

# WELCOME TO TECHNICAL TALK WITH RF

June 12, 2023



# 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, Generation Verification Forms, Entity Profile Questionnaires (quarterly)

Following an event, send EOP-004 or OE-417 forms to [disturbance@rfirst.org](mailto:disturbance@rfirst.org)

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

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

- [2023 ERO Periodic Data Submittal schedule](#)
- Timing of Standard effectiveness

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

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

CIP Evidence Request Tool V7.0 is online, see [website](#)



# TECH TALK ANNOUNCEMENT



The California Mobility Center (CMC), the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) developed the joint report, "[Electric Vehicle Dynamic Charging Performance Characteristics during Bulk Power System Disturbances](#)" to highlight the need for ongoing collaboration between electric utilities, electric vehicles (EVs), and electric vehicle equipment industries to ensure electric system reliability.

The report, undertaken as part of the joint EV Grid Reliability Working Group, focuses on EV charging behavior during infrequent disturbances that originate from the high-voltage bulk power system. These events last no more than a few seconds, but if left unchecked they have the potential to cause catastrophic consequences for electric system reliability such as cascading blackouts and widespread power interruptions.



## Electric Vehicle Dynamic Charging Performance Characteristics during Bulk Power System Disturbances

### Synopsis

The purpose of this document is to highlight the need for collaboration between electric utilities and the electric vehicle (EV)/electric vehicle supply equipment (EVSE) manufacturing industry to develop strategies that will help ensure bulk power system (BPS) reliability, resilience, and security.<sup>1</sup> This document focuses on an area that is relatively unexplored: EV charging behavior during infrequent grid disturbances that originate from the BPS. These events last no more than a few seconds but may have catastrophic consequences for grid reliability if left unchecked (i.e., cascading blackouts and widespread power interruptions). This document outlines the need for early engagement and information exchange between the electric utilities and the EV/EVSE manufacturing industry to facilitate anticipation and timely resolution of potential grid reliability issues. Toward this end, this document describes the BPS-related reliability concerns that electric utilities are studying in anticipation of the expected significant increase in EV charging loads. This document then outlines the electric utility's current recommendations to mitigate these concerns based on preliminary observations, including changing EV charger and EVSE operation during these infrequent, short-duration events. This document concludes by outlining a solution to meet the need for on-going information sharing between the two communities. This includes the need for future studies to refine these recommendations to become accepted industry practices and standards. This coordination will foster mutual understanding of the issues that must be addressed on both sides of the meter to ensure grid reliability, resilience, and security at the least cost to society as electrification of the transportation fleet grows.

### California Mobility Center Electric Vehicle Grid Reliability Working Group

In June 2022, the California Mobility Center (CMC)<sup>2</sup> formed an EV Grid Reliability Working Group (Working Group), an initiative of diverse EV and grid reliability stakeholders with an interest in advancing understanding and collaboration regarding EV charging demand and grid reliability issues.

The following are the goals of the Working Group:

- Develop a common baseline understanding of the relationship between both distribution and transmission grid reliability and EV charging

<sup>1</sup> For the purpose of this discussion, electric utilities refers to the segment of the electricity industry responsible for the reliability of the high-voltage BPS and EV/EVSE manufacturers refers to the segments of the automotive industry involved in either manufacturing EVs or EV supply equipment.

<sup>2</sup> The CMC is a not-for-profit public-private collaborative whose goal is to accelerate innovation and commercialization of new products, services, and technology in the clean mobility space. The CMC provides members and other stakeholders with opportunities to work together with thought leaders engaged on issues that are critical to advancing EV adoption and deployment, supporting state and national energy, and environmental goals.

# TECH TALK ANNOUNCEMENT



## Level 3 NERC Alert FAQ Posted

NERC has published a FAQ document on the Level 3 Extreme Cold Weather Alert to address some of the common concerns heard during development of the alert and to provide more clarity of the Level 3 Alert Essential Actions and questions.

