|  |  |  |  |
| --- | --- | --- | --- |
| NOGRR Number | [265](https://www.ercot.com/mktrules/issues/NOGRR265) | NOGRR Title | Related to NPRR1238, Voluntary Registration of Loads with Curtailable Load Capabilities |
| Date Posted | | June 26, 2024 | |
|  | |  | |
| Requested Resolution | | Urgent status is necessary due to the magnitude of large Loads in the ERCOT queue. Large Loads with 5-10 times a Transmission Operator’s (TO’s) normal native load can create a Load shed obligation for a small TO that could lead to shedding 100% of its native load and still be non-compliant with an ERCOT Load shed instruction. | |
| Nodal Operating Guide Sections Requiring Revision | | 4.5.3.1, General Procedures Prior to EEA Operations  4.5.3.4, Qualified Scheduling Entity VECL Load Shed Obligation (new)  4.5.3.4, Load Shed Obligation | |
| Related Documents Requiring Revision/Related Revision Requests | | Nodal Protocol Revision Request (NPRR) 1238, Voluntary Registration of Loads with Curtailable Load Capabilities | |
| Revision Description | | This Nodal Operating Guide Revision Request (NOGRR) establishes a process by which Loads may operate as a Voluntary Early Curtailment Load (VECL) so that they can be accounted for differently in Load shed tables than other Loads. | |
| Reason for Revision | | [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission  General system and/or process improvement(s)  Regulatory requirements  ERCOT Board/PUCT Directive  *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* | |
| Justification of Reason for Revision and Market Impacts | | This NOGRR establishes a process by which Loads may inform ERCOT that the Load consumer is willing to curtail in the event of a Physical Responsive Capability (PRC) shortfall as defined in Section 4.5.3.1 in order to help utilities and ERCOT properly account for Load shed obligations.  This process is necessary so that utilities with large Loads that will be Off-Line during emergency operations don’t impact that utility’s expected Load shed obligations.  For example, a utility that typically has 200 MW of Demand may have a new customer that is adding 800 MW of Demand.  If they are expected to shed 5% of their Load during an emergency, then the Load shed obligation would increase from 10 MW to 50 MW. If the new 800 MW customer will actually be Off-Line, then it should have no incremental impact on the utility’s Load shed obligation. | |

|  |  |
| --- | --- |
| Sponsor | |
| Name | Joe Dan Wilson |
| E-mail Address | [jwilson@gsec.coop](mailto:jwilson@gsec.coop) |
| Company | Golden Spread Electric Cooperative (GSEC) |
| Phone Number | 806-349-5210 |
| Cell Number | 806-340-1214 |
| Market Segment | Cooperative |

|  |  |
| --- | --- |
| **Market Rules Staff Contact** | |
| **Name** | Jordan Troublefield |
| **E-Mail Address** | [Jordan.Troublefield@ercot.com](mailto:Jordan.Troublefield@ercot.com) |
| **Phone Number** | 512-248-6521 |

|  |
| --- |
| **Market Rules Notes** |

Please note that the following NOGRR(s) also propose revisions to the following Section(s):

* NOGRR262, Provisions for Operator-Controlled Manual Load Shed
  + Section 4.5.3.4

|  |
| --- |
| Proposed Guide Language Revision |

**4.5.3.1 General Procedures Prior to EEA Operations**

(1) Prior to declaring EEA Level 1 detailed in Section 4.5.3.3, EEA Levels, ERCOT may perform the following operations consistent with Good Utility Practice:

(a) Provide Dispatch Instructions to QSEs for specific Resources to operate at an Emergency Base Point to maximize Resource deployment so as to increase Responsive Reserve (RRS) levels on other Resources;

(b) Commit specific available Resources as necessary that can respond in the timeframe of the emergency. Such commitments will be settled using the Hourly Reliability Unit Commitment (HRUC) process;

(c) Start Reliability Must-Run (RMR) Units available in the time frame of the emergency. RMR Units should be loaded to full capability;

