

***OPERATING PROCEDURE***

***MANUAL***

**Resource**

**Desk**

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# 1. Introduction

## 1.1 Purpose

This procedure provides the System Operator assigned to the Resource Desk with detailed Procedures required for performing duties assigned to that position.

The Resource Desk shall monitor Ancillary Service levels to ensure QSEs are meeting their A/S obligations, execute a Supplemental Ancillary Service Market to procure additional/insufficient A/S as needed, deploy/recall A/S (Non-Spin, Load Resources providing RRS or ECRS, etc.) as system conditions require or as instructed by the Shift Supervisor. The Resource Desk Operator will also be responsible for various communication testing (Hotline, Satellite Phone, etc.), issuing market notifications and ERCOT Website postings using Grid Conditions Communications (GCC) Notices, compliance monitoring, Forced Outage Detection (Resources), monitoring and responding to telemetry issues, resolving Market Participant issues and questions, and assisting other desk Operators in the Control Room as needed.

## 1.2 Scope

The instructions contained in these procedures are limited to those required for the Resource Desk. Instructions for other ERCOT Control Room Positions are contained in separate procedures, one for each position. These Procedures do not imply that the duties contained herein are the only duties to be performed by this position. The individual assigned to this position will be required to follow any other instructions and to perform any other duties as required or requested by appropriate ERCOT Supervision.

Although the steps within the procedures are numbered, the numbering is for indexing purposes and are not sequential in nature.  The system operator will determine the sequence of steps, exclude steps, or take any additional actions required to ensure system security based on the information and situational awareness available during both normal and emergency conditions.

# 2. General

## 2.1 System Operator Responsibility and Authority

**Procedure Purpose:** To ensure the System Operators know their roles, responsibility, and authority.

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| --- | --- | --- | --- | --- |
| **Protocol Reference** | **6.5.1.1** | **6.5.1.2(3)** | **6.5.2** | **6.5.3(1)** |
| **Guide Reference** | **4.5.2(1)** |  |  |  |
| **NERC Standard** |  |  |  |  |

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ERCOT ISO as a Transmission Operator (TOP), the single Balancing Authority (BA), and only Reliability Coordinator (RC) registered within the ERCOT Interconnection shares all information between these roles simultaneously and acts concurrently as a single entity, satisfying coordination between the TOP, BA, and RC.

The System Operator (SO) shall, in accordance with NERC Reliability Standards and ERCOT Protocols, have clear decision-making authority to act to address the reliability of its Reliability Coordinator Area by direct actions or issuing Operating Instructions during both normal and emergency conditions. These actions shall be taken without delay and may include the shedding of firm load without obtaining approval from higher-level personnel.

The SO on duty is, in accordance with the ERCOT Protocols, Operating Guides, and NERC Reliability Standards, and acting as the Balancing Authority, Transmission Operator, and Reliability Coordinator shall request and receive information required to continually monitor the operating conditions and request that individual Market Participants (MPs) make changes, which will assure the Security and Reliability of the ERCOT System.

The SO issues Dispatch Instructions for the Real-Time Operation of Transmission Facilities to a TO, and to a QSE for the Real-Time Operation of a Resource.

The SO shall, on an ERCOT-wide basis, coordinate the ERCOT System Restoration (Black Start) Plan. The SO shall implement the Black Start Plan and shall direct the reconnection efforts of the islands, established by restoration activities. The SO shall coordinate the mutual assistance activities of the ERCOT Participants during system restoration activities.

The SO shall consider all equipment operating limits when issuing Dispatch Instructions except as stated in Protocol Section 6.5.9, Emergency Operations, if a Dispatch Instruction conflicts with a restriction that may be placed on equipment from time to time by a TO or a Generation Resource’s QSE to protect the integrity of equipment, ERCOT shall honor the restriction.

The SO performs security analyses on a Day Ahead and Real-Time basis and ensures that all Forced Outages are entered into the Outage Scheduler. The SO shall obtain or arrange to provide Emergency Energy over the DC Tie(s) on behalf of ERCOT.

The SO shall issue appropriate OCN’s, AAN’s, Advisories, Watches, and Emergency Notices, and coordinate the reduction or cancellation of clearances, re-dispatch of generation, and request, order, or take other action(s) that the SO determines necessary to maintain safe and reliable operating conditions on the ERCOT System in accordance with ERCOT Protocols, Operating Guides, and NERC Reliability Standards. The SO will implement and terminate ERCOT Time Corrections and will determine the need for and implement the operation of a Qualified Scheduling Entity (QSE) on Constant Frequency Control for loss of ERCOT’s Load Frequency Control System.

## 2.2 Communication

**Procedure Purpose:** To ensure proper communication is used to reduce the possibility of miscommunication that could lead to action or inaction harmful to the reliability of the grid.

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| **Protocol Reference** | **6.5.7.8** |  |  |  |
| **Guide Reference** | **3.1.3** |  |  |  |
| **NERC Standard** | **COM-002-4**  **R5, R7** |  |  |  |

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| **Version: 1** | **Revision: 6** | **Effective Date: December 31, 2021** |

| **Step** | **Action** |
| --- | --- |
| Three-Part Communication | |
| **Note** | * Operating Instructions and Dispatch Instructions are synonymous * Refer to the Communications Protocols document for requirements. |
| **1** | When issuing Operating Instructions, use three-part communication:   * Issue the Operating Instruction * Receive a correct repeat back * Give an acknowledgement |
| **2** | Many scripts have been placed throughout these procedures as a reminder of three-part communication. However, a script cannot be provided for every scenario. Effective three-part communication skills are mandatory. |
| Hotline Call Communication | |
| **1** | When making Hotline calls, ensure one QSE repeats back the message.  **IF:**   * Time and circumstances allow;   **THEN:**   * Review the Consortium hotline attendance report to verify all QSEs were in attendance * Contact the QSE using their OPX line or LD line to provide them with the message * Inquire why they were not on the Hotline call * Open a Help ticket if ERCOT’s Telecommunications department is needed to investigate. |
| Master QSE | |
| **1** | Issue a VDI to the Master QSE of a Generation Resource that has been split to function as two or more Split Generation Resources as deemed necessary by ERCOT to effectuate actions for the total Generation Resource for instances when electronic Dispatch Instructions are not feasible. |
| **Log** | Log all actions. |

## 2.3 Suspected Sabotage or Sabotage Events

**Procedure Purpose:** To be aware of cyber intrusions and communicate concerning activity and any unusual occurrences.

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| **Protocol Reference** |  |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 0** | **Effective Date: March 1, 2022** |

| **Step** | **Action** |
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| **ERCOT**  **Event** | **Refer to Cyber Intrusion Guide and Cyber Security Incident Response Plan located in procedure binder.**  **IF:**   * Unusual system behavior is observed;   **THEN:**   * Notify Shift Supervisor |
| **Entity**  **Event** | **IF:**   * A TO or QSE reports an act of suspected sabotage or a sabotage event, including cyber;   **THEN:**   * Notify Shift Supervisor |

## 3. Monitor and Manage System Security

## 3.1 Compliance Monitoring

**Procedure Purpose:** To monitor QSE performance.

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| --- | --- | --- | --- | --- |
| **Protocol Reference** | **3.10.7.5.2(5)** | **3.9** | **3.9.1** | **3.9.2** |
| **6.4.2.2(2)** | **6.4.2.5(3)(b)** | **6.4.6 (2)(b)** | **6.4.7(5)** |
| **6.4.9.1(1)** | **6.4.9.1.2** | **6.4.9.1.3** | **6.5.7.5(2)** |
| **Guide Reference** | **2.1(1)(h)** | **2.2.1(3)(c)** |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 13** | **Effective Date: October 7, 2022** |

| **Step** | **Action** |
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| Monitor Resource Status for Discrepancies | |
| **Telemetered Status** | **REVIEW REFERENCE DISPLAY:**  Market Participation>Physical Market>Market Operator Data>Consistency Checks  **IF:**   * Discrepancy is identified between a COP and telemetered Resource Status;   **THEN:**   * Call the QSE representing Resource to determine the correct resource status and have them make the necessary correction.   **NOTE: It is not necessary to make calls for inconsistent telemetry/COP for quick start units.** |
| **Log** | Log all actions. |
| **ON**  **TEST** | Review the list of “Approved Unit Tests” on the System Operations SharePoint; compare this list to the units showing a unit status of ONTEST.  **WHEN:**   * A unit with a status of ONTEST without an approved unit test exists;   **THEN:**   * Notify the QSE that they do not have an approved unit test and cannot use the ONTEST status. |
| **Log** | Log all actions. |
| Dynamically Scheduled Resource | |
| **Note** | Each QSE may not have more than one DSR Load. |
| **DSR** | **REVIEW REFERENCE DISPLAY:**  EMP Applications>Generation Area Status>Analyst Displays>Gen Monitoring Displays>Dynamic Schedules>Load Based  **IF:**   * A DSR load signal fails for any reason for > than one 15-minute Settlement Interval;   **THEN:**   * Notify the QSE and notify the Helpdesk to suspend validation of DSR Output Schedule.   **IF:**   * A DSR load signal fails for more than 10 consecutive hours;   **THEN:**   * Notify the Helpdesk to have DSR suspended until the signal is reliably restored. |
| **Note** | **IF:**   * The signal failure is identified to be an ERCOT communication problem;   **THEN:**   * ERCOT will not suspend the QSE’s ability to use DSR. |
| **Log** | Log all actions. |
| Monitor QSE Ancillary Service Obligations | |
| **A/S**  **Difference**  **in COP** | **REVIEW REFERENCE DISPLAY:**  Market Participation>Physical Market>SASM Market>AS Responsibility - QSE  Market Participation>Physical Market>SASM Market>Failure Approval  **At the top of each hour, notifications will be automatically sent to QSEs with shortages in their COP**   * **Check approximately 5 minutes after each hour:**   **IF:**   * A/S Difference (MW) column displays values in RED (Generation Resources with a negative value is a shortage and Load Resources with a positive value is an overage);   **THEN:**   * Verify the data was transferred to the AS Failure Approval display * Call the QSE with a Failure MW,   **IF:**   * The QSE cannot correct the deficiency within one hour;   **THEN:**   * Notify the Shift Supervisor and determine if a SASM should be opened.   **IF:**   * It is determined that a SASM should be opened;   **THEN:**   * Verify that the Notification Flag column displays a “Y” on the AS Responsibility – QSE display, and * Manually click the “Send Notification” button, this will ensure this is the most current data * Proceed to the SASM>Running a SASM for Failure To Provide Desktop Guide Resource Desk Section 2.4.2. |
| **Log** | Log all actions. |
| **Infeasible**  **A/S**  **Capacity**  **from**  **RUC** | **REVIEW REFERENCE DISPLAY:**  Market Participation>Physical Market>SASM Market>AS Infeasibility  Market Participation>Physical Market>SASM Market> AS Replacement  **Check after each HRUC has been published or when RUC operator has notified you of a RUC commitment.**  **NOTE: The infeasible hour indicates the shortage based on the system situation when HRUC runs. Therefore, it may be necessary to review at least 3 hours prior to infeasible hour to notify QSE.**  **IF:**   * The Infeasible MW column is displaying MW values;   **THEN:**   * Assess the infeasible MW and hour based on the SASM timeline * Change the Notification Flag to “Y” and commit to database, * Press the “Send Notification”, * Navigate to the AS Replacement display and call the QSE with the Infeasible MW.   **IF:**   * The QSE states they cannot replace the service within two hours;   **THEN:**   * Notify the Shift Supervisor and determine if a SASM should be opened;   **IF:**   * It is determined that a SASM should be opened;   **THEN:**   * Proceed to the SASM>Running a SASM for Undeliverable Desktop Guide Resource Guide Section 2.4.1. |
| **Note** | A QSE that has one or more of its Resources RUC-committed to provide Ancillary Services must increase its Ancillary Service Supply Responsibility by the total amount of RUC-committed Ancillary Service quantities. The QSE may only use a RUC-committed Resource to meet its Ancillary Service Supply Responsibility during that Resource’s RUC-Committed Interval if the Resource has been committed by the RUC process to provide Ancillary Service. The QSE shall indicate the exact amount and type of Ancillary Service for which it was committed as the Resource’s Ancillary Service Resource Responsibility and Ancillary Services Schedule for the RUC-Committed Intervals for both telemetry and COP information provided to ERCOT. Upon deployment of the Ancillary Services, the QSE shall adjust its Ancillary Services Schedule to reflect the amounts requested in the deployment. |
| **Log** | Log all actions. |

## 3.2 QSE Request to Move Ancillary Services

**Procedure Purpose:** Evaluate QSE requests for moving Ancillary Services from one resource to another or through a trade with another QSE.

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| --- | --- | --- | --- | --- |
| **Protocol Reference** | **6.4.7(6)** | **6.4.7(7)** |  |  |
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| **Guide Reference** |  |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 3** | **Effective Date: May 1, 2015** |

| **Step** | **Action** |
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| **Note** | * A QSE may elect to change a Resource providing Ancillary Service to an alternate Resource; however, they are NOT permitted to change the quantity of each type of Ancillary Service awarded. * Movement of A/S Resource responsibility from a Resource during the Adjustment Period is accomplished by use of COP updates. * A QSE may vary the quantity of A/S Resource Responsibility on Resources without obtaining prior ERCOT approval during the time window beginning 30 seconds prior to a five-minute clock interval and ending ten seconds prior to that five-minute clock interval, provided the QSE complies with its total A/S Obligation. |
| **Evaluate**  **Request** | **IF:**   * A QSE makes notification to move any type of A/S from one resource to another or through a trade with another QSE;   **THEN:**   * Ensure QSE has updated the telemetry and/or COP, * Call and verify trade is covered with other QSE and their telemetry/COP is updated, * Log all actions. |
| **Infeasible** | **IF:**   * It is determined later to be infeasible;   **THEN:**   * Notify the QSE that the A/S needs to be moved or replaced by ERCOT. |
| **ERCOT**  **Replaces at**  **QSE**  **Request** | **IF:**   * The QSE informs ERCOT that all or part of the A/S needs to be replaced;   **THEN:**   * Determine if the insufficient amount is significant enough to replace through SASM. * Refer to the “Replacement of A/S Due to Failure to Provide” in the SASM procedure. |

## 3.3 Notifications for Diminishing Reserves, Deploying Non-Spin and ERS

**Procedure Purpose:** Monitor the Physical Responsive Capability (PRC) for issuing advance notice of diminishing Responsive Reserve. This also includes the deployment of Non-Spin when PRC drops below 3200 MW and deployment of Emergency Response Service (ERS) when PRC drops below 3000 MW.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Protocol Reference** | **3.17.3(2)** | **6.5.7.6.2.2(13)** | **6.5.7.6.2.3** | **6.5.9.4.1** |
| **Guide Reference** | **4.5.3.1(1)(d)** | **4.5.3.1(1)(e)** |  |  |
| **NERC Standard** | **EOP-011-2**  **R2, R2.1, R2.2, R2.2.3, R2.2.3.1** | **IRO-001-4**  **R1** | **TOP-001-5**  **R2** |  |

