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| NPRR Number | [1106](http://www.ercot.com/mktrules/issues/NPRR1106) | NPRR Title | Deployment of Emergency Response Service (ERS) Prior to Declaration of Energy Emergency Alert (EEA) |
| Date of Decision | November 29, 2021 |
| Action | Recommended Approval |
| Timeline  | Urgent – to implement revisions to the Emergency Response Service (ERS) deployment process in time for the winter season.  |
| Proposed Effective Date | Upon Public Utility Commission of Texas (PUCT) approval – December 17, 2021 |
| Priority and Rank Assigned | Not Applicable |
| Nodal Protocol Sections Requiring Revision  | 2.1, Definitions3.14.3, Emergency Response Service6.5.9.4.1, General Procedures Prior to EEA Operations6.5.9.4.2, EEA Levels6.5.9.4.3, Restoration of Market Operations8.1.3.1.3.1, Time Period Availability Calculations for Emergency Response Service Loads8.1.3.1.3.2, Time Period Availability Calculations for Emergency Response Service Generators |
| Related Documents Requiring Revision/Related Revision Requests | Nodal Operating Guide Revision Request (NOGRR) 237, Related to NPRR1106, Deployment of Emergency Response Service (ERS) Prior to Declaration of Energy Emergency Alert (EEA)Nodal Operating Guide Section 4.5.3.3, EEA LevelsOther Binding Document Revision Request (OBDRR) 036, Related to NPRR1106, Deployment of Emergency Response Service (ERS) Prior to Declaration of EEAERCOT Operating Procedures – Real-Time DeskERCOT Operating Procedures – Resource DeskERCOT Operating Procedures – Scripts Emergency Response Service Procurement MethodologyEmergency Response Service Technical Requirements & Scope of Work |
| Revision Description | This Nodal Protocol Revision Request (NPRR) revises the Protocols to allow for the deployment of ERS prior to the declaration of an Energy Emergency Alert (EEA) when Physical Responsive Capability (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-Spinning Reserve (Non-Spin). |
| 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 | In PUCT Docket No. 52373, Review of Wholesale Electric Market Design, PUCT Staff filed a Motion for Good Cause Exception that requested the PUCT grant ERCOT a good cause exception pursuant to the Order Granting Exception to P.U.C. SUBST. R, 25.507, Electric Reliability Council of Texas (ERCOT) Emergency Response Service (ERS), “so that ERCOT may procure ERS that may be used prior to the declaration of an EEA, rather than being limited to use of the ERS during an EEA, as allowed by 16 TAC § 25.507(a).” The PUCT voted to grant this exception at its October 28, 2021 Open Meeting . To effectuate the PUCT’s direction, ERCOT is revising the ERS Request for Proposal (RFP) and ERS Technical Requirements & Scope of Work to make clear that ERS procured on a going forward basis may be deployed prior to EEA. These changes will be effective starting with ERS procured for the December 2021 to March 2022 Standard Contract Term.The revisions proposed in this NPRR are necessary to clarify that, pursuant to the good cause exception granted by the PUCT, ERS may deploy ERS prior to declaration of an EEA. More specifically, the proposed revisions grant ERCOT Operators the discretion to deploy ERS 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.  |
| Credit Work Group Review | ERCOT Credit Staff and the Credit Work Group (Credit WG) have reviewed NPRR1106 and do not believe that it requires changes to credit monitoring activity or the calculation of liability. |
| PRS Decision | On 11/10/21, PRS voted via roll call to waive notice for NPRR1106, and to grant NPRR1106 Urgent status. There were two opposing votes from the Independent Generator (Luminant) and Municipal (Denton) Market Segments, and seven abstentions from the Consumer (2) (OPUC, Occidental), Independent Generator (Jupiter Power), Independent Power Marketer (IPM) (3) (DC Energy, Morgan Stanley, Tenaska), and Municipal (Austin Energy) Market Segments. PRS then voted via roll call to recommend approval of NPRR1106 as submitted, and to forward to TAC NPRR1106 and the Impact Analysis. There was one opposing vote from the IPM (Morgan Stanley) Market Segment, and one abstention from the Municipal (Austin Energy) Market Segment. All Market Segments participated in the votes. |
| Summary of PRS Discussion | On 11/10/21, ERCOT Staff reviewed NPRR1106. |
| TAC Decision | On 11/29/21, TAC voted via roll call to recommend approval of NPRR1106 as recommended by PRS in the 11/10/21 PRS Report with a recommended effective date of upon PUCT approval (12/17/21). There was one opposing vote from the IPM (Morgan Stanley) Market Segment, and one abstention from the Municipal (Garland) Market Segment. All Market Segments participated in the vote. |
| Summary of TAC Discussion | On 11/29/21, TAC reviewed the ERCOT Opinion and ERCOT Market Impact Statement for NPRR1106. |
| ERCOT Opinion | ERCOT supports approval of NPRR1106. |
| ERCOT Market Impact Statement | ERCOT Staff has reviewed NPRR1106 and believes the market impact for NPRR1106 enhances ERCOT’s operational tools to address potential reliability outcomes by granting ERCOT Operators the discretion to deploy ERS 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. |

