

## **PJM Rules on the Siting of New Load Behind the Meter of Existing Generation<sup>1</sup>**

Various generation owners have recently sought guidance on PJM rules regarding the siting of new host load directly behind the meter of an existing generation resource where host load is any load that is not station power load. The proposed arrangements contemplate the new host load (such as a new data center) as being directly and, in most cases, exclusively served by the existing generator. PJM rules regarding such arrangements are provided below in the form of responses to Frequently Asked Questions.

### **1. What rules apply to a generator owner that seeks to directly and exclusively serve host load located behind the generator's meter?**

The generation owner is responsible for ensuring that the proposed arrangement is in accordance with the Interconnection Service Agreement, PJM Tariff, Operating Agreement, and all applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any governmental authority having jurisdiction over the generating facilities and/or the respective services they provide. The generation owner must provide proper and timely notification to PJM and the Interconnected Transmission Owner as described in response to FAQ #2 and is responsible for ensuring that any modification made to the generation facility is constructed and operated in accordance with Good Utility Practice, all Applicable Laws and Regulations, Applicable Standards and to any applicable requirements or conditions of the Tariff and the Operating Agreement

### **2. Is a generation owner required to notify PJM and the interconnected TO of the owner's intention to establish new host load?**

Yes, in accordance with PJM OATT, Attachment O, Appendix 2, section 3.1, and section 4.5 of PJM Manual 14G, the generation owner shall notify PJM and the Interconnected Transmission Owner of any modification to the generation facility and shall provide the relevant drawings, plans, and specifications to PJM and the Interconnected Transmission Owner at least ninety days in advance of the beginning of physical construction. Such notification is required so that PJM and the Interconnected TO can evaluate potential reliability impacts of the proposed arrangement including verification that adequate protection is in place to prevent the unexpected injection or withdrawal of power at the site. A failure of the generation owner to provide such notification in a timely manner may be considered a breach of the ISA, and subject to the breach, cure, and default provisions within the ISA. This may also be considered a violation of PJM governing documents that may warrant a referral of the violation to the FERC's Office of Enforcement.

For the PJM notification, the Generation Owner should contact the specific Client Manager assigned to the Generation Owner, or the general Client Manager mailing list (ClientManagers@pjm.com). The modification request will then be forwarded by Client Management to Transmission Planning and Infrastructure Coordination departments to initiate the Necessary Study process. Through this process, the Necessary

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<sup>1</sup> The opinions herein do not constitute legal advice and are based on PJM's interpretation of the governing documents and relevant interconnection agreements. PJM's governing documents control and the Federal Energy Regulatory Commission (FERC) is the ultimate authority that interprets such governing documents. As such, only FERC's determination on the Tariff obligations are binding.

Study Agreement will be drafted and executed, technical data provided via Queue Point, and a Necessary Study deposit collected.

The Generation Owner is also responsible for timely notification to the Interconnected Transmission Owner.

### **3. Are there any new agreements that must be executed?**

In addition to verifying that adequate protection is in place to prevent any unexpected injection or withdrawal of power at the site, PJM will study the proposed arrangement to identify if any system reinforcements are necessary to accommodate the modification. For this purpose, a Necessary Study Agreement will be drafted and executed with any Generation Owner pursuing such an arrangement. A Construction Service Agreement may be issued if the proposed arrangement requires system reinforcements, and, the Interconnection Service Agreement ("ISA") would be amended to capture these upgrades and collect requisite security and costs.

### **4. Will existing agreements require modification?**

Yes, the ISA or other relevant service agreement shall be amended to reduce the generation resource's Capacity Interconnection Rights ("CIRs") to an amount equal to the resource's current CIR MW amount minus the amount of capacity dedicated to the host load where this MW amount is based on the highest expected hourly demand of the host load. The Maximum Facility Output ("MFO") specified in the existing service agreement may remain unchanged if the generation owner anticipates providing the generator's full output capability to the system whenever the host load is shutdown or otherwise not being served by the generator.

### **5. Is the capacity value of the generation resource affected by the addition of the new host load?**

Yes, the capacity value in ICAP MW terms of the existing generation capacity resource shall be reduced by the MW quantity of the host load effective with the date that the generation resource commences directly serving the new host load. If the generation capacity resource is an ELCC Resource then such reduction shall be applied to the accredited UCAP capability of the resource. Such reduction shall be submitted into PJM's Capacity Exchange system as a capacity modification (CAPMOD) decrease. The reduction in capacity value of the generation resource shall initially be based on the highest hourly host load expected to be served by the generation resource consistent with the MW reduction in CIRs specified by the amended ISA. Thereafter, the host load used in the determination of the capacity value of the generation resource shall be based on the higher of (the highest metered hourly host load or the maximum expected hourly host load specified by the amended ISA) until such time as the host load has existed for three full years. At this point in time, the host load used in the determination of the generation resource's capacity value shall be based on the highest metered hourly host load measured during the most recent three-year period. Regardless of the MW quantity of host load used in such determination, the capacity value of the generation capacity resource cannot exceed the CIR MWs specified for the resource.