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| **Step** | **Action** |
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| **Media**  **Appeal** | When an ERCOT-wide appeal through the public news media for voluntary energy conservation is made, make posting: Typical ERCOT Website posting for media appeal: ERCOT has issued an appeal through the public news media for voluntary energy conservation for [Day, Date, HE XX:XX through XX:XX]. |
| **PRC < 3200 MW** | **IF:**   * Notified by the ERCOT Real Time operator of the need to deploy Non-Spin due to PRC < 3200 MW.   **THEN:**   * Coordinate with Real Time operator and Shift Supervisor, * Coordinate with the Transmission Operator to verify the Non-Spin does not create congestion, * Deploy the desired Group(s) or all the available Non-Spin capacity.   (Refer to Desktop Guide Resource Desk Section 2.1.1)   * Post message on the ERCOT Website for Non-Spin deployment.   **Typical ERCOT Website Posting for Non-Spin deployment:**  “At [xx:xx] approximately [xx] MW of Non-Spin has been deployed, anticipated duration is [xx].” |
| **Note** | The Projected Ramp Available in 30min represents the calculation HASL – (GTBD + GTBD offset) – (IRR Curtailment) – (30-minute Net Load Ramp) |
| **Projected Ramp Available in 30min** | **IF:**   * Notified by the ERCOT Real Time operator of the need to deploy Group(s) / or All Non-Spin due to the Projected Ramp Available in 30min < -300;   **THEN:**   * Coordinate with Real Time operator and Shift Supervisor, * Coordinate with the Transmission Operator to verify the Non-Spin does not create congestion, * Deploy half of the available groups for Non-Spin, if not already deployed,   (Refer to Desktop Guide Resource Desk Section 2.1.1)   * Post message on the ERCOT Website for Non-Spin deployment.   **IF:**   * Notified by the ERCOT Real Time operator of the need to deploy Group(s) / or All Non-Spin due to the Projected Ramp Available in 30min < -600;   **THEN:**   * Coordinate with Real Time operator and Shift Supervisor, * Coordinate with the Transmission Operator to verify the Non-Spin does not create congestion, * Deploy the available groups for Non-Spin, as needed, if not already deployed,   (Refer to Desktop Guide Resource Desk Section 2.1.1)   * Post message on the ERCOT Website for Non-Spin deployment. |
| **Note** | If Non-Spin is deployed from one operating day to the next operating day, new deployments will need to be sent for the new day. |
| **Request**  **Resource**  **Stay Online** | **IF:**   * Notified by a QSE that their Off-line Non-Spin obligation has ended, AND * The Resources is still needed;   **THEN:**   * Request the RUC operator to issue an electronic Dispatch Instruction to RUC commit. |
| **Additional**  **Deployment** | **IF:**   * Additional Non-Spin becomes available going into next hour;   **THEN:**   * Determine if the additional Non-Spin is needed, * Deploy if needed   (Refer to Desktop Guide Resource Desk Section 2.1.1) |
| **LOG** | Log all actions |
| **Note** | All Non-Spin must be deployed before requesting Large Load Curtailment participants to curtail consumption and deploying ERS. |
| **Request Large Load Curtailment Program** | **WHEN:**   * Notified by the ERCOT Shift Supervisor that the Large Load Voluntary Curtailment Program Participants were requested to curtail consumption;   **THEN:**   * Post message that Large Load Voluntary Curtailment Program Participants were requested to curtail consumption on the ERCOT Website.   **Typical ERCOT Website Posting for Large Load Curtailment Program Participants:**  ERCOT has requested the ERCOT Large Load Voluntary Curtailment Program Participants to curtail consumption.   ERCOT will send another notification when curtailment is no longer requested. |
| **Large Load Curtailment Program Ended** | **WHEN:**   * Notified by the ERCOT Shift Supervisor that the Large Load Voluntary Curtailment Program Participants requested to curtail consumption ended;   **THEN:**   * Post message that Large Load Voluntary Curtailment Program Participants requested to curtail consumption ended on the ERCOT Website.   **Typical ERCOT Website Posting for Large Load Curtailment Program Participants Ended:**  ERCOT has ended the request for ERCOT Large Load Voluntary Curtailment Program Participants to curtail consumption. | |
| Watch | |
| **Note** | **XML messages and Hotline calls are required for all deployments of Load Resources and ERS Resources** |
| **ERS-30** | ERS with a thirty-minute ramp period. |
| **ERS-10** | ERS with a ten-minute ramp period. |
| **WS-ERS** | Each Standard Contract Term(SCT) Request for Proposal (RFP) will state what time periods in that SCT weather sensitive can provide offers for. |
| **Issue**  **Watch, ERS Deployments & DVR** | **WHEN:**   * PRC falls < 3000 MW and is not projected to recover above 3000 MW within 30 minutes, AND all Non-Spin has been deployed;   **THEN:**   * Coordinate with the Real-Time Operator, Transmission Operator and Shift Supervisor, * Post message for Watch on the ERCOT Website, AND * Determine whether system conditions warrant the deployment of ERS-30 / ERS-10 / both ERS-30 and ERS-10 / Weather Sensitive,/ Distribution Voltage Reduction. Refer to the ERS tab on the Real-Time Values Spreadsheet for amounts in each time period and number of times deployed:   + Consider the peak hour, deploy all ERS-30 / ERS-10 / both ERS-30 and ERS-10 / Weather Sensitive / Distribution Voltage Reduction where available to prevent PRC from falling < 3000 MW,   + When deploying the ERS, always deploy the weather-sensitive ERS if available for the current time period. * Post message for deploying ERS-30/10/WS on the ERCOT Website. * Coordinate with the Transmission Operator that ERCOT is requesting Transmission Operators to implement distribution voltage reduction measures if available. * Post message for requesting Distribution Voltage Reduction on the ERCOT Website   **Typical ERCOT Website Posting a Watch for PRC:**  “Use preformatted notice “PRC Watch <3000”  **Typical ERCOT Website Posting for Non-Spin deployment:**  “At [xx:xx] approximately [xx] MW of Non-Spin has been deployed, anticipated duration is [xx].”  **Typical ERCOT Website Posting for requesting distribution voltage reduction:**  Reserves are below 3,000 MW. ERCOT is requesting Transmission Operators to implement distribution voltage reduction measures if available. |
| **Note** | All Non-Spin must be deployed before requesting Large Load Curtailment participants to curtail consumption and deploying ERS. |
| **ERS**  **Time Period**  **Changes** | **IF:**   * ERS Resources are deployed, and the Time Period is changing and if ERS is still needed;   **THEN:**   * Deploy next Time Period   + Take into consideration the time requirement for the ERS-10 and ERS-30 |
| **Cancel**  **Watch, Recall ERS & DVR** | **WHEN:**   * PRC > 3000 MW or greater;   **THEN:**   * Coordinate with Real-Time Operator and Shift Supervisor, AND * Send XML message to recall ERS, including Weather Sensitive * ERS must be recalled first before hotline call is made (see Desktop Guide Resource Desk Section 2.3.3) * Coordinate with Transmission desk to ensure Transmission Operators have been requested to return Distribution Voltage Reduction to normal operation. * Coordinate with Real-Time Operator to notify QSE’s using the Hotline, * Cancel message(s) on ERCOT Website. |
| **Off-Line**  **Non-Spin Termination** | **IF:**   * Notified by the ERCOT Real Time Operator that Non-Spin is no longer needed;   **THEN:**   * Recall the Non-Spin, by sending a Zero MW XML   (Refer to Desktop Guide Resource Desk Section 2.1.4).   * Post message on the ERCOT Website to recall the Non-Spin   **Typical ERCOT Website Posting for Non-Spin Recall:**  “At [xx:xx], All Non-Spin has been recalled.” |
| **Log** | Log all actions. |
| **Additional**  **Deployment** | **IF:**   * Additional Non-Spin becomes available going into next hour;   **THEN:**   * Determine if the additional Non-Spin is needed, * Deploy if needed (Refer to Desktop Guide Resource Desk Section 2.1.1) | |
| **Request**  **Resource**  **Stay Online** | **IF:**   * Notified by a QSE that their Off-line Non-Spin obligation has ended, AND * PRC < 3000 MW;   **THEN:**   * Request that the Resource stay On-line, * Request RUC operator to issue an electronic Dispatch Instruction to RUC commit | |
| **Note** | If Non-Spin is deployed from one operating day to the next operating day, new deployments will need to be sent for the new day. | |
| **Cancel Watch** | **WHEN:**   * PRC > 3000 MW;   **THEN:**   * Coordinate with the Real-Time Operator and Shift Supervisor * Cancel message for Watch on the ERCOT Website | |
| **Log** | Log all actions. |

## 3.4 System Failures

**Procedure Purpose:** To ensure Market Participants are notified via ERCOT Website using Grid Conditions Communications (GCC) Notices of any SCED/RLC/LFC (AGC) failures on the ERCOT systems.

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| **Protocol Reference** | **6.5.9.2(2)** | **6.5.9.3.3** |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** | **TOP-001-5 R9** |  |  |  |

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| **Version: 1** | **Revision: 12** | **Effective Date: May 6, 2021** |

| **Step** | **Action** |
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| SCED/RLC/LFC (AGC) Failures | |
| **1** | **WHEN:**   * Notified by the Real-Time Operator of a SCED/RLC/LFC(AGC) failure;   **THEN:**   * Post the appropriate message on the ERCOT Website   + WATCH for SCED failure   + Emergency Notice if both MMS and EMS have failed   **Typical ERCOT Website posting a Watch / Emergency Notice for SCED/RLC/LFC (AGC) Failure:**  “ERCOT has issued an [Watch or Emergency Notice] due to the failure of [SCED/RLC Failure], and/or [LFC].” |
| **2** | **WHEN:**   * Notified by the Real-Time Operator that SCED/RLC/LFC(AGC) has been restored;   **THEN:**   * Cancel message on the ERCOT Website |
| **Log** | Log all actions. |
| ICCP, ERCOT Website, and Outage Scheduler Outages | |
| **1** | **WHEN:**   * Notified by the Real-Time Operator of an ICCP, ERCOT Website or Outage Scheduler failure;   **THEN:**   * Post an OCN on ERCOT Website   **Typical OCN ERCOT Website posting ICCP, ERCOT Website and Outage Scheduler Outage:**  “ERCOT has issued an OCN for the [planned / unplanned outage] of ERCOT’s [ICCP, ERCOT Website, and/or Outage Scheduler] outage.” |
| **2** | **WHEN:**   * Notified by the Real-Time Operator that the ICCP, ERCOT Website and/or Outage Scheduler has been restored;   **THEN:**   * Cancel message on ERCOT Website |
| **Log** | Log all actions. |

## 3.5 Responding to IROL/GTCs

**Procedure Purpose:**  Deployment/Termination of Non-Spin Reserve Service and/or Load Resources for Congestion Management as requested by the Transmission Operator.

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| **Protocol Reference** | **6.5.7.6.2.2(12)** | **6.5.7.6.2.3(10)** |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** | **EOP-011-2**  **R1, R1.1, R1.2, R1.2.4** | **IRO-001-4**  **R1** | **TOP-001-5**  **R1** |  |

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| **Version: 1** | **Revision: 17** | **Effective Date: March 1, 2024** |

| **Step** | **Action** |
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| North to Houston Interface | |
| **Deploy**  **Non-Spin** | **WHEN:**   * Notified by the Transmission Operator to deploy Non-Spin in the Houston area for the North-Houston Interface;   **THEN:**   * Deploy Non-Spin in the Houston area (Coast Weather Zone WZ\_COAST) (Refer to Desktop Guide Resource Desk Section 2.1.3) |
| **Note** | To the extent that ERCOT deploys a Load Resource that has chosen a group deployment option, ERCOT shall either deploy the entire offer or, if only partial deployment is possible, skip the offer by the Load Resource with the group deployment option and proceed to deploy the next available Resource. |
| **Note** | If Non-Spin is deployed from one operating day to the next operating day, new deployments will need to be sent for the new day. |
| **Deploy Load**  **Resources** | **WHEN:**   * Notified by the Transmission Operator to deploy Load Resources in the Houston area for the North-Houston Interface;   **THEN:**   * Deploy Load Resources in the Houston area (Coast Weather Zone WZ\_COAST) by XML (Refer to Desktop Guide Resource Desk Section 2.2.2), * Call appropriate QSE to notify them their LR was deployed. |
| **Recall**  **Load**  **Resources** | **WHEN:**   * Notified by the Transmission Operator to recall Load Resources in the Houston area for the North-Houston Interface;   **THEN:**   * Recall Load Resources in the Houston area (Coast Weather Zone WZ\_COAST) by sending a Zero MW XML (Refer to Desktop Guide Resource Desk Section 2.2.4), * Call appropriate QSE to notify them their LR was recalled. |
| **Recall**  **Non-Spin** | **WHEN:**   * Notified by the Transmission Operator to recall Non-Spin in the Houston area for the North-Houston Interface;   **THEN:**   * Recall Non-Spin in the Houston area (Coast Weather Zone WZ\_COAST) by sending a Zero MW XML, (Refer to Desktop Guide Resource Desk Section 2.1.4). |
| **Log** | Log all actions. |
| Rio Grande Valley Interface | |
| **Deploy Load**  **Resources** | **WHEN:**   * Notified by the Transmission Operator to deploy Load Resources in the Rio Grande Valley;   **THEN:**   * Deploy Load Resources (Refer to Desktop Guide Resource Desk Section 2.2.3), * Call appropriate QSE to notify them their LR was deployed. |
| **Recall**  **Load**  **Resources** | **WHEN:**   * Notified by the Transmission Operator to recall Load Resources in the Rio Grande Valley;   **THEN:**   * Recall Load Resources in the Rio Grande Valley (Refer to Desktop Guide Resource Desk Section 2.2.4), * Call appropriate QSE to notify them their LR was recalled. |
| **Log** | Log all actions. |
| South Texas Export Interface | |
| **Transmission Watch for South Texas Export Interface** | **WHEN:**   * Notified by the Shift Supervisor or Transmission Operator that ERCOT is issuing a Transmission watch for the South Texas Export Interface;   **THEN:**   * Verify GCC posting has been made from Transmission security. * Coordinate with the Real Time desk to Remove A/S adversely impacting the South Texas Export.   **IF:**   * GCC post has not been posted;   **THEN:**   * Coordinate with the Transmission Operator to Post.   **Typical GCC Posting:**   * ERCOT is issuing a Transmission Watch for the South Texas Export interface. ERCOT will be utilizing A/S services and taking manual actions on specific resources to alleviate the condition. |
| **Note** | If Non-Spin is deployed from one operating day to the next operating day, new deployments will need to be sent for the new day. |
| **Deploy**  **Non-Spin** | **WHEN:**   * Notified by the Shift Supervisor or Transmission Operator to deploy Non-Spin due to the South Texas Export Interface;   **THEN:**   * Deploy Non-Spin as needed in Groups or All. |
| **Note** | Continue to Monitor PRC and System Conditions. There is a Potential risk of EEA. |
| **Note** | **XML messages and Hotline calls are required for all deployments of Load Resources.** |
| **Load**  **Resources** | **WHEN:**   * Notified by the Shift Supervisor or Transmission Operator   **THEN:**   * Deploy Load resources as needed, Guide Resource Desk Section 2.2.1)**,** * Coordinate with Real-Time Desk to make QSE Hotline call. |
| **Transmission Emergency** | **WHEN:**   * Notified by the Shift Supervisor or Transmission Operator ERCOT is issuing a Transmission Emergency for the South Texas Export Interface;   **THEN:**   * Assist the Real-Time desk with System conditions and calls. * Verify all GCC posting are made.   **IF:**   * Posting has not been made;   **THEN:**   * Post to GCC and notify the control room that the posting has been made.   **Typical GCC Posting:**  ERCOT is issuing a Transmission Emergency Notice for the South Texas Export interface. Load Resources are being deployed to help mitigate the issue. |
| **Note** | Verify all GCC posting have been made by the Transmission Desk if load shed has been implemented.  **Typical GCC Posting:**  **ERCOT has shed \*\*\* MW’s of firm load due to the South Texas Export Interface.** |
| **Recall**  **Load**  **Resources** | **WHEN:**   * Notified by the Transmission Operator to recall Load Resources;   **THEN:**   * Recall Load Resources. |
| **Cancel** | Make appropriate cancellations when back to normal operations. |
| **Log** | Log all actions. |
| South Texas Import Interface | | |
| **Deploy Load**  **Resources** | **WHEN:**   * Notified by the Transmission Operator to deploy Load Resources in the South Texas area;   **THEN:**   * Deploy Load Resources (Refer to Desktop Guide Resource Desk Section 2.2.3), * Call appropriate QSE to notify them their LR was deployed. | |
| **Recall**  **Load**  **Resources** | **WHEN:**   * Notified by the Transmission Operator to recall Load Resources in the South Texas area;   **THEN:**   * Recall Load Resources in the South Texas area (Refer to Desktop Guide Resource Desk Section 2.2.4), * Call appropriate QSE to notify them their LR was recalled. | |
| **Log** | Log all actions. | |

## 3.6 Deploying Non-Spin for Local Congestion

**Procedure Purpose:**  Mitigating local congestion.

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| **Protocol Reference** | **6.5.7.6.2.3(1)** |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** | **EOP-011-2**  **R1, R1.1, R1.2, R1.2.4** | **IRO-001-4**  **R1** | **TOP-001-5**  **R1** |  |

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| **Version: 1** | **Revision: 14** | **Effective Date: January 31, 2020** |

| **Step** | **Action** |
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| **1** | **IF:**   * Notified by the ERCOT Transmission and Security operator that specific Resources carrying Non-Spin are needed for local congestion;   **THEN:**   * Deploy specific Resources |
| **Note** | If Non-Spin is deployed from one operating day to the next operating day, new deployments will need to be sent for the new day. |
| **2** | **IF:**   * The Non-Spin obligation ends for the Resource deployed, AND * The Resource is still needed;   **THEN:**   * Request the RUC operator to issue an electronic Dispatch Instruction to RUC commit |
| **3** | **IF:**   * An additional Resource is needed to be deployed;   **THEN:**   * The previous Resource deployed will need to be deployed again, along with the additional Resource. |
| **Termination** | **IF:**   * Notified by the ERCOT Transmission and Security Operator that Non-Spin is no longer needed;   **THEN:**   * Recall the Non-Spin, by sending a Zero MW XML (Refer to Desktop Guide Resource Desk Section 2.1.4). |
| **Log** | Log all actions. |

## 3.7 Deploying Non-Spin for Critical Inertia Level

**Procedure Purpose:**  Monitor and detect possible time periods when Critical Inertia Level may be inadequate based on expected online inertia with recommended actions.

