

Item 9: TAC Report - Revised

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Board of Directors Meeting

ERCOT Public June 14, 2016

Summary of TAC Update

Revision Requests Recommended for Approval by TAC – Unopposed (Vote):

- NPRR709, Revisions to Alternative Dispute Resolution Procedure
- NPRR752, Clarification of Revision Request Process
- NPRR754, Revise Load Distribution Factors Report Posting Frequency
- NPRR758, Improved Transparency for Outages Potentially Having a High Economic Impact
- NPRR761, As-Built Clarification to NPRR515, Day-Ahead Market Self-Commitment of Generation Resources
- NPRR762, Removal of Language Related to Responsive Reserve Provided by DC Ties
- NPRR763, As-Built Clarification to NPRR553, Monthly BLT Payment and Charge for Presidio Exception
- NPRR764, QSE Capacity Short Calculations Based on an 80% Probability of Exceedance (P80)
- NPRR765, Remove Vendor Names for Fuel Indices from the Protocols
- NPRR766, Alignment of System-Wide Discount Factor Description with Operational Adjustments to RDF – URGENT
- SCR788, Addition of Integral ACE Feedback to GTBD Calculation
- SCR790, Wind Resource Power Production and Forecast Transparency
- Parking Deck NOGRR050, Resolution of Reporting Issues Related to NPRR219



Summary of TAC Update

April/May TAC Highlights

- 2016 Ancillary Service Methodology/Reserve Discount Factor
- Hidalgo-Starr Regional Planning Group Project
- Valley Import Regional Planning Group Project
- Other Binding Document Methodology for Implementing Operating Reserve Demand Curve (ORDC) to Calculate Real-Time Reserve Price Adder
- Appeal of NPRR667, Ancillary Service Redesign

Overview of TAC Goals and Future Board Updates



Summary of TAC Update

Guide Revisions Approved by TAC

- NOGRR151, Alignment with NPRR748, Revisions associated with COM-002-4 and Other Clarifications Associated with Dispatch Instructions
- NOGRR153, Maintenance of Duplicate EEA Language via Alignment NOGRR Process
- VCMRR009, Calculation of the Minimum Requirements Fee
- VCMRR014, Revise Fuel Adder Factor for Coal and Lignite Resources URGENT
- RMGRR136, Switch Hold Removal Process Clarifications
- RMGRR137, Timeline and Completion Process for Correcting Customer Billing Contact Information Files – URGENT
- COPMGRR041, Updates to Market Notice Communication Process
- COPMGRR042, Update to COPS Organizational Structure, Creation of MDWG and Updates to PWG responsibilities





2016 Ancillary Service Methodology/Reserve Discount Factor

On 4/28/16, TAC endorsed ERCOT's recommendation for revisions to the 2016 Ancillary Service Methodology to procure an additional 200MWs of Responsive Reserve (RRS) during Hours Ending 1500 through 1800 in July and August 2016, in conjunction with the reduction in the Reserve Discount Factor (RDF) approved by the Reliability and Operations Subcommittee (ROS) on 4/6/16, provided that ERCOT include analysis as part of the 2017 Ancillary Service Methodology review that evaluates elimination of the RDF. The motion carried with two objections from the IREP Market Segment (2) (Direct Energy, Noble Americas) and one abstention from the IPM Market Segment (Morgan Stanley).

Hidalgo-Starr Regional Planning Group Project

On 5/26/16, TAC voted to endorse the ERCOT recommendation (Option D) for the Hidalgo-Starr RPG Project. There were two abstentions from the IREP Market Segment (Reliant Energy, Noble Americas).

Valley Import Regional Planning Group Project

On 5/26/16, TAC voted to endorse the ERCOT recommendation (Option 1) for the Valley Import RPG Project. There were two abstentions from the IREP Market Segment (Reliant Energy, Noble Americas).



Other Binding Document - Methodology for Implementing Operating Reserve Demand Curve (ORDC) to Calculate Real-Time Reserve Price Adder On 5/26/16, TAC unanimously voted to endorse the proposed changes to the Other Binding Document with an effective date of October 1, 2016 in conjunction with NPRR766, Alignment of System-Wide Discount Factor.



