Advisory

The second of three levels of communication issued by ERCOT in anticipation of a possible Emergency Condition.

Emergency Base Point

The target MW output level for a Resource that is selected by ERCOT during an Emergency Condition or Watch.

Emergency Condition

An operating condition in which the safety or reliability of the ERCOT System is compromised or threatened, as determined by ERCOT.

Emergency Notice

The communication issued by ERCOT to declare that ERCOT is operating in an Emergency Condition.

Operating Condition Notice (OCN)

The first of three levels of communication issued by ERCOT in anticipation of a possible Emergency Condition.

Watch

The third of three levels of communication issued by ERCOT in anticipation of a possible Emergency Condition.

6.1 Introduction

(1) This Section addresses the following components: the Adjustment Period and Real-Time Operations, including Emergency Operations.

(2) The Adjustment Period provides each Qualified Scheduling Entity (QSE) the opportunity to adjust its trades, Self-Schedules, and Resource commitments as more accurate information becomes available under Section 6.4, Adjustment Period. During the Adjustment Period, ERCOT continues to evaluate system sufficiency and security by use of Hour-Ahead Reliability Unit Commitment (RUC) processes, as described in Section 5, Transmission Security Analysis and Reliability Unit Commitment. Under certain conditions during the Adjustment Period, ERCOT may also open one or more Supplemental Ancillary Service Markets (SASMs), as described in Section 6.4.9.2, Supplemental Ancillary Services Market.

(3) During Real-Time operations,ERCOT dispatches Resources under normal system conditions and behavior based on economics and reliability to match system Load with On-Line generation while observing Resource and transmission constraints. The Security-Constrained Economic Dispatch (SCED) process produces Base Points for Resources. ERCOT uses the Base Points from the SCED process and uses the deployment of Regulation Up (Reg-Up), Regulation Down (Reg-Down), Responsive Reserve (RRS), and Non-Spinning Reserve (Non-Spin) to control frequency and solve potential reliability issues.

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| [NPRR863: Replace paragraph (3) above with the following upon system implementation:](3) During Real-Time operations,ERCOT dispatches Resources under normal system conditions and behavior based on economics and reliability to match system Load with On-Line generation while observing Resource and transmission constraints. The Security-Constrained Economic Dispatch (SCED) process produces Base Points for Resources. ERCOT uses the Base Points from the SCED process and uses the deployment of Regulation Up (Reg-Up), Regulation Down (Reg-Down), ERCOT Contingency Reserve Service (ECRS), Responsive Reserve (RRS), and Non-Spinning Reserve (Non-Spin) to control frequency and solve potential reliability issues. |

(4)

(4) Real-Time energy settlements use Real-Time Settlement Point Prices that are calculated for Resource Nodes, Load Zones, and Hubs for a 15-minute Settlement Interval, using the Locational Marginal Prices (LMPs) from all of the executions of SCED in the Settlement Interval. In contrast, the Day-Ahead Market (DAM) energy settlements will use DAM Settlement Point Prices that are calculated for Resource Nodes, Load Zones, and Hubs for a one-hour Settlement Interval.

(5) To the extent that the ERCOT CEO or designee determines that Market Participant activities have produced an outcome inconsistent with the efficient operation of the ERCOT-administered markets as defined in subsection (c)(2) of P.U.C. Subst. R. 25.503, Oversight of Wholesale Market Participants, ERCOT may prohibit the activity by Notice for a period beginning on the date of the Notice and ending no later than 45 days after the date of the Notice. ERCOT may issue subsequent Notices on the same activity. The ERCOT CEO may deem any Nodal Protocol Revision Request (NPRR) designed to correct the activity or issues affecting the activity as Urgent pursuant to Section 21.5, Urgent and Board Priority Nodal Protocol Revision Requests and System Change Requests.

6.5.9 Emergency Operations

(1) ERCOT, based on ERCOT System reliability needs, may issue a Dispatch Instruction requiring a Resource to move to a specific output level (“Emergency Base Point”).

(2) A QF may only be ordered Off-Line in the case of an ERCOT-declared Emergency Condition with imminent threat to the reliability of the ERCOT System. ERCOT may only Dispatch a QF below its LSL when ERCOT has declared an Emergency Condition and the QF is the only Resource that can provide the necessary relief.