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| Market Segment | Not Applicable |

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| **Comments Received** |
| Comment Author | **Comment Summary** |
| None |  |

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| **Market Rules Notes** |

Please note that the following NPRR(s) also propose revisions to the following section(s):

* NPRR1094, Allow Under Frequency Relay Load to be Manually Shed During EEA3
	+ Section 6.5.9.4.2
* NPRR1105, Option to Deploy Distribution Voltage Reduction Measures Prior to Energy Emergency Alert (EEA)
	+ Section 6.5.9.4.1
	+ Section 6.5.9.4.2

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| Proposed Protocol Language Revision |

## 2.1 DEFINITIONS

**Emergency Response Service (ERS)**

An emergency service consistent with P.U.C. Subst. R. 25.507, Electric Reliability Council of Texas (ERCOT) Emergency Response Service (ERS), used to assist in maintaining or restoring ERCOT System frequency. ERS is not an Ancillary Service.

***3.14.3 Emergency Response Service***

(1) ERCOT shall procure and deploy ERS with the goal of promoting reliability prior to and during energy emergencies***.***

***6.5.9.4.1 General Procedures Prior to EEA Operations***

(1) Prior to declaring EEA Level 1 detailed in Section 6.5.9.4.2, 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 PRC 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 HRUC process;

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

(d) Utilize available Resources providing RRS and Non-Spin services as required; and

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| ***[NPRR863: Replace item (d) above with the following upon system implementation:]***(d) Utilize available Resources providing RRS, ECRS, and Non-Spin services as required; and |

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

(2) 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 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.***6.5.9.4.2 EEA Levels***

(1) ERCOT will declare an EEA Level 1 when PRC falls below 2,300 MW and is not projected to be recovered above 2,300 MW within 30 minutes without the use of the following actions that are prescribed for EEA Level 1:

(a) ERCOT shall take the following steps to maintain steady state system frequency near 60 Hz and maintain PRC above 1,750 MW:

(i) Request available Generation Resources that can perform within the expected timeframe of the emergency to come On-Line by initiating manual HRUC or through Dispatch Instructions;

(ii) Use available DC Tie import capacity that is not already being used;

(iii) Issue a Dispatch Instruction for Resources to remain On-Line which, before start of emergency, were scheduled to come Off-Line; and

(iv) Instruct QSEs to deploy undeployed ERS-10 and ERS-30.

