

NPRR275 - Printable Version

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NPRR Number	275	NPRR Title	Clarify QSE's Ability to Make Changes to Ancillary Service Resource Responsibility In Real Time
Revision Description		This Nodal Protocol Revision Request (NPRR) clarifies the responsibility of Qualified Scheduling Entities (QSEs) to telemeter the Ancillary Service Resource Responsibility for each Resource in Real-Time.	

Proposed Protocol Language Revision

6.3.1 Activities for the Adjustment Period

- (1) The following table summarizes the timeline for the Adjustment Period and the activities of Qualified Scheduling Entities (QSEs) and ERCOT. The table is intended to be only a general guide and not controlling language, and any conflict between this table and another section of the Protocols is controlled by the other section:

Adjustment Period	QSE Activities	ERCOT Activities
Time = From 1800 in the Day-Ahead up to one hour before the start of the Operating Hour	<p>Submit and update Energy Trades, Capacity Trades, Self-Schedules, and Ancillary Service Trades</p> <p>Submit and update Output Schedules</p> <p>Submit and update Incremental and Decremental Energy Offer Curves for Dynamically Scheduled Resources (DSRs)</p> <p>Submit and update Energy Offer Curves</p> <p>Update Current Operating Plan (COP)</p> <p>Request Resource decommitments</p> <p>Submit Three-Part Supply Offers for Off-Line Generation Resources</p> <p>Submit offers for any Supplemental Ancillary Service Markets</p>	<p>Post shift schedules on the <u>Market Information System (MIS)</u> Secure Area.</p> <p>Validate Energy Trades, Capacity Trades, Self-Schedules, and Ancillary Service Trades and identify invalid or mismatched trades.</p> <p>Validate Output Schedules</p> <p>Validate Incremental and Decremental Energy Offer Curves</p> <p>Validate Energy Offer Curves</p> <p>Validate Current Operating Plan (COP) <u>including validation of the deliverability of Ancillary Services from Resources for the next Operating Period</u></p> <p>Review and approve or reject Resource decommitments</p> <p>Validate Three-Part Supply Offers</p> <p>Publish Notice of Need to Procure Additional Ancillary Service capacity if required</p> <p>Validate Ancillary Service Offers</p> <p>At the end of the Adjustment Period snapshot the net capacity credits for <u>Hourly</u></p>

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Adjustment Period	QSE Activities	ERCOT Activities
	Communicate Resource Forced Outages	<p><u>Reliability Unit Commitment (HRUC)</u> Settlement</p> <p>Update Short-Term Wind Power Forecast (WGRPPSTWPF)</p> <p>Execute the Hour-Ahead Sequence</p> <p>Notify the QSE via the MIS Certified Area that an Energy Offer Curve or Output Schedule has not yet been submitted for a Resource as a reminder that one of the two must be submitted by the end of the Adjustment Period</p>

6.3.2 Activities for Real-Time Operations

- (1) Activities for Real-Time operations begin at the end of the Adjustment Period and conclude at the close of the Operating Hour.
- (2) The following table summarizes the timeline for the Operating Period and the activities of QSEs and ERCOT during Real-Time operations where “T” represents any instant within the Operating Hour. The table is intended to be only a general guide and not controlling language, and any conflict between this table and another section of the Protocols is controlled by the other section:

Operating Period	QSE Activities	ERCOT Activities
During the first hour of the Operating Period		<p>Execute the Hour-Ahead Sequence, including HRUC, beginning with the second hour of the Operating Period</p> <p>Review and communicate HRUC commitments</p> <p>Snapshot the Scheduled Power Consumption for Controllable Load Resources</p>
Before the start of each Security-Constrained Economic Dispatch (SCED) run	Update Output Schedules for DSRs	<p>Validate Output Schedules for DSRs</p> <p>Execute Real-Time Sequence</p>
SCED run		Execute SCED