(3) ERCOT shall honor all Resource operating parameters in Dispatch Instructions under normal conditions and Emergency Conditions. During Emergency Conditions, ERCOT may verbally request QSEs to operate its Resources outside normal operating parameters. If such request is received by a QSE, the QSE shall discuss the request with ERCOT in good faith and may choose to comply with the request.

(4) A QSE may not self-arrange for Ancillary Services procured in response to Emergency Conditions.

6.5.9.1 Emergency and Short Supply Operation

(1) ERCOT is responsible for maintaining reliability in normal and Emergency Conditions. The Operating Guides are intended to ensure that minimum standards for reliability are maintained. Minimum standards for reliability are defined by the Operating Guides and the NERC Reliability Standards and include, but are not limited to:

(a) Minimum operating reserve levels;

(b) Criteria for determining acceptable operation of the frequency control system;

(c) Criteria for determining and maintaining system voltages within acceptable limits;

(d) Criteria for maximum acceptable transmission equipment loading levels; and

(e) Criteria for determining when ERCOT is subject to unacceptable risk of widespread cascading Outages.

(2) ERCOT shall, to the fullest extent practicable, utilize the Day-Ahead process, the Adjustment Period process, and the Real-Time process before ordering Resources to specific output levels with Emergency Base Point instructions. It is anticipated that, with effective and timely communication, the market-based tools available to ERCOT will avert most threats to the reliability of the ERCOT System. However, these Protocols do not preclude ERCOT from taking any action to preserve the integrity of the ERCOT System.

6.5.9.3 Communication Prior to and During Emergency Conditions

(1) Effective, accurate, and timely communication between ERCOT, TSPs, and QSEs is essential. Each QSE must be provided adequate information to make informed decisions and must receive the information with sufficient advance notice to facilitate Resource and Load responses.

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| [NPRR857: Replace paragraph (1) above with the following upon system implementation:](1) Effective, accurate, and timely communication between ERCOT, TSPs, DCTOs, and QSEs is essential. Each QSE must be provided adequate information to make informed decisions and must receive the information with sufficient advance notice to facilitate Resource and Load responses. |

(2) The type of communication ERCOT issues is determined primarily on the basis of the time available for the market to respond before an Emergency Condition occurs. The timing of these communications could range from days in advance to immediate. If there is insufficient time to allow the market to react, ERCOT may bypass one or more of the communication steps.

(3) ERCOT shall consider the severity of the potential Emergency Condition as it determines which of the communications set forth in the following subsections to use. 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.

(4) The following Sections describe the types of communications that will be issued by ERCOT to inform all QSEs and TSPs of the operating situation. These communications may relate to transmission, distribution, or Generation or Load Resources. The communications must specify the severity of the situation, the area affected, the areas potentially affected, and the anticipated duration of the Emergency Condition.

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| [NPRR857: Replace paragraph (4) above with the following upon system implementation:](4) The following Sections describe the types of communications that will be issued by ERCOT to inform all QSEs, TSPs, and DCTOs of the operating situation. These communications may relate to transmission, distribution, or Generation or Load Resources. The communications must specify the severity of the situation, the area affected, the areas potentially affected, and the anticipated duration of the Emergency Condition. |

6.5.9.3.1 Operating Condition Notice

(1) ERCOT will issue an Operating Condition Notice (OCN) to inform all QSEs of a possible future need for more Resources due to conditions that could affect ERCOT System reliability. OCNs are for informational purposes only, and ERCOT exercises no additional operational authority with the issuance of this type of notice, but may solicit additional information from QSEs in order to determine whether the issuance of an Advisory, Watch, or Emergency Notice is warranted. The OCN is the first of three levels of communication issued by ERCOT in anticipation of a possible Emergency Condition.

(2) When time permits, ERCOT will issue an OCN before issuing an Advisory, Watch, or Emergency Notice. However, issuance of an OCN may not require action on the part of any Market Participant, but rather serves as a reminder to QSEs and TSPs that some attention to the changing conditions may be warranted. OCNs serve to communicate to QSEs the need to take extra precautions to be prepared to serve the Load during times when contingencies are most likely to arise.