For questions or comments, please send an email to [nerc.alert@nerc.net](mailto:nerc.alert@nerc.net)

- [FAQ: Level 3 Alert](#)
- [Essential Actions to Industry - Cold Weather Preparations](#)
- [NERC Alerts](#)

# TECH TALK ANNOUNCEMENT



Section 1600 Data Request,  
required by July 25

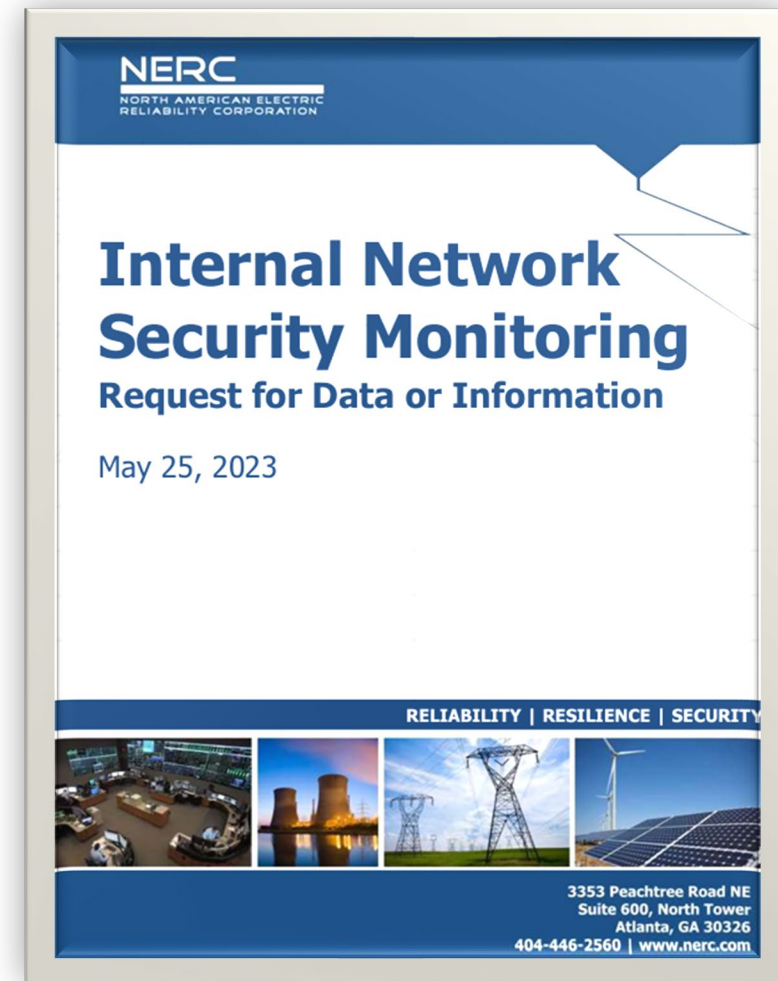
Internal Network Security Monitoring

[INSM Data Request](#)

Primary Compliance Contacts (PCC) for reporting entities must respond by logging onto the [NERC ERO portal](#) and selecting "INSM Data Request" at the top of the page. For those NCRs that have more than one PCC, all PCCs will have access to the response.

Reponses can be saved and modified repeatedly but once submitted the responses are final. Portal responses are protected and available to ERO study participants on a need-to-know basis only.

Any questions may be directed to: [INSM\\_DR\\_Info@nerc.com](mailto:INSM_DR_Info@nerc.com)



# TECH TALK ANNOUNCEMENT

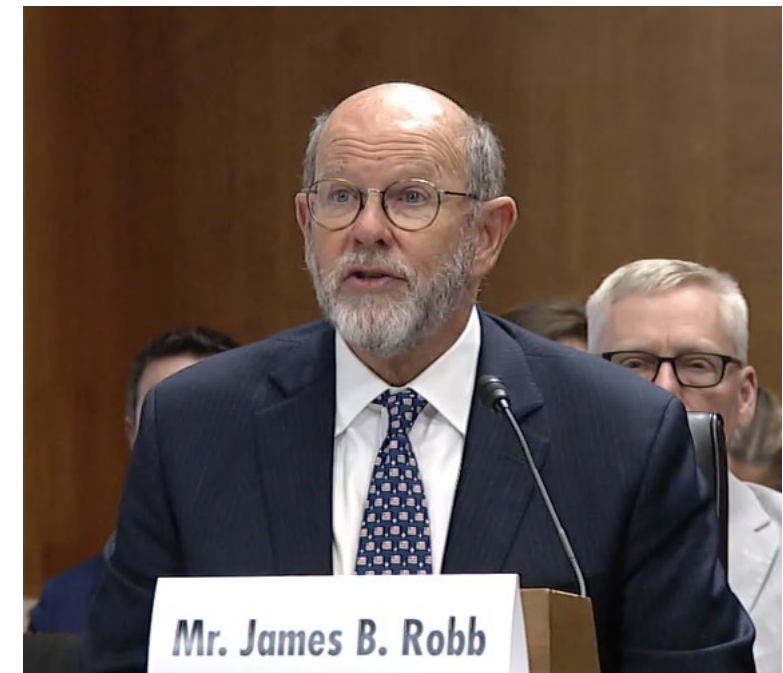


Senate Committee on Energy & Natural Resources

June 1 hearing with NERC CEO Jim Robb

[Watch Archived Webcast](#)

