



Item 8: TAC Report

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2024 Technical Advisory Committee (TAC) Chair

Board of Directors Meeting

ERCOT Public

December 3, 2024

Overview

- **Purpose**

Summary of October/November TAC Update and 2024 Subcommittee highlights

- **Voting Items / Requests**

- NPRR1247, Incorporation of Congestion Cost Savings Test in Economic Evaluation of Transmission Projects – URGENT

- **Key Takeaways**

- TAC recommended approval of 17 Revision Requests
- 1 Revision Request had opposing votes (NPRR1247)
- 2024 Subcommittee Highlights

Summary of TAC Update

Revision Requests Recommended for Approval by TAC – Unopposed:

- NPRR1180, Inclusion of Forecasted Load in Planning Analyses
- NPRR1239, Access to Market Information
- NPRR1240, Access to Transmission Planning Information
- NPRR1245, Additional Clarifying Revisions to Real-Time Co-Optimization
- NPRR1246, Energy Storage Resource Terminology Alignment for the Single-Model Era
- NPRR1248, Correction to NPRR1197, Optional Exclusion of Load from Netting at EPS Metering Facilities which Include Resources
- NPRR1249, Publication of Shift Factors for All Active Transmission Constraints in the RTM
- NPRR1254, Modeling Deadline for Initial Submission of Resource Registration Data
- NOGRR266, Related to NPRR1239, Access to Market Information
- NOGRR267, Related to NPRR1240, Access to Transmission Planning Information
- NOGRR268, Related to NPRR1246, Energy Storage Resource Terminology Alignment for the Single-Model Era
- OBDRR052, Related to NPRR1246, Energy Storage Resource Terminology Alignment for the Single-Model Era
- OBDRR053, Alignment with NPRR1131, Controllable Load Resource Participation in Non-Spin, and Minor Clean-Ups
- PGRR107, Related to NPRR1180, Inclusion of Forecasted Load in Planning Analyses
- PGRR116, Related to NPRR1240, Access to Transmission Planning Information
- PGRR118, Related to NPRR1246, Energy Storage Resource Terminology Alignment for the Single-Model Era

Summary of TAC Update

Revision Requests Recommended for Approval by TAC – Opposing Votes:

- NPRR1247, Incorporation of Congestion Cost Savings Test in Economic Evaluation of Transmission Projects – URGENT

2024 Subcommittee Highlights

Reliability and Operations Subcommittee (ROS)

- **Congestion Mitigation.** ROS endorsed/approved NPRR1198 and related NOGRR258 which defined Extended Action Plan (EAP), added EAP as a type of Constraint Management Plan (CMP) suitable for managing congestion that is resolvable by Security-Constrained Economic Dispatch (SCED), and removed language limiting the application of EAPs to congestion issues for which there exists no feasible SCED.
- **Operator Controlled Manual Load Shed Improvements.** ROS endorse/approved NPRR1221 and related NOGRR 262 which aligned provisions regarding manual and automatic firm Load shed; clarified the proper use and interplay of Under-Voltage Load Shed (UVLS), Under-Frequency Load Shed (UFLS), and manual Load shed; and addressed reliability concerns ERCOT has identified regarding the extent of Transmission Operators' (TOs') manual Load shed.
- **Grid reliability and resiliency.** ROS endorsed/approved PGRR 117, which requires ERCOT to conduct a biennial assessment of the ERCOT power grid's reliability and resiliency in extreme weather scenarios and permits ERCOT to recommend transmission projects to address resiliency issues identified in the assessment

2024 Subcommittee Highlights

Wholesale Market Subcommittee

- **Achievement of 2024 Goals.** Successfully met the WMS Goals approved by TAC for the 2024 calendar year.
- **Congestion Revenue Rights Auction Mitigation (CARD).** The Wholesale Market Working Group (WMWG) facilitated a collaborative discussion involving ERCOT, the Independent Market Monitor (IMM), and Market Participants to address a market issue identified by ERCOT. This effort resulted in three viable options, which were presented to WMS in November. WMS will vote in December for the option ERCOT should use to develop the formal NPRR.

Retail Market Subcommittee

- **Lubbock Power & Light (LP&L) transition to retail competition.** LP&L, in collaboration with RMS, became the first Municipally Owned Utility in Texas to transition into the ERCOT competitive retail market. The transition involved ~110,000 customers and was only the 2nd retail market expansion since the 2002 market open.
- **TXSET 5.0 / MarkeTrak Enhancement Implementation.** After several years of planning, RMS and Market Participants executed the implementation of TXSET 5.0 and associated MarkeTrak enhancements. The implementation provides a suite of retail market process efficiencies that accumulated over the past ~12 years, subsequent to TXSET 4.0 go-live in 2012.