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| [NPRR857: Replace paragraph (2) above with the following upon system implementation:](2) When time permits, ERCOT will issue an OCN before issuing an Advisory, Watch, or Emergency Notice. However, issuance of an OCN may not require action on the part of any Market Participant, but rather serves as a reminder to QSEs, TSPs, and DCTOs that some attention to the changing conditions may be warranted. OCNs serve to communicate to QSEs the need to take extra precautions to be prepared to serve the Load during times when contingencies are most likely to arise. |

(3) Reasons for OCNs include, but are not limited to, unplanned transmission Outages, insufficient Resources to meet forecasted conditions, and weather-related concerns such as anticipated freezing temperatures, hurricanes, wet weather, and ice storms.

(4) ERCOT will monitor actual and forecasted weather for the ERCOT Region and adjacent NERC regions. When adverse weather conditions are expected, ERCOT may confer with TSPs and QSEs regarding the potential for adverse reliability impacts and contingency preparedness. Based on its assessment of the potential for adverse conditions, ERCOT may require information from QSEs representing Resources regarding the Resources’ fuel capabilities. Requests for this type of information shall be for a time period of no more than seven days from the date of the request. The specific information that may be requested shall be defined in the Operating Guides. QSEs representing Resources shall provide the requested information in a timely manner, as defined by ERCOT at the time of the request.

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| [NPRR857: Replace paragraph (4) above with the following upon system implementation:](4) ERCOT will monitor actual and forecasted weather for the ERCOT Region and adjacent NERC regions. When adverse weather conditions are expected, ERCOT may confer with TSPs, DCTOs, and QSEs regarding the potential for adverse reliability impacts and contingency preparedness. Based on its assessment of the potential for adverse conditions, ERCOT may require information from QSEs representing Resources regarding the Resources’ fuel capabilities. Requests for this type of information shall be for a time period of no more than seven days from the date of the request. The specific information that may be requested shall be defined in the Operating Guides. QSEs representing Resources shall provide the requested information in a timely manner, as defined by ERCOT at the time of the request. |

(5) QSEs and TSPs are expected to establish and maintain internal procedures for monitoring actual and forecasted weather and for implementing appropriate measures when the potential for adverse weather or other conditions (which could threaten ERCOT System reliability) arise.

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| [NPRR857: Replace paragraph (5) above with the following upon system implementation:](5) QSEs, TSPs, and DCTOs are expected to establish and maintain internal procedures for monitoring actual and forecasted weather and for implementing appropriate measures when the potential for adverse weather or other conditions (which could threaten ERCOT System reliability) arise. |

6.5.9.3.2 Advisory

(1) An Advisory is the second of three levels of communication issued by ERCOT in anticipation of a possible Emergency Condition.

(2) ERCOT shall issue an Advisory for reasons such as, but not limited to, the following:

(a) When it recognizes that conditions are developing or have changed and more Ancillary Services will be needed to maintain current or near-term operating reliability;

(b) When weather or ERCOT System conditions require more lead-time than the normal DAM allows;

(c) When communications or other controls are significantly limited; or

(d) When ERCOT Transmission Grid conditions are such that operations within security criteria as defined in the Operating Guides are not likely or possible because of Forced Outages or other conditions unless a Constraint Management Plan (CMP) exists.

(3) The Advisory must communicate existing constraints. ERCOT shall notify TSPs and QSEs of the Advisory, and QSEs shall notify appropriate Resources and Load Serving Entities (LSEs). ERCOT shall communicate with TSPs as needed to confirm their understanding of the condition and to determine the availability of Transmission Facilities. For the purposes of verifying submitted information, ERCOT may communicate with QSEs.

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| [NPRR857: Replace paragraph (3) above with the following upon system implementation:](3) The Advisory must communicate existing constraints. ERCOT shall notify TSPs, DCTOs, and QSEs of the Advisory, and QSEs shall notify appropriate Resources and Load Serving Entities (LSEs). ERCOT shall communicate with TSPs and DCTOs as needed to confirm their understanding of the condition and to determine the availability of Transmission Facilities. For the purposes of verifying submitted information, ERCOT may communicate with QSEs. |

(4) Although an Advisory is for information purposes, ERCOT may exercise its authority, in such circumstances, to increase Ancillary Service requirements above the quantities originally specified in the Day-Ahead in accordance with procedures. ERCOT may require information from QSEs representing Resources regarding the Resources’ fuel capabilities. Requests for this type of information shall be for a time period of no more than seven days from the date of the request. The specific information that may be requested shall be defined in the Operating Guide. QSEs representing Resources shall provide the requested information in a timely manner, as defined by ERCOT at the time of the request.

