

Item 7: TAC Report

Adrianne Brandt 2016 TAC Chair

Board of Directors Meeting

ERCOT Public December 13, 2016

Summary of TAC Update

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

- NPRR773, Broadening Scope of Acceptable Letter of Credit Issuers
- NPRR783, Revision of Network Operations Model Consistency Audit Requirement
- NPRR790, Addition of Phase Angle Limits to the Network Operations Model
- NPRR791, Clarifications to IEL, MCE and Aggregate Amount Owed by Breaching Party
- NPRR792, Changing Special Protection System (SPS) to Remedial Action Scheme (RAS)
- NPRR797, Actual Load by Forecast Zone Report and Display
- NPRR801, Non-Controllable Load Resource MW in PRC
- NPRR803, Remove Grey-boxed Language from NPRR439, Updating a Counter-Party's Available Credit Limit for Current Day DAM
- PGRR051, Alignment with NPRR792, Changing Special Protection System (SPS) to Remedial Action Scheme (RAS)



Summary of TAC Update

Revision Requests Recommended for Approval by TAC – With Opposing Votes (Vote):

 PGRR042, Regional Transmission Plan Model Reserve Requirement and Load-Generation Imbalance Methodology

October/December TAC Highlights

- Methodology for Implementing Operating Reserve Demand Curve (ORDC) to Calculate Real-Time Reserve Price Adder
- 2017 Ancillary Service Methodology
- High Impact Transmission Elements (HITE) List
- Other Binding Document List
- 2016 CRR Activity Calendar
- Confirmation of PRS Chair/Vice Chair and COPS Vice Chair
- Market Continuity Update



Summary of TAC Update

Guide Revisions Approved by TAC

- LPGRR057, Alignment with NPRR781, Updates to Nodal Protocol Section 18, Load Profiling, to Align with Current Market Processes
- NOGRR154, Alignment with NPRR755 and Requirements for ERCOT WAN Installation and Exchange of Resource-Specific XML Data
- NOGRR159, Alignment with NPRR779, Clarifies References to Texas Reliability Entity and Independent Market Monitor
- NOGRR162, Process for Resolving Real-Time Data Discrepancies
- RMGRR139, Alignment with NPRR778, Modifications to Date Change and Cancellation Evaluation Window
- RRGRR010, Seasonal Net Max Sustainable Rating Definitions
- SMOGRR018, EPS Metering for Three-Wire Wye Configurations
- SMOGRR019, Clarifications and Updates to Paralleling Current Transformers, Instrument Transfer Name Plate Photos and Loss Potential Event Logging Requirements
- VCMRR013, Clarifications to Verifiable Cost Appeals Process



Revision Requests with Opposing Votes (Vote)



PGRR042, Regional Transmission Plan Model Reserve Requirement and Load-Generation Imbalance Methodology

Purpose (ERCOT)	This PGRR establishes a required reserve amount for Regional Transmission Plan base cases, documents the methodology to be used when total generation capacity in a case is less than Load plus losses plus the reserve amount, and conforms the maximum dispatch level for Wind-powered Generation Resources (WGRs) and solar Resources to the capacity level used in the Report on Capacity, Demand, and Reserves in the ERCOT Region (CDR).
TAC Vote	On 12/1/16, TAC voted via roll call vote to recommend approval of PGRR042 as recommended by ROS in the 11/3/16 ROS Report. There were four opposing votes from the Consumer (2) (CMC Steel Texas, Air Liquide), Generator (Luminant), and Municipal (Denton) Market Segments; and one abstention from the Cooperative (LCRA) Market Segment.
ERCOT Opinion	ERCOT supports approval of PGRR042
Effective Date/Priority	January 1, 2018 for revisions to Section 3.1.7, and January 1, 2017 for all other revisions
ERCOT Impact	Annual recurring Operations & Maintenance (O&M) cost \$260k - \$280k; 2 FTE staffing impact across Transmission Planning and Load Forecasting and Analysis departments; ERCOT business processes will be updated; ERCOT grid operations and practices will be updated.
Business Case Highlights	This PGRR increases transparency regarding ERCOT's Regional Transmission Plan study approach; explicitly allows ERCOT to address a shortage of generation capacity in Regional Transmission Plan base cases; and will have minimal impact to Market Segments.

October/December TAC Highlights



October/December TAC Highlights

Methodology for Implementing Operating Reserve Demand Curve (ORDC) to Calculate Real-Time Reserve Price Adder. On 10/27/16, TAC unanimously voted to recommend approval of the Other Binding Document, Methodology for Implementing Operating Reserve Demand Curve (ORDC) to Calculate Real-Time Reserve Price Adder, as amended by the 10/4/16 ERCOT comments.

2017 Ancillary Service Methodology. On 10/27/16, TAC unanimously voted to endorse the 2017 Ancillary Service Methodology as recommended by ERCOT.

High Impact Transmission Elements (HITE) List (related to NPRR758, Improved Transparency for Outages Potentially Having a High Economic Impact). On 10/27/16, TAC voted to approve the HITE list as recommended by ROS. There was one abstention from the Independent Retail Electric Provider (IREP) Market Segment. The HITE list will be posted to the MIS on January 1, 2017.



