

WELCOME TO TECHNICAL TALK WITH RF

November 17, 2025



TECHNICAL TALK WITH RF

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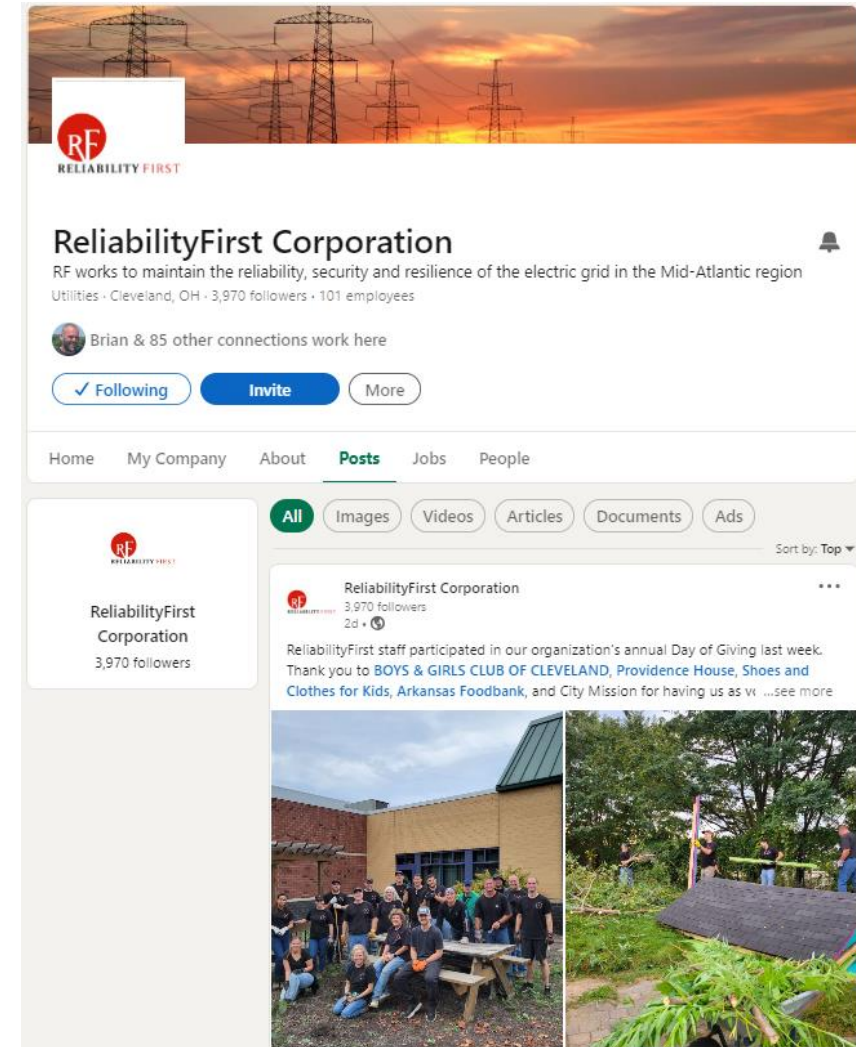


TECHNICAL TALK WITH RF

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TECH TALK REMINDERS

Please keep your information up-to-date

- CORES and Generation Verification Forms

Following an event, send EOP-004 or OE-417 forms to disturbance@rfirst.org

CIP-008-6 incident reports are sent to the [E-ISAC](#) and the [DHS CISA](#)

Check our [monthly CMEP update](#) and [newsletter](#):

- [2025 ERO Periodic Data Submittal schedule](#)
- Timing of Standard effectiveness

BES Cyber System Categorization (CIP-002-5.1a)

- Assess categorization (low, medium, or high) regularly and notify us of changes

CIP Evidence Request Tool V9 was released and is on NERC's [website](#)




TECH TALK REMINDER

Are you getting our newsletter
First Things RFirst?

- Sign up today [here](#)

Also, make sure to check out
our [2024 Impact Report](#) and
[video](#)




First Things RFirst
Expert analysis for a more reliable, secure and resilient electric grid, plus news and updates for RF stakeholders.

June 2024

Insights & Analysis


ReliabilityFirst 2024 Summer Reliability Assessment



RF's Summer Reliability Assessment projects the PJM and MISO areas to have adequate resources under normal demand, but if demand or resource outages are experienced beyond those projections, there is an increased likelihood that corrective actions would be needed. This risk is low in the PJM area, but it is elevated in the MISO area.

[Click here to read more](#)

The Lighthouse: The challenges of Operational Technology cyber security



Our modern civilization relies on Operational Technology (OT) to keep essential services working. The electric grid, pipelines, water treatment plants, transportation systems, and many more all depend on OT to deliver reliable services. Operating these systems securely comes with a host of cyber security challenges.

[Click here to read more](#)



FORWARD TOGETHER.

2024 IMPACT REPORT

WELCOME TO TECHNICAL TALK WITH RF

November 17, 2025



TECH TALK ANNOUNCEMENT



Upcoming In-Person Events, February 2026: Internal Controls Workshop & ERO Women's Leadership



INTERNAL CONTROLS WORKSHOP

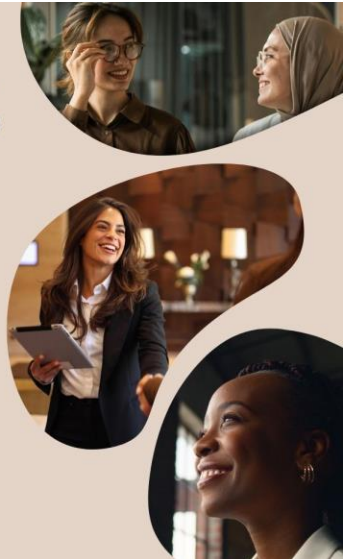
FEB. 23-25, 2026 | CLEVELAND, OH



ERO WOMEN'S LEADERSHIP CONFERENCE

FEB. 25-26, 2026 | CLEVELAND, OH

Hosted by  RELIABILITY FIRST



Join us this coming February at The Aviator in Cleveland, OH for a unique, interactive Internal Controls Workshop. Then be sure to stick around for the 2026 ERO Women's Leadership Conference!

Be sure to register today and be a part of the hotel discount. Register via [Eventbrite](#) or link on [ReliabilityFirst website](#).