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| ***[NPRR1010: Insert paragraph (v) below upon system implementation of the Real-Time Co-Optimization (RTC) project:]***(iv) At ERCOT’s discretion, manually deploy, through ICCP, available RRS and ECRS capacity from Generation Resources having a Resource Status of ONSC and awarded RRS or ECRS. |

(b) QSEs shall:

(i) Ensure COPs and telemetered HSLs are updated and reflect all Resource delays and limitations; and

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| ***[NPRR1010: Replace paragraph (i) above with the following upon system implementation of the Real-Time Co-Optimization (RTC) project:]***(i) Ensure COPs and telemetered HSLs, Normal Ramp Rates, Emergency Ramp Rates, and Ancillary Service capabilities are updated and reflect all Resource delays and limitations; and |

(ii) Suspend any ongoing ERCOT required Resource performance testing.

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| ***[NPRR995 and NPRR1002: Insert applicable portions of paragraph (iii) below upon system implementation:]***(iii) Ensure that each of its ESRs and SOESSs suspends charging until the EEA is recalled, except under the following circumstances:(A) The ESR has a current SCED Base Point Instruction, Load Frequency Control Dispatch Instruction, or manual Dispatch Instruction to charge the ESR; (B) The ESR or SOESS is actively providing Primary Frequency Response; or (C) The ESR or SOESS is co-located behind a POI with onsite generation that is incapable of exporting additional power to the ERCOT System, in which case the ESR may continue to charge as long as maximum output to the ERCOT System is maintained. |

(2) ERCOT may declare an EEA Level 2 when the clock-minute average system frequency falls below 59.91 Hz for 15 consecutive minutes. ERCOT will declare an EEA Level 2 when PRC falls below 1,750 MW and is not projected to be recovered above 1,750 MW within 30 minutes without the use of the following actions that are prescribed for EEA Level 2:

(a) In addition to the measures associated with EEA Level 1, ERCOT shall take the following steps to maintain steady state system frequency at a minimum of 59.91 Hz and maintain PRC above 1,430 MW:

(i) Instruct TSPs and DSPs or their agents to reduce Customer Load by using distribution voltage reduction measures, if deemed beneficial by the TSP, DSP, or their agents.

(ii) Instruct TSPs and DSPs to implement any available Load management plans to reduce Customer Load.

(iii) Instruct QSEs to deploy RRS supplied from Load Resources (controlled by high-set under-frequency relays). ERCOT shall issue such Dispatch Instructions in accordance with the deployment methodologies described in paragraph (iv) below.

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| ***[NPRR863: Replace item (iii) above with the following upon system implementation:]***(iii) Instruct QSEs to deploy ECRS or RRS (controlled by high-set under-frequency relays) supplied from Load Resources. ERCOT may deploy ECRS or RRS simultaneously or separately, and in any order. ERCOT shall issue such Dispatch Instructions in accordance with the deployment methodologies described in paragraph (iv) below. |

(iv) ERCOT shall deploy RRS capacity supplied by Load Resources (controlled by high-set under-frequency relays) in accordance with the following:

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| ***[NPRR863: Replace paragraph (iv) above with the following upon system implementation:]***(iv) Load Resources providing ECRS that are not controlled by high set under-frequency relays shall be deployed prior to Group 1 deployment. ERCOT shall deploy ECRS and RRS capacity supplied by Load Resources (controlled by high set under-frequency relays) in accordance with the following: |

(A) Instruct QSEs to deploy half of the RRS that is supplied from Load Resources (controlled by high-set under-frequency relays) by instructing the QSE representing the specific Load Resource to interrupt Group 1 Load Resources providing RRS. QSEs shall deploy Load Resources according to the group designation and will be given some discretion to deploy additional Load Resources from Group 2 if Load Resource operational considerations require such. ERCOT shall issue notification of the deployment via XML message. ERCOT shall follow this XML notification with a Hotline VDI, which shall initiate the ten-minute deployment period;