[Read Jim Robb's Testimony](#)





# TECH TALK ANNOUNCEMENT



Webinar Series:

Inverter-Based Resources

June 6 - July 13, 4:00 - 5:00 PM Eastern

[Webinar Flyer](#)



# TECH TALK ANNOUNCEMENT



Industry Webinar

Project 2021-07 Extreme Cold

Weather Grid Operations

June 20, 1:00 – 2:30 PM Eastern

[Webinar Registration](#)



# TECH TALK ANNOUNCEMENT



Industry Webinar

Project 2022-02 Modifications to  
TPL-001 and MOD-032

June 27, 1:00 – 3:00 PM Eastern

[Webinar Registration](#)



# TECH TALK ANNOUNCEMENT



## Joint NERC, FERC Physical Security Technical Conference

August 10, NERC Office, Atlanta

The staff-led technical conference is in response to a recommendation in NERC's [Evaluation of the Physical Security Reliability Standard and Physical Security Attacks to the Bulk Power System](#) that was filed with FERC in April. The report evaluates CIP-014-3, NERC's physical security standard, and recent physical security attacks on the bulk power system. The all-day technical conference will solicit input on the type of substation configurations that should be studied to determine whether additional substations should be included in the standard's applicability criteria. The technical conference also seeks to establish data needs for conducting those studies.