TECH TALK ANNOUNCEMENT



It's Live! New NERC Website

[Learn More](#)

RELIABILITY | RESILIENCE | SECURITY

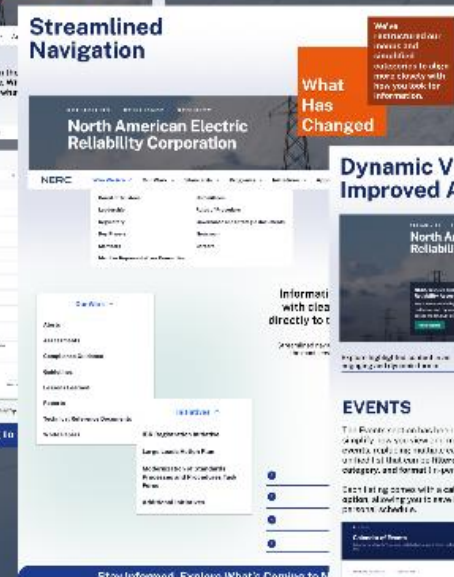
North American Electric Reliability Corporation

The New NERC.com is Here

The modernized website delivers easier navigation, improved search function, and exciting new features designed for you.

[Learn More](#)

STREAMLINED
EXPERIENCE



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TECH TALK ANNOUNCEMENT



Reliability Insights: “NERC Reliability Assessments Evolve with Emerging Risks” [Report](#)

NERC, in collaboration with the Regional Entities is evolving its reliability assessments to ensure they continue to capture important system nuances and insights as the composition and needs of the bulk power systems (BPS) transform. The addition of wide-area energy assessments, beginning in 2026, will enable the ERO Enterprise to independently analyze whether resources and transmission can supply both forecasted electrical energy and ancillary services needs over a period of time. Other improvements—such as scenario-based and essential reliability services analyses—will be rolled out incrementally over the coming years. These evolved reliability assessments will provide a more complete and common picture of the risks around which entities should operationally plan and mitigate.



Reliability Insights

NERC Reliability Assessments Evolve with Emerging Risks
October 2025

NERC’s performance of reliability assessments is a fundamental responsibility in its role as the Electric Reliability Organization (ERO). [The Long-Term Reliability Assessment \(LTRA\) and seasonal assessments](#) provide invaluable context to industry and policymakers related to the reliable operation of the bulk power system (BPS). These reliability assessments cover a broad swath of issues, such as the overall resource and transmission adequacy and operating reliability of the BPS; key and emerging risks; region-specific considerations; trends in demand, supply, and transmission transfer capability; and potential impacts associated with changes to policy, regulatory, and market-based constructs.

New Risks Associated with a Transforming Grid

The grid is rapidly transforming due to electrification, digitalization, decarbonization, and increasing sensitivity to extreme weather. The generation fleet is shifting toward a higher percentage of renewables, which are weather dependent, and gas generation assets, which rely on “just-in-time” fuel delivered via pipeline due to limited fuel storage. The increasing reliance on these types of generation resources adds uncertainty and challenges to ensuring reliability and resilience; expansion of energy storage and demand-response programs is on the rise to help counterbalance supply variability. Furthermore, generators are retiring at historic levels while new resource additions face headwinds from lagging supply chains, economic uncertainty, and grid expansion planning backlogs. Fuel assurance and resource adequacy risks are coupled with projections of surging demand; emerging large loads are interconnecting to the grid at unprecedented speeds, leading to significant projected load growth in the coming decades but with differing consumption characteristics. The confluence of these supply and demand shifts may result in insufficient amounts of energy being available on the system to serve load. As discussed in NERC’s [Reliability Insights: New Approaches Needed to Ensure System Adequacy](#), the transformation of the grid means that risk can no longer be solely defined by a capacity-based construct—one that looks at peak demand and just ensures that the system has enough capacity to meet it.

Aligning NERC’s Reliability Assessments with Tomorrow’s Needs

Historically, NERC’s reliability assessments focused on capacity and reserve margins to determine resource adequacy. This made sense because resources were generally dispatchable to meet the fluctuating electricity needs of the grid and performance variability could be measured and applied to resource adequacy studies in the form of generator forced-outage rates. Today, generator performance can also vary more due to weather conditions and just-in-time fuel availability. Capacity and reserve margins are no longer effective adequacy indicators over the full range of time