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| ***[NPRR863 and NPRR939: Replace applicable portions of paragraph (A) above with the following upon system implementation:]***(A) Instruct QSEs to deploy RRS with a Group 1 designation and all of the ECRS that is supplied from Load Resources (controlled by high-set under-frequency relays) by instructing the QSE representing the specific Load Resources to interrupt Group 1 Load Resources providing ECRS and RRS. QSEs shall deploy Load Resources according to the group designation and will be given some discretion to deploy additional Load Resources from any of the groups not designated for deployment if Load Resource operational considerations require such. ERCOT shall issue notification of the deployment via XML message. ERCOT shall follow this XML notification with a Hotline VDI, which shall initiate the ten-minute deployment period; |

(B) At the discretion of the ERCOT Operator, instruct QSEs to deploy the remaining RRS that is supplied from Load Resources (controlled by high-set under-frequency relays) by instructing the QSE representing the specific Load Resource to interrupt Group 2 Load Resources providing RRS. ERCOT shall issue notification of the deployment via XML message. ERCOT shall follow this XML notification with a Hotline VDI, which shall initiate the ten-minute deployment period;

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| ***[NPRR939: Replace paragraph (B) above with the following upon system implementation:]***(B) At the discretion of the ERCOT Operator, instruct QSEs to deploy RRS that is supplied from Load Resources (controlled by high-set under-frequency relays) by instructing the QSE representing the specific Load Resource to interrupt additional Load Resources providing RRS based on their group designation. ERCOT shall issue notification of the deployment via XML message. ERCOT shall follow this XML notification with a Hotline VDI, which shall initiate the ten-minute deployment period;  |

(C) The ERCOT Operator may deploy both of the groups of Load Resources providing RRS at the same time. ERCOT shall issue notification of the deployment via XML message. ERCOT shall follow this XML notification with a Hotline VDI, which shall initiate the ten-minute deployment period; and

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| ***[NPRR863 and NPRR939: Replace applicable portions of paragraph (C) above with the following upon system implementation:]***(C) The ERCOT Operator may deploy Load Resources providing only ECRS (not controlled by high-set under-frequency relays) and all groups of Load Resources providing RRS and ECRS at the same time. ERCOT shall issue notification of the deployment via XML message. ERCOT shall follow this XML notification with a Hotline VDI, which shall initiate the ten-minute deployment period; and |

(D) ERCOT shall post a list of Load Resources on the MIS Certified Area immediately following the DRUC for each QSE with a Load Resource obligation which may be deployed to interrupt under paragraph (A), Group 1 and paragraph (B), Group 2. ERCOT shall develop a process for determining which individual Load Resource to place in Group 1 and which to place in Group 2. ERCOT procedures shall select Group 1 and Group 2 based on a random sampling of individual Load Resources. At ERCOT’s discretion, ERCOT may deploy all Load Resources at any given time during EEA Level 2.

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| ***[NPRR939 and NPRR1010: Replace applicable portions of paragraph (D) above with the following upon system implementation for NPRR939; and upon system implementation of the Real-Time Co-Optimization (RTC) project for NPRR1010:]***(D) ERCOT shall post a list of Load Resources on the MIS Certified Area immediately following the DRUC for each QSE with a Load Resource RRS or ECRS award, which may be deployed to interrupt under paragraph (A) and paragraph (B). ERCOT shall develop a process for determining which individual Load Resource to place in each group based on a random sampling of individual Load Resources. At ERCOT’s discretion, ERCOT may deploy all Load Resources at any given time during EEA Level 2. |

(vi) Unless a media appeal is already in effect, ERCOT shall issue an appeal through the public news media for voluntary energy conservation; and

(vii) With the approval of the affected non-ERCOT Control Area, TSPs, DSPs, or their agents may implement transmission voltage level BLTs, which transfer Load from the ERCOT Control Area to non-ERCOT Control Areas in accordance with BLTs as defined in the Operating Guides.

(b) Confidentiality requirements regarding transmission operations and system capacity information will be lifted, as needed to restore reliability.