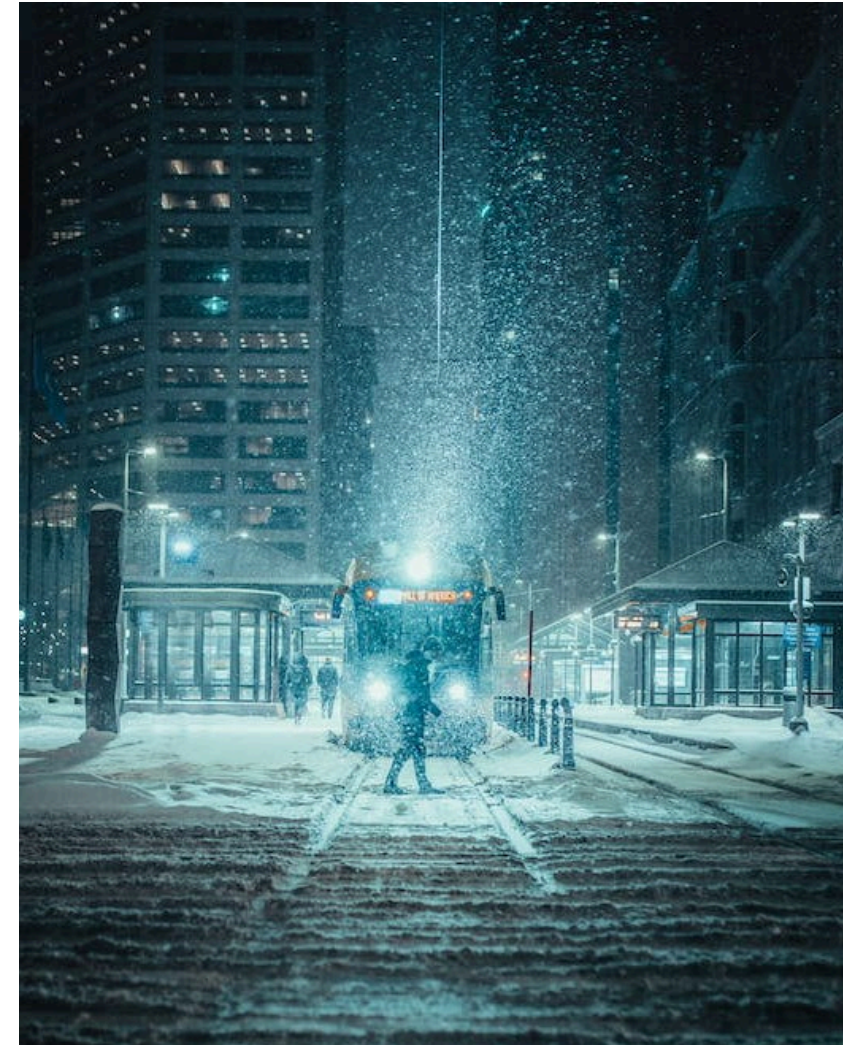
# TECH TALK ANNOUNCEMENT



## Winter Preparation for Severe Cold Weather Webinar

September 7, 1:00 – 3:00 PM Eastern

NERC will hold the Winter Preparation for Severe Cold Weather webinar on September 7, and is requesting abstracts from industry stakeholders on successful practices and lessons learned relating to severe cold weather preparation. Submission for presentations and panel discussions are welcome from all industry stakeholders, including asset owners and operators and OEMs who support the bulk power system.



# TECH TALK ANNOUNCEMENT



## Probabilistic Analysis Forum (PAF)

October 10-12, Salt Lake City, Utah (Hybrid)

Following the success of the NERC Probabilistic Analysis Forum (PAF) in 2019 and 2021, the NERC Probabilistic Assessment Working Group (PAWG) will host its third, biennial PAF on October 10 - 12, 2023, covering probabilistic assessments, approaches, and experiences. More details, including the event registration and successful submissions, will be made available on the NERC and WECC websites closer to the forum. Examples of Potential Topics include, but are not limited to:

- Additional metrics/measurements vs expanding the use of existing metrics
- Resource Accreditation methods
- Battery Modeling and performance
- Natural Gas Constraints and Operational Risks
- Development of synthetic load models
- Capturing widespread geographic risks
- Extreme weather impacts
- Techniques and modelling approaches for managing forced outages
- Energy and Capacity evaluation



# TECH TALK ANNOUNCEMENT



## GridSecCon 2023

October 17-20 [Registration](#)

NERC, the E-ISAC, and Northeast Power Coordinating Council (NPCC) are co-hosting the 12th annual grid security conference on October 17-20, 2023 in Québec City, Canada.

GridSecCon brings together cyber and physical security leaders from industry and government to deliver expert training sessions, share best practices and effective threat mitigation programs, and present lessons learned. Conference and hotel registration will open in May and more details will be available on the E-ISAC, NERC and NPCC websites.



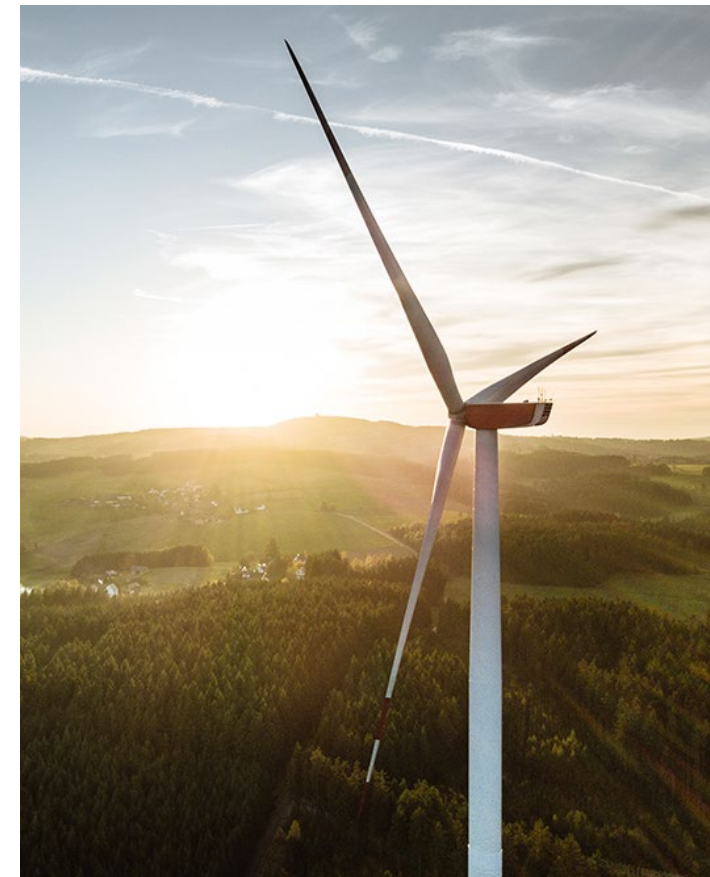
# TECH TALK ANNOUNCEMENT



NERC-NATF-EPRI Annual Transmission  
Planning and Modeling Workshop

November 1-2, 1:00 – 5:00 PM Eastern

This year's seminar will focus on bulk power system load modeling, integrated system planning practices, IBR risk mitigation, and updates on the latest research and activities across the industry.