TECH TALK ANNOUNCEMENT

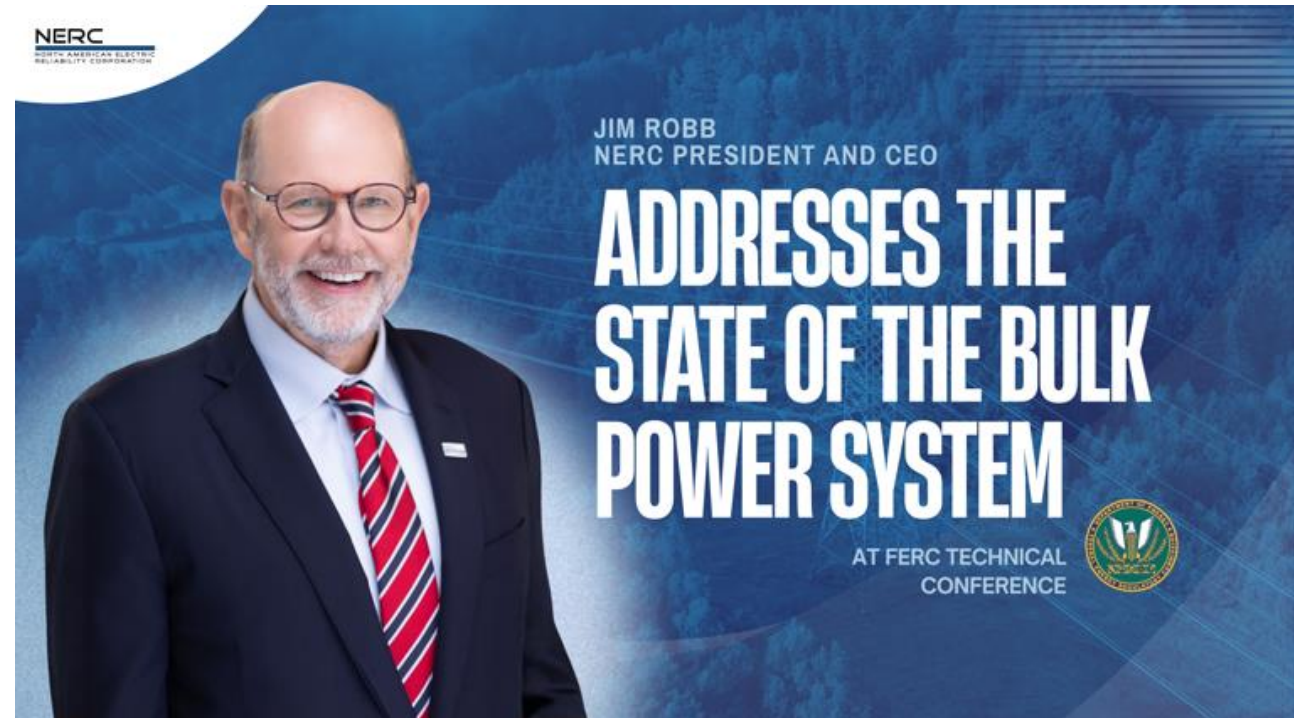


Robb Addresses the State of the Bulk Power System at FERC Technical Conference

October 21, 2025

[Video Clip](#)

Speaking during the Federal Energy Regulatory Commission's Annual Reliability Technical Conference on October 21, NERC President and CEO Jim Robb noted that while the North American grid remains technically strong, emerging risks are creating unprecedented challenges for reliability. He also outlined NERC's top priorities for ensuring reliability: oversight modernization, large load enablement, reliability assessments, gas-electric coordination, heavy-lift standards, and strengthening cyber and physical security preparedness. Robb's full remarks are on NERC's YouTube channel.



TECH TALK ANNOUNCEMENT



Standards Q4 Quarterly Outlook Video Q4 2025

[Video Link](#)

The Standards Quarterly Outlook, designed to highlight key priorities and upcoming activities in the Standards space each quarter, is part of NERC's ongoing efforts to increase awareness of ongoing projects and the Standards development process.

In the [Q4 2025 edition](#), you'll hear directly from the Standards team about three major projects within the Reliability Standards landscape: [Canadian-Specific Revisions to EOP-012-3](#) - Extreme Cold Weather Preparedness and Operations, [CIP-014](#) - Risk Assessment Refinement, and [FERC Order 907](#). For more information on these projects and more, please visit the [Standards Under Development](#) page.

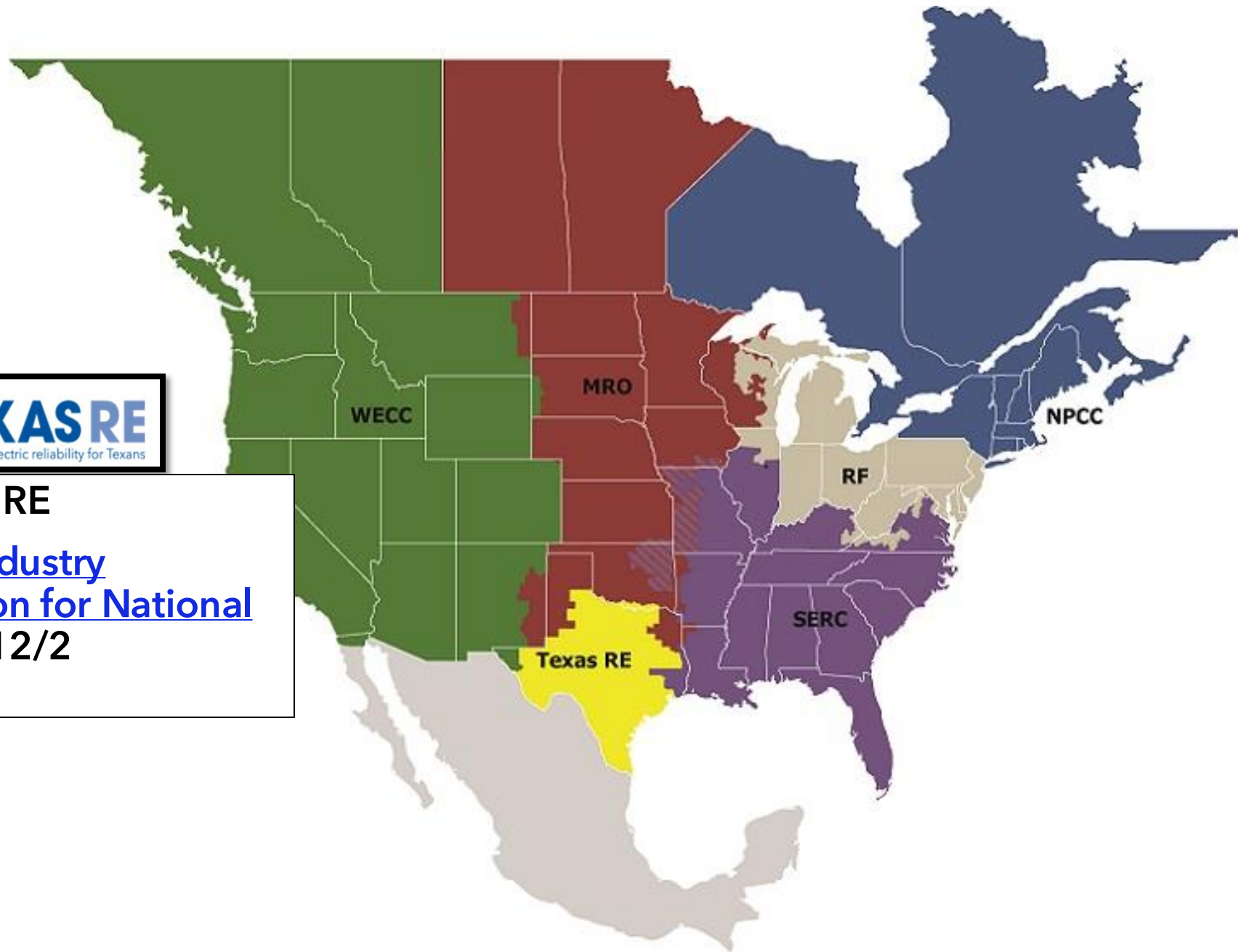
A graphic with a dark blue background featuring a faint image of a wind turbine and a landscape. The text "NERC Standards Quarterly Outlook Q4 2025" is displayed in a large, white, sans-serif font, centered on the image.

