counting on external deliveries to meet PJM's reliability requirements, adhering to such significant external limitations.

ii) Need to dispatch PJM's external capacity resources to accommodate local external entity system limitations: PJM's external capacity deliveries are exposed to local reliability limitations in the external entity footprints that should have been recognized by external systems prior to confirming pseudo tie transmission service status.

iii) Need to gain approval from neighboring entities without a formal congestion management agreement with PJM: Those entities where PJM has established formal congestion management agreements do not require tagging the pseudo tie transactions. However, entities where PJM does not have formal congestion management arrangements, upon request of such entity, the pseudo tie owner will be required to tag the transaction to satisfy NERC standard requirements. PJM's external capacity cannot be tagged under existing PJM rules and thereby PJM is challenged with approving pseudo ties for external CP reasons prior to gaining consensus from its neighboring entities (without formal congestion management agreements) to effectuate energy deliveries without tagging requirements.

3) *Transmission service evaluation process and planning requirements for external resources (planning)*

PJM has granted transmission service for its external CP resources assuming unit specific delivery requirements. PJM has learned that the external systems may not have been evaluating PJM deliveries assuming unit specific delivery requirements. As a result, it is unclear to PJM if the external CP resources are deliverable to PJM load consistent with internal CP resources located in PJM footprint.

4) *Operational impacts on neighboring systems resulting from an external entity committing and dispatching resources in their footprint.*

PJM has been informed by its neighboring entities that they are concerned with losing operational control of their generation assets along with PJM's ability to model the deliveries at a granularity similar to neighboring entities' abilities to model the deliveries.

Issue Source

PJM is bringing forward the problem statement in response to operational, markets, and planning challenges observed by PJM and its neighboring entities during the pseudo-tie implementation process.

Stakeholder Group Assignment

PJM would like to reconcile these challenges and implement necessary changes prior to its 2017 Base Residual Auction (BRA) for 2020/21 delivery year. Given the condensed timeframe allowed for discussion, PJM is requesting this issue be discussed at the Underperformance Risk Management Senior Task Force and additional scheduled conference calls and/or WebEx meetings.

Key Work Activities

1. Provide education regarding:
 - a. Existing external CP resource construct; and
 - b. Existing internal and external resource capacity eligibility; and
 - c. Planning, Markets and Operations challenges and compliance requirements associated with external capacity resources; and
 - d. Concerns expressed by external entities.
2. Determine what changes are necessary, if any, to align the requirements for internal and external capacity resources.
3. Develop a detailed solution to implement any necessary changes.

Expected Deliverables

The task force will determine a set of recommendations for consideration by the Markets and Reliability Committee (MRC) that are intended to:

- 1) Ensure that external capacity resources are deliverable to PJM load at the level that internal resources are while maintaining an equal opportunity for both to serve as capacity resources in PJM.



Problem Statement / Issue Charge

- 2) Address any existing or new challenges to PJM's existing external CP resources (with Capacity Import Limit exceptions granted for 2017/18, 2018/19 and 2019/20 delivery years) that may arise as a result of potential enhancements to PJM's external capacity construct.

Expected Overall Duration of Work

1. Key Work Activity 1 complete by July 2016
2. Recommendation to MRC by September, 2016

Decision-Making Method

The objective is to use the Tier 1, consensus-based, decision-making methodology (unanimity) on a single proposal (**Preferred default option**), or Tier 2, **multiple alternatives**.