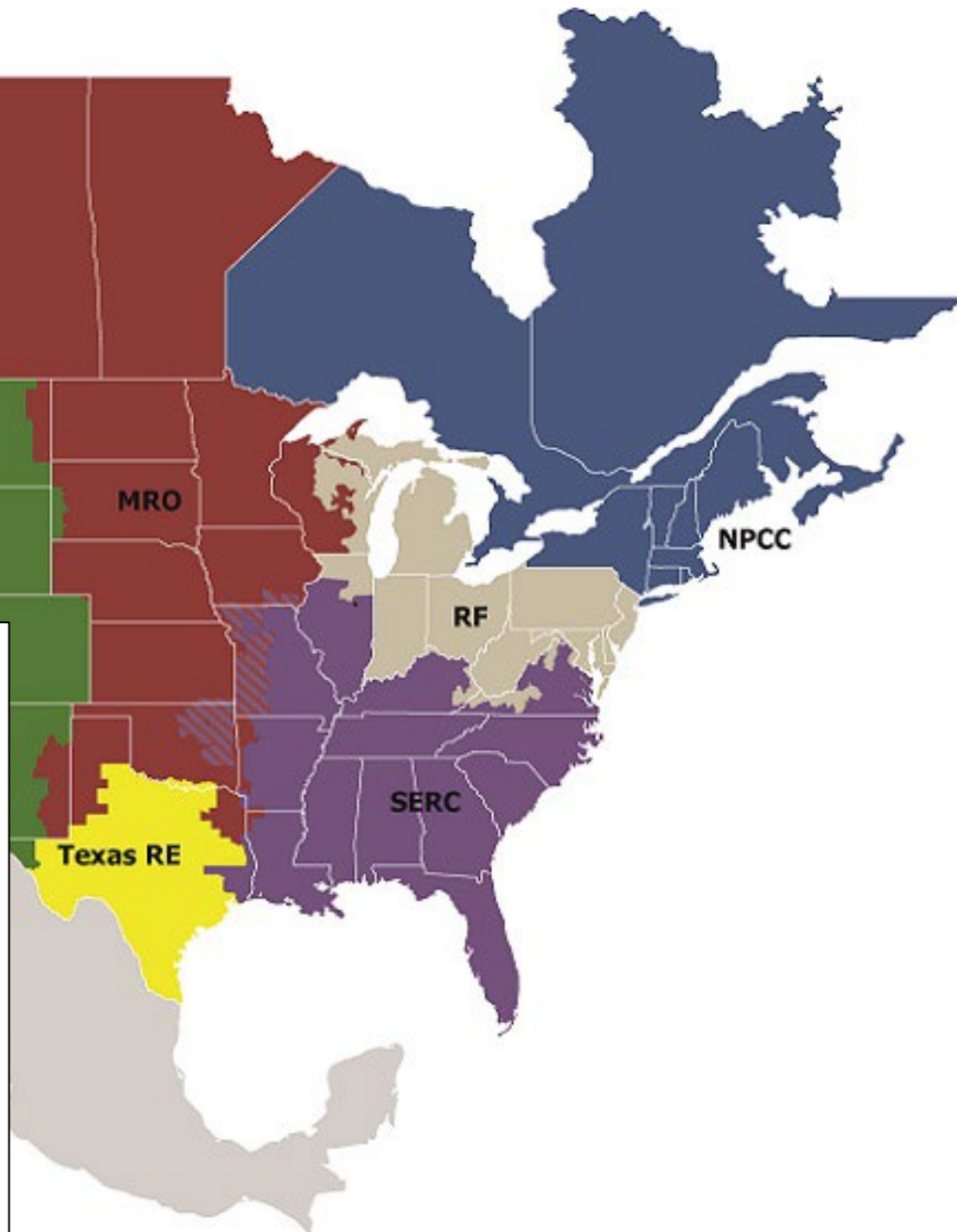


## Reliability 101/201 Series

June 5<sup>th</sup> – June 29<sup>th</sup> ([Flyer](#))