NERC Standards
Quarterly Outlook
Q4 2025



Talk with Texas RE

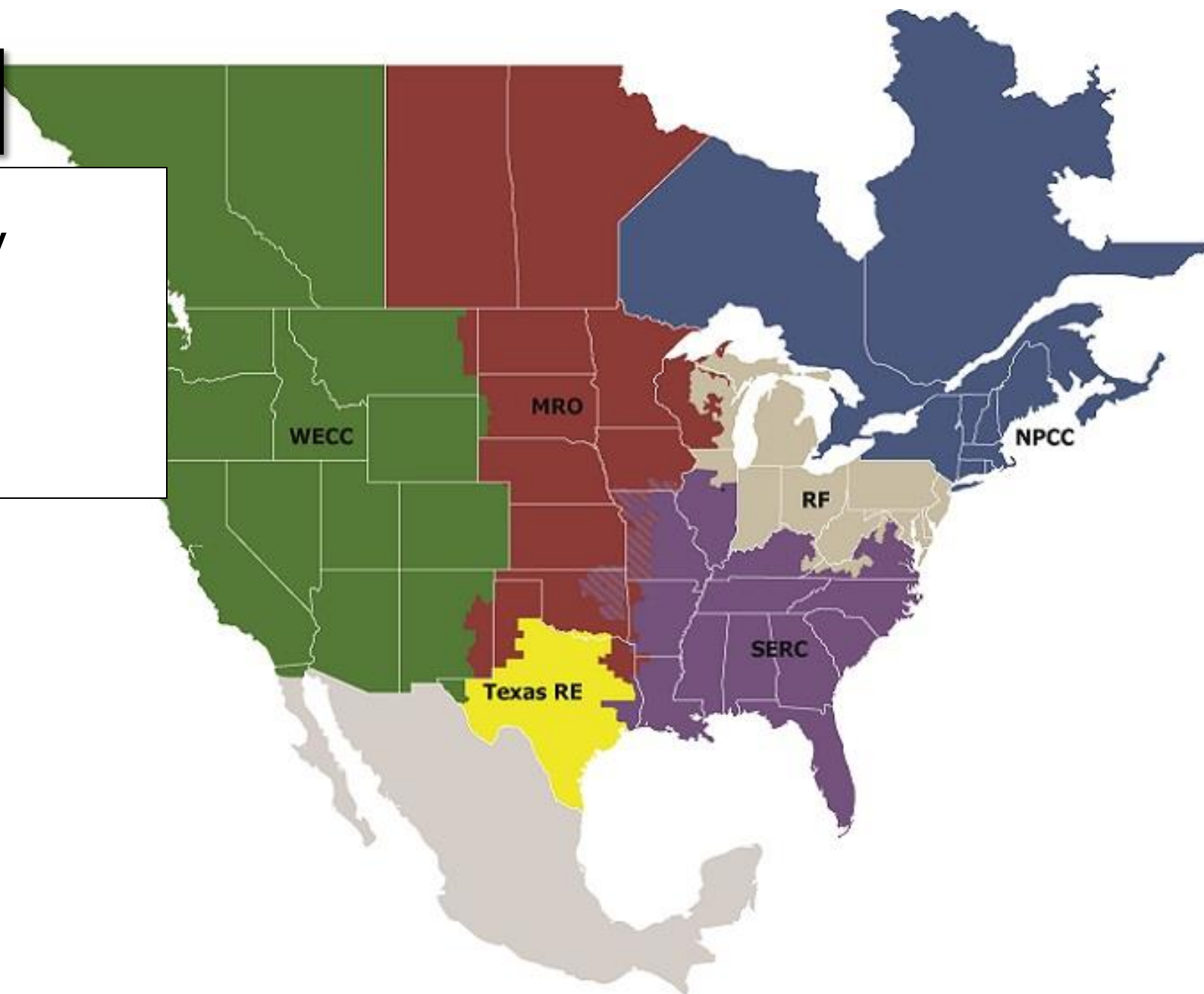
- [ISAC and Industry Collaboration for National Resilience](#), 12/2





Reliability & Security Oversight Update

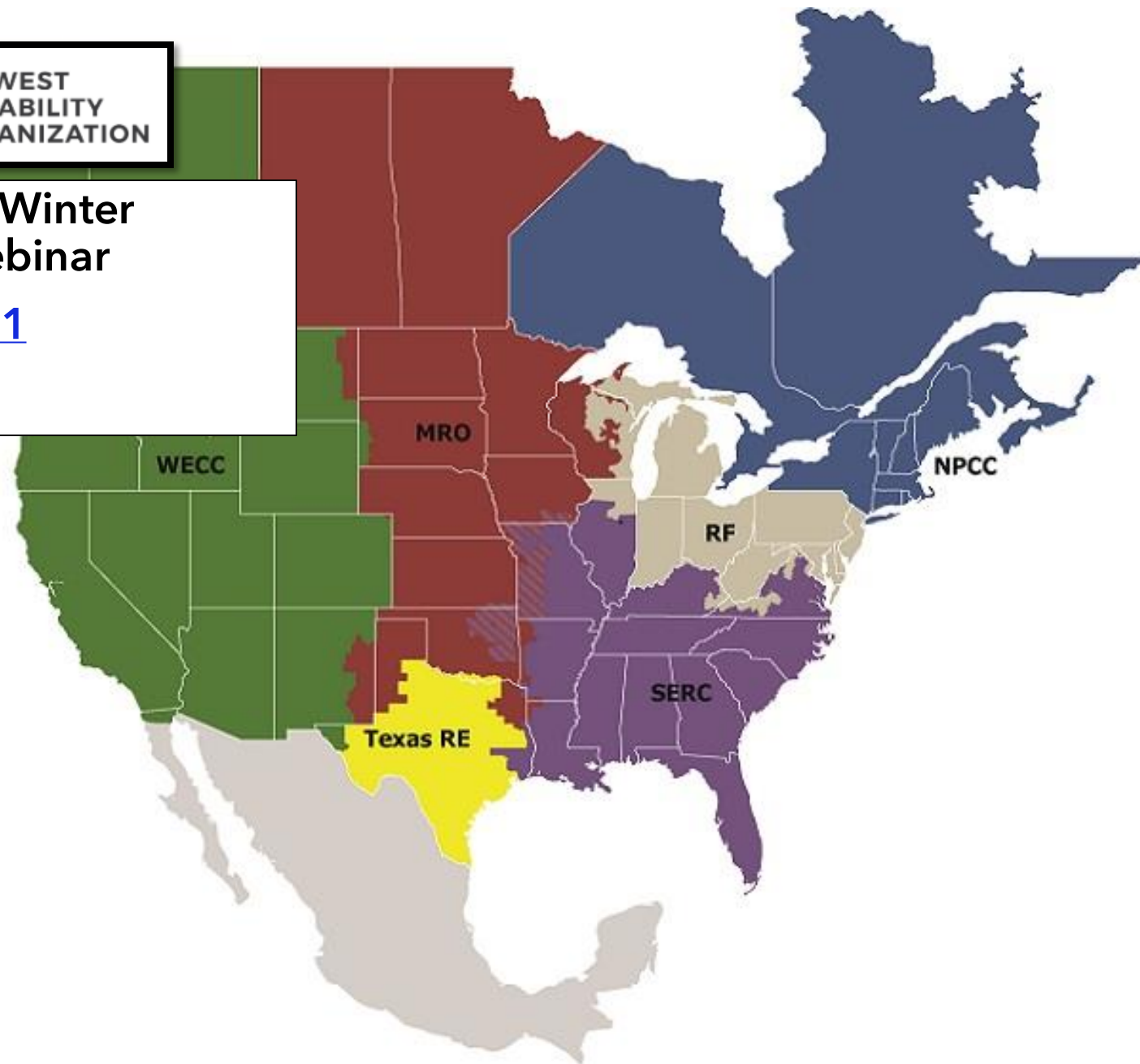
- [November 20](#)
- [December 18](#)