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

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

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

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

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

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

(A) Restoring Transmission Elements that are out of service;

(B) Reconfiguring the transmission system; or

(C) Making adjustments to phase angle regulator tap positions.

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

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

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

6.5.9.3.3 Watch

(1) A Watch is the third of three levels of communication issued by ERCOT in anticipation of a possible Emergency Condition.

(2) ERCOT shall issue a Watch when ERCOT determines that:

(a) Conditions have developed such that additional Ancillary Services are needed in the current Operating Period;

(b) There are insufficient Ancillary Services or Energy Offers in the DAM;

(c) Market-based congestion management techniques embedded in SCED as specified in these Protocols will not be adequate to resolve transmission security violations;

(d) Forced Outages or other abnormal operating conditions have occurred, or may occur that require operations with active violations of security criteria as defined in the Operating Guides unless a CMP exists;

(e) ERCOT varies from timing requirements or omits one or more Day-Ahead or Adjustment Period and Real-Time procedures;

(f) ERCOT varies from timing requirements or omits one or more scheduling procedures in the Real-Time process; or

(g) The SCED process fails to reach a solution, whether or not ERCOT is using one of the measures specified in paragraph (4) of Section 6.5.9.2, Failure of the SCED Process.

(3) With the issuance of a Watch pursuant to paragraph (2)(a) above, ERCOT may exercise its authority to immediately procure the following services from existing offers:

(a) Regulation Services;

(b) RRS services; and

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| [NPRR863: Insert item (c) below upon system implementation and renumber accordingly:](c) ECRS services; and |

(c) Non-Spin services.

(4) If ERCOT issues a Watch because insufficient Ancillary Service Offers were received in the DAM or Supplemental Ancillary Service Market (SASM), and if the Watch does not result in sufficient offers and the DAM or SASM is executed with insufficient offers, then ERCOT may acquire the insufficient amount of Ancillary Services as follows:

(a) The SASM process shall be conducted in accordance with Section 6.4.9.2.2, SASM Clearing Process. If the SASM process is not sufficient, then;

(b) The HRUC process shall be conducted to commit planned Off-Line Resources qualified to provide the Ancillary Service(s) that are insufficient in accordance with Section 5.2.2.2, RUC Process Timeline After an Aborted Day-Ahead Market. If the HRUC process is not sufficient, then;

(c) If the insufficiency arose due to insufficient Ancillary Service Offers received in the DAM or ERCOT needs to increase the Ancillary Service requirements after DAM clearing, ERCOT may assign the insufficient amounts of Ancillary Service(s) to QSEs with planned On-Line Resources qualified to provide the insufficient Ancillary Service(s), even if there are no existing Ancillary Service Offers for those QSEs’ Resources. ERCOT shall prorate the required Ancillary Service capacity among QSEs representing On-Line capacity not already reserved for Ancillary Services in the COP in a way that maximizes the distribution of the assignment.

(d) A QSE may request cancellation of the assignment of Ancillary Services to its On-Line Resources if there are equipment or Resource control issues which limit the ability of the Resources to provide the Ancillary Services. If ERCOT accepts the cancellation, ERCOT may require QSEs to submit supporting information describing the Resource control issues.

(5) ERCOT shall post the Watch message electronically to the MIS Public Area and shall provide verbal notice to all TSPs and QSEs via the Hotline. Corrective actions identified by ERCOT must be communicated through Dispatch Instructions to all TSPs, DSPs and QSEs required to implement the corrective action. Each QSE shall immediately notify the Market Participants that it represents of the Watch. To minimize the effects on the ERCOT System, each TSP or DSP shall identify and prepare to implement actions, including restoration of transmission lines as appropriate and preparing for Load shedding. ERCOT may instruct TSPs or DSPs to reconfigure ERCOT System elements as necessary to improve the reliability of the ERCOT System. On notice of a Watch, each QSE, TSP, and DSP shall prepare for an Emergency Condition in case conditions worsen. ERCOT may require information from QSEs representing Resources regarding the Resources’ fuel capabilities. Requests for this type of information shall be for a time period of no more than seven days from the date of the request. The specific information that may be requested shall be defined in the Operating Guides. QSEs representing Resources shall provide the requested information in a timely manner, as defined by ERCOT at the time of the request.

