

## 1.6 Behind the Meter Generation

Any Behind the Meter Generation which seeks to be designated in whole or in part as an energy or capacity resource must submit a Generation Interconnection Request for the portion of the unit's output that will participate in the PJM market. Further, sites with 10 MW or more must abide by PJM metering requirements as well as market, operational and settlement requirements. Manual 14D (Appendix A) describes the treatment of Behind the Meter generation, provisions for which are captured in PJM's Tariff, Subpart A, Section 36.1.A.

As with any other Interconnection Request, The Developer will be assigned a Project Manager for each process phase captured in Exhibit 1. The Project Manager will be responsible for working with each Developer and staff to complete the respective steps for that particular phase. Attachment B: Interconnection Process Team Role Clarity Diagram captures Implementation Team roles for each interconnection process phase (including a PJM Project Manager for each phase) and shows how each Manual aligns with each phase.

Generating resources operating "behind the meter," in isolation from the PJM bulk power transmission system and which do not intend to participate in the PJM wholesale energy market, need only coordinate planning, construction and/or operation with the host Transmission Owner.

Behind the Meter Generation (BtMG) is the output from generation that offsets load and does not and cannot participate in the wholesale market. Thus, in order to be considered BtMG, power claimed as BtMG must deliver energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of PJM).

Generation claimed as BtMG cannot participate in the PJM Capacity or energy market. Even if partial BtMG is proposed, the portion claimed as BtMG must always stay behind the meter unless and until the generator takes the steps required to have the generation participate in the wholesale markets.

Behind the Meter Generation cannot include (i) at any time, any portion of such generating unit(s)' capacity that is designated as a Generation Capacity Resource; or (ii) in any hour, any portion of the output of the generating unit(s) that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market. Behind the Meter Generation rules permit load serving entities in PJM to net operating Behind the Meter Generation against load in the calculation of charges for energy, capacity, transmission service, ancillary services and PJM administrative fees. This total netting approach is intended to encourage the use of Behind the Meter Generation during times of scarcity and high prices, thus increasing the opportunity for load to compete in PJM markets.

A professional engineer stamped one-line configuration must be provided to show the relationship between equipment that prevents behind the meter power flow to the system, past the Point of Interconnection meter (in the case of Non-Retail BtMG, equipment must prevent BTMG power flow onto the Transmission System). Additionally, the affected entity must be aware and have performed the necessary studies to assure adequate system capabilities and protections are in place for the receipt of the power.

### 1.6.1 BtMG Interconnection Requests

Any Behind the Meter Generation that desires to be designated, in whole or in part, as a Capacity Resource or Energy Resource must submit a Generation Interconnection Request. (Tariff at Part VI, in Section 36.1.01 – formerly Subpart A at 36.1A, in Part IV)

The New Services Request shall include (1) the type and size of the load located (or to be located) at the site of the generation facility; (2) a description of the electrical connections between the generation facility and the load; and (3) the amount of the facility's generating capacity for which the Interconnection Customer seeks Capacity Interconnection Rights or that will be an Energy Resource.

The behind the meter load is the sum of station service and auxiliary loads used to support operation of the facility and any host/process loads to be served behind the point of interconnection. The behind the meter load provided in the New Services Request shall be the sum of the station service and auxiliary loads and the maximum host/process loads to be served behind the point of interconnection.

Station service and auxiliary loads used to support operation of the facility should be commensurate with those experienced coincident with the most recent 15 years PJM summer peaks (i.e. under summer conditions) in accordance with Manual 21: Rules and Procedures for Determination of Generation Capability, Section 1.2.

For new host/process loads to be served behind the point of interconnection, the maximum hourly integrated host/process load is to be estimated. For existing host/process loads, the maximum hourly integrated host/process load that occurred during the most recent 36 months is to be determined.

The Maximum Facility Output requested in the New Services Request is the gross generator output less station service and auxiliary loads less the minimum host/process loads that the facility is expected to serve. Of the Maximum Facility Output, the MW of capability requested to be designated as Energy Resource and MW of capability requested to be designated as Generation Capacity Resource (i.e., Capacity Interconnection Rights) is to be provided in the New Services Request.

The Capacity Interconnection Rights requested in the New Services Request are to be determined in accordance with Manual 21: Rules and Procedures for Determination of Generation Capability, Section 1.1. The Capacity Interconnection Rights requested in the New Services Request may not be greater than the gross generator output of the facility less station service and auxiliary loads less the maximum host/process loads that the facility is expected to serve.

### 1.6.2 BtMG Metering

Behind the meter generation consisting of one or more generating units individually rated at ten megawatts or greater or that otherwise have been identified by PJM as requiring metering for operational security reasons must have both revenue quality metering and telemetry equipment for operational security purposes. Behind the meter generation consisting of multiple generating units that are individually rated less than ten megawatts but together total more than ten megawatts at a single site and are identified by PJM as requiring revenue quality metering and

telemetry equipment may meet these metering requirements by being metered as a single unit. (Operating Agreement, Section 14.5)

### **1.6.3 BtMG Effects on Market Operations**

Market Buyers shall be charged for all load and associated ancillary services based on the Market Buyer's total load (net of operating Behind the Meter Generation, but not to be less than zero.) (Operating Agreement, Schedule 1)

### **1.6.4 Non-Retail BtMG**

Non-Retail BtMG refers to state interconnected generators that reduce the load of an electric distribution company, electric co-operative or municipality utility. The Generation Owner in this case does not request this status. The request for Non-Retail BTMG status must come for the affected electric distribution utility, electric cooperative or municipal utility, whose transmission served load requirements are being impacted.

Non-Retail BtMG rules permit load serving entities in PJM to net operating BtMG against load in the calculation of charges for energy, capacity, transmission service, ancillary services and PJM administrative fees. This total netting approach is intended to encourage the use of BtMG during times of scarcity and high prices, thus increasing the opportunity for load to compete in PJM markets.

## **1.7 Demand Response**

An On-Site Generator used to reduce load that participates in wholesale markets as a Demand Response resource should see Manual 11 and Manual 18 for details. A portion of a Generator that may inject power past the point of interconnection must go through the interconnection process to participate in wholesale market(s) as outlined in this manual.

## **1.8 Service below Generating Capability**

An Interconnection Customer may request interconnection service below the full electrical generating capability of their Generating Facility. PJM studies such requests at the level of interconnection service requested for purposes of determining Interconnection Facilities, Network Upgrades, and associated costs. However, PJM, in conjunction with the affected Transmission Owner(s), may perform additional studies at the full electrical generating capability of the Generating Facility, to ensure the safety and reliability of the system. The Interconnection Customer shall be responsible for the costs of any required additional studies. If after additional studies are complete, PJM or the affected Transmission Owner(s) determines that additional Network Upgrades are necessary, then PJM Shall (i) specify which additional Network Upgrade costs are based on which studies; and (ii) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrades costs required for safety and reliability also will be borne by the Interconnection Customer.

In addition, the Interconnection Customers may be subject to additional control technologies as well as requirements for testing and validation of these technologies. The requirements for the necessary control technologies and protection systems shall be outlined in the Interconnection Service Agreement, Schedule K (Requirements for Interconnection Service below Full Electrical Generating Capability) of the respective queue project.