PROJECT NO. 54248

SELECTION OF THE RELIABILITY MONITOR FOR THE ERCOT POWER REGION	**§ § §**	**PUBLIC UTILITY COMMISSION OF TEXAS**

ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.'S 2024 RELIABILITY MONITOR EXPENSES PAID AND 2025 FIRST QUARTER ACTIVITY REPORT

Pursuant to the order of the Public Utility Commission of Texas (PUC/Commission) Directing ERCOT to Serve as Reliability Monitor, effective November 3, 2022, Electric Reliability Council of Texas, Inc. (ERCOT) Reliability Monitor (ERM) hereby submits its 2024 Reliability Monitor Expenses Paid and 2025 First Quarter Activity Report.

I. BACKGROUND

On November 3, 2022, the Commission issued an order directing ERCOT to assume the duties and responsibilities of the reliability monitor for the ERCOT power region in accordance with 16 Tex. Admin. Code § 25.503(j).

As more particularly detailed in the Scope of Work filed in this Project on January 2, 2023, in its ERM function, ERCOT is charged with monitoring, investigating, auditing, and reporting to the PUC on matters related to the compliance of ERCOT, Inc. and ERCOT Market Participants with reliability-related provisions of the Public Utility Regulatory Act (PURA), the PUC's Substantive Rules, and ERCOT Protocols and Other Binding Documents, as well as providing subject matter advice, expertise, and assistance with the PUC's reliability-related compliance and enforcement activities.

Pursuant to the Commission's order, starting April 2024 and then included with the first quarter report every year thereafter, ERCOT must provide a report of ERM activities that summarizes expenses paid related to the operation of the ERM for the previous year.

II. 2024 RELIABILITY MONITOR EXPENSES PAID

In Calendar Year (CY) 2024, ERCOT paid expenses totaling **$1,989,939** for ERM activities, including direct costs ($1,244,470), indirect costs assigned based on discrete drivers ($378,089), and indirect costs assigned based on general allocators ($367,380). The three categories of costs are described below.

The ERCOT cost allocation model informs management and the PUC of the full cost of delivering the various programs of ERCOT's mission. For CY 2024, ERCOT assigned costs to the following programs:

1. Commercial Operations
2. Generation Interconnection
3. Independent Market Monitor
4. Reliability Monitor
5. Retail Operations
6. System Operations
7. System Planning
8. Weatherization Inspection

Through the allocation model, all ERCOT costs, including administrative and support costs, are directly or indirectly assigned to those programs using reasonable methods based on the nature of the cost drivers. ERCOT's allocation model uses three general methods of cost assignment. ERCOT assigns each cost using one of the three methods, with cost assignments tiered from most direct to least direct.

1. Direct cost assignment: ERCOT assigns all costs directly and solely attributable to an individual program through direct cost assignment. For example, salary, benefits, and expenses of employees performing Reliability Monitor functions are directly assigned to the Reliability Monitor program.
2. Indirect cost assignment based on discrete drivers: Costs not directly and solely attributable to one program but associated with a discrete cost driver are assigned to programs by driver. These costs include items such as human resources, facilities, and information technology support with drivers such as number of employees, physical space usage, and hardware/software support costs.
3. Indirect cost assignment based on general allocators: Remaining costs neither directly nor indirectly assigned via a discrete driver in one of the previous two tiers are allocated proportionally based on total costs assigned in tiers one and two. Examples of these costs include accounting, corporate communications, cybersecurity, and enterprise risk management costs.

ERM employee salaries, benefits, and taxes comprise more than half the total cost for the ERM function. At the end of CY 2024, the ERM included 4.15 FTEs based on the time allocation percentages in the table below.

ERM Employees (End of CY 2024)

Role	Percentage FTE Dedicated to ERM
Director, Compliance Analysis	10%
Senior Manager, Operations & Planning Compliance	50%
Reliability Monitor Analyst Lead	100%
Reliability Monitor Analyst II	100%
Senior Vice President, General Counsel and Corporate Secretary[1]	2.5%
Deputy General Counsel[2]	10%
Assistant General Counsel – Regulatory	60%
Corporate Counsel – Legal/Regulatory	80%
Administrative Assistant II	2.5%

[1] Chad Seely holds this role with a title beginning January 1, 2025 of Senior Vice President, Regulatory Policy, General Counsel, and Chief Compliance Officer.

[2] Brandon Gleason holds this role with a title beginning January 1, 2025 of Vice President, Legal and Compliance.

III. 2025 FIRST QUARTER ACTIVITY REPORT

The PUC order directing ERCOT to assume the duties and responsibilities of the ERM directs ERCOT to file a quarterly report summarizing its previous quarter ERM activities. The ERM hereby provides the following information for the First Quarter (Q1) of 2025.

A. Executive Summary

During Q1, the ERM opened 47 new Incident Reviews:

Priority[3]	No. of Cases
Critical	2
High	22
Medium	12
Low	11
Total	47

The ERM referred one Critical Priority Preliminary Assessment Report (PAR) to the Commission's Division of Compliance and Enforcement (DICE) during Q1, documenting potential violations of voltage ride-through Reliability Requirements, as well as one Medium Priority PAR regarding provision of Ancillary Services (Non-Spin Reserve Service).