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Operating Period	QSE Activities	ERCOT Activities
During the Operating Hour	<p><u>Telemeter the Ancillary Service Resource Responsibility for each Resource</u></p> <p>Acknowledge receipt of Dispatch Instructions</p> <p>Comply with Dispatch Instruction</p> <p>Review Resource Status to assure current state of the Resources is properly telemetered</p> <p>Update COP with actual Resource Status and limits and Ancillary Service Schedules</p> <p>Communicate Resource Forced Outages to ERCOT</p> <p><u>Communicate to ERCOT Resource changes to Ancillary Service Resource Responsibility via telemetry in the time window beginning 30 seconds prior to the five minute clock interval and ending ten seconds prior to that five-minute clock interval</u></p>	<p>Communicate all Base Points, Dispatch Instructions and LMPs for energy and Ancillary Services using Inter-Control Center Communications Protocol (ICCP) or Verbal Dispatch Instructions (VDIs)</p> <p>Monitor Resource Status and identify discrepancies between COP and telemetered Resource Status</p> <p>Restart Real-Time Sequence on major change of Resource or Transmission Element Status</p> <p>Monitor ERCOT total system capacity providing Ancillary Services</p> <p>Validate COP information</p> <p>Monitor ERCOT control performance</p> <p>Distribute by ICCP, and post to the MIS Public Area, the LMPs created by each SCED process for each Resource Node. These prices shall be posted immediately subsequent to deployment of Base Points from SCED with the time stamp the prices are effective</p> <p>Post Hub LMP, Load Zone LMP, and LMPs for each Electrical Bus via the MIS Public Area. These prices shall be posted immediately subsequent to deployment of Base Points from SCED with the time stamp the prices are effective</p> <p>Post each hour on the MIS Secure Area SCED Shadow Prices and active binding transmission constraints by Transmission Element name (contingency /overloaded element pairs)</p> <p>Post the Settlement Point Prices for each Settlement Point immediately following the end of each Settlement Interval</p> <p>Post parameters as required by Section 6.4.8, Ancillary Services Capacity During the Adjustment Period and in Real-Time, to the MIS Secure Area</p>

- (3) At the beginning of each hour, ERCOT shall post on the MIS Secure Area the following information:
 - (a) Changes in ERCOT System conditions that could affect the security and dynamic transmission limits of the ERCOT System, including:

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- (i) Changes or expected changes, in the status of Transmission Facilities as recorded in the Outage Scheduler for the remaining hours of the current Operating Day and all hours of the next Operating Day; and
- (ii) Any conditions such as adverse weather conditions as determined from the ERCOT-designated weather service;
- (b) Updated system-wide Load forecasts;
- (c) The quantities of Reliability Must-Run (RMR) Services deployed by ERCOT for each previous hour of the current Operating Day;
- (d) Total ERCOT System Demand, from Real-Time operations, integrated over each Settlement Interval; and
- (e) Updated Electrical Bus Load distribution factors and other information necessary to forecast Electrical Bus Loads for each hour of the current Operating Day and all hours of the next Operating Day.

6.4.6 ***QSE-Requested Decommitment of Resources and Changes to Ancillary Services Resource Responsibility of Resources***

- (1) A Resource must remain committed during any Reliability Unit Commitment (RUC)-Committed Interval unless the Resource has a Forced Outage.
- (2) In the Operating Period, a QSE may request to decommit a Resource other than a Quick Start Generation Resource (QSGR) for any interval that is not a RUC-Committed Interval by verbally requesting ERCOT to consider its request.
- (3) In the Operating Period, a QSE may decommit a QSGR without any request for any interval that is neither a RUC-Committed Interval nor an interval in which a manual override by the ERCOT Operator has been given pursuant to paragraph (8) of Section 3.8.3, Quick Start Generation Resources.
- (4) In the Adjustment Period, a QSE may request to decommit a Resource for any interval that is not a RUC-Committed Interval by indicating a change in unit status in the QSE's COP.
- (5) A Resource cannot be decommitted for just a portion of a Day Ahead Market (DAM)-Committed Interval, which is a one-hour interval. If a Resource that is decommitted for a DAM-Committed Interval, that one-hour DAM-Committed Interval is excluded from the calculation of any Day-Ahead Make-Whole Payment for that Resource.
- (6) In the Adjustment Period, a QSE may request ERCOT approval for moving an Ancillary Service Resource Responsibility from one Resource to another like Resource by

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changing its COP. ERCOT shall use the Hourly Reliability Unit Commitment (HRUC) and other processes to study the move and if Ancillary Services become undeliverable as a result of the proposed move, ERCOT shall follow the provisions of Section 6.4.8.1.2, Replacement of Undeliverable Ancillary Service Due to Transmission Constraints. The phrase “like Resource” means that Ancillary Service Resource Responsibility moves may only be from a Generation Resource to a Generation Resource, from a Load Resource to a Load Resource, or from a Load Resource to a Generation Resource.

- (7) In the Operating Period, a QSE shall only provide an Ancillary Service from a Resource which was reported to ERCOT in the COP to be providing that Ancillary Service for the effective Operating Hour unless modified pursuant to paragraph (8) below.
- (8) A QSE may vary the quantity of the Ancillary Service 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 that the QSE complies with its total Ancillary Service Supply Responsibility.

6.4.6.1 QSE Request to Decommit Resources in the Operating Period

- (1) For a request made during the Operating Period to decommit a Resource, ERCOT may perform a study using Real-Time conditions to determine if ERCOT will remain n-1 secure with that Resource Off-Line. ERCOT may grant the request provided the Resource is not providing any Ancillary Service Resource Responsibility and if analysis indicates the Resource Outage contingency results in no additional active constraints for SCED. ERCOT may only approve requests that do not have a reliability impact.
- (2) If more units are requesting decommitment than can be accommodated, ERCOT shall review the requests in order of receipt.