



## **Item 6: TAC Report**

*Bob Helton*

2020 Technical Advisory Committee (TAC) Chair

Urgent Board of Directors Meeting

ERCOT Public

August 11, 2020

# Summary of TAC Update

## Revision Requests Recommended for Approval by TAC – Unopposed:

- NPPRR903, Day-Ahead Market Timing Deviations
- NPPRR973, Add Definitions for Generator Step-Up and Main Power Transformer
- NPPRR983, Delete Remaining Grey-Boxed Language Associated with NPPRR257, Synchronization with Nodal Operating Guide Section 9, Monitoring Programs and Changes to Posting Requirements of Documents Considered CEII
- NPPRR990, Relocation of Combined Cycle Train to Resource Attribute
- NPPRR992, Updated Day-Ahead Liability for NPPRR863, Creation of ERCOT Contingency Reserve Service and Revisions to Responsive Reserve
- NPPRR993, Grey Box Resolution re NPPRR902 and NPPRR928
- NPPRR996, Alignment of Hub Bus Names Between Protocols and ERCOT Model
- NPPRR1000, Elimination of Dynamically Scheduled Resources
- NPPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions
- NPPRR1003, Elimination of References to Resource Asset Registration Form
- NPPRR1004, Load Distribution Factor Process Update
- NPPRR1015, Clarification of DAM implementation of NPPRR863 Phase 2 - URGENT
- NPPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs)
- NPPRR1020, Allow Some Integrated Energy Storage Designs to Calculate Internal Loads – URGENT
- NPPRR1030, Modify Allocator for CRR Auction Revenue Distribution – URGENT



# Summary of TAC Update

## Revision Requests Recommended for Approval by TAC – Unopposed:

- NOGRR195, Generator Voltage Control Tolerance Band
- NOGRR196, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer
- NOGRR200, Delete Remaining Grey-Boxed Language Associated with NOGRR025, Monitoring Programs for QSEs, TSPs, and ERCOT
- NOGRR208, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions
- NOGRR209, Related to NPRR1003, Elimination of References to Resource Asset Registration Form
- NOGRR212, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs)
- OBDRR018, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Procedure for Identifying Resource Nodes
- OBDRR019, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Requirements for Aggregate Load Resource Participation in the ERCOT Markets
- PGRR074, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transform
- PGRR076, Improvements to GINR Process
- PGRR078, Market Data Transparency Update for Planning Postings
- PGRR079, Related to NPRR1003, Elimination of References to Resource Asset Registration Form
- PGRR080, Updated Responsibilities for Performing GMD Vulnerability Assessments
- RRGRR022, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer



# Summary of TAC Update

## Revision Requests Recommended for Approval by TAC – Unopposed:

- RRGRR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions
- RRGRR024, Related to NPRR1003, Elimination of References to Resource Asset Registration Form
- RRGRR026, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs)
- SCR810, EMS System Change to Count DC Ties toward the 2% Constraint Activation Criterion
- VCMRR027, Related to NPRR986, BESTF-2 Energy Storage Resource Energy Offer Curves, Pricing, Dispatch, and Mitigation
- VCMRR029, Related to NPRR1003, Elimination of References to Resource Asset Registration Form

# Summary of TAC Update

## June/July TAC Highlights

- TAC Goals and Strategic Initiatives
- TAC Subcommittee Goals
- Battery Energy Storage Task Force (BESTF) Key Topic Concepts (KTCs)
- ERCOT Methodologies for Determining Minimum Ancillary Service Requirements
- Other Binding Document List

## Request to Remand to TAC

- RRGR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions

# Summary of TAC Update

## Guide Revisions Approved by TAC

- NOGRR202, Align Nodal Operating Guide with the Posting Timeline in Other Binding Document Procedure for Calculating Responsive Reserve (RRS) Limits for Individual Resources
- NOGRR205, Clarification to Grey-boxed Language in Section 4.8.1
- OBDRR022, Updates to Demand Response Data Definitions and Technical Specifications Following NPRR933 Approval
- OBDRR021, Correction to Calculation in Procedure for Calculating Responsive Reserve (RRS) Limits for Individual Resources
- LPGRR067, Profile Decision Tree Revisions

# June/July TAC Highlights

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**TAC Goals and Strategic Initiatives.** At its 6/24/20 and 7/29/20 meetings, TAC discussed and unanimously approved the 2020 TAC Goals and Strategic Initiatives.

## 2020 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.
- Pursue clarifications to market rules and guides, which enhance the transparency of resource registration and requirements and clarify the entry process for new resources, with the explicit understanding that no changes will be made that affect the rights and obligations of resources currently participating in the wholesale and ancillary services markets.
- 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.
- Develop and implement needed market design corrections and improvements, which are cost effective.
- Pursue the appropriate implementation of load participation.
- Pursue the appropriate implementation of emerging technologies.





# June/July TAC Highlights

## 2020 TAC Goals: (Continued)

- 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.
- Improve settlement processes to facilitate changes in the ERCOT market design.
- Collaborate with ERCOT Staff on the review of ancillary service needs and implement changes as necessary.
- Maintain market rules that support open access to the ERCOT markets and transmission network.
- Work with ERCOT Staff to develop Protocols and market improvements that support increased data transparency and data availability to the market.
- Work with ERCOT Staff to ensure appropriate credit and collateral rules exist or are created to facilitate market changes.
- Direct the work of the Real-Time Co-optimization Task Force (RTCTF) in their development and delivery of market rules for the implementation of Real-Time Co-Optimization.
- Review the ERCOT market design and identify barriers to entry and integration. Direct the work of the Battery Energy Storage Task Force (BESTF) and other stakeholder bodies in their development and delivery of market rules for energy storage and distributed resources.