2024 Subcommittee Highlights

Protocol Revision Subcommittee (PRS)

- **Revision Requests.** The PRS approved a total of 50 NPRRs and SCRs in 2024, showcasing a notable increase from the 42 Revision Requests approved in 2023.
- **Projects Associated with Approved Requests.** Of the 51 Revision Requests approved so far this year, 12 required related projects to facilitate their implementation. This highlights the PRS' role in overseeing complex revisions that necessitate additional coordination and resources.
- **Successful Project Implementation.** The PRS' work in 2024 has led to the successful go-live of 19 developments. These projects have delivered essential Protocol/Guide revisions, further streamlining ERCOT's operations and enhancing the electricity market's reliability.
- **Continuous Improvement and Adaptation.** The increase in approved Revision Requests and the successful implementation of related projects underscore the PRS' ongoing dedication to refining the Protocols. By focusing on timely and effective revisions, the PRS continues to play a vital role in adapting to the evolving needs of Texas's electricity market and maintaining stakeholder confidence.
- **Aging Revision Requests.** PRS began a review of aging Revision Requests in early 2024. At that time there were 47 approved changes prior to 2023 that were either not started or on hold. PRS reviewed these changes and worked with ERCOT on recommended next steps for each item. As of December 2024:
 - Five of these Revision Requests have been implemented;
 - 5 are currently in flight (3 part of RTC+B);
 - 21 are scheduled to be implemented post RTC+B implementation;
 - 10 remain pending implementation with no action needed in the near term (possible candidates for removal/revision); and
 - 5 now have target start dates and proceeding with approved execution

Current and Upcoming Subcommittee Issues

- **Interconnection of Large Loads.** Establish interconnection and modeling requirements for “Large Loads” – continued work on NPRR1234, Interconnection Requirements for Large Loads and Modeling Standards for Loads 25 MW or Greater, and related-PGRR115 (ROS)
- **Congestion Cost Savings Test in the Economic Evaluation of Transmission Projects.** Additional Revision Requests and issues associated with NPRR1247, Incorporation of Congestion Cost Savings Test in Economic Evaluation of Transmission Projects, which incorporates the consumer energy cost reduction test as the congestion cost savings test in economic project evaluation to address recent amendments by the PUCT to 16 Texas Administrative Code (TAC) § 25.101. (ROS)
- **Resource Impacts from Real-time Co-optimization + Batteries (RTC+B) Implementation.** The implementation of RTC+B in December 2025 is a priority for ERCOT. In the meantime, new and pending protocol change requests referred to WMS need to be reviewed and processed. Key discussions will focus on how to manage these new proposals as well as any new issues, and prioritize these efforts for the period before and after the implementation of RTC+B. (WMS)
- **Dispatchable Reliability Reserve Service (DRRS) Development and Implementation.** NPRR1235, Dispatchable Reliability Reserve Service as a Stand-Alone Ancillary Service, addresses the legislative mandate for DRRS, per Public Utility Regulatory Act § 39.159(d). Stakeholders are working through differing opinions on design and requirements. (WMS)



Current and Upcoming Subcommittee Issues

- **Increase in Revision Requests.** As ERCOT focuses its resources on the implementation of RTC, the number of approved revision requests is expected to grow that will potentially result in additional challenges and delays in project implementation timelines. The PRS will actively monitor these approved changes and prioritize the implementation of revisions that do not require significant system or network modifications. ERCOT is also aware of the pending issue and is actively identifying ways to improve efficiency when developing future project implementation timelines for new Revision Requests. PRS' goal is to ensure effective oversight of the number of active Revision Request projects and to identify possible pathways for implementation. (PRS)

October/November TAC Highlights

AEPSC Brownsville Area Improvements Transmission Project. On 10/30/24, TAC unanimously voted to endorse the AEPSC Brownsville Area Improvements Transmission Project – Option 2A.

Reduce per Congestion Revenue Right Account Holder (CRRAH) Transaction Limit. On 10/30/24, TAC voted unanimously to approve a CRRAH limit for all Long-Term Auction Sequences of 3,000.

RTC+B Market Trials Plan. On 10/30/24, TAC endorsed the RTC+B Market Trials Plan.