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| [NPRR857: Replace paragraph (5) above with the following upon system implementation:](5) ERCOT shall post the Watch message electronically to the MIS Public Area and shall provide verbal notice to all TSPs and QSEs via the Hotline. Corrective actions identified by ERCOT must be communicated through Dispatch Instructions to all TSPs, DCTOs, DSPs and QSEs required to implement the corrective action. Each QSE shall immediately notify the Market Participants that it represents of the Watch. To minimize the effects on the ERCOT System, each TSP or DSP shall identify and prepare to implement actions, including restoration of transmission lines as appropriate and preparing for Load shedding. ERCOT may instruct DCTOs, TSPs or DSPs to reconfigure ERCOT System elements as necessary to improve the reliability of the ERCOT System. On notice of a Watch, each QSE, DCTO, TSP, and DSP shall prepare for an Emergency Condition in case conditions worsen. ERCOT may require information from QSEs representing Resources regarding the Resources’ fuel capabilities. Requests for this type of information shall be for a time period of no more than seven days from the date of the request. The specific information that may be requested shall be defined in the Operating Guides. QSEs representing Resources shall provide the requested information in a timely manner, as defined by ERCOT at the time of the request. |

6.5.9.3.4 Emergency Notice

(1) Emergency Notice is the communication issued by ERCOT when operating in an Emergency Condition.

(2) ERCOT shall issue an Emergency Notice for one or both of the following reasons:

(a) ERCOT cannot maintain minimum reliability standards (for reasons including fuel shortages) during the Operating Period using every Resource practicably obtainable from the market; or

(b) Immediate action cannot be taken to avoid or relieve a Transmission Element operating above its Emergency Rating.

(3) The actions ERCOT takes during an Emergency Condition depend on the nature and severity of the situation.

(4) ERCOT is considered to be in an Emergency Condition whenever ERCOT Transmission Grid status is such that a violation of security criteria, as defined in the Operating Guides, 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.

(5) If the Emergency Condition is the result of a transmission problem, ERCOT shall act immediately to return the ERCOT System to a reliable condition, including instructing Resources to change output, curtailing any remaining DC Tie Load, and instructing TSPs or DSPs to drop Load.

(6) If the Emergency Condition is the result of an Ancillary Service insufficiency, then ERCOT shall follow the EEA procedures.

6.5.9.4 Energy Emergency Alert

(1) At times it may be necessary to reduce ERCOT System Demand because of a temporary decrease in available electricity supply. To provide orderly, predetermined procedures for curtailing Demand during such emergencies, ERCOT shall initiate and coordinate the implementation of the EEA following the steps set forth below in Section 6.5.9.4.2, EEA Levels.

(2) The goal of the EEA is to provide for maximum possible continuity of service while maintaining the integrity of the ERCOT System to reduce the chance of cascading Outages.

(3) ERCOT’s operating procedures must meet the following goals:

(a) Use of market processes to the fullest extent practicable without jeopardizing the reliability of the ERCOT System;

(b) Use of RRS, other Ancillary Services, and Emergency Response Service (ERS) to the extent permitted by ERCOT System conditions;

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| [NPRR863: Replace item (b) above with the following upon system implementation:](b) Use of RRS, ECRS, other Ancillary Services, and Emergency Response Service (ERS) to the extent permitted by ERCOT System conditions; |

(c) Maximum use of ERCOT System capability;

(d) Maintenance of station service for nuclear-powered Generation Resources;

(e) Securing startup power for Generation Resources;

(f) Operation of Generation Resources during loss of communication with ERCOT;

(g) Restoration of service to Loads in the manner defined in the Operating Guides; and

(h) Management of Interconnection Reliability Operating Limits (IROLs) shall not change.

(4) ERCOT is responsible for coordinating with QSEs, TSPs, and DSPs to monitor ERCOT System conditions, initiating the EEA levels, notifying all QSEs, and coordinating the implementation of the EEA levels while maintaining transmission security limits.

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| [NPRR857: Replace paragraph (4) above with the following upon system implementation:](4) ERCOT is responsible for coordinating with QSEs, DCTOs, TSPs, and DSPs to monitor ERCOT System conditions, initiating the EEA levels, notifying all QSEs, and coordinating the implementation of the EEA levels while maintaining transmission security limits. |

(5) ERCOT, at management’s discretion, may at any time issue an ERCOT-wide appeal through the public news media for voluntary energy conservation.