(3) ERCOT may declare an EEA Level 3 when the clock-minute average system frequency falls below 59.91 Hz for 20 consecutive minutes. ERCOT will declare an EEA Level 3 when PRC cannot be maintained above 1,430 MW or when the clock-minute average system frequency falls below 59.91 Hz for 25 consecutive minutes. Upon declaration of an EEA Level 3, ERCOT will implement any measures associated with EEA Levels 1 and 2 that have not already been implemented.

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| ***[NPRR995 and NPRR1002: Insert applicable portions of paragraph (a) below upon system implementation and renumber accordingly:]***(a) ERCOT shall instruct ESRs and SOESSs to suspend charging. For ESRs, ERCOT shall issue the instruction via a SCED Base Point, or, if otherwise necessary, via a manual Dispatch instruction. An ESR or SOESS shall suspend charging unless providing Primary Frequency Response or LFC issues a charging instruction to an ESR that is carrying Reg-Down. However, an ESR or SOESS co-located behind a POI with onsite generation that is incapable of exporting additional power to the ERCOT System may continue to charge as long as maximum output to the ERCOT System is maintained. |

(a) When PRC falls below 1,000 MW and is not projected to be recovered above 1,000 MW within 30 minutes, or when the clock-minute average frequency falls below 59.91 Hz for 25 consecutive minutes, ERCOT shall direct all TSPs and DSPs or their agents to shed firm Load, in 100 MW blocks, distributed as documented in the Operating Guides in order to maintain a steady state system frequency at a minimum of 59.91 Hz and to recover 1,000 MW of PRC within 30 minutes.

(b) In addition to measures associated with EEA Levels 1 and 2, TSPs and DSPs or their agents will keep in mind the need to protect the safety and health of the community and the essential human needs of the citizens. Whenever possible, TSPs and DSPs or their agents shall not manually drop Load connected to under-frequency relays during the implementation of the EEA.

***6.5.9.4.3 Restoration of Market Operations***

(1) ERCOT shall continue the EEA until sufficient offers are received and deployed by ERCOT to eliminate the conditions requiring the EEA and normal SCED operations are restored. After restoring RRS, ERCOT shall restore curtailed DC Tie Load. Intermittent solutions of SCED do not set new LMPs until ERCOT declares that the EEA is no longer needed.

**8.1.3.1.3.1 Time Period Availability Calculations for Emergency Response Service Loads**

(1) For an ERS Load on an ERS Default Baseline, ERCOT will calculate its ERSAF as follows:

(a) ERCOT will consider the ERS Load to have been unavailable for a 15-minute interval in a contracted ERS Time Period in which any of the following apply:

(i) The interval Load of the ERS Load was less than 95% of its contracted ERS MW capacity;

(ii) The ERS Load’s QSE notified ERCOT that the ERS Load was or would be unavailable; or

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| [NPRR1090: Delete item (ii) above upon system implementation and renumber accordingly.] |

(iii) Required metered interval data was not provided to ERCOT by the time ERCOT calculated availability for one or more sites in the ERS Resource.

(b) Otherwise, the ERS Load will be considered available for that 15-minute interval. The ERSAF will be the ratio of the number of 15-minute intervals the ERS Load was available during the ERS Time Period divided by the total number of 15-minute intervals in the ERS Time Period.

(c) Notwithstanding the foregoing, in determining the ERSAF, ERCOT will exclude from the calculation the following contracted intervals:

(i) Any 15-minute interval for which the ERS Load’s QSE notified ERCOT, in a format prescribed by ERCOT, of the ERS Load’s unavailability at least three calendar days in advance provided that the interval is among the set of intervals, starting from the beginning of the ERS Standard Contract Term, that account for up to a maximum of 2% of the total contracted 15-minute intervals for the ERS Load in the ERS Standard Contract Term;

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| [NPRR1090: Delete item (i) above upon system implementation and renumber accordingly.] |

(ii) Any 15-minute interval in which the ERS Load was deployed during an ERS deployment event or unannounced test, including intervals that begin during the ten-hour ERS recovery period following the issuance of the recall instruction; and

(iii) Any 15-minute interval following an ERS deployment resulting in exhaustion of the ERS Load’s obligation in an ERS Contract Period.