October/December TAC Highlights

Other Binding Document List. On 12/1/16, TAC unanimously voted to approve removing the PCRR Allocation Eligibility Form from the Other Binding Documents List as recommended by PRS.

2016 CRR Activity Calendar. On 12/1/16, TAC unanimously voted to approve the 2016 CRR Activity Calendar as recommended by WMS. Changes included updating the calendar to cover CRR activities through early 2019.

Market Continuity Update. On 12/1/16, subcommittees provided an update to TAC regarding progress on Market Continuity issues. ERCOT Staff will be reviewing the information and will return to TAC in the March timeframe with guidance on how to proceed with Market Continuity.



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

2016 TAC Goals:

- 1. 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.
- 2. 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.
- 4. 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.
- 9. 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

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		8			3							1		
NPRR		12	2		22	1		1	1	5		1	7	3
PGRR		2												
RMGRR								3	1	1				
SCR					1								3	
LPGRR														
VCMRR				3										
COPMGRR													1	
RRGRR			1		1									
SMOGRR		2											1	
Grand Total		24	3	3	17	1		4	2	1	6	2	12	3

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

- Committee Strategic Alignment 0%
- Operational Reliability 30%
- Flexible Market Design 56%
- Data Transparency and Access 14%



Notice of Guide Revisions Approved by TAC

LPGRR057, Alignment with NPRR781, Updates to Nodal Protocol Section 18, Load Profiling, to Align with Current Market Processes. With the proliferation of Advanced Metering Systems (AMS) in the ERCOT market, this Load Profiling Guide Revision Request (LPGRR) provides a comprehensive review of the Load Profiling Guide (LPG) and updates language to clarify purpose and definitions, current processes and methodologies; and removes outdated processes and practices.

NOGRR154, Alignment with NPRR755 and Requirements for ERCOT WAN Installation and Exchange of Resource-Specific XML Data. This Nodal Operating Guide Revision Request (NOGRR) clarifies the installation requirements for the ERCOT Wide Area Network (WAN), allows a Qualified Scheduling Entity (QSE) to designate an agent for purposes of connecting to the ERCOT WAN, and requires ERCOT and Market Participants to use the ERCOT WAN to exchange Resource-Specific Extensible Markup Language (XML) Data.

NOGRR159, Alignment with NPRR779, Clarifies References to Texas Reliability Entity and Independent Market Monitor. This Nodal Operating Guide Revision Request (NOGRR) clarifies references to the Texas Reliability Entity (Texas RE) and the Independent Market Monitor (IMM), modifies uses of the term "Texas Reliability Entity" to more accurately reflect distinct references to the North American Electric Reliability Corporation (NERC) Regional Entity and the Public Utility Commission of Texas (PUCT) Reliability Monitor, and clarifies that the IMM is an included party in several provisions related to the ERCOT stakeholder process.



Notice of Guide Revisions Approved by TAC

NOGRR162, Process for Resolving Real-Time Data Discrepancies. This Nodal Operating Guide Revision Request (NOGRR) establishes a process for resolving Real-Time data discrepancies that affect ERCOT's Network Security Analysis (NSA).

RMGRR139, Alignment with NPRR778, Modifications to Date Change and Cancellation Evaluation Window. This Retail Market Guide Revision Request (RMGRR) modifies market processes to align with changes proposed by NPRR778 to the evaluation window for date changes and cancellations in Protocol Sections 15.1.7, Move In or Move Out Date Change, and 15.1.8, Cancellation of Registration Transactions.

RRGRR010, Seasonal Net Max Sustainable Rating Definitions. This Resource Registration Guide Revision Request (RRGRR) better defines the Seasonal Net Max Sustainable Rating definitions by including ambient conditions (dry bulb temperature) assumptions that are representative of conditions that exist during the peak Load periods for the season and the region in which the Generation Resource operates.



Notice of Guide Revisions Approved by TAC

SMOGRR018, EPS Metering for Three-Wire Wye Configurations. This Settlement Metering Operating Guide Revision Request (SMOGRR) allows an ERCOT-Polled Settlement (EPS) Meter to be installed for a facility that is connected to a three-wire wye, high or low impedance grounded distribution system, if the high or low impedance ground is installed as part of a fault monitoring system for the facility and no phase to ground loads or phase to ground sources are connected behind the metering point.

SMOGRR019, Clarifications and Updates to Paralleling Current Transformers, Instrument Transfer Name Plate Photos and Loss Potential Event Logging Requirements. This SMOGRR provides updates and clarifications for determining the connected burden on current transformers when used in a parallel configuration; minimizes the need to approach energized equipment when performing verification and/or confirmation that instrument transformers meet Protocol requirements for EPS metering facilities; and provides increased clarity and consistency for the market on loss of potential alarms as monitored by ERCOT's Meter Data Acquisition System (MDAS).

VCMRR013, Clarifications to Verifiable Cost Appeals Process. This Verifiable Cost Manual Revision Request (VCMRR) clarifies the process for appeal of an ERCOT denial of submitted Verifiable Costs. The clarifications address appeals timelines and ERCOT representation in the appeals process. The related accompanying NPRR clarifies Alternative Dispute Resolution (ADR) processes subsequent to a denied appeal of submitted Verifiable Costs.