B. Changes to Reliability Requirements to Promote Improved Reliability

The ERM is tracking the following revision requests that could impact ERCOT System reliability:

NPRR1234 - Interconnection Requirements for Large Loads and Modeling Standards for Loads 25 MW or Greater

NPRR1235 - Dispatchable Reliability Reserve Service as a Stand-Alone Ancillary Service

NPRR1238 - Registration of Loads with Curtailable Load Capabilities

NPRR1241 - Firm Fuel Supply Service (FFSS) Availability and Hourly Standby Fee

NPRR1243 - Revision to Requirements for Notice and Release of Protected Information or ECEII to Certain Governmental Authorities

[3] The ERM staff assess an event's impact on ERCOT System reliability and categorize events such as the loss of generation, frequency, or voltage excursions, *etc*. as "Critical." The ERM categorizes other events as "High," "Medium," or "Low" depending on such factors as: number and size of the facilities involved, if the event is local versus widespread, whether an issue relates to only an administrative matter, *etc.*

NPRR1246 - Energy Storage Resource Terminology Alignment for a Single-Model Era

NPRR1253 - Incorporate ESR Charging Load Information into ICCP

NPRR1255 - Introduction of Mitigation of ESRs

NPRR1257 - Limit on Amount of RRS a Resource can Provide Using Primary Frequency Response

NPRR1262 - Ancillary Service Opt Out Clarification

NPRR1265 - Unregistered Distributed Generator

NPRR1270 - Additional Revisions Required for Implementation of RTC

NPRR1272 - Voltage Support of Private Use Networks

NPRR1273 - Appropriate Accounting for ESRs in PRC Calculation

NPRR1275 - Expansion of Qualifying Pipeline Definition for Firm Fuel Supply Service in Phase 3

NOGRR264 - Related to NPRR1235, Dispatchable Reliability Reserve Service as a Stand-Alone Ancillary Service

NOGRR265 - Related to NPRR1238, Voluntary Registration of Loads with Curtailable Load Capabilities

NOGRR268 - Related to NPRR1246, Energy Storage Resource Terminology Alignment t for the Single-Model Era

NOGRR271 – Related to NPRR1257, Limit on Amount of RRS a Resource can Provide Using Primar Frequency Response

NOGRR272 - Advanced Grid Support Requirements for Inverter-Based ESRs.

NOGRR274 - Related to NPRR1217, Remove VDI Requirement for Deployment and Recall of Load Resources and ERS Resources.

NOGRR275 - Eliminate Scheduling Center Requirements for QSEs that are not WAN Participants

PGRR115 – Related to NPRR1234, Interconnection Requirements for Large Loads and Modeling Standards for Loads 25 MW or Greater.

PGRR117 - Addition of Resiliency Assessment and Criteria to Reflect PUCT Rule Changes

PGRR118 – Related to NPRR1246, Energy Storage Resource Terminology Alignment for the Single-Model Era

PGRR119 - Stability Constraint Modeling Assumptions in the Regional Transmission Plan

PGRR120 - Sub-Synchronous Oscillation (SSO) Prevention for Generator Interconnection

PGRR121 – Related to NOGRR272, Advanced Grip Support Requirements for Inverter-Based ESRs.

In addition to the foregoing, the ERM continues working with Subject Matter Experts (SMEs) on the following issues to improve ERCOT System reliability:

- Voltage ride-through;
- Operational issues with IRR Resources when being curtailed;
- Telemetry accuracy;
- Model data accuracy and timeliness; and
- Voltage support.

C. Routine Compliance Monitoring

In addition to investigating individually reported potential violations, the ERM performed routine monitoring activities of Market Participant and ERCOT compliance with Reliability Requirements. Specifically, ERM analysts monitor compliance with the following Protocols each month:[4]

- Resource Ancillary Service Qualification Compliance – § 8.1.1.1 (1)
- Quick Start Resource Performance – § 8.1.1.2(17)(a)
- QSE Ancillary Service Capacity Compliance – § 8.1.1.3(3)
- Generation Resource Energy Deployment Performance (GREDP) for Non-Intermittent Renewable Resources – § 8.1.1.4.1(7)
- GREDP for Intermittent Renewable Resources (IRRs) – § 8.1.1.4.1(8)
- Controllable Load Resource (CLR) Energy Deployment Performance – § 8.1.1.4.1(9)
- Energy Storage Resource Energy Deployment Performance – § 8.1.1.4.1(9)
- Responsive Reserve Service (RRS) Deployment Performance – § 8.1.1.4.2

[4] References are to Protocols unless otherwise noted.