Oncor Delaware Basin Stages 3 and 4 RPG Project. On 11/20/24, TAC unanimously voted to endorse the Oncor Delaware Basin Stages 3 and 4 Project to address reliability needs in the Culberson, Loving, Reeves, and Ward Counties in the Far West Weather Zone.

NPRR1247, Incorporation of Congestion Cost Savings Test in Economic Evaluation of Transmission Projects – URGENT

Revision Description	<p>This NPRR incorporates the consumer energy cost reduction test as the congestion cost savings test in economic project evaluation to address recent amendments by the PUCT to 16 Texas Administrative Code § 25.101 —specifically adding the requirements in § 25.101(b)(3)(A)(i). Consistent with the PUCT’s rule, this NPRR also preserves the production cost savings test as another standalone means to establish economic need for a transmission project.</p> <p>This NPRR also removes obsolete language regarding transmission projects’ benefits evaluation in paragraph (6) of Section 3.11.2, Planning Criteria.</p>
Sponsor	ERCOT
Reason for Revision	Regulatory Requirements
Justification of Reason for Revision and Market Impacts	<p>As required by 16 TAC § 25.101(b)(3)(A)(i), as amended in PUCT Project No. 53403, ERCOT, in consultation with PUCT Staff, must develop a congestion cost savings test to be used in economic project evaluation. ERCOT retained Energy + Environmental Economics, Inc. (E3) to identify a set of viable options and provide recommendations of the most suitable congestion cost savings test based on the ERCOT market structure. E3 presented its work at the September 2023 Planning Working Group (PLWG) meeting and recommended system-wide energy cost reduction (referred to in E3’s analysis as a “System-Wide Gross Load Cost” test) as the most suitable congestion cost savings test for the ERCOT Region. ERCOT worked with PUCT Staff to review the E3 recommendation, considered stakeholder feedback, and agreed with E3’s recommendation. This NPRR incorporates the recommended congestion cost savings test in ERCOT’s economic project evaluation.</p>
ERCOT Impact / Effective Date	Annual Recurring Operations and Maintenance (O&M) Between \$360k and \$440k (2 FTEs) / The first of the month following Public Utility Commission of Texas (PUCT) approval
ERCOT Market Impact Statement	ERCOT Staff has reviewed NPRR1247 and believes that it provides a positive market impact through regulatory requirements by making the consumer energy cost reduction test the congestion cost savings test in economic project evaluation in response to recent amendments by the PUCT to 16 Texas Administrative Code § 25.101.
TAC Vote	On 11/20/24, TAC voted to recommend approval of NPRR1247 as recommended by PRS in the 11/14/24 PRS Report. There were three opposing votes from the Independent Generator (2) (Calpine, Luminant) and Independent Power Marketer (IPM) (SENA) Market Segments; and one abstention from the Independent Retail Electric Provider (IREP) (Reliant) Market Segment.



NPRR1247, Incorporation of Congestion Cost Savings Test in Economic Evaluation of Transmission Projects – URGENT

Explanation of Opposing TAC Votes	<p>Independent Generator/Calpine – Explanation requested but not provided</p> <p>Independent Generator/Luminant – Luminant submitted written comments on October 28, 2024 and November 15, 2024 that reflect Luminant’s concerns with NPRR1247. Luminant believes that the selected Gross Load Cost test methodology overstates the actual net benefits associated with the test, and that there are important test parameters that are left to white papers that operate outside of the Protocols and therefore outside of the stakeholder review process that culminates with ERCOT Board and ultimately PUCT endorsement. The result of this imbalance will be trading off hedgeable congestion costs (the costs of which are returned to loads) for unhedgeable transmission costs.</p> <p>IPM/Shell – Shell Energy North America (Shell Energy) supports making prudent investment in transmission projects that are needed to facilitate the build out of substantiated loads. We voted in opposition largely based on our concerns with the lack of transparency and control over the methodology for the incorporation of fictitious generation on the ERCOT system to solve power flow issues with the projected load growth. The methodology used by ERCOT to determine where this generation will be located on the system will have a significant impact on the modeled power flows and the congestion patterns that are used for project evaluation under the congestion cost savings test. This could create congestion cost savings test results that do not produce outcomes consistent with the intent of the methodology. This also raises concerns with the potential for unintended consequences of ERCOT reports containing these congestion patterns impacting the value and certainty of hedging instruments in the forward market. Furthermore, we believe that there is benefit in additional discussion to determine how the gross load cost test can be modified to better reflect the actual net benefits.</p>
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