(d) Utilize available Resources providing RRS, ERCOT Contingency Reserve Service (ECRS), and Non-Spinning Reserve (Non-Spin) services as required;

(e) Instruct TSPs and Distribution Service Providers (DSPs) or their agents to reduce Customer Load by using existing, in-service distribution voltage reduction measures if ERCOT determines that the implementation of these measures could help avoid entering into EEA and ERCOT does not expect to need to use these measures to reduce the amount of Load shedding that may be needed in EEA Level 3. A TSP, DSP, or their agent shall implement these instructions if distribution voltage reduction measures are available and already installed. If the TSP, DSP, or their agent determines in their sole discretion that the distribution voltage reduction would adversely affect reliability, the voltage reduction measure may be reduced, modified, or otherwise changed from maximum performance to a level of exercise that has no negative impact to reliability; and

(f) ERCOT shall use the PRC and system frequency to determine the appropriate Emergency Notice and EEA levels.

(2) A Load that is willing to curtail during any shortfall described in this Section, subject to an agreement with its QSE, shall be registered by the QSE as a Voluntary Early Curtailment Load (VECL) pursuant to Protocol Section 16.20, Designation of a Qualified Scheduling Entity by a Voluntary Early Curtailment Load.

(3) When PRC falls below 3,100 MW and is not projected to be recovered above 3,100 MW within 30 minutes following the deployment of Non-Spin, ERCOT may deploy some or all VECLs in 100 MW blocks allocated to QSEs, as described in Section 4.5.3.4, Qualified Scheduling Entity VECL Load Shed Obligation, in order to maintain or restore 3,100 MW of PRC to the greatest extent possible.

(a) VECLs may be deployed in any number of 100 MW blocks and at any time in a Settlement Interval at the discretion of ERCOT operators.

(b) Upon deployment of any amount of VECLs, ERCOT shall notify all Market Participants via an operations message that such deployment has been made and shall specify the MW capacity of VECL deployed.

(c) ERCOT shall notify QSEs of the VECLs deployment via an Extensible Markup (XML) message. The deployment time within the ERCOT XML deployment message shall initiate the VECL deployment and the VECL ramp period.

(d) Upon deployment, QSEs shall instruct their VECLs to cease consumption within 30 minutes from the start of the VECL ramp period and the deployed VECLs shall comply with those instructions. When responding to this deployment instruction, the VECL shall limit their ramp rate to 20% per minute.

(e) QSEs shall promptly notify the ERCOT operator of any VECLs that are unable to comply with a deployment instruction, including the reason for the failure to comply. ERCOT may instruct the applicable TSP or QSE to disconnect a VECL that fails to comply with a deployment instruction.

(f) ERCOT shall notify QSEs of the termination of the VECLs deployment via an XML recall message. The ERCOT XML recall message shall represent the official notice of the VECLs recall.

(g) Upon termination of the VECLs deployment, any VECL shall not increase consumption at a rate exceeding 20% per minute.

(h) Upon termination of VECLs deployment, ERCOT shall notify all Market Participants via an operations message that such deployment has been terminated and shall specify the MW capacity of VECLs recalled.

(4) When PRC falls below 3,000 MW and is not projected to be recovered above 3,000 MW within 30 minutes following the deployment of Non-Spin, ERCOT may deploy available contracted Emergency Response Service (ERS)-10 and ERS-30 via an XML message followed by a VDI to the QSE Hotline. The ERS-10 and ERS-30 ramp periods shall begin at the completion of the VDI.

(a) ERS-10 and ERS-30 may be deployed at any time in a Settlement Interval. ERS-10 and ERS-30 may be deployed either simultaneously or separately, and in any order, at the discretion of ERCOT operators.

(b) Upon deployment, QSEs shall instruct their ERS Resources in ERS-10 and ERS-30 to perform at contracted levels consistent with the criteria described in Section 8.1.3.1.4, Event Performance Criteria for Emergency Response Service Resources, until either ERCOT releases the ERS-10 and ERS-30 deployment or the ERS-10 and ERS-30 Resources have reached their maximum deployment time.