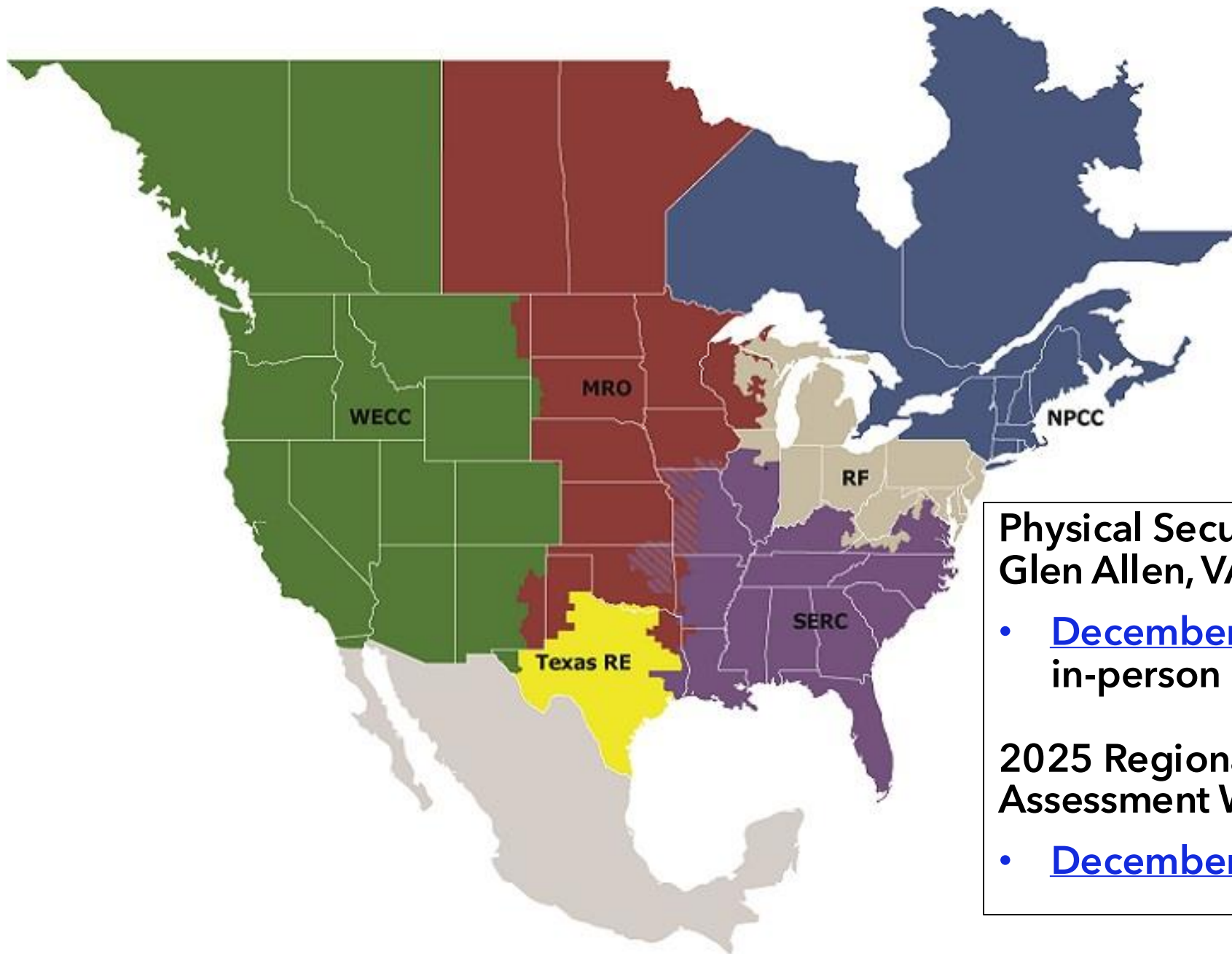




2025 Regional Winter Assessment Webinar

- [December 11](#)