- Reliability 201: CIP, [6/13](#)
- Reliability 101: Foundations of O&P, [6/14](#)
- Reliability 101: Risk-Based Approach, [6/20](#)
- Reliability 201: Improving Self-Reporting, [6/21](#)
- Reliability 101: NERC Data Submissions, [6/22](#)
- Reliability 101: Engagement Submissions, [6/27](#)
- Reliability 201: Reliability Services, [6/29](#)

**Grid Transformation Workshop, [7/20](#)**





## Reliability and Security Monthly Update

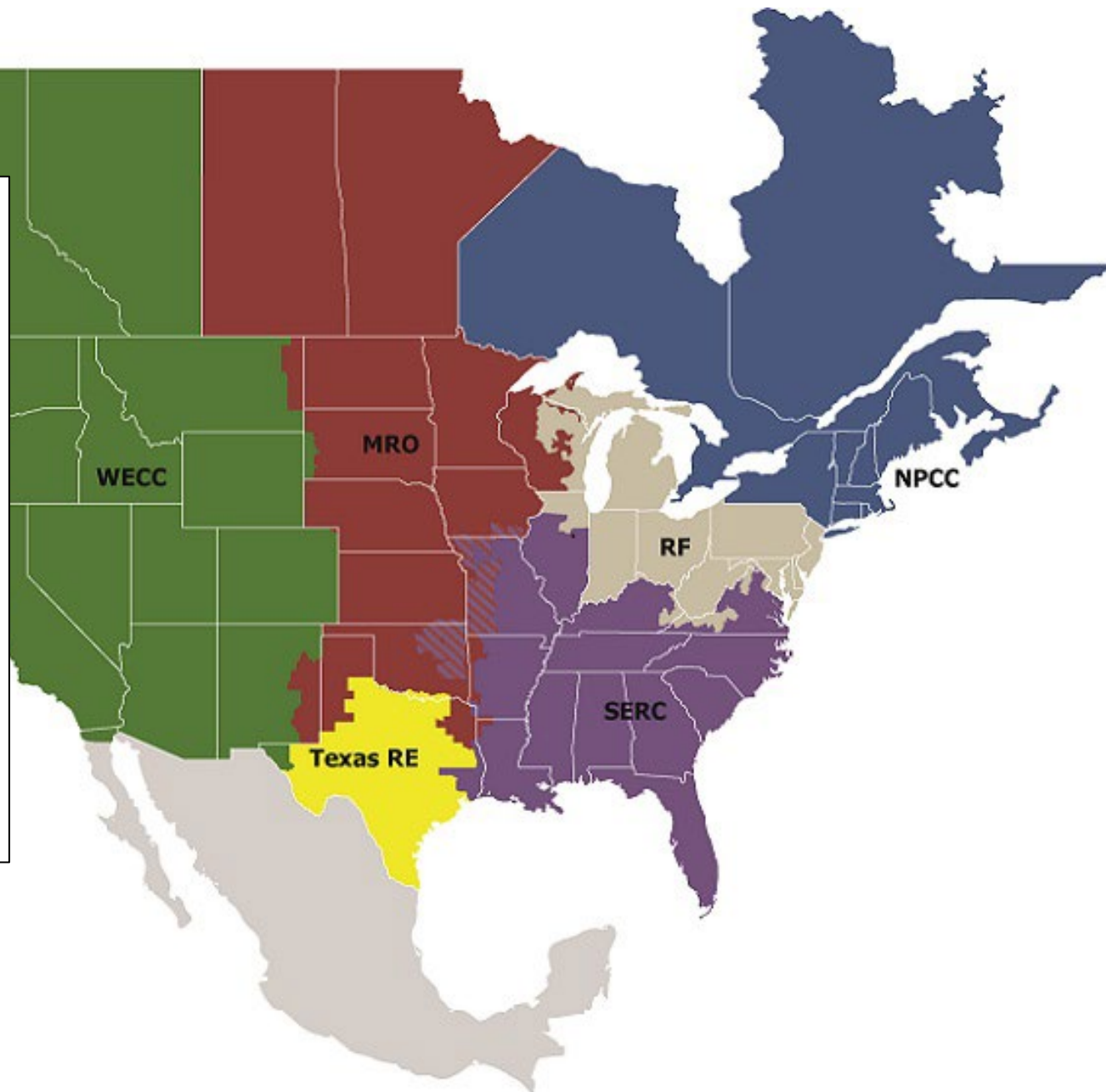
- June 15 ([Link](#))
- NV Energy Align/SEL