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| **Protocol Reference** | **6.5.7.6.2.3(14)** |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | | **Revision: 4** | **Effective Date: July 1, 2022** |
| **Step** | **Action** | | | |
| **Deploy**  **Off-Line**  **Non-Spin** | **IF:**   * Notified by the ERCOT Reliability Risk operator of the need to deploy Group(s) / or All Non-Spin due to Critical Inertia Level.   **THEN:**   * Coordinate with Reliability Risk operator and Shift Supervisor, * Coordinate with the Transmission Operator to verify the Non-Spin does not create congestion, * Deploy the desired Group(s) / or All Non-Spin, as needed,   (Refer to Desktop Guide Resource Desk Section 2.1.1)   * Post message on the ERCOT Website for Non-Spin deployment.   **Typical ERCOT Website Posting for Non-Spin deployment:**  “At [xx:xx] approximately [xx] MW of Non-Spin has been deployed, anticipated duration is [xx].” | | | |
| **Note** | If Non-Spin is deployed from one operating day to the next operating day, new deployments will need to be sent for the new day. | | | |
| **Request**  **Resource**  **Stay Online** | **IF:**   * Notified by a QSE that their Off-line Non-Spin obligation has ended, AND * The Resources is still needed;   **THEN:**   * Request the RUC operator to issue an electronic Dispatch Instruction to RUC commit. | | | |
| **Additional**  **Deployment** | **IF:**   * Additional Non-Spin becomes available going into next hour;   **THEN:**   * Determine if the additional Non-Spin is needed, * Deploy if needed   (Refer to Desktop Guide Resource Desk Section 2.1.1) | | | |
| **Termination** | **IF:**   * Notified by the ERCOT Reliability Risk Operator that Non-Spin is no longer needed;   **THEN:**   * Recall the Non-Spin, by sending a Zero MW XML   (Refer to Desktop Guide Resource Desk Section 2.1.4).   * Post message on the ERCOT Website to recall the Non-Spin   **Typical ERCOT Website Posting for Non-Spin Recall:**  “At [xx:xx], All Non-Spin has been recalled.” | | | |
| **Log** | Log all actions. | | | |

## 3.8 Deployment of Load Resources to Maintain a Minimum 500 MW of RRS from Primary Frequency Response Resources (PFR)

**Procedure Purpose:** Manually deploy Load Resources other than Controllable Load Resources providing ECRS or RRS before an Energy Emergency Alert (EEA), to maintain a minimum 500 MWs of Physical Responsive Capability (PRC) reserves on Generation Resources.

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| **Protocol Reference** |  |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** | **EOP-011-2**  **R2, R2.1, R2.2, R2.2.7** |  |  |  |

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| **Version: 1** | **Revision: 1** | **Effective Date: June 9, 2023** |

| **Step** | **Action** |
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| **Maintain a Minimum 500 MW of Generation RRS** | **IF:**   * Notified by the ERCOT Real Time operator of the need to deploy groups of Load Resources to maintain a minimum 500 MWs of Physical Responsive Capability (PRC) reserves on RRS-PFR.   **THEN:**   * Coordinate with Real Time operator and Shift Supervisor, * Coordinate with the Transmission Operator to verify the Load Resources does not create congestion, * Deploy Load Resources Group 0/ Group 0+1a/ Group 0+1a+1b/ Group 0+1a+1b+1c/ Group 0+1a+1b+1c+2/ Group 0+1a+1b+1c+2+3/ All as needed, * Notify the Real-Time Operator when XML message has been completed to make hotline call. Load Resources must be deployed first before hotline call is made,   (Refer to Desktop Guide Resource Desk Section 2.2.1)   * Post message on the ERCOT Website for Load Resource deployment.   **Typical ERCOT Website Posting for Load Resource deployment:**  “At [xx:xx] Load Resources have been deployed to maintain a minimum 500 MWs of Physical Responsive Capability (PRC) reserves on Generation Resources.” |
| **Log** | Log all actions. |

## 3.9 Deploying Fast Frequency Response (FFR)

**Procedure Purpose:** To control frequency within defined limits.

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| **Protocol Reference** | **6.5.7.6.2.2** |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** | **IRO-001-4**  **R1** | **TOP-001-5**  **R2** |  |  |

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| **Version: 1** | **Revision: 1** | **Effective Date: November 2, 2022** |

| **Step** | **Action** |
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| **Note** | For Resources providing RRS with FFR, ERCOT may manually deploy the FFR RRS in an attempt to recover frequency to meet NERC Performance Control Standards after utilizing Reg-Up and the SCED process which includes off-cycle SCED executions. |
| **1** | **IF:**   * Notified by the ERCOT Real Time Operator that Non-Controllable Load Resources (NCLR) carrying FFR are needed;   **THEN:**   * Deploy specific NCLR’s * Post message on the ERCOT Website for FFR deployment.   **Typical ERCOT Website Posting for FFR NCLR deployment:**  “At [xx:xx] approximately [xx] MW of FFR NCLR has been deployed, anticipated duration is [xx].” |
| **Note** | If FFR NCLR is deployed from one operating day to the next operating day, new deployments will need to be sent for the new day. |
| **2** | **IF:**   * An additional NCLR is needed to be deployed;   **THEN:**   * The previous NCLR deployed will need to be deployed again, along with the additional NCLR. |
| **Termination** | **IF:**   * Notified by the ERCOT Real Time Operator that FFR NCLR is no longer needed;   **THEN:**   * Recall the FFR NCLR, by sending a Zero MW XML. * Post message on the ERCOT Website to recall the FFR NCLR   **Typical ERCOT Website Posting for FFR Recall:**  “At [xx:xx], All FFR NCLR has been recalled.” |
| **Log** | Log all actions. |

## 3.10 Unannounced Resource Testing

**Procedure Purpose:** This procedure provides direction and guidelines for conducting unannounced testing of resources.

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| **Protocol Reference** | **8.1.1.2** |  |  |  |
| **Guide Reference** | **3.3.1** |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 5** | **Effective Date: December 31, 2020** |

| **Step** | **Action** |
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| **Unannounced Resource Testing** | |
| **Note** | * Operations Analysis will provide the list of resources to be tested. * The list of units are located at ERCOT SharePoint > System Operations – Control Center > Documents > Unannounced Unit Testing List. Use the current document. * In addition, the Shift Supervisor may request at his discretion an unannounced test of any resource, other than Hydro, Wind, PhotoVoltaic (PV) and Nuclear-fueled Resources. * Tests may be conducted as they best fit within the activities of the ERCOT Control Room, a minimum of 4 resources per week. * The Resource to be tested must be On-line before beginning the test. * No more than two Generation Resources within one QSE simultaneously, Combine Cycle Resources associated to the same train will be counted as one Generation Resource. * To identify potential congestion, it may be necessary to conduct a Security Analysis Study using a Powerflow Base Case or Real-time Snapshot of the System. * NDCRC – Net Dependable Capability / Reactive Capability is located on the ERCOT Website in the Applications folder * Operations Analysis will complete the following items in the NDCRC: * Telemetry at Start of Test ERCOT reported value (MW) * Telemetry when HSL is reached ERCOT reported value (MW) * HSL is reached checkbox * Current Seasonal HSL(Net MW) * 30 Min Avg Real Time Telemetry (MW) * Additional Comments * Overall Test Results |
| **Reference** | Please refer to Desktop Guide Common to Multiple Desks for [Unannounced Resource Testing](#_2.24_Unannounced_Resource) process. |
| **Caution** | * Do not perform an unannounced test during a Watch for PRC or EEA event. * Do not perform an unannounced test on a unit with an approved unit test. * If an unannounced test is underway when a Watch or EEA event commences, the test *may* be cancelled. |
| **Testing**  **Rules**  **and**  **Scripts** | ISSUE an instruction to the QSE for the Resource being tested. The QSE has the following time to reach its HSL, depending on its output when the test begins:   * At LSL – 60 minutes to reach 90% of HSL, and an additional 20 minutes to reach HSL * Between LSL and 50 % of HSL – 60 minutes to reach HSL * Above 50 % of HSL – 30 minutes to reach HSL   **Q#120 - Typical script to Perform Unannounced Unit Test:**  Combine Cycle Resources should include all units of the train.  All QSEs associated with a jointly owned unit will be tested simultaneously.  When the Resource reaches the time requirement or it’s HSL, SUSTAIN it at or above the Resources HSL for at least 30 minutes. NOTIFY the QSE that the test is complete and RELEASE the resource from its VDI.  If the Resource fails to reach its HSL within the time frame, CONTINUE TO HOLD the resource for at least 30 minutes, and LOG this in the ERCOT logs. NOTIFY the QSE that the test is complete and RELEASE the Resource from its VDI.  **Q#121 - Typical script to End Unannounced Unit Test:**  COMPLETE the ERCOT values on the Unannounced Seasonal Generation Verification Test via the NDCRC application on the ERCOT Website in a reasonable timeframe.  ERCOT Website>Applications>NDCRC |
| **Electronic**  **Dispatch**  **Instruction**  **Confirmation** | Issue electronic Dispatch Instruction when test is complete so that the initiation and completion times are correct:  **ISSUE:**   * Electronic Dispatch Instruction confirmation to QSE (see Desktop Guide Common to Multiple Desks Section 2.3)   + Choose “UNANNOUNCED CAPACITY TEST” as the Instruction Type from Resource level   + Initiation Time and Completion Time should be correct times   + In text, state “RETEST” if applicable   + Confirm with Market Participant electronic Dispatch Instruction received.   When issuing a VDI or confirmation, ensure the use of three-part communication:   * + Issue the Operating Instruction   + Receive a correct repeat back   + Give an acknowledgement |
| **Notify** | When test is complete, include the following information:   * Resource(s) * Date * Notification Time * Start time of 30 Minute Hold * Completion Time   Send an e-mail to:   * Operations Analysis * Shift Supervisors |
| **Log** | Log all actions. |

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| **Retest** | * The QSE can have the opportunity to request another test as quickly as possible (at a time determined by ERCOT) and may request a retest up to two times per month * QSEs should submit retest requests to [shiftsupv@ercot.com](mailto:shiftsupv@ercot.com). * Any requested retest must take place within three Business Days after the request for retest * Any VDI issued as a result of a QSE-requested retest will be considered as an instructed deviation only for compliance purposes   **ISSUE:**   * Electronic Dispatch Instruction confirmation to QSE (see Desktop Guide Common to Multiple Desks Section 2.3)   + Choose “UNANNOUNCED CAPACITY TEST” as the Instruction Type from Resource level   + Initiation Time and Completion Time should be correct times   + In text, state “**RETEST**”   When issuing a VDI or confirmation, ensure the use of three-part communication:   * + Issue the Operating Instruction   + Receive a correct repeat back   + Give an acknowledgement |
| **Demonstration**  **Test** | The QSE may demonstrate an increased value of HSL by operating the Generation Resource at an Output Schedule for at least 30 minutes. To raise an output schedule above the Seasonal HSL, the QSE may set the Resource telemetered HSL equal to its output temporarily for the purposed of the demonstration tests. The test must take place within three Business Days after the request.   * Send an e-mail to:   + Operations Analysis   + Shift Supervisors |
| **Notify** | When test is complete, include the following information:   * Resource(s) * Date * Notification Time * Start time of 30 Minute Hold * Completion Time   Send an e-mail to:   * Operations Analysis * Shift Supervisors |
| **Log** | Log all actions. |

## 3.11 Unannounced ESR Non-Spin Capability Testing

**Procedure Purpose:** This procedure provides direction and guidelines for conducting unannounced ERS testing.

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| **Protocol Reference** | **8.1.1.2(19)** |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** |  |  |  |  |

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| --- | --- | --- |
| **Version: 1** | **Revision: 0** | **Effective Date: December 30, 2022** |

| **Step** | **Action** |
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| **Unannounced ESR Non-Spin Capability Test** | |
| **Note** | If an Energy Storage Resource (ESR) is telemetering a non-zero Non-Spin Ancillary Service Resource Responsibility, to verify that the Ancillary Service Resource Responsibility reported by telemetry is achievable based on the state of charge the Resource is maintaining in Real-Time, ERCOT may, at its discretion, conduct an unannounced Non-Spin capability test. At a time determined solely by ERCOT. |
| **1** | **WHEN:**   * ESR has a Non-Spin Responsibly and has a negative Status of Charge (SOC) Deviation: AND * At the operators discretion   **THEN:**   * Perform an Unannounced ESR Non-Spin Capability Test |
| **2** | ISSUE an instruction to the QSE for the ESR being tested.  **Q#132 - Typical script to Perform Unannounced ESR Non-Spin Capability Test:**  **Q#133 - Typical script to End Unannounced ESR Non-Spin Capability Test:**  COMPLETE the ERCOT values on the Unannounced ESR Non-Spin Capability Test via the NDCRC application on the ERCOT Website in a reasonable timeframe.  ERCOT Website>Applications>NDCRC>Unannounced Seasonal>Unannounced ESR AS Capability |
| **Electronic**  **Dispatch**  **Instruction**  **Confirmation** | **ISSUE:**   * Electronic Dispatch Instruction confirmation to QSE (see Desktop Guide Common to Multiple Desks Section 2.3)   + Choose “OTHER FOR RESOURCE” as the Instruction Type from Resource level   + Choose “Other” as Reason   + Initiation Time and Completion Time should be correct times   + In Other Information, state “Unannounced ERS Non-Spin Capability Test ”   + Confirm with Market Participant electronic Dispatch Instruction received.   When issuing a VDI or confirmation, ensure the use of three-part communication:   * + Issue the Operating Instruction   + Receive a correct repeat back   + Give an acknowledgement |
| **Retest** | * The QSE can have the opportunity to request another test as quickly as possible (at a time determined by ERCOT) and may request a retest up to two times per month * QSEs should submit retest requests to [shiftsupv@ercot.com](mailto:shiftsupv@ercot.com). * Any requested retest must take place within three Business Days after the request for retest * Any VDI issued as a result of a QSE-requested retest will be considered as an instructed deviation only for compliance purposes   **ISSUE:**   * Electronic Dispatch Instruction confirmation to QSE (see Desktop Guide Common to Multiple Desks Section 2.3)   + Choose “OTHER FOR RESOURCE” as the Instruction Type from Resource level   + Choose “Other” as Reason   + Initiation Time and Completion Time should be correct times   + In Other Information, state “Unannounced ERS Non-Spin Capability RETEST ”   + Confirm with Market Participant electronic Dispatch Instruction received.   When issuing a VDI or confirmation, ensure the use of three-part communication:   * + Issue the Operating Instruction   + Receive a correct repeat back   Give an acknowledgement |
| **Notify** | When test is complete, include the following information:   * Resource(s) * Date * Notification Time * Completion Time   Send an e-mail to:   * Operations Analysis * Shift Supervisor |
| **Log** | Log all actions. |

## 4. Decommitment Request

## 4.1 Approve/Reject Resource Decommitment Request

**Procedure Purpose:** Review and approve / reject Resource decommitments in the Operating Period (two-hour period comprised of the Operating Hour and the clock hour preceding the Operating Hour). A QSE may verbally request to decommit a Resource provided the Resource has not been RUC-Committed and the Resource has no manual overrides for interval being requested. ERCOT shall review the requests in order of receipt.

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| **Protocol Reference** | **3.8.3.1** | **6.4.7** | **6.4.7.1(2)** | **6.4.7(5)** |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 14** | **Effective Date: December 15, 2014** |

| **Step** | **Action** |
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| **Approve/Reject Decommitment QSE Requests in Operating Period** | |
| **Exceptions** | No request necessary for:   * Combined Cycle Train (CCT) transitioning from one configuration to another * Quick Start Generation Resources (QSGR’s) |
| **1** | **IF:**   * A QSE requests to decommit a Resource that has been Self-Committed;   **THEN:**   * Verify with the Transmission and Security Operator that the decommitment will not adversely impact current transmission conditions   + If it does, deny the request * Verify that if the Resource comes Off-Line, PRC will not drop below 2500 MW   + If it will, deny the request.   + If no PRC issue, grant the approval |
| **Log** | Log all actions. |

## 5. Supplemental Ancillary Service Market

## 5.1 Supplemental Ancillary Service Market

**Procedure Purpose:** To open and execute a Supplemental Ancillary Service Market (SASM) for A/S when the DAM process is insufficient, when increasing A/S above DAM requirement, when there is infeasibility (stranded) caused by congestion, or failure to provide by the QSE.