(6) During the EEA, ERCOT has the authority to obtain energy from non-ERCOT Control Areas using the DC Ties or by using Block Load Transfers (BLTs) to move load to non-ERCOT Control Areas. ERCOT maintains the authority to curtail energy schedules flowing into or out of the ERCOT System across the DC Ties in accordance with NERC scheduling guidelines.

(7) Some of the EEA steps are not applicable if transmission security violations exist. There may be insufficient time to implement all EEA levels in sequence, however, to the extent practicable, ERCOT shall use Ancillary Services that QSEs have made available in the market to maintain or restore reliability.

(8) ERCOT may immediately implement EEA Level 3 any time the clock-minute average system frequency falls below 59.91 Hz for 20 consecutive minutes and shall immediately implement EEA Level 3 any time the steady-state frequency is below 59.5 Hz for any duration.

(9) Percentages for EEA Level 3 Load shedding will be based on the previous year’s TSP peak Loads, as reported to ERCOT, and must be reviewed by ERCOT and modified annually as required.

(10) During EEA Level 2 or 3, for those constraints that meet the criteria identified in paragraph (5)(a) of Section 6.5.9.3.2, Advisory, ERCOT may control the post-contingency flow to within the 15-Minute Rating in SCED. After PRC is restored to at least 3,000 MW or the Emergency Condition has ended, whichever is later, and ERCOT has determined that system conditions have improved such that the chance of re-entering into an EEA Level 2 or 3 is low, ERCOT shall restore control to the post-contingency flow to within the Emergency Rating for these constraints that utilized the 15-Minute Rating in SCED.

(11) During EEA Level 2 or 3, for those constraints that meet the criteria identified in paragraph (5)(b) of Section 6.5.9.3.2, ERCOT shall continue to enforce constraints associated with double-circuit contingencies throughout an EEA if the double-circuit failures are determined to be at high risk of occurring, due to system conditions. For all other double-circuit contingencies identified in paragraph (5)(b) of Section 6.5.9.3.2, ERCOT will enforce only the associated single-circuit contingencies during EEA Level 2 or 3. ERCOT shall resume enforcing such constraints as a double-circuit contingency after PRC is restored to at least 3,000 MW or the Emergency Condition has ended, whichever is later, and ERCOT has determined that system conditions have improved such that the chance of re-entering into an EEA Level 2 or 3 is low. For constraints related to stability limits that are not IROLs, ERCOT may elect not to enforce double-circuit contingencies during EEA Level 3 only.

3.1.4.6 Outage Coordination of Forecasted Emergency Conditions

(1) If ERCOT forecasts an inability to meet applicable reliability standards and it has exercised all other reasonable options, ERCOT shall inform the Single Point of Contact for any affected Market Participant and all QSEs verbally and in electronic form by declaring an Emergency Condition according to Section 6.5.9.3, Communication Prior to and During Emergency Conditions.

(2) Under an Emergency Condition and if ERCOT cannot meet applicable reliability standards, ERCOT may discuss the reliability problem with Resource Entities, TSPs, and Distribution Service Providers (DSPs) to reach mutually agreeable solutions where Outages are negatively affecting system reliability. Actions may include changes to Outage schedules and the COP.

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| ***[NPRR857: Replace paragraph (2) above with the following upon system implementation:]***(2) Under an Emergency Condition and if ERCOT cannot meet applicable reliability standards, ERCOT may discuss the reliability problem with Resource Entities, DCTOs, TSPs, and Distribution Service Providers (DSPs) to reach mutually agreeable solutions where Outages are negatively affecting system reliability. Actions may include changes to Outage schedules and the COP. |

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| ***[NPRR930: Replace Section 3.1.4.6 above with the following upon system implementation:]***3.1.4.6 Outage Coordination of Potential Transmission Emergency Conditions(1) If ERCOT forecasts an inability to meet applicable transmission reliability standards, has exercised all other reasonable options, and there is only one QSE with approved or accepted Resource Outages which could resolve the situation if the start of one or more of the Resource Outages at a single Resource site were delayed or one or more ongoing Resource Outages at a single Resource site were restored early, then ERCOT may contact that QSE and attempt to reach a mutually acceptable solution to delay or reschedule one or more of those Outages. In this case, ERCOT is not obligated to follow the process described in Section 3.1.6.9, Withdrawal of Approval or Acceptance and Rescheduling of Approved or Accepted Planned Outages of Resource Facilities. ERCOT shall not provide information to the QSE during these contacts which is not directly related to the QSE’s Planned Resource Outage(s) and is not otherwise available to all other Market Participants.(2) If ERCOT and the QSE are unable to reach a mutually agreeable solution to change the Resource Outage, ERCOT may issue an Outage Schedule Adjustment (OSA) to the QSE for the Resource.(3) If there are Resources at multiple sites with approved or accepted Resource Outages, whose approval or acceptance could be withdrawn to meet the applicable transmission reliability standards, ERCOT shall utilize the process described in Section 3.1.6.9.(4) This Section is not intended to restrict ongoing Outage Coordination activities occurring more than seven days in advance of Real-Time. |

