

NERC News

November 2019

Inside This Issue

Compliance

[Compliance Committee Presentation Resources Posted](#)

[Version 2.0 of the 2020 ERO CMEP Implementation Plan and ERO Enterprise Data Submittal Schedule Posted](#)

Reliability Risk Management

[Webinar Resources Posted](#)

Standards

[Webinar Resources Posted](#)

Regional Entity Events

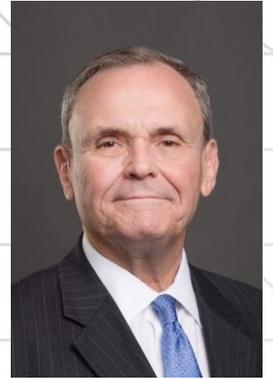
[Upcoming Events](#)

[Filings | Careers](#)

ERO Executive Spotlight – Lane Lanford, President and CEO, Texas RE

Warm Temperatures Remain the Hot Topic in Texas

December usually brings cooler temperatures, but the summer heat is still a hot topic in Texas. This past summer was the fourth hottest on record for the Lone Star State, and we experienced tight grid conditions when Texans turned on their air conditioning. The Electric Reliability Council of Texas (ERCOT) Interconnection hit a new peak consumption record of 74,666 MW on August 12, 2019. Despite increased demand for electricity and tighter reserve margins, the grid ran smoothly thanks to intensive planning efforts led by state and industry leaders, active preparation by registered entities and the hard work of all stakeholders to keep equipment running and reduce demand at critical times.



It is important to consider the uniqueness of the Texas Interconnection as we consider system performance for summer 2019. The ERCOT Interconnection serves most of Texas, comprising 90% of the state's electric load and 75% of the land area. ERCOT is not synchronously interconnected to other grids — it is self-contained with limited direct current (dc) ties to the Eastern Interconnection and Mexico. [Continued on page 2](#)

Headlines

[Weather, Forecast and Fuel Issues Overlay Winter Outlook](#)

[NERC's Two-Day Grid Security Exercise Kicked Off](#)

[Board Appoints Sonia Mendonca as Senior Vice President, General Counsel and Corporate Secretary](#)

[Board Approves New Committee Structure; Accepts RISC Report; Approves Regional Bylaws, Standards Development Plan](#)

Warm Temperatures (cont'd)

There are more than 46,500 miles of transmission lines and 650 generation units supplying the state's growing residential and industrial base. Texas produces and consumes more electricity than any other state. Texas also leads the nation in wind energy, with more than 13,000 installed turbines and the most installed wind capacity with more than 24,000 MW. Unlike other Interconnections, ERCOT is a fully intrastate market that is subject to federal policy for reliability and state policy for market design and resource adequacy.

Since the opening of the Texas electric market to competition in 1999, our deregulated energy market has been a model of both efficiency and reliability. The Public Utility Commission of Texas (PUCT) established certain economic price signals that promote a reliable energy supply by providing increasing incentives during times of scarcity. The energy-only market in Texas is designed to support the reliability needs of our grid by rewarding generator performance at peak load times. While this model promotes high efficiency, the changing resource mix has presented new challenges to the reliable operation of the grid.

Recent thermal generator retirements led to diminishing reserve margins during peak load times. This past summer, our Interconnection's reserve margin dipped below the target, which notably is not mandatory and can fluctuate as generation units come on-line or retire. Registered entities made significant investments and upgrades to improve operations in anticipation of tight supplies. In addition, PUCT Chair DeAnn Walker worked with ERCOT, Texas RE and other industry leaders in the months leading up to summer to ensure registered entities performed critical maintenance and adjusted outage schedules. Industry and consumers also did their part by reducing electric usage at critical times. A more detailed look at ERCOT's summer performance is available [here](#).

Despite these challenges, ERCOT continues to beat expectations and maintain a highly reliable system. Resource performance continues to outpace historical patterns and should continue to do so as we improve our

management of wind resources and accumulate data to refine our analyses. We are proud of the work we do as part of the ERO Enterprise to help assure reliability in the ERCOT Interconnection. Contact [Texas RE](#) for questions about Texas RE or the ERCOT Interconnection. ■■■

Headlines

Weather, Forecast and Fuel Issues Overlay Winter Outlook

Anticipated resources for the upcoming winter season meet or exceed recommended levels in all assessment areas of North America, NERC finds in its [2019–2020 Winter Reliability Assessment](#). However, potential reliability risks involving extreme and prolonged cold weather, generation and demand forecasting as well as fuel assurance in the Northeast and Midwest continue to be important issues facing bulk power system reliability.