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| **Protocol Reference** | **3.16** | **4.5.2** | **5.2.2.2** | **6.4.7(5)** |
| **6.4.9.1.1(3)** | **6.4.9.1.2(3)** | **6.4.9.1.3(2)** | **6.4.9.2** |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** | **TOP-002-4**  **R4, R4.4** |  |  |  |

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| **Version: 1** | **Revision: 31** | **Effective Date: June 9, 2023** |

| **Step** | **Action** |
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| **Note** | * There is no definitive time by which a SASM needs to start, however the SASM process must be completed at least one hour before the start of the Operating Hour (Example: for A/S needed in HE 14, SASM must be completed by HE 12). The SASM timeline depends on the triggering of the event. * ERCOT may not buy more of one A/S in place of the quantity of a different service. * A QSE may not self-arrange for A/S procured in response to Emergency Conditions. |
| **SASM**  **Failure** | **IF:**   * The SASM workflow controller fails during any stage of the run;   **THEN:**   * Manually create a savecase before workflow is shutdown (see Desktop Guide Common to Multiple Desks Section 2.16) * Press the Abort button to cancel the current run, * Press the Shut Down button, * Press the Start-up button, * Press the Run All button to restart the sequence   **IF:**   * The SASM workflow controller continues to fail;   **THEN:**   * Notify Market Operations |
| Procurement of Ancillary Services when DAM process is insufficient | |
| **Procurement**  **Timeline** | If the Day-Ahead Market is aborted the ancillary services must be procured through SASM. The SASM must be executed in the Adjustment Period for the next day (which starts at 1800). ERCOT ***shall*** allow at least 1 hour between the issuance of the Watch and the beginning of this SASM. The SASM timeline is as follows  Time X = Notify QSEs of time the SASM will begin  Time X + 30min = Determine amount of A/S to be procured  Time X + 35min = Execute SASM  Time X + 45min = Notify QSEs with awards  Time X + 60min = Validate COPs for A/S Resource Responsibility |
| **1** | **IF:**   * The Day-Ahead Market is aborted;   **THEN:**   * Verify that the RUC Operator has issued a Watch, * Procure adequate Ancillary Services for the next operating day through a SASM, (Refer to Desktop Guide Resource Desk Section 2.4.4) |
| **2** | **IF:**   * SASM did not procure the amount of A/S requested;   **THEN:**   * Notify the Shift Supervisor of the remaining A/S insufficiencies to be procured through RUC if necessary. |
| **3** | **PREPARE:**   * Email with the following information: * SASM ID (use YYYYMMDDHHMMSS format) * Delivery Date * Delivery Hour * QSE and Resource name (if known) you are replacing the AS for * AS type(s) * MW amounts you are replacing * Total MW amount SASM has awarded * Verify PVT transferred   **SEND:**   * E-mail to the following distribution list * SASM |
| Increasing Ancillary Services for Extreme Cold Weather | |
| **Note** | When temperatures or wind chill is expected to be below freezing for sustained periods and may impact load levels or generation availability, it may be necessary to procure additional Non-Spin, ECRS and/or RRS. After DRUC has completed, determine if sufficient reserves are available to meet peak demand. |
| **A/S Plan Increase**  **Timeline** | Time X is greater than two hours from the start of the Operating Hour for which the additional A/S capacity is required. The timeline is as follows:  Time X = Notify QSEs, post on ERCOT Website  Time X + 30 min = QSEs to update Offers  Time X + 35 min= Execute the SASM  Time X + 45 min = Publish results  Time X + 60 min = Validate COPs and A/S schedules |
| **1**  **Note:**  **SASM time**  **XX:XX should be**  **30 minutes**  **later than**  **time hotline**  **call issued** | **IF:**   * Temperature or wind chill is forecasted to be below 32°F, AND * Splunk: 11 COP vs MTLF ‘SS\_HASL\_MARGIN’ < 600 MW,   OR   * Temperature or wind chill is forecasted to be below 20°F, AND * Splunk: 11 COP vs MTLF ‘SS\_HASL\_MARGIN’ < 1300 MW;   **THEN:**   * Issue a Watch by making a Hotline call to QSEs * Post message on ERCOT Website * Notify Transmission Operator to make Hotline call to TOs * Procure additional Non-Spin, ECRS and/or RRS through a SASM (Refer to Desktop Guide Resource Desk Section 2.4.3).   **Q#73 - Typical Hotline Script for Watch to Increase A/S and open SASM**  **Typical ERCOT Website Posting for Watch to Increase A/S and open SASM:**  ERCOT is issuing a Watch due to the need to increase the system wide Ancillary Services requirement above what was procured in the Day-Ahead Market due to [state the reliability reason]. |
| **2** | **WHEN:**   * SASM is complete;   **THEN:**   * Notify the Shift Supervisor if any insufficiencies exists to determine if procurement through RUC is needed (RUC as capacity, do not assign A/S to the Resource).   **THEN:**   * Cancel the Watch by making Hotline call to QSEs * Cancel posting on the ERCOT Website * Notify Transmission Operator to make Hotline call to TOs   **Q#74 - Typical Hotline Script to Cancel Watch to Increase A/S and SASM complete** |
| **3** | PREPARE   * Email with the following information:   + SASM ID (use YYYYMMDDHHMMSS format)   + Delivery Date   + Delivery Hour   + QSE and Resource name (if known) you are replacing the AS for   + AS type(s)   + MW amounts you are replacing   + Total MW amount SASM has awarded   + Verify PVT transferred   SEND:   * E-mail to the following distribution list: * SASM |
| **Log** | Log all actions. |
| Increasing Ancillary Services for other reasons | |
| **A/S Plan Increase**  **Timeline** | Time X is greater than two hours from the start of the Operating Hour for which the additional A/S capacity is required. The timeline is as follows:  Time X = Notify QSEs and post on the ERCOT Website  Time X + 30 min = QSEs to update Offers  Time X + 35min= Execute the SASM  Time X + 45min = Publish results  Time X + 60min = Validate COPs and A/S schedules |
| **1**  **Note:**  **SASM time**  **xx:xx should**  **be 30 minutes**  **later than**  **time hotline**  **call issued** | **IF:**   * More Ancillary Services are needed for one or more Operating Hours than were provided in the Day-Ahead;   **THEN:**   * Issue a Watch by making a Hotline call to QSEs * Post message on the ERCOT Website * Notify Transmission Operator to make Hotline call to TOs * Procure more Ancillary Services through a SASM (Refer to Desktop Guide Resource Desk Section 2.4.3).   **Q#73 - Typical Hotline Script for Watch to Increase A/S and open SASM**  **Typical ERCOT Website Posting for Watch to Increase A/S and open SASM:**  ERCOT is issuing a Watch due to the need to increase the system wide Ancillary Services requirement above what was procured in the Day-Ahead Market due to [state the reliability reason]. |
| **2** | **IF:**   * SASM did not procure the amount of A/S requested;   **THEN:**   * Notify the Shift Supervisor of the remaining A/S insufficiencies to be procured through RUC if necessary.   **IF:**   * SASM procured the additional A/S;   **THEN:**   * Cancel the Watch by making Hotline call to QSEs * Cancel posting on the ERCOT Website * Notify Transmission Operator to make Hotline call to TOs   **Q#74 - Typical Hotline Script to Cancel Watch to Increase A/S SASM complete** |
| **3** | **PREPARE**:   * Email with the following information:   + SASM ID (use YYYYMMDDHHMMSS format)   + Delivery Date   + Delivery Hour   + QSE and Resource name (if known) you are replacing the AS for   + AS type(s)   + MW amounts you are replacing   + Total MW amount SASM has awarded   + Verify PVT transferred   **SEND:**   * E-mail to the following distribution list: * SASM |
| Replacement of Ancillary Service Due to Infeasibility or Failure to Provide | |
| **Note** | * Undeliverable/Infeasibility is when a QSE cannot provide their A/S because ERCOT has asked them to move it due to congestion * Failure to provide is all other reasons |
| **Infeasibility Not Replaced Through a SASM** | **IF:**   * It is determined the infeasible amount is ***not*** significant enough to replace through a SASM;   **THEN:**   * Send to settlements by clicking “Settlement Snapshot”.   Reference Desktop Guide Resource Desk section 2.4.1 |
| **Undeliverable**  **/Insufficient A/S Timeline** | If the SASM is being executed to replace A/S capacity, either due to transmission constraints or QSE failure to provide, the timeline is as follows:  Time X = Determine type and amount of A/S to procure. Notify QSEs and post on the ERCOT Website  Time X + 30min = QSEs to update Offers  Time X + 35min = Execute the SASM  Time X + 45min = Publish Awards  Time X + 60min = Validate COPs and A/S schedules |
| **Infeasibility** | **IF:**   * A/S capacity allocated to a Resource is undeliverable based on system conditions;   **THEN:**   * Provide QSE the following information: * The amount by which the QSE must reduce the A/S currently allocated to each affected Resource, and * The start and stop times of the reduction   Within the two-hour advance notice, the QSE may do one of the following:   * Substitute capacity from other Resources, * Substitute capacity from other QSE using A/S trades, or * Replace all or part of the A/S through a SASM |
| **Failure to**  **Provide** | **IF:**   * Some or all a QSE’s Resource-specific A/S capacity will not be available in Real-Time;   **THEN:**   * Substitute capacity to meet its responsibility, or * Request it be replaced through a SASM |
| **1** | **IF:**   * A QSE is unable to provide the A/S capacity allocated to a specific Resource;   **THEN:**   * Determine if the infeasible/insufficient amount is significant enough to replace through SASM   **IF:**   * It is determined the infeasible/insufficient amount is ***not*** significant enough to replace through SASM;   **THEN:**   * Send to settlements by clicking “Settlement Snapshot”.   Reference Desktop Guide Resource Desk section 2.4.2  **IF:**   * It is determined that a SASM should be run;   **THEN:**   * Post on the ERCOT Website * Make a Hotline call to QSE’s * Notify Transmission Operator to make Hotline call to TO’s   **Q#72 - Typical Hotline Script to Execute a SASM for Failure to Provide/Infeasibility:**  **Typical Posting:**  “ERCOT will execute a SASM at [xx:xx] for operating day [xx/xx/xx] for HE [xx-xx] for [type of A/S] MW [X], [X], [X]”.  **THEN:**   * Execute SASM **(**Refer to Desktop Guide Resource Desk Section 2.4.1 or 2.4.2). |
| **2** | **IF:**   * SASM did not procure the amount of A/S requested;   **THEN:**   * Notify the Shift Supervisor of the remaining A/S insufficiencies to be procured through RUC if necessary. |
| **3** | **IF:**   * A QSE is unable to provide their SASM awards;   **THEN:**   * Determine if there is time to open an additional SASM, AND * Send failure to provide notification. |
| **4** | Cancel posting on the ERCOT Website |
| **5** | **PREPARE:**   * Email with the following information:   + SASM ID (use YYYYMMDDHHMMSS format)   + Delivery Date   + Delivery Hour   + QSE and Resource name (if known) you are replacing the AS for   + AS type(s)   + MW amounts you are replacing   + Total MW amount SASM has awarded   + Verify PVT transferred   **SEND:**   * E-mail to the following distribution list;   + SASM |
| Daily Reconfiguration Supplemental Ancillary Services Market (RSASM) | |
| **Daily RSASM Timeline** | (Refer to Desktop Guide Resource Desk Section 2.4.7)  Reconfiguration Supplemental Ancillary Service Market (RSASM) allows QSEs to modify their Ancillary Services (AS) during the Operating Day. RSASMs are expected to be run daily for Operating Hours HE 13 thru 24.)  The timeline is as follows:  Time 08:45 = Events-AS\_Resp\_Check for 0900 (Start Now) commit to Database  Time 09:00 = Execute SASM  Time 09:15 = Notify QSEs with awards  Time 09:30 = Validate COPs and A/S schedules |
| **1** | QSEs must have valid AS Offers of an amount equal to or greater than the requested reconfiguration amount;  **IF:**   * There are **not sufficient** AS Offers to cover the total requested amount;   **THEN:**   * Do **not** publish the RSASM, * Post an Operational Information message, low priority, on the ERCOT Website * Send email to SASM distribution list * QSEs will retain their original AS Supply Responsibility and should update their COPs accordingly   **Typical ERCOT Website Posting for Daily RSASM:**  The Daily RSASM will not be occurring due to insufficient AS Offers. |
| **2** | **IF:**   * There are **NO** participating QSEs in the RSASM process;   **THEN:**   * Do **not** proceed with RSASM process * Post an Operational Information, low priority, message on the ERCOT Website * Send email to SASM distribution list   **Typical ERCOT Website Posting for Daily RSASM:**  The Daily RSASM will not be occurring due to zero participating QSEs. |
| **3** | **IF:**   * There **ARE** participating QSEs in the RSASM   **THEN:**   * Proceed with the RSASM   **PREPARE:**   * Email with the following information:   + SASM ID (use YYYYMMDDHHMMSS format)   + Delivery Date   + Delivery Hour   + QSE   + AS type(s)   + MW amounts you are replacing   + Total MW amount RSASM has awarded   + Verify PVT transferred   **SEND:**   * E-mail to the following distribution list:   + SASM |
| **Log** | Log all actions. |

# 6. Managing Outages

## 6.1 Manage Resource Forced & Maintenance Outages

**Procedure Purpose:** Monitor and respond to Resource Forced and Maintenance outages.

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| **Protocol Reference** | **3.1.4.2** | **3.1.4.4** | **3.1.4.5** | **3.1.4.6** |
| **3.1.4.7** | **3.1.6.4** | **3.1.6.9** | **3.1.6.10** |
| **3.1.6.11** | **6.5.7.1.6** |  |  |
| **Guide Reference** | **2.4** |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 13** | **Effective Date: September 1, 2023** |

