

# Texas RE and the ERCOT Interconnection

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President and Chief
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### **Texas RE's Mission and Independence**

Texas RE's mission to assure effective and efficient reduction of risks to the reliability and security of the Bulk Power System in the Electric Reliability Council of Texas (ERCOT) Interconnection.

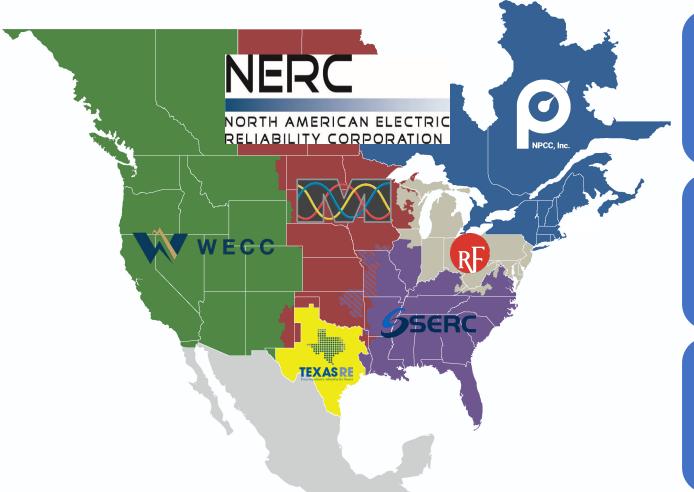
- Texas RE's sole focus is on reliability and security
- Texas RE does not regulate markets

Texas RE provides an independent voice for reliability in ERCOT

 Texas RE is independent of all users, owners, and operators of the Bulk Power System



### **Texas RE and the ERO Enterprise**



Texas RE operates under delegated authority from NERC to serve as the regional entity for the ERCOT Interconnection

Texas RE serves as one of six regional entities that, along with NERC, comprise the ERO Enterprise

Texas RE is the only region with jurisdiction over one state and one interconnection





### What Are Texas RE's Responsibilities?

Ensuring compliance with mandatory reliability standards by entities who use, own or operate the bulk power system in ERCOT

- Compliance audits
- Enforcement and mitigation of non-compliance

Registration of bulk power system owners, operators, and users

Development of assessments and reports on the reliability and adequacy of the bulk power system

• Analysis of system events to drive reliability improvements

Training, Education, and Outreach





### **Texas RE's Responsibilities Continue to Grow**

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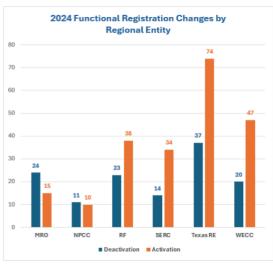
#### Chapter 4: Year in Review

#### Overview of the Year

NERC has historically provided a variety of ORCP and CMEP information in its quarterly, semiannual, and annual reports to highlight trends and other useful information to industry. Stakeholders have communicated to NERC via the CCC that they use this ORCP and CMEP information for a variety of purposes.

#### Functional Registration Changes by Region

In 2024, the ERO Enterprise processed 347 registration changes, 218 of them being activations and 129 deactivations. Most of this registration activity was concentrated in the Generator Owner (GO) and Generator Operator (GOP) functions, consistent with prior years.



	MRO	NPCC	RF	SERC	Texas RE	WECC
Deactivations	24	11	23	14	37	20
Additions	15	10	38	34	74	47

Figure 2: 2024 Functional Registration Changes by Regional Entity

Texas RE had the largest increase in new registrations across the ERO in 2024

The continuing increase in the number and type of registrations impacts all aspects of Texas RE's CMEP, including:

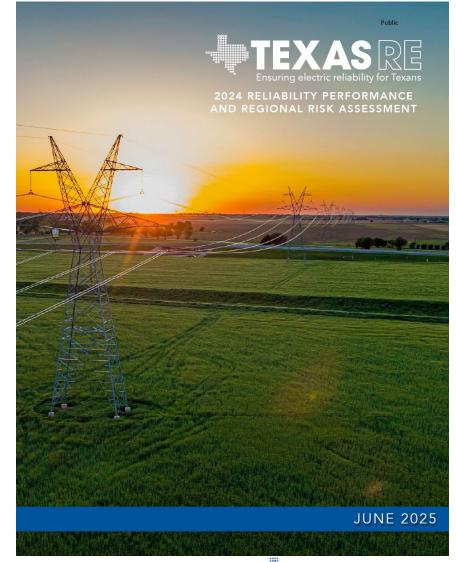
- Registration
- Reliability Assessments
- Compliance Oversight Plans
- Engagements and Outreach
- NERC Oversight





### **Texas RE's Regional Risk Assessment Key Findings**

Integration of Large Flexible Loads (increased for 2025)  Extreme Weather & Resource Weatherization (decreased for 2025)  Artificial Intelligence (new for 2025)  Inverter-Based Resource Ride Through  Provision of Essential Reliability Services from a Changing Resource Mix  Energy Availability  Possible  Major  Possible  Major  Inaccurate Resource Modeling  Remote Access  Possible  Moderate  Supply Chain  Physical Security  Likely  Major  Likely  Major  Hajor  Possible  Moderate		Likelihood	Consequence
Artificial Intelligence (new for 2025)  Inverter-Based Resource Ride Through  Provision of Essential Reliability Services from a Changing Resource Mix  Energy Availability  Inaccurate Resource Modeling  Remote Access  Supply Chain  Unlikely  Moderate  Unlikely  Moderate  Moderate  Moderate  Moderate  Moderate  Moderate  Moderate  Moderate	Integration of Large Flexible Loads (increased for 2025)	Likely	Major
Inverter-Based Resource Ride Through  Provision of Essential Reliability Services from a Changing Resource Mix  Energy Availability  Inaccurate Resource Modeling  Remote Access  Supply Chain  Likely  Moderate  Unlikely  Moderate  Possible  Major  Moderate  Moderate  Possible  Moderate  Moderate	· · · · · · · · · · · · · · · · · · ·	Unlikely	Major
Provision of Essential Reliability Services from a Changing Resource Mix  Energy Availability  Inaccurate Resource Modeling  Remote Access  Supply Chain  Possible  Unlikely  Moderate  Major  Possible  Moderate  Moderate  Possible  Moderate  Moderate	Artificial Intelligence (new for 2025)	Unlikely	Moderate
Resource Mix  Energy Availability  Inaccurate Resource Modeling  Remote Access  Possible  Moderate  Moderate  Supply Chain  Possible  Major	Inverter-Based Resource Ride Through	Likely	Major
Inaccurate Resource Modeling  Remote Access  Possible  Moderate  Supply Chain  Possible  Major		Unlikely	Moderate
Remote Access  Possible Moderate  Supply Chain  Possible Major	Energy Availability	Possible	Major
Supply Chain Possible Major	Inaccurate Resource Modeling	Possible	Moderate
	Remote Access	Possible	Moderate
Physical Security  Likely Moderate	Supply Chain	Possible	Major
	Physical Security	Likely	Moderate
Facility Ratings Unlikely Moderate	Facility Ratings	Unlikely	Moderate
Gas Supply Chain Restrictions during Cold Weather Possible Major	Gas Supply Chain Restrictions during Cold Weather	Possible	Major





### **Emerging Trends -- Reliability**

## **Integration of Large Loads**

 Implications for in terms of potential registration and new reliability standards

### Increased need for new models

- Focus on energy adequacy instead of capacity
- Need for interconnection-wide studies particularly in the east

# **Continued importance of Gas-Electric Coordination**





### **Emerging Trends -- Security**

**Decentralization of resources** 

Transition from on-premises client/server business models to virtualized and cloud-based solutions

Increasing incorporation of zero trust architecture concepts