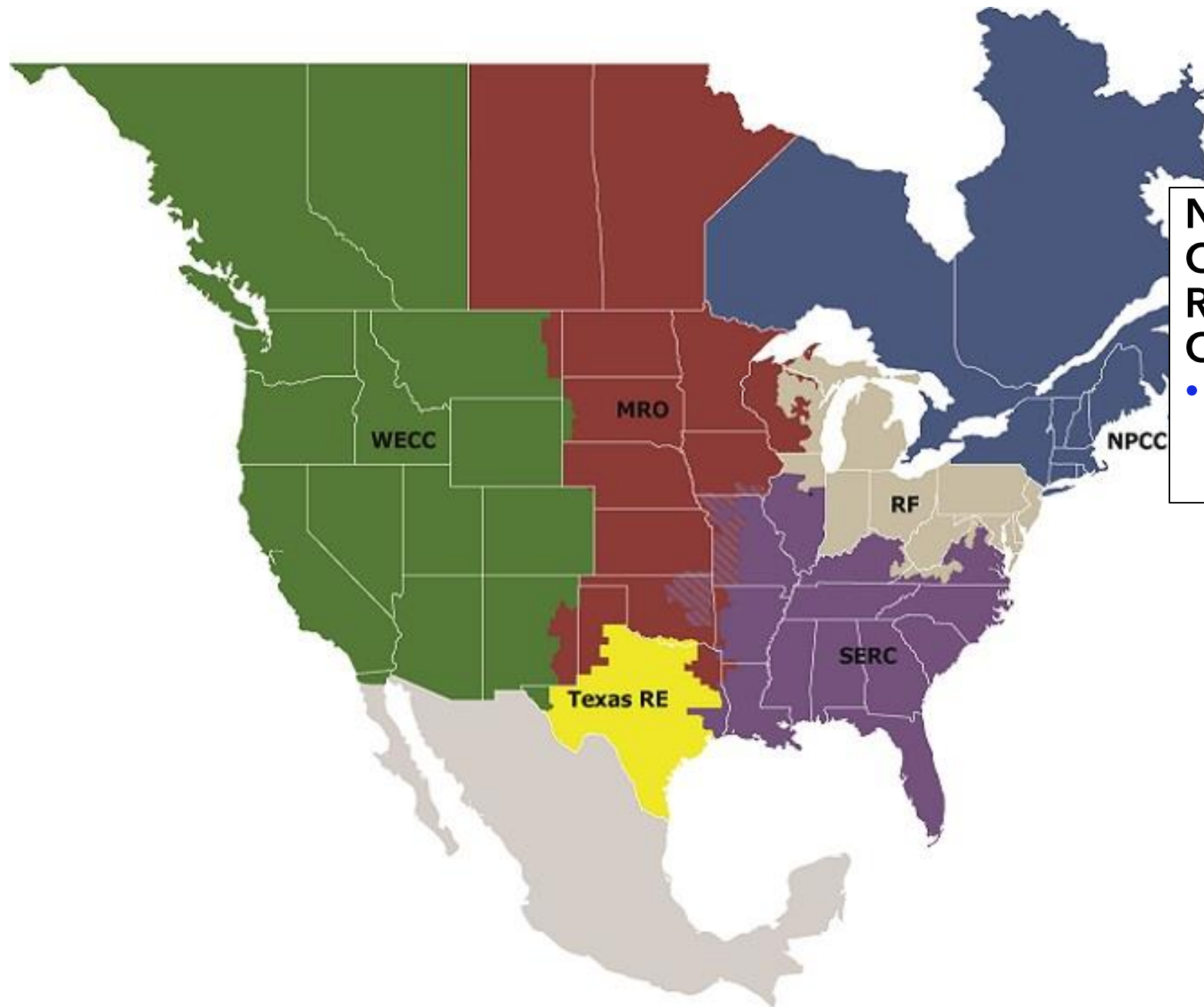


Physical Security Workshop, Glen Allen, VA

- [December 2 - 4,](#)
in-person only

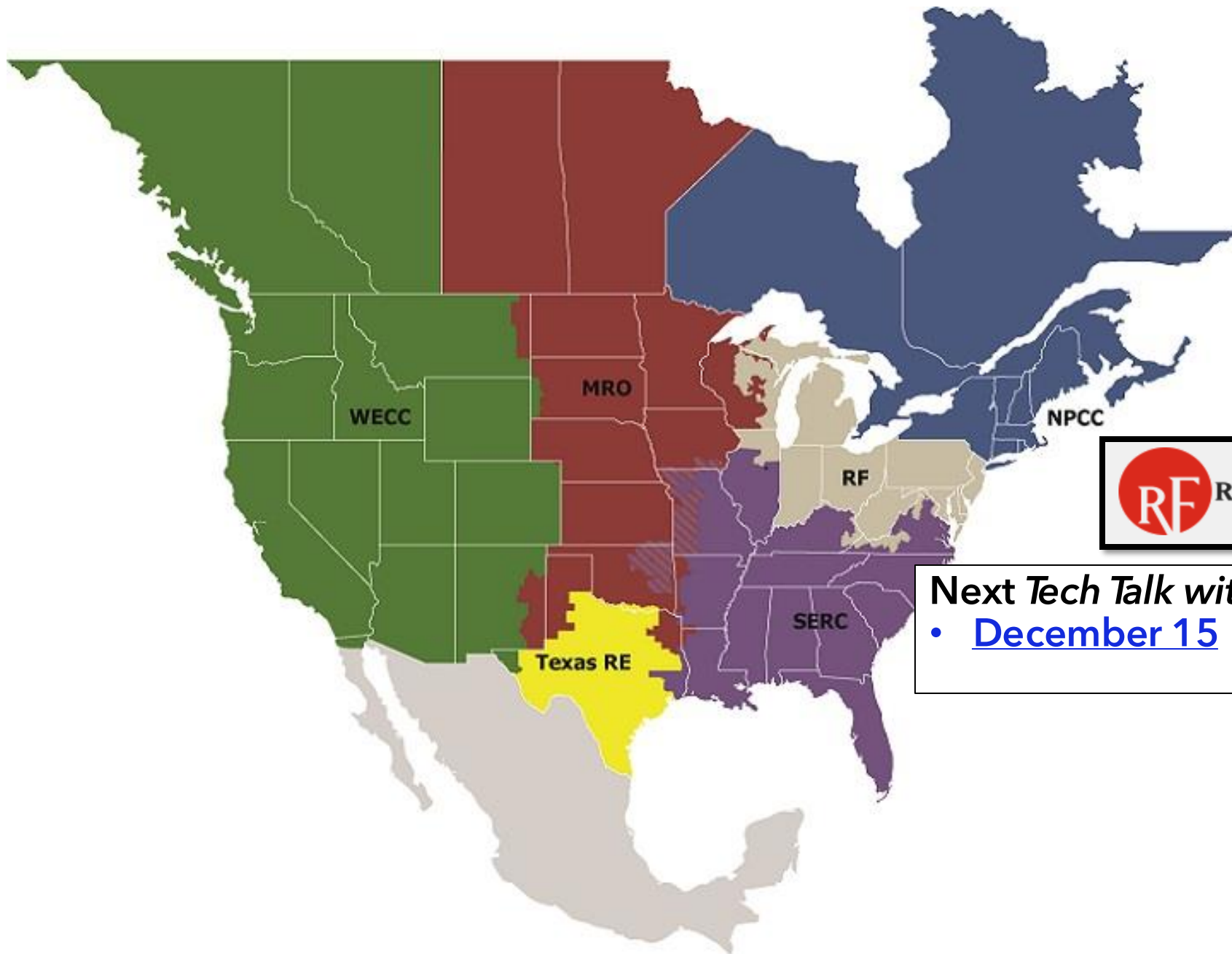
2025 Regional Winter Assessment Webinar

- [December 11](#)



NPCC Fall 2025 Compliance and Reliability Conference

- [Day 1](#) and [Day 2](#)
Presentations



Next *Tech Talk* with RF
• [December 15](#)

TECH TALK REMINDER

Tech Talk with RF announcements are posted on our calendar on www.rfirst.org under Calendar

CLICK HERE

MON
17

November 17, 2025 @ 2:00 pm - 3:30 pm

Technical Talk with RF

Virtual (Webex)

Technical Talk with RF is a monthly webinar ReliabilityFirst hosts to discuss key reliability, resilience and security topics with our stakeholders.



TECHNICAL TALK WITH RF

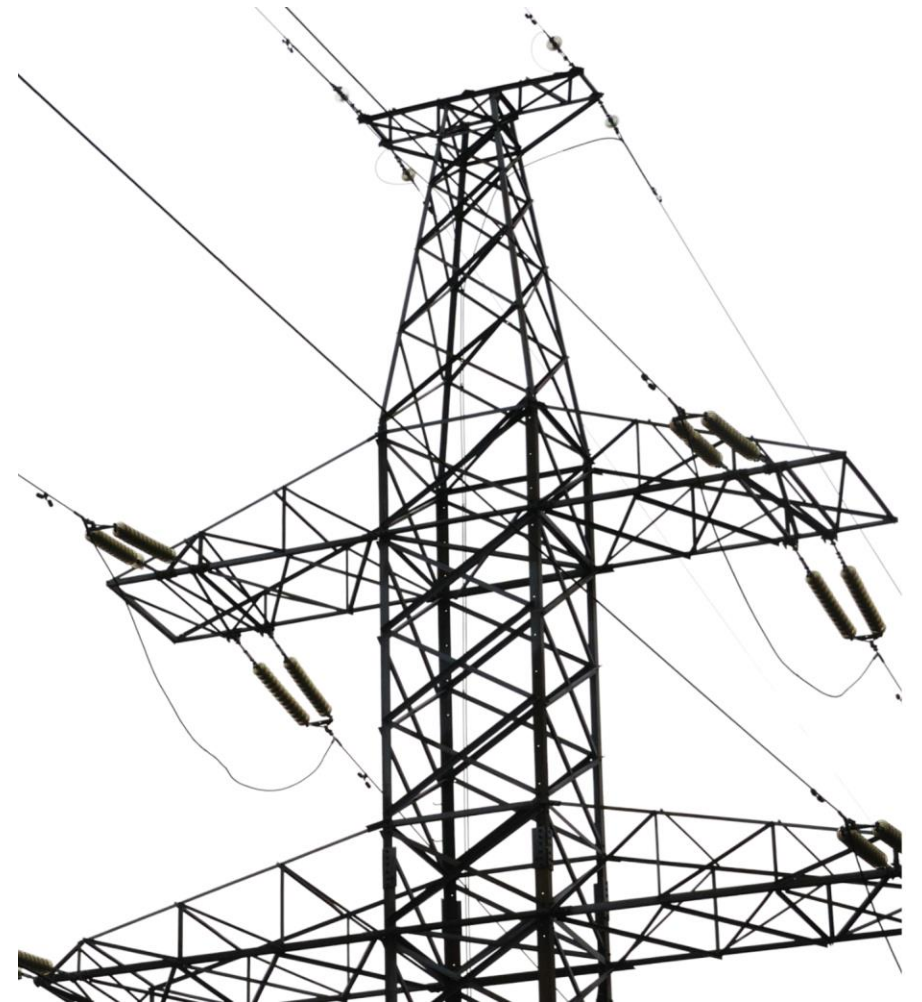
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[#TechTalkRF](https://twitter.com/TechTalkRF)



Anti-Trust Statement

It is ReliabilityFirst's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct which violates, or which might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every ReliabilityFirst participant and employee who may in any way affect ReliabilityFirst's compliance with the antitrust laws to carry out this policy.



AGENDA

FIRESIDE CHAT: SUPPLY CHAIN

- **ERIC SEIDLER**, SENIOR VICE PRESIDENT - CORPORATE SAFETY, SECURITY, SUPPLY CHAIN, & OPERATIONS OVERSIGHT, AMEREN
- **JEFF CRAIGO**, SENIOR VICE PRESIDENT - OPERATIONS & RISK, RELIABILITYFIRST