| **Step** | **Action** |
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| Forced Outages | |
| **Note** | **The QSE must:**   * Immediately notify ERCOT of a Forced Outage, * Enter the Forced Outage in the Outage Scheduler as soon as practicable but no longer than 60 minutes after the beginning of the Outage, * Update the COP within 1 hour, * Immediately update the telemetry. |
| **Note** | ERCOT Operators can only make the following changes in the Outage Scheduler:   * Remove actual start/end time if it is within 2 hours of the time the MP entered the outage, * Change status, * Add notes   If a MP needs assistance or is unable to enter their outages, instruct them to Outage Coordination. Outage Coordination has an “Impersonation” certification that will allow them to make the needed changes. |
| Maintenance Outages | |
| **Definition** | * Level 1- Equipment that must be removed from service within 24 hours to prevent a potential Forced Outage; * Level 2 - Equipment that must be removed from service within 7 days to prevent a potential Forced Outage; and * Level 3 - Equipment that must be removed from service within 30 days to prevent a potential Forced Outage. |
| **Maintenance Outage with start time ≤ 24 Hours** | **IF:**   * A Maintenance Outage is received, review the outage if the scheduled start time is within the next 24 hours;   **THEN:**   * Discuss with the Transmission and Security Operator to determine if the outage will cause any reliability issues. |
| **Accept**  **Maintenance Outage with start time ≤ 24 Hours** | **IF:**   * No reliability issues identified;   **THEN:**   * Accept the Maintenance Outage. |
| **Coordinate Maintenance Outage with start time ≤ 24 Hours** | **IF:**   * Reliability issues exist;   **THEN:**   * Coordinate the start of the outage with the QSE to ensure system reliability as long as the outage is allowed to start within 24 hours, AND * Accept the Maintenance Outage. |
| **Coordinate**  **Maintenance Level 2 and 3 Outage ≤ 24 Hours** | **REQUEST:**   * Support from the Transmission Desk or Shift Supervisor,   **IF:**   * Maintenance Level 2 and 3 outages are received with a start time of less than the next 24 hours, AND * Reliability issues exist;   **THEN:**   * Coordinate the start of the outage with the QSE to ensure system reliability as long as the outage is within the allowed Maintenance Level 2 (7 Days) and 3 (30 Days) outage criteria, * ERCOT Outage Coordination group may help coordinate a new start time.   **IF:**   * Reliability issues continue;   **THEN:**   * REQUEST the Operations Support Engineer investigate the development of a MP or TOAP (see section 4.6 Mitigation Plan) located in the Transmission Desk Procedure, * Accept the Maintenance Outage after coordination. |
| **Maintenance Level 2 and 3 Outages** | **IF:**   * Maintenance Level 2 and 3 outages are received with a start time of greater than the next 24 hours;   **THEN:**   * The ERCOT Outage Coordination group has a process to review all Maintenance Level 2 and 3 outages without further action. |
| **Log** | Log all actions. |
| Forced Derate | |
|  | **IF:**   * A Resource’s capability is reduced by 10 MW or 5% of its Seasonal net max sustainable rating and last longer than 30 minutes;   **THEN:**   * The QSE must do the following:   + Enter the Derate into the Outage Scheduler as soon as practicable but no longer than 60 minutes after the beginning of the Derate,   + Replace AS responsibility, if applicable,   + Update the COP within 1 hour,   + Immediately update the telemetry. |
| Short-Notice Resource Outages | |
|  | **IF:**   * A newly proposed Resource Outage or proposed changes to a Planned Outage is submitted three days or less from the outage start date;   **THEN:**   * Notify Outage Coordination Group. |
| Opportunity Outages | |
| **Note** | Opportunity Outages for Resources are a special category of Planned Outages that may be approved by ERCOT when a specific Resource has been forced Off-Line due to a Forced Outage and the Resource has been previously accepted for a Planned Outage during the next eight days. The QSE must give as much notice as practicable to ERCOT. |
| **1** | **WHEN:**   * A Forced Outage occurs on a Resource that has an accepted or approved Outage scheduled within the following eight days, **AND**   **IF:**   * Approved by ERCOT;   **THEN:**   * The Resource may remain Off-Line and start the accepted or approved Outage earlier than scheduled.   **IF:**   * Reliability issues exist;   **THEN:**   * Reject the outage to ensure system reliability,   **IF:**   * No issues identified;   **THEN:**   * Approve the Outage as received, * Notify the QSE and Outage Coordination Group. |
| Returning from Planned Outage Early | |
| **Verify** | **IF:**   * A Resource returns from a Planned Outage early;   **THEN:**   * Coordinate with the Transmission and RUC Operators to determine if there is an associated transmission outage or any reliability issues exist. |
| **Approve** | **IF:**   * No issues identified;   **THEN:**   * Notify the QSE of approval and to update their COP and Telemetry, * Notify the Outage Coordination Group. |
| **Deny** | **IF:**   * Reliability issues, **OR** * Transmission is not available;   **THEN:**   * Coordinate between the TO and QSE to schedule a time agreeable to both parties for all facilities to be restored to service, * Notify the QSE within two hours, * Issue a VDI to stay Off-Line (see Desktop Guide Common to Multiple Desks Section 2.3)   + Choose “Can Not Return Early From Outage” as the Instruction Type from Resource level.   When issuing a VDI or confirmation, ensure the use of three-part communication:   * + Issue the Operating Instruction   + Receive a correct repeat back   + Give an acknowledgement |
| **Log** | Log all actions. |

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| Advance Action Notice (AAN) | |
| **Definition** | An Advance Action Notice (AAN) is a type of Operating Condition Notice (OCN) that identifies a possible future Emergency Condition and describes future action ERCOT expects to take to address that condition unless the need for ERCOT action is alleviated by Qualified Scheduling Entity (QSE) and/or Transmission Service Provider (TSP) actions or by other system developments. |
| **Note** | ERCOT may issue an (AAN) in anticipation of a possible Emergency Condition. Any AAN will identify actions ERCOT expects to take to address the possible Emergency Condition unless the need for ERCOT action is alleviated by QSE and/or TSP actions taken, or by other system developments that occur before a time stated in the AAN. |
| **Time Periods** | ERCOT shall issue the AAN a minimum of 24 hours prior to performing an Outage Adjustment Evaluation (OAE). Additionally, unless impracticable, the OAE should not be performed until eight Business Hours have elapsed following issuance of the AAN. ERCOT shall not issue an Outage Scheduler Adjustment (OSA) under this Section unless it has first completed an OAE. |
| **1** | **IF:**   * ERCOT forecasts an inability to meet applicable transmission reliability standards and has exercised all other reasonable options * There are Resources with approved or accepted Resource Outages, whose approval or acceptance could be withdrawn to meet the applicable transmission reliability standards   **THEN:**   * As instructed by the Shift Supervisor and in coordination with System Operations Management, Outage Coordination Management and Operations Support Management, issue an AAN. |
| **Hotline Issue AAN** | Hotline call will usually be made by the RUC Operator, the script below is for reference if needed:  **Q#126 - Typical Hotline Script for an AAN** |
| **Post** | Coordinate with the Transmission Operator for the posting of the notice on the ERCOT Website  **Typical Posting Script:**  ERCOT issued an AAN due to a possible future Emergency Condition of [reserve capacity deficiency or reliability problem] beginning [date HE XX] until [date HE XX].  [Summary of actions ERCOT may take].  ERCOT may seek [amount of capacity] from an OAE and then make the OSA.  On [date] at [xx:xx] ERCOT will execute an OAE if deemed necessary. Please notify ERCOT by email: [aan@ercot.com](mailto:aan@ercot.com) of any Resources that cannot be considered in the OAE. |
| **2** | **IF:**   * Conditions change   **THEN:**   * Update the AAN |
| **Hotline Update AAN** | Hotline call will usually be made by the RUC Operator, the script below is for reference if needed:  **Q#127 –Typical Hotline Script for an Update of an AAN** |
| **Updated Post** | Coordinate with the Transmission Operator for the posting of the updated notice on the ERCOT Website  **Typical Posting Script:**  ERCOT has updated an AAN due to conditions changing and a possible future Emergency Condition of [reserve capacity deficiency or reliability problem] beginning [date HE XX] until [date HE XX].  [Summary of actions ERCOT may take].  ERCOT may seek [amount of capacity] from an OAE and then make the OSA.  On [date] at [xx:xx] ERCOT will execute an OAE if deemed necessary. |
| **Instructing Generation Resources Planned Outages Return Early** | Hotline call will usually be made by the RUC Operator, the script below is for reference if needed:  **Q#129 –** **Typical Hotline Script for Instructing Generation Resources Planned Outages Return Early** |
| **OSA** | Hotline call will usually be made by the RUC Operator, the script below is for reference if needed:  **Q#130 – Typical Hotline Script for Outage Scheduler Adjustment (OSA)** |
| **Post** | Coordinate with the Transmission Operator for the posting of the updated notice on the ERCOT Website  **Typical Posting Script:**  ERCOT has executed the OSA process due to a possible future Emergency Condition of [reserve capacity deficiency or reliability problem] on [date] at [time].  Resource outages not moved voluntarily prior to [date] at [time] will be considered an OSA and individual notifications will be made to QSEs identifying each resource. |
| **Hotline Cancel AAN** | **WHEN:**   * ERCOT determines that the possible Emergency Condition has been alleviated by QSE or TSP action, by ERCOT action, or by other system developments;   **THEN:**   * Using the Hotline, cancel the AAN.   Hotline call will usually be made by the RUC Operator, the script below is for reference if needed:  **Q#128 - Typical Hotline Script to cancel an AAN** |
| **Cancel**  **Posting** | **WHEN:**   * ERCOT determines that the possible Emergency Condition has been alleviated by QSE or TSP action, by ERCOT action, or by other system developments.   **THEN:**   * Coordinate with the Transmission Operator to cancel the ERCOT Website message(s). |
| **Log** | Log all actions. |

## 6.2 Forced Outage Detection

**Procedure Purpose:** To detect forced outages of Resources

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| **Protocol Reference** | **3.1.4.4** | **3.1.4.7** | **6.4.8** | **6.5.7.1.6** |
| **Guide Reference** | **3.2.2** |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 3** | **Effective Date: September 1, 2023** |

| **Step** | **Action** |
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| Resource Outages | |
| **Note** | Work in conjunction with the appropriate desks in the Control Room for notification. |
| **Note** | Be aware that Resource outages detected in FOD will be based on the station model. If the breaker is between the generator and step-up transformer, FOD will display this as a unit (UN). If the breaker is on the “HIGH” side of the step-up transformer, FOD will display this as a transformer (XMR) and associated breakers (CB).  Be sure to look at all forced outages on transformers to determine if it is a generator trip. |
| **1** | **IF FOD identifies a Resource Outage:**  **The QSE must**:   * Immediately notify ERCOT of a Forced Outage/Derate, * Enter the Forced Outage/Derate in the Outage Scheduler as soon as practicable but no longer than 60 minutes after the beginning of the Outage/Derate, * Update the COP within 1 hour, * Immediately update the telemetry. |
| **2** | **FOD** can be used to detect telemetry oscillations. Monitor the “OTs” column; this represents the number of times the Resource has been outaged in a 24-hour period.  **IF:**   * An unusually high value is detected;   **THEN:**   * Discuss with Real-Time Operator and contact the QSE to correct the issue. |
| **Log** | Log all actions. |

# 7. Emergency Operation

## 7.1 Market Notifications

**Procedure Purpose:** Guidelines for issuing Emergency Conditions and the four possible levels: Operating Condition Notices (OCN), Advisories, Watches, and Emergency Notices.

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| **Protocol Reference** | **6.3.3** | **6.5.9.3** | **6.5.9.3.1** | **6.5.9.3.2** |
| **6.5.9.3.3** | **6.5.9.3.4** |  |  |
| **Guide Reference** | **4.2.1** | **4.2.2** | **4.2.3** | **4.2.4** |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 24** | **Effective Date: December 31, 2021** |

| **Step** | **Action** |
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| **Note** | * ERCOT is in an Emergency Condition whenever ERCOT Transmission Grid status is such that a violation of security criteria presents the threat of uncontrolled separation or cascading Outages and/or large-scale service disruption to Load (other than Load being served from a radial transmission line) and/or overload of a Transmission Element, and no timely solution is obtainable through SCED or CMPs. * Consider the severity of the potential Emergency Condition prior to the issuance of a notification. The severity of the Emergency Condition could be limited to an isolated local area, or the condition might cover large areas affecting several entities, or the condition might be an ERCOT-wide condition potentially affecting the entire ERCOT System. * The sequence of notifications issued may vary due to changing system conditions or other operational issues and it may be necessary to skip certain notifications due to the severity of the situation. |
| **Operating Condition Notice (OCN)** | |
| **Note** | OCN’s are used to inform Market Participants of a possible future need for more Resources due to conditions that could affect ERCOT System reliability. OCNs are for informational purposes only and may solicit additional information to determine whether the issuance of an Advisory, Watch, or Emergency Notice is warranted. OCNs serve as a reminder to QSEs and TSPs that some attention to the changing conditions may be warranted. |
| **1** | As instructed by the Shift Supervisor or when appropriate, issue an (OCN. The OCN can be issued for any of the following reasons:   * Insufficient Resources to meet forecasted conditions * There is a projected reserve capacity shortage in DRUC that could affect reliability and may require more Resources * When extreme cold weather is developing and forecasted to impact the ERCOT Region * When extreme hot weather is forecasted to impact the ERCOT Region * When a Hurricane or Tropical Storm is developing and forecasted to impact the ERCOT Region * Unplanned transmission Outages that may impact reliability   When anticipated adverse weather conditions are forecasted, ERCOT may confer with TOs and QSEs regarding the potential for adverse reliability impacts and contingency preparedness. |
| Advance Action Notice (AAN) | | |
| **Note** | Outage Schedule Adjustment (OSA)  Outage Adjustment Evaluation (OAE)  An AAN is a type of OCN, ERCOT may issue an AAN in anticipation of a possible Emergency Condition. An AAN will identify actions ERCOT expects to take to address the condition unless the need for ERCOT action is alleviated by QSE and/or TSP actions or by other system developments. |
| **1** | As instructed by the Shift Supervisor and in coordination with Outage Coordination and Operations Support, issue an AAN. The AAN can be issued for any of the following reasons:   * Insufficient Resources to meet forecasted conditions * There is a projected reserve capacity shortage in DRUC that could affect reliability and may require more Resources * When extreme cold weather is developing and forecasted to impact the ERCOT Region * When extreme hot weather is forecasted to impact the ERCOT Region * When a Hurricane or Tropical Storm is developing and forecasted to impact the ERCOT Region * Unplanned transmission Outages that may impact reliability   When anticipated adverse weather conditions are forecasted, ERCOT may confer with TOs and QSEs regarding the potential for adverse reliability impacts and contingency preparedness |
| Advisory | |
| **1** | As instructed by the Shift Supervisor or when appropriate, issue an Advisory. The Advisory can be issued for any of the following reasons:   * When the probability of an approaching Hurricane or Tropical Storm impacting the ERCOT Region increases, and concerns exist to escalate awareness * When the probability of extreme cold weather impacting the ERCOT Region increases, and concerns exist to escalate awareness * When the probability of extreme hot weather impacting the ERCOT Region increases, and concerns exist to escalate awareness * When conditions are developing or have changed and more Ancillary Services will be needed to maintain current or near-term reliability * ERCOT exercises its authority to increase Ancillary Service requirements above the quantities originally specified in the Day-Ahead Market in accordance with ERCOT procedures * When extreme weather or ERCOT System conditions require more lead-time than the normal Day-Ahead Market allows * Transmission system conditions are such that operations within security criteria are not likely or possible because of Forced Outages or other conditions unless a CMP exists * Loss of communications or control condition is anticipated or significantly limited * ERCOT may require information from QSEs representing Resources regarding the Resources’ fuel capabilities. Requests for this type of information shall be for a time of no more than seven days from the date of the request |
| Watch | |
| **1** | As instructed by the Shift Supervisor or when appropriate, issue a Watch. The Watch can be issued for any of the following reasons:   * A reserve capacity shortage is projected with no market solution available that could affect reliability * When an approaching Hurricane or Tropical Storm is imminent and anticipated to have an adverse impact on the ERCOT Region * When impacts from extreme cold weather is imminent and anticipated to have an adverse impact on the ERCOT Region * When impacts from extreme hot weather is imminent and anticipated to have an adverse impact on the ERCOT Region * Conditions have developed such that additional Ancillary Services are needed in the Operating Period * Insufficient Ancillary Services or Energy Offers in the DAM * Market-based congestion management techniques embedded in SCED will not be adequate to resolve transmission security violations * Forced Outages or other abnormal operating conditions have occurred, or may occur that require operations with activeviolations of security criteria as defined in the Operating Guides unless a CMP exists * The SCED process fails to reach a solution, whether or not ERCOT is using one of the measures in Failure of the SCED Process. * The need to immediately procure Ancillary Services from existing offers * ERCOT may instruct TOs to reconfigure transmission elements as necessary to improve the reliability of the system |
| Emergency Notice | |
| **1** | As instructed by the Shift Supervisor or when appropriate, issue an Emergency Notice. The Emergency Notice can be issued for any of the following reasons:   * Loss of Primary Control Center functionality * Load Resource deployment for North-Houston voltage stability * ERCOT cannot maintain minimum reliability standards (for reasons including fuel shortages) during the Operating Period using every Resource practically obtainable from the market * Immediate action cannot be taken to avoid or relive a Transmission Element operating above its Emergency Rating * ERCOT forecasts an inability to meet applicable reliability standards and it has exercised all other reasonable options * A transmission condition has been identified that requires emergency energy from any of the DC-Ties or curtailment of schedules * The Transmission Grid is such that a violation of security criteria as defined in the Operating Guides presents the threat of uncontrolled separation or cascading outages, large-scale service disruption to Load (other than Load being served from a radial transmission line) and/or overload of Transmission Elements, and no timely solution is obtainable through SCED or CMPs * When extreme cold weather is beginning to have an adverse impact on the ERCOT System * When extreme hot weather is beginning to have an adverse impact on the ERCOT System * When a Hurricane or Tropical Storm is beginning to have an adverse impact on the System |
| Operating Condition Script | |
| **Hotline** | Hotline calls are usually made by Real-Time Operator, the scripts below are for reference if needed:  Notify QSEs of Notice:  **Q#46 - Typical Hotline Script for Operating Condition [OCN/Advisory/Watch/Emergency]**  Notify Transmission Operator to make Hotline call to TOs |
| **Post** | * All notices must be posted on the ERCOT Website * For “free form” messages, the “Notice priority” will be specified as follows:   + Operational Information/OCN type messages – low priority   + Advisory/Watch type messages – medium priority   + Emergency type messages – high priority |
| **Hotline Cancellation** | **Q#47 - Typical Hotline Script to Cancel Operating Condition [OCN/Advisory/Watch/Emergency]** |
| **Log** | Log all actions. |

