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| **NPRR Number** | [**1144**](https://www.ercot.com/mktrules/issues/NPRR1144) | **NPRR Title** | **Station Service Backup Power Metering** |
| **Date of Decision** | | August 11, 2022 | |
| **Action** | | Tabled | |
| **Timeline** | | Normal | |
| **Proposed Effective Date** | | To be determined | |
| **Priority and Rank Assigned** | | To be determined | |
| **Nodal Protocol Sections Requiring Revision** | | 10.3.2.3, Generation Netting for ERCOT-Polled Settlement Meters | |
| **Related Documents Requiring Revision/Related Revision Requests** | | None | |
| **Revision Description** | | This Nodal Protocol Revision Request (NPRR) amends the requirement of having all energy utilized at generating Facilities be recorded through an ERCOT-Polled Settlement (EPS) Meter so that relatively insignificant loads, like backup station service power, can be exempt from measurement through an EPS Meter. | |
| **Reason for Revision** | | Addresses current operational issues.  Meets Strategic goals (tied to the [ERCOT Strategic Plan](http://www.ercot.com/content/wcm/lists/144926/ERCOT_Strategic_Plan_2019-2023.pdf) or directed by the ERCOT Board).  Market efficiencies or enhancements  Administrative  Regulatory requirements  Other: (explain)  *(please select all that apply)* | |
| **Business Case** | | For Generation Resources, the backup station service may only be used to power the communication, security and possibly the protection scheme for the substation, and only in the unlikely event of an outage of the primary station service.  With the backup station service only used when the primary station service is not available, the amount of energy consumed is negligible. For a 300 MW battery Energy Storage Systems (ESS), if we assume the primary station service is out of service for five days, which is likely excessive, the backup station service would conservatively consume approximately 6,000 kWh whereas the charging and cooling of the battery ESS would consume about 170,000,000 kWh. The 6,000 kWh of possible backup station service energy is about 0.0035% of the energy consumed by the battery ESS in normal operating conditions.  Revising the requirement and allowing the relatively insignificant load of backup station service to be metered by the local distribution provider would allow generators to eliminate the need for an on-site backup generator which has initial high costs and continued maintenance costs. It also requires a fuel source that would likely require further local permitting. Eliminating fuel storage also makes the site inherently safer.  A meter that has the capability to function as an EPS Meter is also not a standard meter for most local distribution companies and the requirement of an EPS Meter would mean additional infrastructure to support the backup service. | |
| **Credit Work Group** | | To be determined | |
| **PRS Decision** | | On 8/11/22, PRS voted unanimously to table NPRR1144 and refer the issue to WMS. All Market Segments participated in the vote. | |
| **Summary of PRS Discussion** | | On 8/11/22, Plus Power revoked its request for urgent status and requested that NPRR1144 be tabled in anticipation of further discussion at the August 25, 2022 Metering Working Group (MWG) Meeting and pending comments. | |

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| **Market Segment** | Not Applicable |

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| **Comments Received** | |
| **Comment Author** | **Comment Summary** |
| ERCOT 080422 | Expressed confusion regarding NPRR1144’s intent and suggested that additional guidance may be required in regard to how Distribution Service Providers (DSPs), Transmission Service Providers (TSPs), and Resources will be electrically connected; ERCOT also recommended that NPRR1144 be discussed at the August 25, 2022 MWG Meeting |

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| **Market Rules Notes** |

None

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| **Proposed Protocol Language Revision** |

**10.3.2.3 Generation Netting for ERCOT-Polled Settlement Meters**

(1) Each Generation Resource and Settlement Only Generator (SOG) and each Load that is designated to be netted with that Generation Resource or SOG, including construction and maintenance Load that is netted with existing generation auxiliaries, must be physically metered at its POI to the ERCOT Transmission Grid or Service Delivery Point, or, in accordance with Section 10.3.2.2, Loss Compensation of EPS Meter Data, loss-compensated to its POI to the ERCOT Transmission Grid. Interval Data Recorders (IDRs) must be used to determine generator output or Load usage. In the intervals where the generation output exceeds the Load, the net must be settled as generation. In the intervals where the Load exceeds the generation output, the net must be settled as Load, and carry any applicable Load shared charges and credits.

(2) For Settlement purposes, netting is not allowed except under the configurations described in paragraphs (2)(a) through (2)(e) below, and only if the service arrangement is otherwise lawful. ERCOT has no obligation to independently determine whether a site configuration that includes both Loads and Generation Resource(s) or SOGs complies with Public Utility Regulatory Act (PURA) or the Public Utility Commission of Texas (PUCT) Substantive Rules, and ERCOT’s approval of a metering proposal for such a site is not a verification of the legality of that arrangement:

(a) Single POI or Service Delivery Point;

(b) Transmission-level interconnections where all POIs are located at the same substation, at the same voltage, and under normal operating conditions, are interconnected through common electrical equipment such as circuit breakers, connecting cables, bus bars, switches/isolators. Qualifying station arrangements include, but are not limited to, Generation and Load connected in a line bus, ring bus, double-breaker, or breaker-and-a-half configuration;

(c) Multiple POIs where the Loads and generator output are electrically connected to a common switchyard, as defined in paragraph (6) below. In addition, there must be sufficient generator capacity to serve all plant Loads for netting to occur;