3.10.7.5.1 Continuous Telemetry of the Status of Breakers and Switches

(1) Each TSP and QSE shall provide telemetry, as described in this subsection, to ERCOT on the status of all breakers and switches used to switch any Transmission Element or Load modeled by ERCOT. Each TSP and QSE is not required to install telemetry on individual breakers and switches, where the telemetered status shown to ERCOT is current and free from ambiguous changes in state caused by the TSP or QSE switching operations and TSP or QSE personnel. Each TSP or QSE shall update the status of any breaker or switch through manual entries, if necessary, to communicate the actual current state of the device to ERCOT, except if the change in state is expected to return to the prior state within one minute. If in the sole opinion of ERCOT, the manual updates of the TSP or QSE have been unsuccessful in maintaining the accuracy required to support SE performance to a TAC-approved predefined standard as described in Section 3.10.9, State Estimator Standards, ERCOT may request that the TSP or QSE install complete telemetry from the breaker or switch to the TSP or QSE, and then to ERCOT. In making the determination to request installation of additional telemetry from a breaker or switch, ERCOT shall consider the economic implications of inaccurate representation of Model Loads in LMP results versus the cost to remedy.

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| ***[NPRR857: Replace paragraph (1) above with the following upon system implementation:]***(1) Each TSP, DCTO, and QSE shall provide telemetry, as described in this subsection, to ERCOT on the status of all breakers and switches used to switch any Transmission Element or Load modeled by ERCOT. Each TSP, DCTO, and QSE is not required to install telemetry on individual breakers and switches, where the telemetered status shown to ERCOT is current and free from ambiguous changes in state caused by the TSP, DCTO, or QSE switching operations and TSP, DCTO, or QSE personnel. Each TSP, DCTO, or QSE shall update the status of any breaker or switch through manual entries, if necessary, to communicate the actual current state of the device to ERCOT, except if the change in state is expected to return to the prior state within one minute. If in the sole opinion of ERCOT, the manual updates of the TSP, DCTO, or QSE have been unsuccessful in maintaining the accuracy required to support SE performance to a TAC-approved predefined standard as described in Section 3.10.9, State Estimator Standards, ERCOT may request that the TSP, DCTO, or QSE install complete telemetry from the breaker or switch to the TSP, DCTO, or QSE, and then to ERCOT. In making the determination to request installation of additional telemetry from a breaker or switch, ERCOT shall consider the economic implications of inaccurate representation of Model Loads in LMP results versus the cost to remedy. |

(2) ERCOT shall measure TSP or QSE performance in providing accurate data that do not include ambiguous changes in state and shall report the performance metrics on the MIS Secure Area on a monthly basis.

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| ***[NPRR857: Replace paragraph (2) above with the following upon system implementation:]***(2) ERCOT shall measure TSP, DCTO, or QSE performance in providing accurate data that do not include ambiguous changes in state and shall report the performance metrics on the MIS Secure Area on a monthly basis.  |

(3) Unless otherwise specified in Section 6 of these Protocols, a TSP or QSE must obtain approval from ERCOT to purposely open a breaker or switch unless that breaker or switch is shown in a Planned Outage in the Outage Scheduler, or the device will return to its previous state within 60 minutes, or the device is a generator output circuit breaker. Also, a TSP or QSE must obtain approval from ERCOT before closing any breaker or switch, except in response to a Forced Outage, or an emergency, or the device will return to its previous state within 60 minutes, or the device is a generator output circuit breaker.