## 7.2 Implement EEA Levels

**Procedure Purpose:** To provide for maximum possible continuity of service while maintaining the integrity of the ERCOT system to reduce the chance of cascading outages.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Protocol Reference** | **6.5.7.6.2.2(1)(b) & (13)** | **6.5.7.6.2.3(1)** | **6.5.9.4** | **6.5.9.4.1** |
| **6.5.9.4.2** |  |  |  |
| **Guide Reference** | **4.5.3** | **4.5.3.1** | **4.5.3.2** | **4.5.3.3** |
| **4.5.3.4** |  |  |  |
| **NERC Standard** | **EOP-011-2**  **R2, R2.1, R2.2, R2.2.3, R2.2.3.1, R2.2.7** | **IRO-001-4**  **R1** | **TOP-001-5**  **R2** |  |

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| **Version: 1** | **Revision: 31** | **Effective Date: November 1, 2023** |

| **Step** | **Action** |
| --- | --- |
| **Note** | * ERCOT MAY immediately implement EEA Level 2 when clock-minute average system frequency falls below 59.91 Hz for 15 consecutive minutes. * ERCOT MAY immediately implement EEA Level 3 any time the clock-minute average system frequency falls below 59.91 Hz for 20 consecutive minutes OR when steady-state frequency falls below 59.8 Hz for any duration of time. * ERCOT SHALL immediately implement EEA Level 3 any time the steady-state frequency is below 59.5 Hz for any duration. |
| **Note** | ERCOT will declare an EEA Level 1 when PRC falls below 2,500 MW and is not projected to be recovered above 2,500 MW within 30 minutes without the use of the following actions that are prescribed for EEA Level 1 |
| **Note** | Confidentiality requirements regarding Transmission Operations and System Capacity information will be lifted, as needed to restore reliability. |
| **Note** | Manually deploy Load Resources other than Controllable Load Resources providing ECRS or RRS before an Energy Emergency Alert (EEA), to maintain a minimum 500 MWs of Physical Responsive Capability (PRC) reserves on Generation Resources. |
| **Note** | **XML messages and Hotline calls are required for all deployments of Load Resources and ERS Resources** |
| **ERS-30** | ERS with a thirty-minute ramp period. |
| **ERS-10** | ERS with a ten-minute ramp period. |
| **WS-ERS** | Each Standard Contract Term(SCT) Request for Proposal (RFP) will state what time periods in that SCT weather sensitive can provide offers for. |
| **TCEQ** | The Texas Commission on Environmental Quality (TCEQ) will exercise enforcement discretion for exceedances of emission limits and operational limits for Resources that exceed air permit limits in order to maximize generation for the duration of the EEA event.  A Market Notice will be sent to Market Participants and a Hotline call made |
| **Media**  **Appeal** | When an ERCOT-wide appeal through the public news media for voluntary energy conservation is made, make posting: Typical ERCOT Website posting for media appeal: ERCOT has issued an appeal through the public news media for voluntary energy conservation for [Day, Date, HE XX:XX through XX:XX]. |
| **ESR** | Instruct ESRs to suspend charging. For ESRs, ERCOT shall issue the suspension instruction via a SCED Base Point instruction, or, if otherwise necessary, via a manual Dispatch Instruction. An ESR shall suspend charging unless it is providing Primary Frequency Response, has received a charging instruction via SCED Base Point, or is carrying Reg-Down and has received a charging instruction from LFC. However, an ESR 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. |
| Implement EEA Level 1 | |
| **1** | **IF:**   * PRC < 2500 MW;   **THEN:**   * Deploy all available Non-Spin (if not previously deployed) (see Desktop Guide Resource Desk Section 2.1.1). * Determine whether system conditions require the deployment of ERS-30 (if not already deployed) (see Desktop Guide Resource Desk Section 2.3.2). * Make **EEA 1** posting to the ERCOT Website   + Use preformatted notice “EEA Level 1” |
| **3** | Verify all measures have been implemented. |
| **Log** | Log all actions. |
| Implement EEA Level 2 | |
| **Note** | * ERCOT may immediately implement 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 2,000 MW and is not projected to be recovered above 2,000 MW within 30 minutes without the use of the following actions that are prescribed for EEA Level 2: * ERCOT may immediately implement EEA Level 3 any time the clock-minute average system frequency falls below 59.91 Hz for 20 consecutive minutes or when steady-state frequency falls below 59.8 Hz for any duration of time. ERCOT shall immediately implement EEA Level 3 any time the steady-state frequency is below 59.5 Hz for any duration. |
| **1** | **IF:**   * PRC < 2000 MW or unable to maintain system frequency at 59.91 Hz and is not projected to be recovered above 2000 MW within 30 minutes without the use of EEA Level 2;   **THEN:**   * Determine when system conditions require the deployment of ERS-30 / ERS-10 (if not already deployed)/ Load Resources * (Do Not forget the WS ERS if available):   + Deploy ERS-30 if not already done in EEA1   + Deploy ERS-10   + Deploy Load Resources Group 0/Group 0+1a+1b+1c/Group 0+1a+1b+1c+2/Group 0+1a+1b+1c+2+3/All. * Notify the Real-Time Operator when XML message has been completed. ERS / Load Resources/ must be deployed first before hotline call is made,   + Desktop Guide Resource Desk (Section 2.2.1 for Load Resources; Section 2.3.2 for ERS). * **Make EEA 2 posting to the ERCOT Website**   + Use preformatted notice “EEA Level 2” |
| **ERS**  **Time Period**  **Changes** | **IF:**   * ERS Resources are deployed, and the Time Period is changing and if ERS is still needed;   **THEN:**   * Deploy next Time Period   + Take into consideration the time requirement for the ERS-10 and ERS-30 * Notify the Real-Time Operator when XML message has been completed. ERS must be deployed before hotline call is made. |
| **2** | **IF:**  Went straight to EEA Level 2;  **THEN:**   * Ensure tasks in EEA Level 1 are complete. |
| **3** | Verify all measures have been implemented. |
| **Log** | Log all actions. |
| Implement EEA Level 3 | |
| **Note** | ERCOT may declare an EEA Level 3 when the clock-minute average system frequency falls below 59.91 Hz for 20 consecutive minutes or when steady-state frequency falls below 59.8 Hz. ERCOT will declare an EEA Level 3 when PRC cannot be maintained above 1,500 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 shall take any of the following measures as necessary to recover frequency or PRC to the minimum required levels: |
| **EEA3**  **Unable to**  **Maintain**  **59.91 Hz or PRC <1500 MW** | **IF:**   * PRC <1,500 MW and is not projected to be recovered above 1,500 MW within 30 minutes or unable to maintain system frequency at 59.91 Hz for 25 consecutive minutes;   **THEN:**   * **Make EEA 3 posting to the ERCOT Website**   + Use preformatted notice “EEA Level 3” |
| **1** | Verify all measures have been implemented. |
| **Log** | Log all actions. |

## 7.3 Restore EEA Levels

**Procedure Purpose:** To restore the ERCOT grid to normal state as system conditions warrant while recovering from an EEA event.

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| --- | --- | --- | --- | --- |
| **Protocol Reference** | **6.5.9.4.3** |  |  |  |
| **Guide Reference** | **4.5.3.5** |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 23** | **Effective Date: November 1, 2023** |

| **Step** | **Action** |
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| **Note** | **XML messages and Hotline calls are required for all recalls of Load Resources and ERS Resources** |
| **Reserves** | 1500 MW of PRC must be restored within 90 minutes. |
| Restore Firm Load | |
| **1** | **IF:**   * Sufficient Regulation Service exist to control to 60 Hz, **AND** * PRC – Regulation Up Responsibility ≥ 1500 MW for the last 15 minutes;   **THEN:**   * + Transmission Operator will restore firm load. |
| Move from EEA Level 3 to EEA Level 2 | |
| **1** | **IF:**   * Sufficient Regulation Service exist to control to 60 Hz, **AND** * PRC is ≥ 2000 MW, **AND** * All firm loads have been instructed to be restored;   **THEN:**   * When instructed by the Real-Time Operator to recall Load Resources * Send XML message to recall Load Resources, (see Desktop Guide Resource Desk Section 2.2.4) * **Make EEA 3 to EEA 2 posting to the ERCOT Website** * Use preformatted notice |
| Move from EEA Level 2 to EEA Level 1 | |
| **1** | **IF:**   * The system can maintain PRC ≥ 2500 MW, **AND** * All Load Resources have been instructed to be restored; * **THEN:** * **Make EEA 2 to EEA 1 posting to the ERCOT Website**   + Use preformatted notice |
| Move from EEA Level 1 to EEA 0 | |
| **1** | **IF:**   * The system can maintain PRC ≥ 2500 MW, **AND** * All RUC committed units secured in EEA 1 can be released, **AND** * Emergency energy from the DC Ties is no longer needed;   **THEN:**   * **Terminate EEA 1 by posting to the ERCOT Website**   + Use preformatted notice “Return to Normal” |
| Cancel Watch | |
| **1** | **WHEN:**   * Projected Ramp Available in 30min > 1000, AND * PRC is > 3000 MW;   **THEN:**   * Cancel Watch * **Cancel message for Watch on the ERCOT Website** |
| **Log** | Log all actions. |

## 7.4 Restoration of Primary Control Center Functionality

**Procedure Purpose:** To be performed once Resource Desk Operator has arrived at ACC.

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| **Protocol Reference** |  |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 1** | **Effective Date: December 13, 2013** |

| **Step** | **Action** |
| --- | --- |
| **Note** | * Assist the Real-Time operator as needed * Follow procedure manual as normal operation returns |
| **Log** | Log all actions. |

# 8. Communication Testing

## 8.1 Weekly Hotline Test

**Procedure Purpose:** To perform a weekly communication test of the ERCOT Hotline phone system.

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| --- | --- | --- | --- | --- |
| **Protocol Reference** |  |  |  |  |
| **Guide Reference** | **7.1.3 (c)** |  |  |  |
| **NERC Standard** | **COM-001-3**  **R1** |  |  |  |

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| --- | --- | --- |
| **Version: 1** | **Revision: 11** | **Effective Date: December 31, 2021** |

| **Step** | **Action** |
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| **Note** | * In the event of a failure of the Forum Conference Client software, the most recent printout of the Hotline log may be used to perform a manual roll call of the QSEs * Ensure all invalid Hotline “Lost Souls” are cleared prior to call * If a Hotline call was made between 0630 and 1100 on Monday, it is not necessary to conduct this test |
| **Advisory**  **Levels** | Confirm with Shift Supervisor the Advisory level, which can be viewed at the following link:  <http://www.dhs.gov/files/programs/ntas.shtm>  The definitions for the Advisory levels are listed in the Security Alert Plan. |
| **1** | Test the ERCOT Hotline:   * Each Monday between 0630 and 1100, AND * When working from the Alternate Control Center during the monthly scheduled dates. |
| **2** | Using the Hotline, notify the QSEs of the purpose of the call.   * When QSEs have answered the Hotline, **print** Hotline participants.   **Q#75 - Typical Hotline Script for Weekly QSE Hotline Test** |
| **3** | **IF:**   * Updates are made to the ERCOT procedures or scripts;   **THEN:**   * Inform the QSEs during the Hotline call along with the effective date of the changes. |
| **4** | **IF:**   * A QSE did not answer;   **THEN:**   * Contact them using their OPX line or LD line to inquire why they were not on the Hotline call; * Open a Help ticket if ERCOT’s Telecommunications department is needed to investigate. |
| **5** | **IF:**   * The QSE “Blast dial failed” portion is not included on the printout;   **THEN:**   * Open a Help ticket for ERCOT’s Telecommunications department to investigate. |
| **6** | Place printout in the appropriate folder in the file in the back of the room. |
| **Log** | Log all actions. |

## 8.2 Monthly Testing of Satellite Phone Conference Bridge

**Procedure Purpose:** To ensure ERCOT maintains communication capability via the Satellite Phone System.

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| --- | --- | --- | --- | --- |
| **Protocol Reference** |  |  |  |  |
| **Guide Reference** |  |  |  |  |
| **NERC Standard** |  |  |  |  |

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| **Version: 1** | **Revision: 8** | **Effective Date: February 28, 2020** |

| **Step** | **Action** |
| --- | --- |
| Primary Control Center | |
| **Note** | When a participant dials into the conference bridge before the moderator dials in, they will hear music and be placed on hold. |
| **Note** | On the first weekend of each month, between the hours of 0000 Saturday and 0500 Monday, the **Satellite Phone System Conference Bridge** will be tested with the TOs. As the Shift Supervisor makes the call to the individual TO, they will set a time that the ERCOT Operator will call the **Satellite Phone System Conference Bridge** and establish communication with the appropriate TO. |
| **Note** | Use the ERCOT Satellite Phone User Guide **(See Desktop Guide Common to Multiple Desks Section 2.7)** for a list of the TOs that will be contacted by the ERCOT Operator and instructions on how to place a Satellite Phone System Conference Bridge call. |
| **Note** | The numbers for the ERCOT Operator to call into the Conference Bridge are Desk specific.  **Select:**  SATELLITE directory or go to page 41 to view the programmed numbers on the Turret phone for each Bridge:   * BLACKSTRT RUC – RUC Desk * BLACKSTRT RRD - Reliability Risk desk * BLACKSTRT RES – Resource Desk * BLACKSTRT REAL – Real-Time Desk * BLACKSTRT TS#1 – Transmission Desk (Island Coordination) * BLACKSTRT TS#2 – Transmission Desk |
| **1** | **IF:**   * Open a helpdesk ticket and cc “shiftsupv” * The preprogrammed number does not function correctly;   **THEN:**   * Refer to the ERCOT Satellite Phone User Guide **(See Desktop Guide Common to Multiple Desks Section 2.7.2)** for the appropriate conference number and continue with this procedure. |
| **2** | **When prompted:**   * Enter the Moderator Pass Code * If necessary, allow five minutes for Participants to dial in * As each Participant connects, record the following:   + Name of Participant   + Company Name   + Any problems identified with the connection process |
| **3** | **IF:**   * Follow up with the TO to determine the cause;   **THEN:**   * Investigate the cause and log the following:   + Reason for inability to connect   + Establish a time for a retest of the TOs not able to connect in the initial test. |
| **4** | Inform the Shift Supervisor when test is complete indicating any issues identified. |
| **Log** | Log all actions. |

# 9. Perform Miscellaneous

## 9.1 Respond to Miscellaneous Issues

**Procedure Purpose:** To provide a mutually agreed process for resolving Real-Time data issues between ERCOT and the Entities that provide data to ERCOT . Also, to record when a QSE is operating from their backup Control Centers and to notify the ERCOT Transmission Operator when a QSE notifies ERCOT of a change in status with any PSS or AVR.