NERC undertakes the winter assessment each year in coordination with Regional Entities. The assessment provides an evaluation of generation resource and transmission system adequacy for meeting projected winter peak demands and monitors and reports on potential reliability issues of interest across North America.

This year's assessment highlights findings and recommendations related to:

- Adequate supply of resources for meeting winter peak demand.
- Extreme weather posing greatest risk to generation availability during the winter season.
- Changing resource mix requiring improved forecasting tools.
- Fuel and energy assurance remaining a reliability concern in the Northeast and Midwest.
- Higher natural gas storage inventories helping reduce fuel supply risks for the upcoming winter season.

The most significant winter reliability risk, the assessment finds, is the stress on bulk power system resources that can accompany extreme winter weather in many areas. Potential natural gas delivery constraints,

wind generation forecasting error and higher-than-expected generator outages in frigid temperatures can challenge grid operators to meet peak electrical demand.

NERC's assessment includes analysis of operational risk during extreme conditions to gain insights into the effects that energy-limited resources, generator outages and high electricity demand can have on area reliability in those conditions. Area-specific steps for mitigation include implementing market mechanisms to secure higher levels of fuel assurance through the procurement of alternative fuel supplies, contracting for firm pipeline transportation and operator coordination with generators to improve forecast models.

While limits on the availability of natural gas can occur, higher natural gas injections recently took place at key storage sites in North America. The injections at Aliso Canyon in Southern California and other storage facilities resulted in pre-season natural gas inventories that are at or near five-year highs.

Recent improvements in extreme weather planning for winter among reliability coordinators include clarified communications, operating expectations and training. In addition, NERC and industry have initiated an extreme cold weather Reliability Standards development project.

NERC's independent assessments focus on improving bulk power system performance through the identification of reliability risks and advice to system planners, operators and policy makers.

NERC's Two-Day Grid Security Exercise Kicked Off

NERC began its two-day grid security exercise on November 13. Industry and government set a new record with more than 425 organizations participating in GridEx V. Community-owned utilities and electric cooperatives represent the largest increase in participation with 53 organizations added to the exercise since GridEx IV, which drew 6,500 participants from more than 370 organizations.

GridEx, hosted by NERC's Electricity Information Sharing and Analysis Center (E-ISAC), is the largest exercise of its

kind. The GridEx V scenario involved coordinated cyber and physical attacks affecting the bulk power system across North America. For GridEx V, grid operators faced simulated conditions including compromised customer payment systems, fuel shortages and copycat attacks.

"GridEx V marks a 10-year milestone in NERC's effort to help industry members and government partners continually improve their security posture," said Jim Robb, NERC's president and chief executive officer. "The steady growth of GridEx participation since our first exercise in 2011 is a testament to how seriously the industry takes security."

GridEx V also expanded participation from other sectors including natural gas, electrical equipment manufacturing, telecommunications and finance. The growing interdependence of critical infrastructures is a key focus area for industry and government officials with emergency response plans.

For the first time, the exercise's executive tabletop focused on simulated attacks and responses for specific regions within North America. "Narrowing the geographical focus of the executive tabletop gives industry and government leaders the opportunity to deepen their grid security training without sacrificing any intensity in the impacts on the bulk power system," Robb said. "GridEx is designed to overwhelm even the most prepared organizations."

Following GridEx V, the E-ISAC began developing a public report on the exercise with input from all participants. NERC intends to release the GridEx V report in March 2020.

GridEx is a vital tool for industry and government cyber and physical security experts from across North America. As cyber and physical security risks to the bulk power system evolve, NERC, industry and government officials must remain vigilant and adapt their training to mitigate threats effectively and efficiently. GridEx is one way that NERC and the E-ISAC provide industry members and government partners with that necessary grid security training and education.

Board Appoints Sonia Mendonca as Senior Vice President, General Counsel and Corporate Secretary

NERC's Board of Trustees appointed Sonia Mendonca as senior vice president, general counsel and corporate secretary, effective November 12. In this role, Mendonca serves as chief legal advisor to the president and CEO, the Board, staff and stakeholders on all legal and regulatory matters affecting NERC. Mendonca had been serving as interim general counsel and corporate secretary since September.