  - RRS from Generation Resources and Controllable Load Resources (CLRs) – § 8.1.1.4.2(1)(a)
  - Resources with Insufficient Frequency Responsive Capacity – § 8.1.1.4.2(1)(b)
- RRS from Non-Controllable Load Resources (NCLRs) – § 8.1.1.4.2(1)(a), (4), (6)
  - Non-Spin Reserve Service (NSRS) Deployment Performance – § 8.1.1.4.3
  - NSRS from Generation Resources – § 8.1.1.4.3(3)(a) & (b)
  - NSRS from CLRs – § 8.1.1.4.3(3)(a), (d)
  - NSRS from NCLRs – § 8.1.1.4.3(3)(e), (4)
- ERCOT Contingency Reserve Service (ECRS) Deployment Performance – § 8.1.1.4.4
  - ECRS from Generation Resources and CLRs – § 8.1.1.4.4(1)(a)
  - ECRS from NCLRs – § 8.1.1.4.4(1)(a), (4), (6)
- ERS Performance – § 8.1.3
  - Testing – § 8.1.3.2(1)(a)(ii)
  - Availability – § 8.1.3.3.3(1)(a)
  - Event Performance – § 8.1.3.3.4
- PFR Performance – § 8.5.1.1(1), 8.5.2.1(1)
- 12-Month Rolling Average – Operating Guide § 2.2.813
- COP Errors – § 3.9.1
- Distribution Service Provider Transmission Operator Representation – § 16.19(1)

For each category, ERM analysts download ERCOT data from the ERCOT Market Information System to validate failures before reviewing and comparing data, analyzing performance, and comparing performance data to performance metrics to determine incidents to include in a quarterly report to DICE. The ERM initiated new Incident Reviews due to these analyses.

D. Overall State of ERCOT System Reliability

The overall state of ERCOT System reliability is good. The ERM continues to identify the following areas of concern based on discussions with ERCOT SMEs:

- ESR performance/State-of-Charge monitoring
- HSL issues for IRRs when curtailed
- Voltage ride-through

E. 2025 Compliance Audits

The ERM has begun work on two compliance audits for 2025. The first audit will determine Market Participant compliance with Nodal Operating Guides requirements to submit back-up control plans for scheduling centers in §§ 3.2.1(2) and (3) (Qualified Scheduling Entities - QSEs) and §§ 3.7(3) and (4) (Transmission Operators - TOs). The ERM issued a Market Notice regarding this audit on January 30, 2025 (attached as Appendix A), then sent Requests for Information (RFIs) to more than 380 Market Participants. By the end of Q1, the ERM received all RFI responses. ERM staff have reviewed the RFI responses and compiled them into a database. ERM staff are currently drafting a report.

In the second compliance audit, the ERM will assess ERCOT's performance in connection with Operating Guide § 2.2.4.3(2) related to Constant Frequency Control Testing. ERCOT has responded to the ERM's first set of RFIs and ERM personnel are reviewing the responses.

The ERM stands ready to provide any additional information requested by the Commission.

Dated: April 14, 2025

Respectfully submitted,

/s/ A. Andrew Gallo

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Appendix A

NOTICE DATE: January 30, 2025

NOTICE TYPE: M-A013025-01 General

SHORT DESCRIPTION: Notice of ERCOT Reliability Monitor (ERM) Compliance Audit

INTENDED AUDIENCE: Qualified Scheduling Entities (QSEs) and Transmission Operators (TOs)

DAYS AFFECTED: Calendar Year 2024

LONG DESCRIPTION: On November 3, 2022, the Public Utility Commission of Texas (PUC) named Electric Reliability Council of Texas, Inc. (ERCOT) the Reliability Monitor defined in 16 Texas Administrative Code § 25.503(k) and (l). Pursuant to the ERM Scope of Work approved by the PUC, the ERM will conduct an audit of Market Participant compliance with Nodal Operating Guide §§ 3.2.1(2) and (3) and 3.7(3) and (4).

ERCOT Operating Guide § 3.2.1(2) requires each QSE (Levels 1-4) submit to ERCOT, by March 15 of each year, a written back-up control plan to continue operation in the event the QSE's scheduling center becomes inoperable. It further requires back-up control plans be submitted to ERCOT via secured webmail or encrypted data transfer and requires QSEs request a secure email account be created with ERCOT by sending an email to shiftsupervisors@ercot.com. Further, Operating Guide § 3.2.1(3) requires the back-up control plan be reviewed annually and include: (a) a description of actions to be taken by QSE personnel to avoid placing a prolonged burden on ERCOT and other Market Participants, while operating in back-up control mode; (b) a description of specific functions and responsibilities to be performed to continue operations from an alternate location; (c) procedures and responsibilities for maintaining basic voice communications capabilities with ERCOT; and (d) procedures for back-up control function testing and the training of personnel. Operating Guide §§ 3.7(3) and (4) contain analogous requirements applicable to TOs.

ADDITIONAL INFORMATION: See also, Market Notice W-A021524-01, Notice of Back-up control plans due by March 15, 2024. When the ERM completes the audit, it will provide a confidential audit report to the Public Utility Commission that will not be made available to Market Participants.

CONTACT: If you have any questions, please contact the ERCOT Reliability Monitor (ERM) at erm@ercot.com.