

Non-Retail Behind the Meter Generation Business Rules

Problem / Opportunity Statement

Non-Retail Behind the Meter Generation (NRBTMG) is Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies (EDCs) to serve load. NRBTMG does not participate as a supply resource in PJM Markets. An EDC/municipality/cooperative that uses NRBTMG to serve load can net such NRBTMG against their wholesale load for the purposes of calculating transmission, capacity, ancillary services, and administrative fee charges.

Per Open Access Transmission Tariff (OATT) and Reliability Assurance Agreement (RAA), NRBTMG is required to operate at full output during first ten times between November 1 and October 31 that Maximum Generation Emergency¹ conditions occur in the zone in which the NRBTMG is located. The requirement to operate NRBTMG during an emergency was established to address a reliability concern that if too much generation is designated as NRBTMG and allowed to net against load, system reliability could be compromised if NRBTMG were unable to perform (specifically because installed capacity reserves are not carried for load served by NRBTMG). Non-performance during Maximum Generation Emergency conditions results in a reduced netting benefit for the purposes of charges for transmission, capacity, reactive service, and black start service.

The NRBTMG business rules were established by Settlement Agreement (EL05-127)² in 2005, before the implementation of the Reliability Pricing Model and Capacity Performance (CP), and before the integration of American Transmission Systems, Inc. (ATSI), Duke Energy Ohio & Duke Energy Kentucky (DEOK), and East Kentucky Power Cooperative (EKPC). Since the establishment of the rules, there have been minimal updates to reported NRBTMG MW values, no instance when a NRBTMG generator was evaluated for operational performance, and increases in installation of Distributed Energy Resources that may have the total NRBTMG MW value approaching the 3,000 MW cap established by the Settlement Agreement. As a result, there are clarifications in the performance and reporting requirements of NRBTMG generators that are needed to ensure all parties, such as PJM, NRBTMG owners and operators, EDCs, municipal electric systems, and electric cooperatives, understand and are able to perform their responsibilities. As per the Settlement Agreement, there is also a need to determine, once the cap is reached, if the business rules, including the cap, need to change.

PJM has identified the following areas in need of review and clarifications:

- **Triggers for Operation:** NRBTMG is expected to operate and perform during the first 10 occurrences of Maximum Generation Emergency (MGE) conditions. NRBTMG is not specifically addressed in Emergency Operations Manual (M-13) making it unclear which specific Emergency Procedure(s) trigger the requirement to operate. PJM and member actions for NRBTMG during Emergency Procedure(s) need to be fully documented in M-13 to support compliance with an operational performance requirement.

¹Per OATT, "Maximum Generation Emergency" shall mean an Emergency declared by the Office of the Interconnection to address either a generation or transmission emergency in which the Office of the Interconnection anticipates requesting one or more Generation Capacity Resources, or Non-Retail Behind The Meter Generation resources to operate at its maximum net or gross electrical power output, subject to the equipment stress limits for such Generation Capacity Resource or Non-Retail Behind The Meter resource in order to manage, alleviate, or end the Emergency.

² Settlement Agreement filing is available at <https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10863570>. FERC Order on Settlement Agreement is available at <https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10908341>.

- **Performance Evaluation:** Several clarifications are needed to effectively administer a performance evaluation for NRBTMG:
 1. There is a need to clearly define the expected performance level for a NRBTM generator and ensure that such MW value is being adequately reported to PJM. The expected performance of a NRBTM generator (regardless of resource type) is “full output”. “Full output” is not defined leaving it open to interpretation.
 2. There is a need to clarify how outages are scheduled for NRBTMG in order to factor a scheduled outage into a NRBTM generator’s performance evaluation.
 3. There is a need to clarify the processes and procedures to administer a reduced netting credit for the purposes of charges for transmission, capacity, reactive service, and black start service if a NRBTM generator fails to perform during an emergency condition.
- **Reporting Requirements:** NRBTMG needs to be transparent to PJM and the data reported on a NRBTM generator needs to be current in order for PJM staff to effectively administer the NRBTMG requirements and measure operational performance for NRBTMG. The NRBTMG reporting requirements in Generator Operational Requirements Manual (M -14D) need to be enhanced to clarify that data reporting requirements for NRBTMG are mandatory and to establish deadlines and processes for the initial reporting of NRBTMG data, data updates, and the submission of generator output data.

PJM has also identified the following area in need of evaluation:

- **Cap Evaluation:** PJM needs to evaluate the current level of NRBTMG in PJM as compared to the 3000 MW cap and determine if any changes to NRBTMG business rules are needed, including the level of the cap.

There is a need to review and update, if necessary, the NRBTMG business rules in agreements and manuals to clarify the performance and reporting requirements to (1) ensure that NRBTMG is operating at appropriate levels during emergency conditions as established by the Settlement Agreement and (2) ensure that Member and PJM responsibilities, processes and procedures related to NRBTMG requirements are clear and adequately captured in the business rules.

There is also a need to review and evaluate, once the 3000 MW cap is reached, if any of the existing business rules need to change, including the level of the cap itself.