"We are pleased to announce that Sonia will be taking on the duties of general counsel permanently for NERC," said Jim Robb, president and CEO. "During her eight years at NERC, she has been instrumental in streamlining our Enforcement process to make it more effective and efficient, among countless other initiatives. Sonia's dedication to the mission of the ERO Enterprise over the years made her a top candidate for this important job. I know she will continue to excel."

Prior to this appointment, Mendonca served as vice president, deputy general counsel and director of Enforcement, where she was responsible for corporate governance, legal compliance, regulatory activities and oversight of the Compliance Monitoring and Enforcement Program across the ERO Enterprise.

Mendonca joined NERC in 2011 and, during her tenure, also served as NERC's acting general counsel from November 2017 to April 2018. She is a graduate of the Federal University of Rio de Janeiro Law School and of the American University Washington College of Law. Mendonca was admitted to practice law in Rio de Janeiro, New York, the District of Columbia, and before the U.S. Court of Appeals for the District of Columbia Circuit.

"I am very happy to have the opportunity to serve in this role and continue to work toward the transformation of the organization and the development of a new NERC culture," Mendonca said. "It is an honor to have been selected, and I look forward to helping NERC and the ERO Enterprise succeed in our important mission."

Board Approves New Committee Structure; Accepts RISC Report; Approves Regional Bylaws, Standards Development Plan

The NERC Board of Trustees met in an abbreviated, open session for its quarterly meeting on November 5. The new format was undertaken as part of NERC's continuing effectiveness and efficiency efforts. During the MRC meeting earlier in the day, a new chair and vice chair were elected: Jennifer Sterling of Exelon and Paul Choudhury of BC Hydro, respectively. The MRC also received an update on supply chain activities, specifically the results of the Supply Chain Risk Assessment Data Request.

President and CEO Jim Robb called attention to the anniversary of the 1965 blackout in his President's Report, which was submitted as part of the Board agenda package. The blackout brought awareness to the need for reliability coordination across the international, interconnected bulk power system in North America and, ultimately, led to the creation of the ERO Enterprise, Robb noted.

"Electricity is fundamental to modern society, and nearly 400 million North American citizens rely on an uninterrupted electricity supply to support their way of life. Electric reliability and security depends on a complex fabric of utilities, suppliers, generators and public/private entities," Robb wrote in his remarks. "NERC and the ERO Enterprise strengthen that fabric through our critical role in reliability, resilience and security."

The Board approved the charter to create a new Reliability and Security Technical Committee (RSTC) in an effort to improve the effectiveness and efficiency of ERO Enterprise operations.

A stakeholder engagement team (SET) recommended replacing three existing technical committees with the single RSTC, which will report to the Board. This new committee will focus on managing the work of the subcommittees, working groups and task forces organized to address specific risks to reliability and security. The RSTC chair and vice chair were appointed: Greg Ford of Georgia System Operator, and outgoing

MRC chair, will serve as chair, and David Zwergel of MISO, and the outgoing chair of the Operating Committee, will serve as vice chair.

The Board accepted the [2019 ERO Reliability Risk Priorities Report](#), which provides key insights, priorities and high-level leadership for issues of strategic importance to BPS reliability. The Reliability Issues Steering Committee (RISC) advises the Board and provides guidance to the ERO Enterprise and industry to focus resources on the critical issues to improve the reliability of the bulk power system in an effective manner.

The EMP Task Force identified key issues for industry to better understand and address [EMP risk in the EMP Task Force Strategic Recommendations](#) report. Representatives from government agencies, FERC, Regional Entities and industry stakeholders participated in task force meetings, discussing scope, priority and recommendations for next steps to address high-altitude EMP events. The Board will seek policy input on the recommendations and priorities going forward. The task force is expected to present a final report to the Board at the February meeting.

In standards activity, the Board approved the 2020–2022 Reliability Standards Development Plan, which establishes a plan for Reliability Standards development over a three-year horizon. The new plan focuses on addressing Federal Energy Regulatory Commission directives, emerging risks and the Standards Efficiency Review.

The Board also adopted BAL-003-2 – Frequency Response and Frequency Bias Setting revisions, which address the inconsistencies identified in the Frequency Response Annual Analysis.

Branden Sudduth, vice president of Reliability Planning and Performance Analysis at WECC, provided an update on Reliability Coordinator (RC) activities in the Western Interconnection. Sudduth discussed RC coordination efforts throughout the year as well as how the Western Interconnection is positioned to move into a multiple-RC environment beginning December 3, 2019. More

information about RC coordination activities can be found at the [WECC RC certification site](#).