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| --- | --- | --- | --- | --- |
| **Protocol Reference** |  |  |  |  |
|  |  |  |  |
| **Guide Reference** | **7.3.3** |  |  |  |
| **NERC Standard** | **IRO-018-1(i)**  **R1.3** | **TOP-003-5**  **R5, R5.2** | **TOP-010-1(i) R1.3** |  |

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| --- | --- | --- |
| **Version: 1** | **Revision: 9** | **Effective Date: December 31, 2020** |

| **Step** | | | **Action** | |
| --- | --- | --- | --- | --- |
| Real-Time Data Issues known by the QSE | | | | |
| **Note** | | | Manually replaced telemetry data is data entered by a QSE on their systems that is transmitted to ERCOT via ICCP in place of the normal points experiencing an issue. If Reliability issues can’t be resolved in a timely manner, ERCOT reserves the right to order the Resource off-line until the problem is resolved. | |
| **Notification of Telemetry**  **Data**  **Issue** | | | **IF:**   * Notified of a telemetry data issue (telemetry data will not be available or is unreliable for operational purposes;   **THEN:**   * The QSE should correct the telemetry data as soon as practicable, or, * Manually replace the data, if available. | |
| **Cannot**  **Resolve** | | | **IF:**   * The QSE cannot resolve the telemetry data issue within two Business Day, fix the issue in a timely manner;   **THEN:**   * The QSE shall provide an estimated time of resolution. | |
| Backup/Alternate Control Center Transfer | | | | |
| **1** | | | When notified by a QSE that they will be transferring to or from their backup/alternate control center,   * Identify the [QSE] in the email notification * Send e-mail to “1 ERCOT System Operators” | |
| **Log** | | | Log all actions. | |
| QSE Issues | | | | |
| **1** | | If a QSE is not satisfied with ERCOT Operations responses to their issues, refer them to their Wholesale Client Representative for clarification/resolution. | |
| **2** | | If the System Operator believes the issue is with ERCOT systems applications (ICCP down, etc.), notify the ERCOT Help Desk. | |
| **3** | | If a QSE is having an issue with ERCOT system applications (unable to access the portal, outage scheduler, etc.), instruct them to call the ERCOT Help Desk. | |
| **4** | | As time permits, notify the Shift Supervisor of any actions taken and unresolved issues. | |
| **Log** | | Log all actions. | |
| Missing Data from ERCOT Website Postings | | | |
| **1** | | **IF:**   * A call is received about data missing or data being incorrect,   **THEN:**   * Transfer call to the Help Desk, and * Notify the Shift Supervisor and Operations Support Engineer. | |
| **Log** | | Log all actions. | |
| Courtesy Hotline calls for ERCOT Application Issues | | | |
| **1** | | **WHEN:**   * Notified from IT support of application(s) issues that are causing Market Participants an inability to submit data to ERCOT;   **THEN:**   * Make a courtesy hotline to inform them.   **Q#76 - Typical Hotline script for Application Issues** | |
| Power System Stabilizers (PSS) & Automatic Voltage Regulators (AVR) | | | |
| **1** | **WHEN:**   * Notified by a QSE of a change in status with any PSS or AVR;   **THEN:**   * Transfer call to the ERCOT Transmission Operator. | | |

Document Control

*Preparation*

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| Hartmann, Gaddy, and Frosch | Procedure writers and editors | January 22, 2016 |
| Hartmann and Gaddy | Procedure writers and editors | February 23, 2016 |
| Hartmann and Gaddy | Procedure writers and editors | April 22, 2016 |
| Hartmann, Gaddy, and Frosch | Procedure writers and editors | June 24, 2016 |
| Hartmann and Gaddy | Procedure writers and editors | December 23, 2016 |
| Hartmann, Gaddy, and Frosch | Procedure writers and editors | March 27, 2017 |
| Hartmann, Gaddy, and Ballew | Procedure writers and editors | May 26, 2017 |
| Hartmann, Gaddy, and Ballew | Procedure writers and editors | June 23, 2017 |
| Hartmann, Gaddy, and Ballew | Procedure writers and editors | July 24, 2017 |
| Hartmann, Gaddy, and Ballew | Procedure writers and editors | October 27, 2017 |
| Hartmann, Gaddy, and Ballew | Procedure writers and editors | December 22, 2017 |
| Hartmann, Gaddy, Ballew, and Frosch | Procedure writers and editors | February 22, 2018 |
| Hartmann, Gaddy, Ballew, and Frosch | Procedure writers and editors | April 27, 2018 |
| Hartmann, Gaddy, and Ballew | Procedure writers and editors | August 24, 2018 |
| Hartmann, Gaddy, and Ballew | Procedure writers and editors | December 21, 2018 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | October 29, 2019 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | December 20, 2019 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | January 27, 2020 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | February 24, 2020 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | June 25, 2020 |
| Hartmann, Gaddy, Cyphers, and Sheets | Procedure writers and editors | December 23, 2020 |
| Hartmann, Gaddy, Cyphers, and Sheets | Procedure writers and editors | April 29, 2021 |
| Hartmann, Gaddy, Cyphers, and Sheets | Procedure writers and editors | June 11, 2021 |
| Hartmann, Gaddy, Cyphers, and Sheets | Procedure writers and editors | July 8, 2021 |
| Hartmann, Gaddy, Cyphers, and Sheets | Procedure writers and editors | July 28, 2021 |
| Hartmann, Gaddy, Cyphers, and Sheets | Procedure writers and editors | August 27, 2021 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | November 29, 2021 |
| Hartmann, Gaddy, Cyphers and Frosch | Procedure writers and editors | December 17, 2021 |
| Hartmann, Gaddy, Cyphers and Frosch | Procedure writers and editors | February 24, 2022 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | May 20, 2022 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | June 27, 2022 |
| Hartmann, Gaddy, Cyphers, and Frosch | Procedure writers and editors | July 25, 2022 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | October 3, 2022 |
| Hartmann, Gaddy, and Cyphers | Procedure writers and editors | October 26, 2022 |
| Hartmann, Gaddy, Cyphers, and Frosch | Procedure writers and editors | December 22, 2022 |
| Hartmann, Gaddy, Cyphers, and Luker | Procedure writers and editors | April 25, 2023 |
| Hartmann, Gaddy, Cyphers, and Luker | Procedure writers and editors | June 5, 2023 |
| Hartmann, Gaddy, Cyphers, and Luker | Procedure writers and editors | June 26, 2023 |
| Hartmann, Gaddy, Cyphers, and Luker | Procedure writers and editors | August 29, 2023 |
| Hartmann, Cyphers, and Luker | Procedure writers and editors | October 26, 2023 |
| Hartmann, Cyphers, and Luker | Procedure writers and editors | November 9, 2023 |
| Hartmann, Cyphers, and Luker | Procedure writers and editors | December 20, 2023 |
| Hartmann, Cyphers, and Luker | Procedure writers and editors | February 27, 2024 |