(2) For an ERS Load assigned to the alternate baseline, ERCOT will calculate its ERSAF for an ERS Time Period using the following formula:

**ERSAF** ***qce(tp)d* = MIN (1, (AV *qce(tp)d*/ (OFFERMW *qce(tp)d*)))**

The above variables are defined as follows:

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| **Variable** | **Unit** | **Description** |
| AV *qce(tp)d* | MW | Average MW Load, calculated as the average of the actual interval MW values or the MW values determined in accordance with paragraphs (a), (b), and (c) below, per 15-minute interval for an ERS Load in a contracted ERS Time Period per ERS service type *d*, excluding declared maximum base Load.  |
| OFFERMW *qce(tp)d* | MW | An ERS Load’s contracted capacity for an ERS Time Period, per ERS service type *d*, applicable to either competitively procured or self-provided ERS. |
| ERSAF *qce(tp)d* | None | Availability factor for an ERS Load for an ERS Time Period per ERS service type *d*. |
| *q* | None | A QSE. |
| *c* | None | ERS Contract Period. |
| *e* | None | An ERS Load. |
| *tp* | None | ERS Time Period. |
| *d* | None | ERS service type (Weather-Sensitive ERS-10, Non-Weather-Sensitive ERS-10, Weather -Sensitive ERS-30, or Non-Weather-Sensitive ERS-30). |

(a) If the ERS Load is co-located with an ERS Generator and the QSE has opted for separate evaluation, its Load, for purposes of availability calculations, shall be determined as specified in paragraph (3)(c) of Section 8.1.3.1.2, Performance Evaluation for Emergency Response Service Generators.

(b) For purposes of calculating availability, the interval MW value will be deemed to be equal to the declared maximum base Load if either of the following conditions are met:

(i) The ERS Load’s QSE notified ERCOT that the ERS Load was or would be unavailable; or

(ii) Required metered interval data was not provided to ERCOT by the time ERCOT calculated availability for one or more sites in the ERS Resource.

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| [NPRR1090: Replace paragraph (b) above with the following upon system implementation:](b) For purposes of calculating availability, the interval MW value will be deemed to be equal to the declared maximum base Load if the following condition is met:(i) Required metered interval data was not provided to ERCOT by the time ERCOT calculated availability for one or more sites in the ERS Resource. |

(c) For purposes of calculating availability, ERCOT shall exclude from the average any 15-minute interval meeting one or more of the following descriptions:

(i) Any 15-minute interval for which the ERS Load’s QSE notified ERCOT, in a format prescribed by ERCOT, of the ERS Load’s unavailability at least three calendar days in advance, provided that the interval is among the set of intervals, starting from the beginning of the ERS Standard Contract Term, that account for up to a maximum of 2% of the total contracted 15-minute intervals for the ERS Load for the ERS Standard Contract Term;

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| [NPRR1090: Delete item (i) above upon system implementation and renumber accordingly.] |

(ii) Any 15-minute interval in which the ERS Load was deployed during an ERS deployment event or unannounced test, including intervals that begin during the ten-hour ERS recovery period following the issuance of the recall instruction; or

(iii) Any 15-minute interval following the ERS deployment resulting in exhaustion of the ERS Load’s obligation in an ERS Contract Period.

(3) A Weather-Sensitive ERS Load shall always have its availability factor for an ERS Contract Period set to 1.0 and its availability settlement weighting factor (ERSAFWT) set to zero.

**8.1.3.1.3.2 Time Period Availability Calculations for Emergency Response Service Generators**

(1) In order to support ERCOT’s evaluation of ERS Generator availability, QSEs representing ERS Generators may submit to ERCOT the dates and times for planned maintenance (including self-tests) involving one or more ERS sites comprising the ERS Generator. This information must be submitted in a format prescribed by ERCOT, at least three calendar days in advance of the planned maintenance.