In other regional action, the Board approved changes to SERC and ReliabilityFirst bylaws. SERC's changes transition their board into a hybrid structure made up of stakeholder and independent directors, ensure representation from each member company and revamp the board committee structure. ReliabilityFirst's changes align their governance with the NERC Board's independence principles, increasing efficiencies and better aligning with the mission of reducing risks to the reliability and security of the grid.

During the MRC meeting, Howard Gugel, vice president of Standards and Engineering, provided an update on supply chain activity. In May 2019, NERC's Board accepted the supply chain report — Cyber Security Supply Chain Risks: Staff Report and Recommended Actions. However, they also requested an evaluation of the cyber security supply chain risks associated with low-impact Bulk Electric System (BES) cyber systems, which required a Section 1600 request for data or information.

The Section 1600 request for data was issued on August 19, with responses due to NERC by October 3, 2019. A summary of responses and staff observations found that while a significant number of locations contain low-impact cyber systems, most of them are in organizations that have higher impact cyber systems that are subject to the supply chain standards. A survey of those entities revealed that they use common procurement processes for all cyber assets on the BES and would then be covered voluntarily under the provisions of CIP-013. Further evaluation of generation resources and entities that only have low-impact cyber assets will help determine whether they should be included in a future version of the supply chain standards.

Robb also noted in his written remarks that NERC and SERC co-hosted the ninth annual GridSecCon in October in Atlanta, with more than 600 security professionals in attendance. "Training and education and staying current on the state of the art in security is a key part of the electricity industry's security posture," Robb said in his remarks.

Attendees also were reminded of and encouraged to participate in NERC's upcoming grid security exercise, GridEx V. The two-day simulation exercise gives participants the opportunity to respond to and recover from simulated coordinated cyber and physical security threats and incidents, strengthen their crisis communications relationships and provide input for lessons learned.

Board presentations may be found by clicking [here](#). The next Board of Trustees meeting is February 6 in Manhattan Beach, California. ■■■

Compliance

Compliance Committee Presentation Resources Posted

NERC's Board of Trustees Compliance Committee open meeting featured [presentations](#) on the integration of internal controls considerations throughout the Compliance Monitoring and Enforcement Program and ongoing activities to streamline the resolution of minimal risk noncompliance.

Version 2.0 of the 2020 ERO CMEP Implementation Plan and ERO Enterprise Data Submittal Schedule Posted

The ERO Enterprise is pleased to release an enhanced, easier-to-use [2020 ERO Compliance Monitoring and Enforcement Program Annual Implementation Plan](#) (CMEP IP) — the operating plan Compliance Enforcement Authorities (CEAs) use to implement the CMEP — for this year. Version 2.0 includes links to Regional Monitoring schedules and Periodic Data Submittal schedules and an updated "Loss of Major Transmission Equipment with Extended Lead Times" risk element description based on *2019 ERO Reliability Risk Priorities Report*.

The CMEP IP includes the annual identification and prioritization of risk elements. The ERO Enterprise identifies and prioritizes risks following the Risk Elements Development Process, which is available as Appendix C in the [ERO Enterprise Guide for Compliance Monitoring](#).

The risk elements are becoming more risk based this year, as risks selected for increased focus are more specific than they were previously. NERC and each RE have worked collaboratively throughout this CMEP IP's development to streamline the ROP's timing and risk assessment processes into one cohesive narrative, as compared to a main CMEP IP with several regional appendices as in years past. By streamlining the development in this manner, the ERO Enterprise believes that it is more effectively and efficiently fulfilling the timing and risk assessment obligations of the CMEP IP, which will also enhance efforts to modify and adjust going forward.

Through this enhancement, the ERO Enterprise will address areas where there may be specific regional considerations in the main risk element description itself. The ERO Enterprise believes that this will make the CMEP IP both more user friendly and relevant to registered entities.

Specifically, the implementation plan represents the ERO Enterprise's high-level priorities for its CMEP. While the ERO Enterprise will determine individual monitoring decisions for each registered entity based on their unique characteristics, registered entities should consider the risk elements and their associated areas of focus as they evaluate opportunities and their own prioritization to enhance internal controls and compliance operations focus. NERC also posted the [2020 ERO Enterprise Data Submittal Schedule](#). For more information or assistance, please contact [Ryan Mauldin](#).