(c) ERCOT shall notify QSEs of the release of ERS-10 and ERS-30 via an XML message followed by VDI to the QSE Hotline. The VDI shall represent the official notice of ERS-10 and ERS-30 release.

(d) Upon release, an ERS Resource shall return to a condition such that it is capable of meeting its ERS performance requirements as soon as practical, but no later than ten hours following the release.

(5) When a Watch is issued for PRC below 3,000 MW and ERCOT expects system conditions to deteriorate to the extent that an EEA Level 2 or 3 may be experienced, ERCOT shall evaluate constraints active in SCED and determine which constraints have the potential to limit generation output.

(a) Upon identification of such constraints, ERCOT shall coordinate with the TSPs that own or operate the overloaded Transmission Facilities associated with those constraints, as well as the Resource Entities whose generation output may be limited, to determine whether:

|  |
| --- |
| ***[NOGRR177: Replace paragraph (a) above with the following upon system implementation of NPRR857:]***  (a) Upon identification of such constraints, ERCOT shall coordinate with the TSPs and DCTOs that own or operate the overloaded Transmission Facilities associated with those constraints, as well as the Resource Entities whose generation output may be limited, to determine whether: |

(i) A 15-Minute Rating is available that allows for additional transmission capacity for use in congestion management, if an EEA Level 2 or 3 is declared, and post-contingency actions can be taken within 15 minutes to return the flow to within the Emergency Rating. Such actions may include, but are not limited to, reducing the generation that increased output as a result of enforcing the 15-Minute Rating rather than the Emergency Rating;

(ii) Post-contingency loading of the Transmission Facilities is expected to be at or below Normal Rating within two hours; or

(iii) Additional transmission capacity could allow for additional output from a limited Generation Resource by taking one of the following actions:

1. Restoring Transmission Elements that are out of service;
2. Reconfiguring the transmission system; or
3. Making adjustments to phase angle regulator tap positions.

If ERCOT determines that one of the above-mentioned actions allows for additional output from a limited Generation Resource, ERCOT may instruct the TSPs to take the action(s) during the Advisory to allow for additional output from the limited Generation Resource.

(b) ERCOT shall also coordinate with TSPs who own and operate the Transmission Facilities associated with the double-circuit contingencies for the constraints identified above to determine whether the double-circuit failures are at a high risk of occurring due to system conditions, which may include: severe weather conditions forecasted by ERCOT in the vicinity of the double-circuit, weather conditions that indicate a high risk of insulator flashover on the double-circuit, repeated Forced Outages of the individual circuits that are part of the double-circuit in the preceding 48 hours, or fire in progress in the right of way of the double-circuit.

|  |
| --- |
| ***[NOGRR177: Replace paragraph (b) above with the following upon system implementation of NPRR857:]***  (b) ERCOT shall also coordinate with TSPs and DCTOs who own and operate the Transmission Facilities associated with the double-circuit contingencies for the constraints identified above to determine whether the double-circuit failures are at a high risk of occurring due to system conditions, which may include: severe weather conditions forecasted by ERCOT in the vicinity of the double-circuit, weather conditions that indicate a high risk of insulator flashover on the double-circuit, repeated Forced Outages of the individual circuits that are part of the double-circuit in the preceding 48 hours, or fire in progress in the right of way of the double-circuit. |

(c) The actions detailed in this Section shall be supplemental to the development and maintenance of Constraint Management Plans (CMPs) as otherwise directed by the Protocols or Operating Guides.

(6) When a Watch is issued for PRC below 3,000 MW, QSEs shall suspend any ongoing ERCOT-required Resource performance testing.

**4.5.3.4 Qualified Scheduling Entity VECL Load Shed Obligation**

(1) Each QSE representing one or more VECLs shall take and direct actions to ensure that ERCOT VECL Load shed instructions are effectuated. Each VECL shall comply with any reasonable instruction given by its QSE to effectuate Load shed obligations.