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| [NPRR1090: Delete paragraph (1) above upon system implementation and renumber accordingly.] |

(2) ERCOT shall evaluate the availability of an ERS Generator by using data from 15-minute interval metering dedicated to the ERS Generator.

(3) ERCOT will calculate an ERSAF using interval meter readings for an ERS Generator for each committed ERS Time Period as the ratio of the number of 15-minute intervals the ERS Generator was available in the ERS Time Period divided by the total number of obligated 15-minute intervals in the ERS Time Period. ERS Generators are considered available for any 15-minute interval except the following:

(a) An ERS Generator that is not co-located with an ERS Load will be considered unavailable for all 15-minute intervals that are part of an unsuccessful unannounced ERCOT test or event, as well as any subsequent intervals following the end of the test or event up to the interval immediately preceding the first full 15-minute interval for which the ERS Generator injects energy to the ERCOT System at a level greater than or equal to the sum of its injection capacity and obligation at the time of the test or event. The success or lack of success of an unannounced ERCOT test or event is determined by the criteria specified in Section 8.1.3.2, Testing of Emergency Response Service Resources.

(b) An ERS Generator that is co-located with an ERS Load and is being separately evaluated from the ERS Load will be considered unavailable for all 15-minute intervals that are part of an unsuccessful unannounced ERCOT test or event, as well as any subsequent intervals following the end of the test up to the interval immediately preceding the first full 15-minute interval for which the ERS Generator’s output energy is greater than or equal to the sum of its injection capacity and obligation at the time of the test or event. The success or lack of success of an unannounced ERCOT test or event is determined by the criteria specified in Section 8.1.3.2.

(c) An ERS Generator that is co-located with an ERS Load and is being evaluated jointly with the ERS Load will be considered unavailable for all 15-minute intervals that are part of an unsuccessful unannounced ERCOT test or event, as well as any subsequent intervals following the end of the test up to the interval immediately preceding the first full 15-minute interval for which the combined performance of the ERS Load and ERS Generator is greater than or equal to the combined obligation at the time of the test or event. The success or lack of success of an unannounced ERCOT test or event is determined by the criteria specified in Section 8.1.3.2.

(d) An ERS Generator will be considered unavailable during any 15-minute interval of an obligated ERS Time Period in which any of the following conditions are present:

(i) The ERS Generator output is greater than the sum of its self-serve capacity and its declared injection capacity for the ERS Time Period;

(ii) The export to the grid for the ERS Generator is greater than the injection capacity for the ERS Time Period;

(iii) The ERS Generator’s QSE notified ERCOT, in a format prescribed by ERCOT, that the ERS Generator is not available for the interval; or

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| [NPRR1090: Delete item (iii) above upon system implementation and renumber accordingly.] |

(iv) Required metered interval data was not provided to ERCOT by the time ERCOT calculated availability for one or more sites in the ERS Resource.

(e) ERCOT shall exclude any 15-minute intervals meeting one or more of the following descriptions from the availability:

(i) Any 15-minute interval for which the ERS Generator’s QSE notified ERCOT at least three calendar days in advance, in a format prescribed by ERCOT, of the ERS Generator(s) undergoing planned maintenance, provided that the interval is among the set of intervals, starting from the beginning of the ERS Standard Contract Term, that account for up to a maximum of 2% of the total contracted 15-minute intervals for the ERS Generator in the ERS Standard Contract Term;

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| [NPRR1090: Delete item (i) above upon system implementation and renumber accordingly.] |

(ii) Any 15-minute interval in which the ERS Generator was deployed during an ERS deployment event or unannounced test, including intervals that begin during the ten-hour ERS recovery period following the issuance of the recall instruction; and

(iii) 15-minute intervals during a successfully completed ERCOT unannounced test of the ERS Generator including intervals that begin during the ten-hour ERS recovery period.