■■■

Reliability Risk Management

Webinar Resources Posted

NERC posted the [slide presentation](#) and [recording](#) from the November 8, 2019 Guideline for Distributed Energy Resource (DER) Modeling for Bulk Power System Planning Assessments webinar. ■■■

Standards

With the implementation of the [Align Project](#) in 2020, there will be changes to the [Reliability Standards web page](#) and associated reports, including the One-Stop Shop, U.S. Effective Date Status/Functional Applicability spreadsheet and VRF and VSL matrices. We will provide more details in the coming months.

Webinar Resources Posted

NERC posted a [slide presentation](#), providing an overview of CIP-003-8, which FERC approved on July 31, 2019 and which will become effective on April 1, 2020.

NERC posted the [slide presentation](#) and [recording](#) from the November 12, 2019 Project 2019-01 – Modifications to TPL-007-3 webinar.

NERC posted the [slide presentation](#) and [recording](#) from the November 18, 2019 Project 2017-07 – Standards Alignment with Registration webinar.

Regional Entity Events

[Midwest Reliability Organization \(MRO\)](#)

- **MRO Two-Part Webinar**, December 12
[Details](#)

[ReliabilityFirst \(RF\)](#)

- **Reliability and Compliance Open Forum Conference Call**, December 16 | [Details](#)
- **Internal Control Workshop**, February 12
[Details](#)
- **Spring Reliability Workshop**, April 21–23
[Details](#)

[SERC Reliability Corporation](#)

- **Q1 2020 Open Forum Webinar**, January 27
[Details](#)
- **SERC 101 Webinar**, February 10 | [Details](#)

[Texas RE](#)

- **Board of Directors Meeting** – December 11
[Details](#)
- **Talk with Texas RE** – December 19 | [Details](#)

- **Talk with Texas RE** – January 23 | [Details](#) ■■■

Upcoming Events

For a full accounting of NERC events, such as meetings and conference calls for standard drafting teams, other standing committees, subcommittees, task forces and working groups, please refer to the [NERC calendar](#).

- **Improvements to Compliance and Enforcement Pages on NERC.com** – 2:00–2:30 p.m. Eastern, December 9 | [Register](#)
- **Operating Committee, Planning Committee, and Critical Infrastructure Protection Committee Meetings** – December 10–11, Atlanta | [OC Registration](#) | [PC Registration](#) | [CIPC Registration](#) | [Hotel Registration](#) | [CIPC Agenda](#)
- **Probabilistic Analysis Forum** – December 11–13, Atlanta | [Register](#)
- **Standards Committee Meeting** – 10:00 a.m.–3:00 p.m. Eastern, December 18 | [Register](#) ■■■

Filings

NERC Filings to FERC in November

November 1, 2019

[Comments of NERC in Response to Notice Inviting Post-Technical Conference Comments](#) | NERC submits comments in response to the Notice Inviting Post-Technical Conference Comments issued in Docket No. AD19-15-000 on October 2, 2019.

November 14, 2019

[Compliance Filing in response to January 16 Order](#) | NERC submits an unaudited report of NERC's budget-to-actual variance information for the third quarter 2019. This compliance filing is in accordance with FERC's January 16, 2013 Order, which approved a Settlement Agreement between the FERC Office of Enforcement and NERC, related to findings and recommendations arising out of its 2012 performance audit.

November 21, 2019

[2019 Frequency Response Annual Analysis report](#) | NERC submits its 2019 Frequency Response Annual Analysis report for the administration and support of Reliability Standard BAL-003-1.1 – Frequency Response and Frequency Bias Setting.

November 27, 2019

[Joint Petition of NERC and ReliabilityFirst Corporation for Approval of Amendments to ReliabilityFirst Corporation's Bylaws](#) | NERC and

ReliabilityFirst Corporation submitted a joint petition for the approval of amendments to ReliabilityFirst Corporation's Bylaws.

There were no Canadian filings to FERC in November.



Careers at NERC

Assistant General Counsel and Director of Enforcement

Locations: Washington, D.C.

[Details](#)

E-ISAC Security Operations Analyst

Location: Washington, D.C.

[Details](#)

Enforcement Analyst

Location: Washington, D.C.

[Details](#)

Facilities Manager

Locations: Atlanta

[Details](#)

Senior CIP Technical Advisor – Advanced System Analytics Modeling and Security

Location: Atlanta

[Details](#)

Senior Auditor – Internal Audit and Corporate Risk Management

Location: Atlanta

[Details](#)

Senior Standards Developer

Location: Washington, D.C.

[Details](#)