CIP STANDARDS UPDATE

- **LEW FOLKERTH**, PRINCIPAL RELIABILITY CONSULTANT, RELIABILITYFIRST

Jeff Craigo
ReliabilityFirst SVP
Operations & Risk



Eric Seidler
Ameren SVP
Corporate Safety, Security,
Supply Chain, & Operations Oversight



CIP STANDARDS UPDATE

Low Folkerth, PE, LPI, +9

Principal Reliability Consultant

November 17, 2025



PENDING CHANGES



CIP-003-9

CIP-012-2

CIP-015-1



CIP-003-9

Effective April 1, 2026

Adds Section 6, *Vendor Electronic Remote Access Security Controls*, to Attachment 1

CIP-012-2

Effective July 1, 2026

Adds mitigation of the risk of loss of availability of Control Center to Control Center communications

Requires methods for recovery of communications

General language updates

CIP-015-1

Effective dates:

10/1/2028 for Control Centers with high impact BES Cyber Systems (BCS) or medium impact BCS with External Routable Connectivity (ERC)

10/1/2030 for all other medium impact BCS with ERC

New standard for Internal Network Security Monitoring

Adds requirement for monitoring “east-west” traffic

SEPTEMBER 18, 2025 COMMISSION ACTIONS



LOW IMPACT

VIRTUALIZATION

SUPPLY CHAIN



RM25-8-000 CIP-003-11 NOPR

The CIP-003-11 Notice of Proposed Rulemaking (NOPR) requests comments on three proposed actions:

1. Approve CIP-003-11,
2. Order the strengthening of the low impact requirements in response to cybersecurity threats, and
3. Order a study on evolving threats as they relate to low impact systems.