# June/July TAC Highlights

## 2020 TAC Strategic Initiatives

- Load participation in price formation – WMS/RMS
- Switchable Generation – WMS
- Distributed Energy Resources – RMS/ROS/WMS
- Real-Time Co-optimization – TAC
- DC Tie considerations – ROS/WMS
- Review of Planning Processes – ROS
- Resource Definitions – PRS
- Process for integrating or transitioning Load in ERCOT – RMS/WMS
- Market Continuity – RMS/WMS
- Improve utilization of the stakeholder process – PRS
- Energy Storage – TAC

## June/July TAC Highlights

**Subcommittee Goals.** At its 6/24/20 and 7/29/20 meetings, TAC discussed and unanimously voted to approve the 2020 Subcommittee Goals for PRS, WMS, ROS and RMS.

### **Battery Energy Storage Task Force (BESTF) Charter and Key Topics/Concepts.**

At its 6/24/20 and 7/29/20 meetings, TAC discussed and unanimously voted to endorse the following Key Topics/Concepts.

- KTC 15-2 Energy Storage Resources Market Suspension and Market Restart Settlement
- KTC 15-7 Ancillary Service Responsibility Compliance Related to EEA Level 3 Charging Suspensions
- KTC 15-8 Grandfathering for Reactive Power Requirements specified in NPRR989

## June/July TAC Highlights

**ERCOT Methodologies for Determining Minimum Ancillary Service Requirements.** At its 7/29/20 meeting, TAC discussed and unanimously voted to endorse changes to the ERCOT Methodologies for Determining Minimum Ancillary Service Requirements, to align with Nodal Protocol Revision Request (NPRR) 1003, Elimination of References to Resource Asset Registration Form.

**Other Binding Document List.** At its 7/29/20 meeting, TAC discussed and unanimously voted to approved the Other Binding Document List in accordance with Protocol Section 1.1, Summary of the ERCOT Protocols Document.

## RRGRR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions

Resource Registration Glossary Revision Request (RRGRR) 023 establishes provisions and requirements in the Resource Registration Guide for Energy Storage Resources (ESRs) that are identical to those already in place for Generation Resources and Settlement Only Generators (SOGs).

On 7/29/20, TAC unanimously voted via roll call to recommend approval of RRGRR023 as recommended by ROS in the 7/9/20 ROS Report.

RRGRR023 implementation is dependent on NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions, NPRR1026, BESTF-7 Self-Limiting Facilities and Self-Limiting Resources, and NPRR1029, BESTF-6 DC-Coupled Resources.

NPRRs 1026 and 1029 are still currently being vetted in the stakeholder process.

TAC requests that the ERCOT Board remand RRGRR023 to TAC so that it can be considered along with NPRR1026 and NPRR1029, as detailed in the 8/3/20 ERCOT comments.

# Notice of Guide Revisions Approved by TAC

**NOGRR202, Align Nodal Operating Guide with the Posting Timeline in Other Binding Document Procedure for Calculating Responsive Reserve (RRS) Limits for Individual Resources.** This Nodal Operating Guide Revision Request (NOGRR) removes language regarding the posting timeline for MW limits for Resources providing Responsive Reserve (RRS) from the Nodal Operating Guide, as this requirement is now outlined in the Other Binding Document (“OBD”) Procedure for Calculating Responsive Reserve (RRS) Limits for Individual Resources.

**NOGRR205, Clarification to Grey-boxed Language in Section 4.8.1.** This Nodal Operating Guide Revision Request (NOGRR) clarifies grey-boxed language in Section 4.8.1 in order to maintain consistency with revisions adopted via NOGRR197, Align Responsive Reserve (RRS) Manual Deployment Requirements with Current Practice, following the November 1, 2019 incorporation of NOGRR191, Related to NPRR939, Modification to Load Resources Providing RRS to Maintain Minimum PRC on Generators During Scarcity Conditions, into the Nodal Operating Guide.

**OBDRR022, Updates to Demand Response Data Definitions and Technical Specifications Following NPRR933 Approval.** This Other Binding Document Revision Request (OBDRR) incorporates minor edits to the initial Other Binding Document (OBD), Demand Response Data Definitions and Technical Specifications, that was approved by the ERCOT Board in conjunction with Nodal Protocol Revision Request (NPRR) 933, Reporting of Demand Response by Retail Electric Providers and Non-Opt-In Entities.

# Notice of Guide Revisions Approved by TAC

**OBDRR021, Correction to Calculation in Procedure for Calculating Responsive Reserve (RRS) Limits for Individual Resources.** This Other Binding Document Revision Request (OBDRR) aligns the language in the Procedure for Calculating Responsive Reserve (RRS) Limits for Individual Resources with the Protocols following Phase 1 implementation of Nodal Protocol Revision Request (NPRR) 863, Creation of ERCOT Contingency Reserve Service and Revisions to Responsive Reserve, and corrects inadvertent errors in the formulae for calculating droop performance to determine Responsive Reserve (RRS) limits.

**LPGRR067, Profile Decision Tree Revisions.** This Load Profiling Guide Revision Request (LPGRR) streamlines the assignment of oil and gas profiles by eliminating current processes which are no longer applicable.