(2) ERCOT shall update the QSE VECL Load-shedding allocation percentage table each calendar quarter. The allocation percentages may be revised as otherwise appropriate to reflect any new or changed QSE designation and VECL amount as reflected in the Resource Integration and Ongoing Operations (“RIOO”) system. ERCOT shall maintain and post on the ERCOT website a QSE VECL Load shed table that reflects each QSE’s total VECL Load shed obligation.

(3) Following ERCOT’s quarterly VECL review or ERCOT’s receipt of any new or changed QSE designation, ERCOT shall post any anticipated revisions to the QSE VECL Load shed table on the ERCOT website. ERCOT shall issue a Market Notice announcing the posting of the revisions at least ten days prior to the effective date of the revisions or as soon as practicable if ERCOT determines there is a need to correct the Market Notice less than ten days before the effective date.

**4.5.3.5 Transmission Operator Load Shed Obligation**

(1) Each TO shall take and direct actions to ensure that ERCOT Load shed instructions are effectuated. Each DSP shall comply with any reasonable instruction given by its TO to effectuate Load shed obligations.

(2) Load shed obligation percentages for ERCOT EEA Level 3 Load shedding will be determined by calculating each TO’s Load as a percentage of the ERCOT System summer and winter peak 15 minute Demand interval. For the purposes of this paragraph, TO Load, with the exception of VECLs, will be the amount of Load being served by all of the TDSPs that the TO represents. The calculations for summer and winter Load shed obligation percentage are as follows:

(a) The calculated Load shed obligation percentage for the summer Season will be based on the single highest coincident ERCOT System peak 15 minute Demand interval for the summer months of June through September as reflected in the 4-Coincident Peak (4-CP) data submitted by ERCOT to the Public Utility Commission of Texas (PUCT) for that year. Anticipated revisions to the summer Load shed table shall be posted as described in paragraph (4) below no later than March 31st of each year based on data from the previous calendar year.

(b) The calculated Load shed obligation percentage for the winter Season will be based on the single highest coincident ERCOT System peak 15 minute Demand interval for the winter months of December through February as reflected at the time that ERCOT extracts the Load data for the winter Season from its settlement system. Anticipated revisions to the winter Load shed table shall be posted as described in paragraph (4) below no later than August 31st of each year based on data from December of the previous calendar year and January through February of the current year.

(3) The summer Load shed table will be used during a hot weather Load shed event and the winter Load shed table will be used during a cold weather Load shed event. ERCOT will determine, in its sole discretion, whether an EEA event will be treated as a hot weather or cold weather Load shed event based on the weather conditions. The summer and winter Load shed time periods will be published annually with the updated obligation tables in paragraph (2) above. In addition, if ERCOT issues an Operating Condition Notice (OCN), it will notify Market Participants which Load shed table would apply to the potential Load shed event. When ERCOT directs TOs to shed Load, it will specify which Load shed table applies for the Load shed event. ERCOT shall use the same Load shed table for the duration of a Load shed event.

(4) ERCOT shall maintain the Seasonal Load shed tables reflecting each TO’s total Load shed obligation on the ERCOT website. The Load shed obligation percentages will be reviewed by ERCOT and revised as described above, or as otherwise deemed appropriate by ERCOT, to reflect any new or changed TO designation by a DSP. Adjustments to the Load shed obligations due to changes in TO designations will be performed using the same Load data upon which the table was based. Following ERCOT’s Seasonal peak Load reviews or ERCOT’s receipt of any new or changed TO designation, ERCOT shall post any anticipated revisions to the Load shed tables on the ERCOT website. ERCOT shall issue a Market Notice announcing the posting of the revisions at least ten days prior to the effective date of the revisions or as soon as practicable if ERCOT determines there is a need to correct the Market Notice less than ten days before the effective date.