**6. Can a generation owner avoid this de-rate of the generation resource’s capacity value by committing to curtail the new host load during PJM emergency conditions?**

No, a generation owner cannot avoid the reduction in the generation resource’s capacity value associated with the addition of the host load. Consistent with the definition of Behind the Meter Generation, no portion of a generator’s MW capability that can, at any time, net against co-located host load may also qualify as Generation Capacity Resource MW capability, therefore, the capacity value of the generation resource must be de-rated by the MW quantity of host load regardless of whether the load has the capability to curtail upon PJM dispatch instruction. A Generation Capacity Resource with a capacity commitment is required to submit a cost-based offer in the PJM day-ahead energy market each day (unless unavailable due to outage) in a MW quantity commensurate with the resource’s capacity commitment and at a cost consistent with the resource’s variable cost of producing such energy. Absent the de-rate of the generation resource’s capacity value, this energy offer requirement would not be plausible for that portion of the generating unit’s output that can only be provided to the system by curtailing the host load. The curtailment capability of the host load may only participate as DR in the capacity market to the extent that the facility has a non-zero PLC. If the facility has a zero PLC because the host load is exclusively served by the existing generation, then it may not participate as DR because there is no capacity assigned to the load. The reduction in the generation resource’s capacity value does not preclude the generation owner from submitting an offer into the PJM energy market for its full output capability when not serving the host load provided such offer is consistent with the generator’s ISA-specified MFO and provided further that the energy offer contains the information specified in the Offer Data specification, Operating Agreement, Schedule 1, sections 1.10.1A(d) and 1.10.9B, Operating Agreement, Schedule 2, and the PJM Manuals, as applicable.

**7. The new host load is to be normally served by a single specific generating unit at the facility, however, when this unit is out-of-service due to planned, maintenance or forced outage then a second generating unit at the facility will be used to serve the host load. How should this arrangement be handled from an outage scheduling and reporting perspective?**

When the first unit is unavailable due to a planned, maintenance or forced outage, then an eDART ticket should be submitted for the second unit (i.e., the unit that acts as a back-up generator for the host load) for a partial outage (with MW de-rate equal to the MW quantity of host load to be served) and with times and reason for outage consistent with the times and reason specified on the eDART ticket of the first unit. The following example is provided:

**Example:** Assume an initial configuration with two 500 MW generating units located behind the same POI with each unit assigned 500 MW of CIRs and each having a capacity value of 500 MW (in ICAP terms). Next, assume the configuration is modified to include new host load of 50 MW added behind this same POI with the new host load to be directly served by output from Unit 1 whenever the unit is available. When Unit 1 is unavailable due to planned, maintenance or forced outage, the host load is to be served by output from Unit 2.

- Under the modified configuration, as described in responses to FAQ (3) and (4), Unit 1’s CIRs will be reduced to 450 MW and the capacity value in ICAP MW terms of Unit 1 as specified in the Capacity Exchange system will be reduced to 450 MW. The CIRs of Unit 2 and the capacity value of Unit 2 are unaffected by the addition of the new host load and remain at 500 MW.

- An eDART ticket shall be submitted for Unit 1 in accordance with the rules of PJM Manual 10: PJM Pre-Scheduling Operations whenever Unit 1 is unavailable due to a planned, maintenance or forced outage.
- When Unit 1 is unavailable and Unit 2 is serving the host load, an eDART ticket for a partial outage of 50 MW shall be submitted for Unit 2 in accordance with the rules of PJM Manual 10 with the timing and reason for the outage consistent with the times and reason specified on the eDART ticket of Unit 1.
- Any outage/de-rate events taken in eDART on the units must be consistently reflected in PJM eGADS.

**8. Are there additional modeling or metering requirements for the host load addition?**

Yes, additional modeling and metering will be required for PJM to accurately model the impact of the host load, and reduction of generation output at the point of interconnection. The host load needs to be explicitly modeled, and real-time telemetry supplied. Real-time and revenue metering is required to reflect the reduced net output of the generator at the point of interconnection.