(d) A Qualifying Facility (QF) with POIs, where the QF is selling energy to a thermal host, may net the Load meters of the thermal host with the QF’s generation meters when the Load and generation are electrically connected to a common switchyard. In instances in which Load is served by new on-site generation through a common switchyard, the TSP or DSP may install monitoring equipment necessary for measuring Load to determine stranded cost charges, if any are applicable, as determined under the PURA and applicable PUCT rules. For purposes of this Section, new on-site generation has the meaning as contained in Public Utility Regulatory Act, Tex. Util. Code Ann. §§ 39.252 and 39.262(k) (Vernon 1998 & Supp. 2007) (PURA); or

(e) For Generation Resources and/or Load with flow-through on a private, contiguous transmission system (not included in a TSP or DSP rate base) and in a configuration existing as of October 1, 2000, the meters at the interconnections with the ERCOT Transmission Grid may be netted for the purpose of determining Generation Resources or Load. For Settlement purposes, when the net is a Load, the metered interconnection points must be assigned to the same Load Zone and Unaccounted for Energy (UFE) zone.

(3) For Energy Storage Resource (ESR) sites, Wholesale Storage Load (WSL) must be separately metered from all other Loads and generation, and must be metered using EPS Metering Facilities.

(a) For configurations where the Resource Entity telemeters an auxiliary Load value to the EPS Meter:

(i) The total energy into the ESR must be separately metered from all other Loads and generation, and must be metered using EPS Metering Facilities; and

(ii) The auxiliary Load energy shall be stored in the EPS Meter’s IDR, per channel assignments defined in the SMOG, with the exception of a backup station service used for security, protection and control so long as the projected backup station service energy is less than 4/1,000th of a percent of the yearly battery Energy Storage Systems (ESS) charging energy assuming a round trip efficiency of 86%.

(b) For configurations where the WSL is not at a POI, it must be metered behind a single POI metering point, per the requirements in paragraph (3) or (3)(a) above; and

(c) WSL for a compressed air energy storage Load Resource is exempt from the requirement to be electrically connected to a common switchyard, as defined in paragraph (6) below.

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| ***[NPRR995: Replace paragraph (3) above with the following upon system implementation:]***  (3) For Energy Storage Resource (ESR), Settlement Only Distribution Energy Storage System (SODESS), or Settlement Only Transmission Energy Storage System (SOTESS) sites, Wholesale Storage Load (WSL) must be separately metered from all other Loads and generation, and must be metered using EPS Metering Facilities.  (a) For configurations where the Resource Entity telemeters an auxiliary Load value to the EPS Meter:  (i) The total energy into the ESR, SODESS, or SOTESS must be separately metered from all other Loads and generation, and must be metered using EPS Metering Facilities; and  (ii) The auxiliary Load energy shall be stored in the EPS Meter’s IDR, per channel assignments defined in the SMOG.  (b) For configurations where the WSL is not at a POI, it must be metered behind a single POI metering point, per the requirements in paragraph (3) or (3)(a) above; and  (c) WSL for a compressed air energy storage Load Resource is exempt from the requirement to be electrically connected to a common switchyard, as defined in paragraph (6) below. |

(4) ERCOT shall maintain descriptions of the Metering Facilities of all common switchyards that contain multiple POIs of Loads (ESI IDs) and generation meters (EPS). The description is limited to identifying the Entities within a common switchyard and a simplified diagram showing the metering configuration of all Supervisory Control and Data Acquisition (SCADA) and Settlement Metering points.

(5) All Load(s) included in the netting arrangement for an EPS Metering Facility shall only be electrically connected to the ERCOT Transmission Grid through the EPS metering point(s) for such Facility.  Such Loads shall not be electrically connected to the ERCOT Transmission Grid through electrical connections that are not metered by the EPS metering point(s) for the Facility, with the exception of a backup station service used only for security, protection and control.

(6) For purposes of this Section, a common switchyard is defined as an electric substation Facility where the POI for Load and Generation Resources are located at the same Facility but where the interconnection points are physically not greater than 400 yards apart. The physical connections of the Load to its POI and the Generation Resource to its POI cannot be Facilities that have been placed in a TSP’s or DSP’s rate base.

(7) Notwithstanding any other provision in this section, for any Generation Resource or ESR that is configured to serve a Customer Load as part of a Private Microgrid Island (PMI), the connection to the Customer Load in the PMI configuration shall be located behind the EPS metering point at the Resource’s POI. For a PMI configuration that includes an ESR that is receiving WSL treatment for charging Load, an EPS Meter shall be located to measure the ESR’s gross output net of any internal telemetered auxiliary Load, and a separate Transmission and/or Distribution Service Provider (TDSP) ESI ID (for nodal Settlement) with a Load Serving Entity (LSE) association must be established for the site prior to service of any Load.

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| ***[NPRR945: Insert paragraph (8) below upon system implementation:]***  (8) ERCOT shall post on the ERCOT website a report listing all Generation Resources or Settlement Only Generators (SOGs) that have achieved commercial operations, excluding Decommissioned Generation Resources, Mothballed Generation Resources, and decommissioned SOGs, whose Resource Registration data indicates that the Generation Resource or SOG is part of a Private Use Network. The report must identify the name of the Generation Resource or SOG site, its nameplate capacity, and the date the Generation Resource or SOG was added to the report. The report shall not identify any confidential, customer-specific information regarding netted loads. ERCOT shall update the list at least monthly. |