Appeal of NPRR667, Ancillary Service Redesign

On 5/12/16, PRS voted via roll call vote to reject NPRR667. There were six opposing votes from the Consumer (2) (Occidental, Sierra Club), IPM (2) (Citigroup, Shell), Independent Generator (RES), and IREP (Direct Energy) Market Segments and six abstentions from the IOU (2) (AEP, CenterPoint), Municipal (2) (Denton, CPS Energy), Independent Generator (Exelon), and IPM (Tenaska) Market Segments.

On 5/18/16, ERCOT filed an appeal of the PRS decision to TAC.

On 5/26/16, TAC voted via roll call vote to reject the 5/18/16 ERCOT appeal. There were three opposing votes from the Consumer (Air Liquide), Independent Generator (Iberdrola), and IREP (Direct Energy) Market Segments and three abstentions from the IOU (CenterPoint), IPM (Shell), and Municipal (CPS Energy) Market Segments.



2016 TAC Goals

- Align TAC and Subcommittee Goals with the ERCOT Board of Directors' strategic vision to work with ERCOT Staff to achieve the Board's vision for ERCOT.
- Maintain rules that support ERCOT system reliability, promote market solutions, and are consistent with PURA, PUC, and NERC Reliability Standards.
- 3. Monitor resource adequacy and make improvements as necessary.
- Collaborate with ERCOT Staff on current trends in fuel prices and installed resource costs through market changes.
- 5. Develop and implement needed market design corrections and improvements which are cost effective.
- 6. Pursue the appropriate implementation of load participation.
- 7. Pursue the appropriate implementation of emerging technologies.
- 8. Implement Retail Market improvements and requirements.
- Facilitate market improvements necessary to leverage the capabilities of Advanced Metering Systems (AMS) in the retail market and improve the integrity and availability of AMS data to Market Participants.
- 10. Improve settlement processes to facilitate changes in the ERCOT market design.
- 11. Collaborate with ERCOT Staff on the review of ancillary service needs and implement changes as necessary.
- 12. Maintain market rules that support open access to the ERCOT markets and transmission network.
- 13. Work with ERCOT Staff to develop Protocols and market improvements that support increased data transparency and data availability to the market.
- 14. Work with ERCOT Staff to ensure appropriate credit and collateral rules exist or are created to facilitate market changes.



Alignment of TAC Goals and Approved Revision Requests with ERCOT Strategic Pillars - Revised*

Request Type	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8	Goal 9	Goal 10	Goal 11	Goal 12	Goal 13	Goal 14
NOGRR		3			1									
NPRR		4			7			1		1			3	2
RMGRR								1						
SCR													1	
LPGRR														
VCMRR				2										
COPMGRR													1	
Grand Total		7		2	8			2		1			5	2

Revision Requests approved to date and alignment with ERCOT Strategic Pillars:

- Committee Strategic Alignment 0%
- Operational Reliability 26%
- Flexible Market Design 55%
- Data Transparency and Access 19%

*Revised to correct total Revision Requests approved within Operational Reliability and Committee Strategic Alignment categories



Notice of Guide Revisions Approved by TAC

NOGRR151, Alignment with NPRR748, Revisions associated with COM-002-4 and Other Clarifications Associated with Dispatch Instructions. This NOGRR aligns the Operating Guides with changes made in NPRR748 and also provides consistency, transparency, and clarification related to communication protocol in the ERCOT Region.

NOGRR153, Maintenance of Duplicate EEA Language via Alignment NOGRR Process. This NOGRR creates a new process for maintaining alignment of the EEA language between the Protocols and Nodal Operating Guides via "Alignment NOGRRs."

VCMRR009, Calculation of the Minimum Requirements Fee. This VCMRR includes language to clarify the calculation of the minimum requirements fee by taking the total fee incurred and allocating it across the volumes of fuel that have been transported to storage, to third parties, or to the plants. This expense will then be used in conjunction with the various eligible fuel costs incurred by the Resource in determining a Resource's fuel adder for the period.

VCMRR014, Revise Fuel Adder Factor for Coal and Lignite Resources – URGENT. This VCMRR sets the generic fuel adder for coal-fired and lignite-fired Resources at \$1.10/MMBtu.



Notice of Guide Revisions Approved by TAC

RMGRR136, Switch Hold Removal Process Clarifications. This RMGRR clarifies the supporting documentation requirements submitted by the CR when requesting removal of a switch hold (Tampering and/or Deferred Payment Plan) by the TDSP.

RMGRR137, Timeline and Completion Process for Correcting Customer Billing Contact Information Files – URGENT. CRs need to provide current and accurate customer billing information to be used in the case of a Mass Transition event. This RMGRR adds language that provides a timeline to be used to send any corrected files that were previously rejected in one or both of the response files sent by ERCOT.