*Manual Change History*

|  |  |  |  |
| --- | --- | --- | --- |
| **Procedure** | **Ver/Rev** | **Reason for Issue** | **Effective Date** |
| All Sections | 1.0 / 0 | New procedures for all sections for Nodal implementation | November 28, 2010 |
| 3.1  3.4  3.5  3.7  4.1  5.1  5.1  5.2  6.1  7.2 | 1.0 / 1  1.0 / 1  1.0 / 1  1.0 / 1  1.0 / 1  1.0 / 1  1.0 / 1  1.0 / 1  1.0 / 1  1.0 / 1 | Deleted WGR section, in section “Monitor QSE Ancillary Services Obligation”, updated step Infeasible A/S Capacity from RUC & A/S Difference in COP  Updated Note  Updated step 3  Updated whole procedure  Updated step 2  In section “Procurement of Ancillary Services due to DAM Failure”, “ERCOT Increases the Amount of Ancillary Services”, “Replacement of Ancillary Service Due to Infeasibility/Failure to Provide”, “Replacement of Ancillary Services in Real Time”, Updated step 1  Updated whole procedure  In section “Timeline Deviations”, Updated 2nd Note  In section “Returning from Planned Outage Early”, Updated Deny  In section “Implement EEA Level 1”, Updated step 1 | December 1, 2010 |
| 3.1  3.7  3.8  5.1 | 1.0 / 2  1.0 / 2  1.0 / 0  1.0 / 2 | Deleted “Monitor Base Point Deviations” and updated “A/S Difference in COP”  Deleted step Note, Deployment, & Termination  New Procedure  Updated “Procurement of Ancillary Services due to DAM Failure”, “ERCOT Increases the Amount of Ancillary Services” and “Replacement of Ancillary Service Due to Infeasibility/Failure to Provide“ step 3 and 4 | December 15, 2010 |
| 3.1  3.2  3.4  3.3  3.5  3.7  4.1  5.1  5.2  7.1  7.2  7.3  8.2 | 1.0 / 3  1.0 / 1  1.0 / 2  1.0 / 1  1.0/ 2  1.0 / 3  1.0 / 2  1.0 / 3  1.0 / 2   1. / 1 2. / 2   1.0 / 1  1.0 / 1 | Updated step Telemetered Status, step 1 in Manual Override Checks and removed workaround step “Real Time A/S shortage” in Monitor QSE Ancillary Services Obligation  Updated all steps  Updated steps “Deployment” and “Termination”  Updated step 1 on “Cancelation”  Updated all steps and added note  Updated all steps  Updated and deleted Notes and step 1  Updated “Procurement of Ancillary Services due to DAM Failure”, “ERCOT Increases the Amount of Ancillary Services”, “Replacement of Ancillary Service Due to Infeasibility/Failure to Provide“ step 3 and added note on Replacement of Ancillary Services in Real Time  Updated Second Note on “Timeline Deviations”  Updated Hotline on “Scripts”  Updated Step 1 on ” Implement EEA Level 1” and “Implement EEA Level 2A”  Updated Steps 1 on “Move from EEA Level 3 to EEA Level 2B” and “Cancel Watch”  Deleted Site Failover Notification procedure & changed 8.3 to 8.2 | January 31, 2011 |
| 3.3  3.4  3.7  5.1  7.1 | 1.0 / 2  1.0 / 3  1.0 / 4  1.0 / 4  1.0 / 2 | Updated step 1 in “Watch” & step 1 in “Cancelation”  Updated “Deployment” and “Termination”  Updated “Issue Watch & Deploy Non-Spin” and “Recall Non-Spin”  Updated step 2 in “Replacement of Ancillary Service Due to Infeasibility/Failure to Provide”  Updated “Watch” and “Emergency Notice” | March 25, 2011 |
| 3.5  7.1  7.3 | 1.0 / 3  1.0 / 3  1.0 / 2 | Updated NERC Recovery Criteria  Updated step 1 in Watch and Emergency Notice and step Post  Updated 1st and 2nd script in Restore Firm Load, Updated 1st in Move From EEA Level 3 to EEA Level 2B | April 22, 2011 |
| 3.8  3.9  5.1  8.1 | 1.0 / 0  1.0 / 1  1.0 / 5  1.0 / 1 | Added new procedure  Changed section number from 3.8 to 3.9  Updated steps 3-5 in Replacement of A/S due to Infeasibility/Failure to Provide, deleted Replacement of A/S in Real-Time  Change section name, updated step 2 & 3 | May 11, 2011 |
| 3.3  3.4  3.6  3.7  3.8  7.1 | 1.0 / 3  1.0 / 4  1.0 / 1  1.0 / 5  1.0 / 1  1.0 / 4 | Updated step 1 in Advisory and Watch  Updated step Deployment  Updated step 1  Updated step Deploy Non-Spin & Post & Deploy Load Resources & Post  Updated step Post  Updated all steps | June 8, 2011 |
| 3.3  3.4  3.5  3.8  4.1  5.2  7.1  7.2  7.3  9.1 | 1.0 / 4  1.0 / 5  1.0 / 4  1.0 / 2  1.0 / 3  1.0 / 3  1.0 / 5  1.0 / 3  1.0 / 3  1.0 / 1 | Updated step 1 in Advisory and Watch  Updated step on Deployment  Updated step on PRC Below 2300  Added step Termination, updated steps on Post and Cancel Posting  Updated step 2 in Approve/Reject Decommitment QSE Requests in Operating Period  Updated step 1 and deleted 2nd note in Timeline Deviations  Updated step Watch  Updated all steps  Updated all steps  Added Market Participant Backup Control Center Transfer procedure | July 20, 2011 |
| 3.3  3.4  5.1  7.1  7.2  7.3  8.2 | 1.0 / 5  1.0 / 6  1.0 / 6  1.0 / 6  1.0 / 4  1.0 / 4  1.0 / 2 | Updated step 1 in Cancelation  Updated Note, added steps Additional Deployment & Commit, updated steps Note & Deployment  Updated 1st Note  Added projected reserve capacity shortage and Extreme Hot Weather in Watch  Updated 2nd Note, step 1 & 2 in EEA Level 1, step 1 in EEA Level 2A, added note in EEA Level 2B  Updated step 1 in Cancel Watch  Updated 4th Note and step 1 | September 1, 2011 |
| 7.2  7.3  8.1 | 1.0 / 5  1.0 / 5  1.0 / 2 | Combined EEA 2A & B per NPRR 379  Combined EEA 2A & B per NPRR 379  Updated step 2 | October 1, 2011 |
| 3.1  3.4  3.6  3.8  3.9  4.1  5.1  8.1 | 1.0 / 4  1.0 / 7  1.0 / 2  1.0 / 3  1.0 / 2  1.0 / 4  1.0 / 7  1.0 / 3 | Changed desktop guide reference in Monitor QSE Ancillary Services Obligation  Updated step Commit  Updated procedure title and all steps  Updated steps 1 & Termination, added step 2  Deleted procedure due to protocol change  Added 2nd Note  Updated steps 1 – 3 in Procurement of A/S due to DAM Failure, steps 1 -2 in ERCOT Increased the Amount of A/S, steps 1 & 4 in Replacement of A/S Due to Infeasibility/Failure to Provide  Added Note 2 & 3 | November 1, 2011 |
| 3.3  3.4  3.7  3.8  7.1 | 1.0 / 6  1.0 / 8  1.0 / 6  1.0 / 4  1.0 / 7 | Add Note in Watch  Added second Note  Added second Note  Added Note  Updated Post in “Scripts”  All procedures in this manual have been reviewed. | December 15, 2011 |
| 1.2  3.1  3.4  4.1  5.1 | 1.0 / 1  1.0 / 5  1.0 / 9  1.0 / 5  1.0 / 8 | Updated Scope  Updated Monitor QSE A/S Obligation procedure  Updated 1st Note  Updated steps 1 & 2  Updated step 2, 3 & 4 | January 19, 2012 |
| 2.1  3.1  3.3  3.4  3.5  3.7  3.8  4.1  5.1  7.1  7.2  7.3  8.2  9.1 | 1.0 / 1  1.0 / 6  1.0 / 7  1.0 / 10  1.0 / 5  1.0 / 7  1.0 / 5  1.0 / 6  1.0 / 9  1.0 / 8  1.0 / 6  1.0 / 6  1.0 / 3  1.0 / 2 | Updated paragraph 4  Updated Desktop Guide references  Updated Desktop Guide references  Updated Desktop Guide references  Updated Desktop Guide references  Updated Desktop Guide references  Updated Desktop Guide references  Updated 1st Note & step 1  Updated Desktop Guide references, step 3s & 4  Updated step 1 of Watch  Updated Desktop Guide references  Updated Desktop Guide references  Updated Desktop Guide references  Updated QSE Override, QSE unable to Override, Backup/Alternate Control Center Transfer, QSE Issues & step Power System Stabilizers (PSS) & Automatic Voltage Regulators (AVR) | March 1, 2012 |
| 2.1  3.1  3.5  3.6  3.7  4.1  5.1  7.1  9.1 | 1.0 / 2  1.0 / 7  1.0 / 6  1.0 / 3  1.0 / 6  1.0 / 7  1.0 / 10  1.0 / 9  1.0 / 3 | Changed TSP/DP to TO  Updated step Not Dispatchable to SCED  Deleted Potential DCS Event, changed section number for System Failures  Changed section number  Changed section number & added step 3  Updated step 1  Updated information needed in e-mail  Updated all step 1’s  Changed Shift Engineer to Ops Support Engineer | May 1, 2012 |
| 3.3  3.4 | 1.0 / 8  1.0 / 11 | Updated to reflect changes in the TAC approved Non-Spin document  Updated to reflect changes in the TAC approved Non-Spin document | May 14, 2012 |
| 7.2  7.3 | 1.0 / 7  1.0 / 7 | Updated EILS to ERS per NPRR 451  Updated EILS to ERS per NPRR 451 | June 1, 2012 |
| 1.3  4.1  6.1  7.1  7.2  7.3  8.2 | 1.0 / 1  1.0 / 8  1.0 / 2  1.0 / 10  1.0 / 8  1.0 / 8  1.0 / 4 | Removed ERCOT Shift Supervisor paragraph  Added Desktop Guide to VDI reference  Added Desktop Guide to VDI reference and updated Maintenance Level 2 and 3 outages Updated all step 1’s  Added Desktop Guide to VDI reference, updated step 1 Implement EEA Level 2 and added ERS  Updated step 1 Move from EEA Level 3 to EEA Level 2  Updated 4th note | July 16, 2012 |
| 3.1  7.2 | 1.0 / 8  1.0 / 9 | Updated step ONTEST  Updated step 1 of Implement EEA Level 1 | August 29, 2012 |
| 2.2  7.2  8.1 | 1.0 / 1  1.0 / 10  1.0 / 4 | Added Hotline Call Communication  Updated Implement EEA Level 1 step 2, Implement EEA Level 2 step 1 and ERS Business Hour Changes  Updated 1st Note, step 1, 2 & 3. Added step 4 and Log  All procedures in this manual have been reviewed. | November 1, 2012 |
| 3.3  3.4  3.6  3.7  4.1  5.1  7.3 | 1.0 / 9  1.0 /12  1.0 / 9  1.0 / 7  1.0 / 8  1.0 / 11  1.0 / 9 | Non-Spin deployment messages are now automated  Non-Spin deployment messages are now automated  Non-Spin deployment messages are now automated  Non-Spin deployment messages are now automated  Updated steps 1 & 2  Updated steps Note, Procurement Timeline & 1. Added new procedure, Daily Reconfiguration SASM  Updated step 1 of Cancel Watch | March 1, 2013 |
| 3.3  3.5  5.1  5.2  7.1  7.2  7.3  8.1  9.1 | 1.0 / 10  1.0 / 4  1.0 / 12  1.0 / 4  1.0 / 11  1.0 / 11  1.0 / 10  1.0 / 5  1.0 / 4 | Removed notice builder reference  Removed notice builder reference  Updated steps 1 & 5 in ERCOT Increased the amount of A/S & steps in Daily Reconfiguration SASM  Updated step 1  Updated Scripts  Removed notice builder reference & Updated Scripts  Removed notice builder reference  Updated Script  Updated Script | June 1, 2013 |
| 3.1  7.1 | 1.0 / 9  1.0 / 12 | Deleted 1st Note, added step Log, moved Not Dispatchable to SCED, Control Block Up/Down, & Real-Time RRS A/S Shortages to Real-Time procedure, deleted Manual Override Checks  Updated step 1 in Watch & Emergency Notice | July 15, 2013 |
| 5.1  5.2 | 1.0 / 13  1.0 / 5 | Updated 1st Note for R4 changes, Daily SASM Timeline  Updated 1st Note for R4 changes | August 9, 2013 |
| 5.1  6.1 | 1.0 / 14  1.0 / 3 | Updated 1st Note, Daily SASM Timeline  Updated to reflect SCR770 changes | September 27, 2013 |
| 3.1  3.2  3.3  3.5  3.6  3.7  4.1  5.1  6.1  6.2  7.1  7.2  7.4  8.2  9.1 | 1.0 / 10  1.0 / 2  1.0 / 11  1.0 / 5  1.0 / 10  1.0 / 8  1.0 / 10  1.0 / 15  1.0 / 4  1.0 / 1  1.0 / 13  1.0 / 12  1.0 / 1  1.0 / 5  1.0 / 5 | Added Monitor QSE A/S Obligation Title  Updated Evaluate Request  Updated step Log  Updated step Log  Updated step Log  Updated step Log  Updated step 3  Updated step Log  Updated Accept Maintenance Outage, Coordinate Maintenance Outage, Coordinate Maintenance Level 2 and 3 and Log  Updated step Log  Updated step Log  Updated last step and added Log  Updated step Log  Updated step Log  Updated and added step Log  All procedures in this manual have been reviewed. | December 13, 2013 |
| 3.4  3.5  3.74.1  6.1  7.1  7.2  7.3  8.1 | 1.0 / 13  1.0 / 7  1.0 / 9  1.0 / 11  1.0 / 5  1.0 / 14  1.0 / 13  1.0 / 11  1.0 / 6 | Updated VDI information  Updated for NPRR542  Updated VDI information  Updated VDI information  Updated VDI information  Updated to incorporate NPRR542  Updated ERS, Media appeal, TCEQ, VDI language, and moved steps to RUC desk  Updated Reserves and step 1  Updated step 1 & 3, added step 5 | April 4, 2014 |
| 2.2  3.1  3.3  3.4  4.1  5.1  5.2  7.1 | 1.0 / 2  1.0 / 11  1.0 / 12  1.0 / 14  1.0 / 12  1.0 / 16  1.0 / 6  1.0 / 15 | Added VDIs to Master QSEs  Updated Monitor QSE AS Obligations steps  Updated steps in Watch  Updated title, step Deployment & Termination  Updated step 1 & 2  Updated section titles & steps  Updated Timeline Deviations  Added Note, updated Advisory & Watch | June 1, 2014 |
| 3.1  3.4  3.6  3.7  4.1  5.1  6.1  7.2  7.3 | 1.0 / 12  1.0 / 15  1.0 / 11  1.0 / 10  1.0 / 13  1.0 / 17  1.0 / 6  1.0 / 14  1.0 / 12 | Updated Desktop references  Updated Desktop references  Updated Desktop references  Updated Desktop references  Updated Desktop reference  Updated steps 1, 4-6 in Replacement of A/S due to infeasibility or failure to provide, & Desktop references  Updated Forced Derate  Updated Desktop references  Updated Desktop references | August 1, 2014 |
| 7.1 | 1.0 / 16 | Updated Scripts | October 1, 2014 |
| 3.4  3.6  4.1  6.2 | 1.0 / 16  1.0 / 12  1.0 / 14  1.0 / 2 | Deleted Note & added Log  Changed title & added Rio Grande Valley  Re-worded procedure  Added step 2  All procedures in this manual have been reviewed | December 15, 2014 |
| 5.1 | 1.0 / 18 | Added new procedure “Increasing A/S for Extreme Cold Weather and changed title for “Increasing A/S for other reasons and updated timeline | December 22, 2014 |
| 2.2  3.3  3.4  3.5  3.6  3.7  5.1  5.2  6.1 | 1.0 / 3  1.0 / 13  1.0 / 8  1.0 / 13  1.0 / 11  1.0 / 0  1.0 / 19  1.0 / 7  1.0 / 7 | Added Dispatch and VDI definitions  Combined section 3.3 & 3.4 into one procedure  Updated section number  Updated section number  Updated section number and Corrected VDI vs. Dispatch Instruction  New, moved procedure from Shift Supervisor desk  Added SASM Failure and reformatted  Deleted procedure  Corrected VDI vs. Dispatch Instruction | March 1, 2015 |
| 3.2  3.3  3.5  3.6  5.1  7.1  8.1  9.1 | 1.0 / 3  1.0 / 14  1.0 / 14  1.0 / 12  1.0 / 20  1.0 / 17  1.0 / 7  1.0 / 6 | Updated step Evaluate Request  Combined step in Watch  Updated GTL to GTC  Updated step 2  Moved scripts to script procedure  Moved scripts to script procedure  Combined Note steps & moved scripts to script procedure  Moved script to script procedure | May 1, 2015 |
| 5.1 | 1.0 / 21 | Added a “Q” for QSE scripts  Updated per NPRR 682 | July 15, 2015 |
| 5.1 | 1.0 / 22 | Updated per NPRR 701 | September 9, 2015 |
| 5.1 | 1.0 / 23 | Updated Reconfiguration Supplemental Ancillary Service Market (RSASM) | October 1, 2015 |
| 3.5 | 1.0 / 15 | Updated to include calls for deployment and recalls of Load Resources. | October 30, 2015 |
| 3.3  3.4  3.7  5.1  7.1  7.2  7.3  8.1  9.1 | 1.0 / 15  1.0 / 9  1.0 / 1  1.0 / 24  1.0 / 18  1.0 / 15  1.0 / 13  1.0 / 8  1.0 / 7 | Updated Advisory step Issue Advisory Typical MIS Posting  Updated Watch step Issue Watch & Deploy Off-Line Non-Spin Typical MIS Posting  Updated Watch step Recall Non-Spin Typical MIS Posting  Updated step 1 Typical MIS Posting  Updated Unannounced Resource Testing step Testing Rules and Scripts Typical Script  Updated Increasing Ancillary Services for Extreme Cold Weather step 1 & 2 Typical Scripts  Updated Increasing Ancillary Services for other reasons step 1 & 2 Typical Scripts  Updated Daily RSASM step 1 & 2 Typical MIS Postings  Updated Operating Condition Script step Hotline Q#46  Updated Operating Condition Script step Hotline Cancellation Q#47  First Note, Updated Implement EEA Level 2 step 1, and Implement NPRR708 for EEA  Updated Move from EEA Level 2 to EEA Level 1 step 1  Updated step 2 Q#75  Updated Courtesy Hotline Calls for ERCOT Application Issues step 1 Q#76  All procedures in this manual have been reviewed | December 31, 2015 |
| 2.1  3.6  5.1  7.2  8.1 | 1.0 / 3  1.0 / 13  1.0 / 25  1.0 / 6  1.0 / 9 | Updated System Operator Responsibilities and Authority  Updated NERC Standard Reference  Updated step WS-ERS  Updated Replacement of Ancillary Service Due to Infeasibility or Failure to Provide step 1 with Hotline call  Changed Business Hours to Time Periods  Updated Alert Levels | February 1, 2016  February 10, 2016 |
| 1.3  5.1 | 1.0 / 2  1.0/ 26 | Removed Interchange Coordinator  Updated Failure to Provide script title Q#72 | March 1, 2016 |
| 5.1 | 1.0 / 27 | Added Increasing Ancillary Services for Extreme Cold Weather step 1 MIS Posting Typical Script  Added Increasing Ancillary Services for other reasons step 1 MIS Posting Typical Script | April 29, 2016 |
| 2.1  2.2  3.7  6.1  7.1 | 1.0 / 4  1.0 / 4  1.0 / 2  1.0 / 8  1.0 / 19 | Updated for COM-002-4  Updated for COM-002-4  Updated for COM-002-4  Updated for COM-002-4  Updated for COM-002-4 | June 30, 2016 |
| 9.1 | 1.0 / 8 | Added Real-Time Data Issues known by the QSE  Deleted Telemetry Issues that could affect SCED and/or LMPs  All procedures in this manual have been reviewed | December 30, 2016 |
| 1.3  2.1  7.1  7.2 | 1.0 / 3  1.0 / 5  1.0 / 20  1.0 / 17 | Deleted Roles/Responsibilities section  Updated section  Updated title and all 1st steps  Added Implement EEA Level 3 step PRC < 1375 MW | March 31, 2017 |
| 5.1  7.2 | 1.0 / 28  1.0 / 18 | Updated Increasing Ancillary Services for Extreme Cold Weather step 1  Updated Implement EEA Level 3 step PRC <1375 | June 1, 2017 |
| 7.2 | 1.0 / 19 | Updated 1st Note and Implement EEA Level 3 steps | June 30, 2017 |
| 3.7  7.2 | 1.0 / 3  1.0 / 20 | Updated note  Added note Implement EEA Level 2 and Level 3 | July 28, 2017 |
| 5.1 | 1.0 / 29 | Updated Replacement of Ancillary Service Due to Infeasibility or Failure to Provide steps | October 31, 2017 |
| 8.2 | 1.0 / 6 | All procedures in this manual have been reviewed  Updated Primary Control Center 4th note | December 28, 2017 |
| 3.4  3.7  3.8 | 1.0/ 10  1.0 / 0  1.0 / 3 | Updated Procedure Purpose, added **SCED/RLC/LFC (AGC) Failures** heading and ICCP, MIS, and Outage Scheduler outages section  Added new procedure Deploying Non-Spin for Critical Inertia Level for 3.7  Updated Unannounced Resource Testing procedure 3.7 to 3.8 | February 28, 2018 |
| 2.2 | 1.0 / 5 | Updated procedure purpose | May 1, 2018 |
| 3.8 | 1.0 / 4 | Added Notify and Log step  Moved Unannounced Testing scripts to Scripts | August 31, 2018 |
| 7.3 | 1.0 / 14 | Added Log  All procedures in this manual have been reviewed | December 28, 2018 |
| 7.3  8.1 | 1.0 / 15  1.0 / 10 | Updated Move from EEA Level 1 to EEA 0 step 1  Added steps | November 1, 2019 |
| 7.2  7.3 | 1.0 / 21  1.0 / 16 | Updated MSSC  Updated MSSC  All procedures in this manual have been reviewed | January 1, 2020 |
| 3.3  3.6  3.7  7.3  8.2 | 1.0 / 16  1.0 / 14  1.0 / 1  1.0 / 17  1.0 / 7 | Clarified RUC-commits/decommits  Clarified RUC-commits/decommits  Clarified RUC-commits/decommits  Clarified RUC-commits/decommits  Updated Primary Control Center steps 1 & 3 | January 31, 2020 |
| 8.2 | 1.0 / 8 | Updated Title and removed Alternate Control Center | February 28, 2020 |
| 2.1  6.1  7.1 | 1.0 / 6  1.0 / 9  1.0 / 21 | Added Advance Action Notice per NPRR930  Added Advance Action Notice section per NPRR930  Added Advance Action Notice section per NPRR930 | July 1, 2020 |
| 1.1  3.3  3.4  3.7  3.8  5.1  6.1  7.1  7.2  7.3  9.1 | 1.0 / 1  1.0 / 17  1.0 / 11  1.0 / 2  1.0 / 5  1.0 / 30  1.0 / 10  1.0 / 22  1.0 / 22  1.0 / 18  1.0 / 9 | Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  Updated for NPRR1039  All procedures in this manual have been reviewed | December 31, 2020 |
| 1.1  3.4 | 1.0 / 2  1.0 / 12 | Changed Notice Builder to Grid Conditions Communication (GCC) Notices  Changed Notice Builder to Grid Conditions Communications (GCC) Notices | May 6, 2021 |
| 7.2  7.3 | 1.0 / 23  1.0 / 19 | Added Note  Added Note | June 16 2021 |
| 3.3  3.8  3.9  7.1  7.3 | 1.0 / 18  1.0 / 0  1.0 / 5  1.0 / 23  1.0 / 20 | Updated for OBDRR031  Added new 3.8 for OBDRR031  Moved Unannounced Resource Testing from 3.8 to 3.9  Updated for OBDRR031  Updated for OBDRR031 | July 12, 2021 |
| 3.8  7.3 | 1.0 / 1  1.0 / 21 | Updated section title and section  Updated Cancel Watch | July 31, 2021 |
| 7.2 | 1.0 / 24 | Updated 1st Note | September 1, 2021 |
| 3.3  3.8  6.1  7.2 | 1.0 / 19  1.0 / 1  1.0 / 11  1.0 / 25 | Updated for NPRR1106  Moved to section 3.3  Updated Advance Action Notice (AAN)  Updated for NPRR1106 | December 1, 2021 |
| 2.2  3.3  7.1  7.3  8.1 | 1. / 6   1.0 / 20   1. / 24   1.0 / 22   1. / 11 | Updated step 1  Updated Watch  Updated all steps  Updated Move from EEA Level 2 to EEA Level 1  Updated step 2  All procedures in this manual have been reviewed | December 31, 2021 |
| 2.3 | 1.0 / 0 | New procedure section | March 1, 2022 |
| 3.3  3.5  3.7  3.8  7.2 | 1.0 / 21  1.0 / 16  1.0 / 3  1.0 / 0  1.0 / 26 | Updated for NPRR1093  Updated for NPRR1093  Updated for NPRR1093  New section for NPRR939 & NOGRR191  Updated for NPRR939, NPRR1093 & NOGRR191 | May 26, 2022 |
| 3.3  3.7 | 1.0 / 22  1.0 / 4 | Updated PRC < 3200 & Projected Ramp Available in 30min  Updated Deploy Off-Line Non-Spin | July 1, 2022 |
| 3.3 | 1.0 / 23 | Updated PRC < 3200 MW and Advisory | July 29, 2022 |
| 3.1  3.9  3.10  7.2 | 1.0 / 13  1.0 / 0  1.0 / 5  1.0 / 27 | Updated reference displays  Added new Deploying FFR  Created 3.10 and moved old 3.9 to 3.10  Added ESR | October 7, 2022 |
| 3.9 | 1.0 / 1 | Updated steps | November 2, 2022 |
| 3.3  3.11  7.2 | 1.0 / 24  1.0 / 0  1.0 / 28 | Added Media Appeal step  Added Large Load Curtailment Program step and updated steps  Added Unannounced ESR Testing  Updated TCEQ and added Media Appeal step  All procedures in this manual have been reviewed | December 30, 2022 |
| 6.1 | 1.0 / 12 | Added email address to posting | April 28, 2023 |
| 1.1  3.8  5.1  7.2 | 1.0 / 3  1.0 / 1  1.0 / 31  1.0 / 29 | Updated for NPRR865  Updated for NPRR865  Updated for NPRR865  Updated for NPRR865 | June 9, 2023 |
| 7.2 | 1.0 / 30 | Updated For NPRR865 | June 30, 2023 |
| 6.1  6.2 | 1.0 / 13  1.0 / 3 | Updated Forced Outages and Forced Derates  Updated step 1 | September 1, 2023 |
| 3.3  7.2  7.3 | 1.0 / 25  1.0 / 31  1.0 / 23 | Updated for NPRR1176  Updated for NPRR1176  Updated for NPRR1176 | November 1, 2023 |
| 3.3 | 1.0 / 26 | Updated Typical Script Posting  Removed Typical Spript ERS 30/10/WS | November 9, 2023 |
| 3.3 | 1. / 27 | Updated the NSRS Deployment trigger  All procedures in this manual have been reviewed | December 29, 2023 |
| 3.5 | 1.0 / 17 | Added Log all action on N-H  Added South Texas Export IROL  Added South Texas Import IROL | March 1, 2024 |