

**PROJECT NO. 54248**

<b>SELECTION OF THE RELIABILITY MONITOR FOR THE ERCOT POWER REGION</b>	<b>§ § §</b>	<b>PUBLIC UTILITY COMMISSION OF TEXAS</b>
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**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.'S  
2023 RELIABILITY MONITOR EXPENSES PAID AND  
2024 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 2023 Reliability Monitor Expenses Paid and 2024 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. 2023 RELIABILITY MONITOR EXPENSES PAID**

In Calendar Year (CY) 2023, ERCOT paid expenses totaling **\$1,812,829** for ERM activities, including direct costs (\$1,103,152), indirect costs assigned based on discrete drivers (\$382,202), and indirect costs assigned based on general allocators (\$327,475). 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 2023, 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. The ERM began CY 2023 with eight ERCOT staff members who assumed ERM roles on either a part-time or full-time basis. In April 2023, the ERM hired two additional attorneys (1.3 full-time equivalents (FTEs)). In July and September 2023, the ERM replaced a Compliance Analyst and hired an additional Compliance Analyst working full-time on ERM matters. At that time, the ERM was fully staffed. For CY 2023, the ERM included 5.07 FTEs based on the time allocation percentages in the table below and dates of service in CY 2023.

**ERM Employees (End of CY 2023)**

Role	Percentage FTE dedicated to ERM
Vice President, Security & Compliance and Chief Compliance Officer	5%
Director, Compliance Analysis	10%
Senior Manager, Operations & Planning Compliance	50%
Reliability Monitor Analyst Lead	100%
Reliability Monitor Engineer Lead	100%
Reliability & Compliance Analyst	100%
Senior Vice President, General Counsel and Corporate Secretary	2.5%
Deputy General Counsel	10%
Assistant General Counsel – Regulatory	80%
Corporate Counsel	100%
Associate Corporate Counsel – Regulatory	30%
Paralegal	10%
Paralegal	10%

### III. 2024 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 2024.

#### A. Executive Summary

During Q1, the ERM opened the following new Incident Reviews:

Priority <sup>1</sup>	No. of Cases
Critical	0
High	2
Medium	18
Low	1
Total	21

The ERM referred four Incident Reviews (three medium priority and one low priority) to the Commission's Division of Compliance and Enforcement (DICE) during Q1, including one report combining two Incident Reviews. The reports documented potential violations of Reliability Requirements related to Emergency Response Service (ERS) deployment, testing, and availability; Ancillary Service (A/S) performance; and Winter Weather Preparedness.

Additionally, on February 27, 2024, the ERM sent DICE a confidential Energy Emergency Alert (EEA) Event Review report in connection with the September 6, 2023 EEA event. In the report, the ERM provided an analysis of physical responsive capability (PRC) accuracy; Resource status updates and Resource Outages; Energy Storage Resource (ESR) output and charges status; Large Load impacts; and Load Resource/ERS deployments. The report also identifies several categories of potential violations, including: failure to comply with dispatch instructions; failure to timely update Current Operating Plans (COPs) and High Sustained Limits; failure to provide Primary Frequency Response (PFR); inaccurate/untimely A/S telemetry for Responsive Reserve Service; insufficient reserved PFR capacity; failure to record faults and sequences of events for transmission busses or Transmission Elements; and failure to meet ERS deployment criteria. The

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<sup>1</sup> 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.*

ERM recently received DICE input regarding opening new Incident Reviews for these categories of potential violation.

### **B. Changes to Reliability Requirements to Promote Improved Reliability**

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

- [NPRR1221](#) Provisions for Operator Controlled Manual Load Shed
- [NPRR1224](#) ERCOT Contingency Reserve Service Manual Deployment Triggers
- [NOGRR262](#) Provisions for Operator Controlled Manual Load Shed
- [NOGRR245](#) Inverter-Based Resource (IBR) Ride-Through Requirements
- [NOGRR255](#) High Resolution Data Requirements

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

- 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 monitored compliance with the following Protocols each month:<sup>2</sup>

- 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)

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<sup>2</sup> References are to Protocols unless otherwise noted.

- Responsive Reserve Service (RRS) Deployment Performance – § 8.1.1.4.2
  - 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 downloaded 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 which incidents to include in a quarterly report to DICE. The ERM initiated new Incident Reviews as a result of 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
- Voltage control

- Telemetry quality
- Frequency ride-through
- Voltage ride-through
- Fault recording and sequence of events recording data requirements
- Installation of phasor measurement recording equipment
- Data recording, redundancy, retention, and reporting requirements
- Performance during EEAs

#### **E. 2024 Compliance Audits**

The ERM has begun work on two compliance audits for 2024. The first audit will determine Market Participant compliance with Operating Guide §§ 1.5.2(1), (2), and (3) regarding system operator training requirements. The ERM published a [Market Notice](#) regarding this audit on January 24, 2024, then sent Requests for Information (RFIs) to relevant Market Participants. By the end of Q1, the ERM began receiving RFI responses.

In the second compliance audit, the ERM will assess ERCOT's performance in connection with Operating Guide §§ 3.2.4(4) and (5) related to A/S Performance Monitoring. The ERM expects to send RFIs to relevant ERCOT departments during the second quarter of 2024.

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

**Dated:** April 15, 2024

Respectfully submitted,

/s/ A. Andrew Gallo

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