

Problem / Opportunity Statement

Currently, Transmission Entities (other than PJM) are unable to determine generator **output telemetry and reactive capability data** across the PJM footprint in real-time. While these entities may have the ability to determine **generator output telemetry data** in their particular zone, events occurring outside their respective zone may necessitate actions to prevent potential reliability issues. The lack of real-time **generator telemetry and reactive capability** data leads to uncertainty, **and** notably reduced situational awareness for the **transmission owner** as to the current system conditions, which, in turn, inhibits the ability to respond to real-time events effectively **and inaccurate transmission operations planning analysis used to ensure reliability during planned and unplanned transmission outage events**.

PJM Manual 14D, section 11.1.1. states, "In order for PJM to perform reliability assessment and analyses, generators are required to provide real time and scheduled outage data to PJM. While PJM has the overall reliability responsibility for the PJM RTO, local Transmission Owners have a similar responsibility to monitor and assess the reliability of their transmission systems and distribution systems. In order for the Transmission Owners to perform their local reliability functions, Transmission Owners need certain data about the generators to formulate a realistic basis for the analysis." The process to obtain this data is burdensome and time-consuming, which effectively discourages Transmission Owners from obtaining this reliability data.

- The situation to be improved & why it warrants consideration in the PJM stakeholder process

The Transmission Owner should have immediate ease of access to the **generator real-time output telemetry and reactive capability of generators** across the PJM footprint to allow for concurrent assessment of any transmission-related concerns. The additional timely information significantly improves situational awareness and provides the entity the improved ability to timely assess the impacts of external conditions and be able to develop effective plans or implement corrective actions to maintain reliability. Absent sufficient situational awareness can only diminish reliability and could result in system failure.

The access of this data will improve the accuracy of each TO's state estimator, and improve operations procedures wherein PJM uses those results for overall PJM security (as well as TO security). To achieve this objective, the following data would be shared:

- Real Time MW output.
- Real Time MVar.

Real time generator reactive capability

Real time generation **output telemetry and reactive capability** is used as an input to the Transmission Owner's State Estimator **and Security Analysis** solutions.

Transmission Owners have all signed the NERC Confidentiality Agreement, and internal code-of-conduct training and processes are in place concerning this type of data. As such, sharing of reliability data with Transmission Owners should not be of concern. **Formatted: Not Highlight****Formatted: Bulleted + Level: 3 + Aligned at: 1" + Indent at: 1.25"****Formatted: Not Highlight** **Problem Statement**

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- Document if the new work is to address specific technical issues and/or to address broader policy issues

The data is currently available to PJM, and a policy change is needed to make this real time data easily and readily available to other transmission reliability entities within PJM.