COPMGRR041, **Updates to Market Notice Communication Process.** This COPMGRR updates the Commercial Operations Market Guide to reflect current ERCOT and Market Participant practices for Market Notices. This COPMGRR moves all of Appendix A of the Guide to Section 5, Market Notice Communication Process.

COPMGRR042, Update to COPS Organizational Structure, Creation of MDWG and Updates to PWG responsibilities. This COPMGRR updates the Commercial Operations Market Guide to reflect the creation of the Market Data Working Group (MDWG) and update the responsibilities of the Profiling Working Group (PWG).



Appendix: NPRR667 Procedural History



On 11/18/14, NPRR667 was submitted by ERCOT as a proposal to improve Regulation Up Service (Reg-Up) and Regulation Down Service (Reg-Down); and to replace Non-Spinning Reserve (Non-Spin) and Responsive Reserve (RRS) Ancillary Services with a combination of four new Ancillary Services: Fast Frequency Response Service (FFRS), Primary Frequency Response Service (PFRS), Contingency Reserve Service (CRS), and Supplemental Reserve Service (SRS). An Impact Analysis for \$12M - \$15M was posted with NPRR667.

On 12/11/14, NPRR667 was tabled at PRS. NPRR667 was discussed at Future Ancillary Services Team (FAST) meetings as well as in multiple workshops. Discussions included the reliability need of NPRR667; project costs associated with a large scale redesign of the Ancillary Service market; and whether smaller adjustments to the existing Ancillary Service market would be more beneficial and achieve the benefits of NPRR667 with minimal impacts.

ERCOT worked with the Brattle Group to develop a cost benefit analysis, which was posted on 12/21/15. The cost benefit analysis projected estimated benefits of roughly \$20 million per year. The net present value accounting for implementation costs were over \$120 million and the benefit-cost ratio was approximately 10.



On 2/3/16, Freeport LNG Development filed NPRR756, Enhanced Ancillary Services, as a replacement for NPRR667 to achieve the same objectives and benefits while minimizing the cost impact to the market. NPRR756 was withdrawn on 5/16/16 in support of ERCOT's efforts toward Ancillary Service redesign.

On 4/1/16, ERCOT filed comments to NPRR756 at the request of PRS to provide a comparison between NPRR667 and NPRR756. ERCOT offered the following observations:

- The NPRR756 approach would create less certainty in Ancillary Service procurement.
- The NPRR756 approach does not incorporate equivalency ratios when determining prices for the different services
- The NPRR756 approach would avoid some, but not all, of the system changes needed for NPRR667.
- The NPRR756 approach lacks a 10-minute reserve service, which is a key element in frequency recovery.



On 5/12/16, PRS voted via roll call vote to reject NPRR667. There were six opposing votes from the Consumer (2) (Occidental, Sierra Club), IPM (2) (Citigroup, Shell), Independent Generator (RES), and IREP (Direct Energy) Market Segments and six abstentions from the IOU (2) (AEP, CenterPoint), Municipal (2) (Denton, CPS Energy), Independent Generator (Exelon), and IPM (Tenaska) Market Segments.

On 5/18/16, ERCOT filed an appeal of the PRS decision to TAC, stating that NPRR667:

- Provides a holistic and efficient set of Ancillary Services to meet the changing reliability challenges of the ERCOT System;
- Removes barriers to entry for new Resources that can meet the technical needs of the system, while avoiding any restriction as to any particular Resource type; and
- Allows a coordinated transition to address future Ancillary Services needs rather than addressing these needs through a piecemeal approach.

On 5/24/16, the PRS Advocate Position Statement was filed with the following concerns:

- ERCOT has not demonstrated a current nor future reliability need for new Ancillary Services.
- Market participants have concerns about market liquidity for new Ancillary Services.
- Market participants would prefer to see ERCOT focus on identified reliability needs and alternatives to NPRR667, which ERCOT is not willing to do so long as NPRR667 is undecided.



On 5/26/16, TAC voted via roll call vote to reject the 5/18/16 ERCOT appeal. There were three opposing votes from the Consumer (Air Liquide), Independent Generator (Iberdrola), and IREP (Direct Energy) Market Segments and three abstentions from the IOU (CenterPoint), IPM (Shell), and Municipal (CPS Energy) Market Segments.