Comments are due November 22, 2025.

RM24-8-000 VIRTUALIZATION NOPR

The virtualization CIP standards NOPR requests comments on the approval of the virtualization versions of the CIP standards.

Comments on this NOPR are due November 22, 2025.

RM24-8-000 VIRTUALIZATION NOPR

The NOPR expresses concerns and questions regarding the elimination of Technical Feasibility Exceptions (TFEs), to be replaced by “per system capability.”

- The NOPR questions the continued need for these exceptions at all, pointing out that they were instituted to prevent early retirement of long-life legacy equipment. It has been 15 years since these exceptions were put in place, and most, if not all, of these legacy systems should have been retired by now.
- The NOPR asks four questions regarding “per system capability” exceptions:
 - How will these exceptions be monitored other than through CMEP processes?
 - How will entities be informed as to legitimate use of these exceptions?
 - What obligations will an entity have to mitigate the security gaps introduced by these exceptions?
 - How will NERC ensure consistency across the ERO in the review of these exceptions?

The NOPR asks for comments and suggestions for alternative approaches.

SUPPLY CHAIN ORDER 912

Order 912 addresses two dockets:

1. RM24-4-000, Supply Chain Risk Management Reliability Standards Revisions
2. RM20-19-000, Equipment and Services Produced or Provided by Certain Entities Identified as Risks to National Security

SUPPLY CHAIN ORDER 912

Order 912 requires NERC to develop revisions to supply chain requirements to:

- A. Include timing requirements for supply chain risk assessments including:
 - i. A maximum time between a supply chain risk assessment and the installation of related equipment,
 - ii. A requirement to periodically reassess the risk associated with existing vendors, and
 - iii. Establish a maximum time frame for which a risk assessment will be valid.
- B. Establish a process to document, track, and respond to all identified supply chain risks.
- C. Include Protected Cyber Assets (PCAs) as applicable assets.

The supply chain revisions must be submitted for approval by May 22, 2027.

ADDITIONAL CIP ACTIVITY

CIP-002

CIP-008

CIP-014

CIP-015

CLOUD

CIP-002 BES CYBER SYSTEM CATEGORIZATION

- CIP-002-7 filed and is part of the virtualization update NOPR
- Project 2021-03 Phase One
 - CIP-002-8 filed and pending FERC action
 - Transmission Owner (TO)/Transmission Operator (TOP) Control Center categorization
- Project 2021-03 Phase Two in development
 - CIP-002/CIP-014 - Update IROL language
 - CIP-002 - Adjust TOP high impact categorization
 - CIP-002 - Explicitly identify Protected Cyber Assets (PCA), Electronic Access Control or Monitoring Systems (EACMS), and Physical Access Control Systems (PACS)

CIP-003/CIP-008 INCIDENT REPORTING AND RESPONSE PLANNING

- Project 2022-05 Modifications to CIP-008 Reporting Threshold
 - Response to FERC Order 848
 - In development - informal comment period closed 10/24
 - Add EACMS and PACS to CIP-008
 - Modify the reporting threshold for CIP-003 R2 Section 4 and for CIP-008

CIP-014 PHYSICAL SECURITY

- Project 2023-06 CIP-014 Risk Assessment Refinement
- In development
- Response to FERC Order in Docket RD23-2-000
- Reduce confusion around assessment and identification of critical substations

CIP-015 INTERNAL NETWORK SECURITY MONITORING

- Project 2025-02 Internal Network Security Monitoring Standard Revision
- In development
- Response to FERC Order 907
- Extend Internal Network Security Monitoring (INSM) to EACMS and PACS outside an Electronic Security Perimeter (ESP)

CLOUD

- Project 2023-09 Risk Management for Third-Party Cloud Services
- In development
- Industry initiated
- Enable, but not require, use of cloud services in various aspects of operations
- Working on a whitepaper to explain the team's approach, expect to post for comment this year

REFERENCES

- NERC Standards Development Page - <https://www.nerc.com/pa/Stand/Pages/Standards-Under-Development.aspx>
- Project observer mailing lists
 - Link and instructions on each project's page (see next slide)
- FERC eLibrary - <https://elibrary.ferc.gov/idmws/search/fercgensearch.asp>
- FERC eSubscription - <https://ferconline.ferc.gov/eSubscription.aspx>
- FERC Meeting Notices - <https://ferc.gov> main page

REFERENCES

- Weekly NERC bulletins (NERC Info list)
 - Similar to project observers, ask to be added to the “NERC-info” list
- **TO SUBSCRIBE:** If you would like to be added to a NERC Distribution List, you must first register an account in the [ERO Portal](#). Once you have registered your ERO Portal account, authenticated your credentials with DUO, and completed your profile, please submit a ticket through the [Help Desk](#) by selecting the “NERC Email Distribution List” option under the Applications menu. In the Description Box, please specify which lists you would like your email address to be added to. If you are unsure of which Distribution List you would like to be added to, an excellent starting point is the [Committees](#). You can note the committee abbreviation, which represents the distribution list you would like to join, in the Description Box. If you have other NERC-related or specific Standards projects you’re interested in, you may request those as well. If you’re interested in general information, please request to be added to the NERC-info distribution list, which covers most NERC announcements.

QUESTIONS & ANSWERS

Lew Folkerth

lew.folkerth@rfirst.org



THANK YOU

***Join us for our next Tech Talk -
December 15th 2-3:30 pm EST***

[Webinar Link](#)

Join the conversation at SLIDO.com

#TechTalkRF