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| ***[NPRR857: Replace paragraph (3) above with the following upon system implementation:]***(3) Unless there is an Emergency Condition, a TSP, DCTO, or QSE must obtain approval from ERCOT to purposely open a breaker or switch unless that breaker or switch is shown in a Planned Outage in the Outage Scheduler, or the device will return to its previous state within 60 minutes, or the device is a generator output circuit breaker. Also, a TSP, DCTO, or QSE must obtain approval from ERCOT before closing any breaker or switch, except in response to a Forced Outage, or an emergency, or the device will return to its previous state within 60 minutes, or the device is a generator output circuit breaker. |

(4) ERCOT shall monitor the data condition codes of all breakers and switches showing loss of communication or scan function in the Network Operations Model. When the telemetry of breakers and switches is lost, ERCOT shall use the last known state of the device for security analysis as updated by the Outage Scheduler and through verbal communication with the TSP or QSE. ERCOT’s systems must identify probable errors in switch or breaker status and ERCOT shall act to resolve or correct such errors in a timely manner as described in Section 6, Adjustment Period and Real-Time Operations.

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| ***[NPRR857: Replace paragraph (4) above with the following upon system implementation:]***(4) ERCOT shall monitor the data condition codes of all breakers and switches showing loss of communication or scan function in the Network Operations Model. When the telemetry of breakers and switches is lost, ERCOT shall use the last known state of the device for security analysis as updated by the Outage Scheduler and through verbal communication with the TSP, DCTO, or QSE. ERCOT’s systems must identify probable errors in switch or breaker status and ERCOT shall act to resolve or correct such errors in a timely manner as described in Section 6, Adjustment Period and Real-Time Operations. |

(5) ERCOT shall establish a system that provides alarms to ERCOT Operators when there is a change in status of any monitored transmission breaker or switch, and an indication of whether the device change of status was planned in the Outage Scheduler. ERCOT Operators shall monitor any changes in status not only for reliability of operations, but also for accuracy and impact on the operation of the SCED functions and subsequent potential for calculation of inaccurate LMPs.

(6) Each QSE that represents a Split Generation Resource, with metering according to Section 3.8, Special Considerations for Split Generation Meters, Combined Cycle Generation Resources, Quick Start Generation Resources, Hydro Generation Resources, and Limited Duration Resources, shall provide ERCOT with telemetry of the actual generator breakers and switches continuously providing ERCOT with the status of the individual Split Generation Resource.

3.15.3 Generation Resource Requirements Related to Voltage Support

(1) Generation Resources required to provide VSS shall have and maintain Reactive Power capability at least equal to the Reactive Power capability requirements specified in these Protocols and the ERCOT Operating Guides.

(2) Generation Resources providing VSS shall be compliant with the ERCOT Operating Guides for response to transient voltage disturbance.

(3) Generation Resources providing VSS must meet technical requirements specified in Section 8.1.1.1, Ancillary Service Qualification and Testing, and the performance standards specified in Section 8.1.1, QSE Ancillary Service Performance Standards.

(4) Each Generation Resource providing VSS shall operate with the unit’s Automatic Voltage Regulator (AVR) in the automatic voltage control mode unless specifically directed to operate in manual mode by ERCOT, or when the unit is telemetering its Resource Status as STARTUP, SHUTDOWN, or ONTEST, or the QSE determines a need to operate in manual mode due to an undue threat to safety, undue risk of bodily harm or undue damage to equipment at the generating plant.

(5) Each Generation Resource providing VSS shall maintain the Voltage Set Point established by ERCOT, the interconnecting TSP, or the TSP’s agent, subject to the Generation Resource’s operating characteristic limits, voltage limits, and within tolerances identified in paragraph (4) of Operating Guide Section 2.7.3.5, Resource Entity Responsibilities and Generation Resource Requirements.

(6) The reactive capability required must be maintained at all times that the Generation Resource is On-Line.

(7) Each QSE shall send to ERCOT, via telemetry, the AVR and Power System Stabilizer (PSS) status for each of its Generation Resources providing VSS. For AVRs, an “On” status will indicate the AVR is on and set to regulate the Resource’s terminal voltage in the voltage control mode, and an “Off” status will indicate the AVR is off or in a manual mode. For PSS, an “On” status will indicate the service is enabled and ready for service, and an “Off” status will indicate it is off or out of service. Each QSE shall monitor the status of its Generation Resources’ regulators and stabilizers, and shall report status changes to ERCOT.

(8) Each Resource Entity shall provide information related to the tuning parameters, local or inter-area, of any PSS installed at a Generation Resource.