## Resource Adequacy Discussion Series

- Past Webinars ([Link](#))

## Power Systems Security Conference

- August 8-10 ([Link](#))



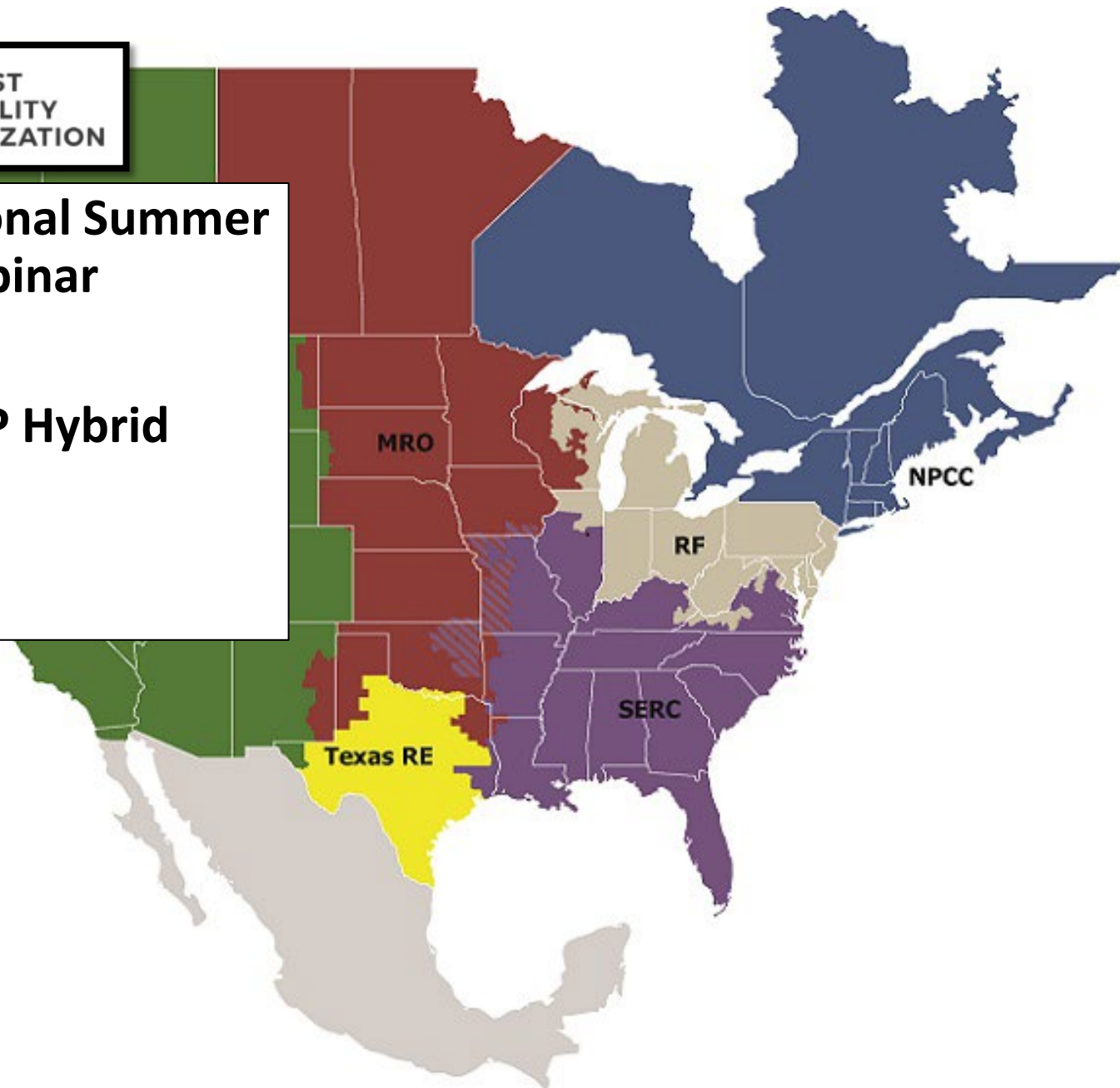


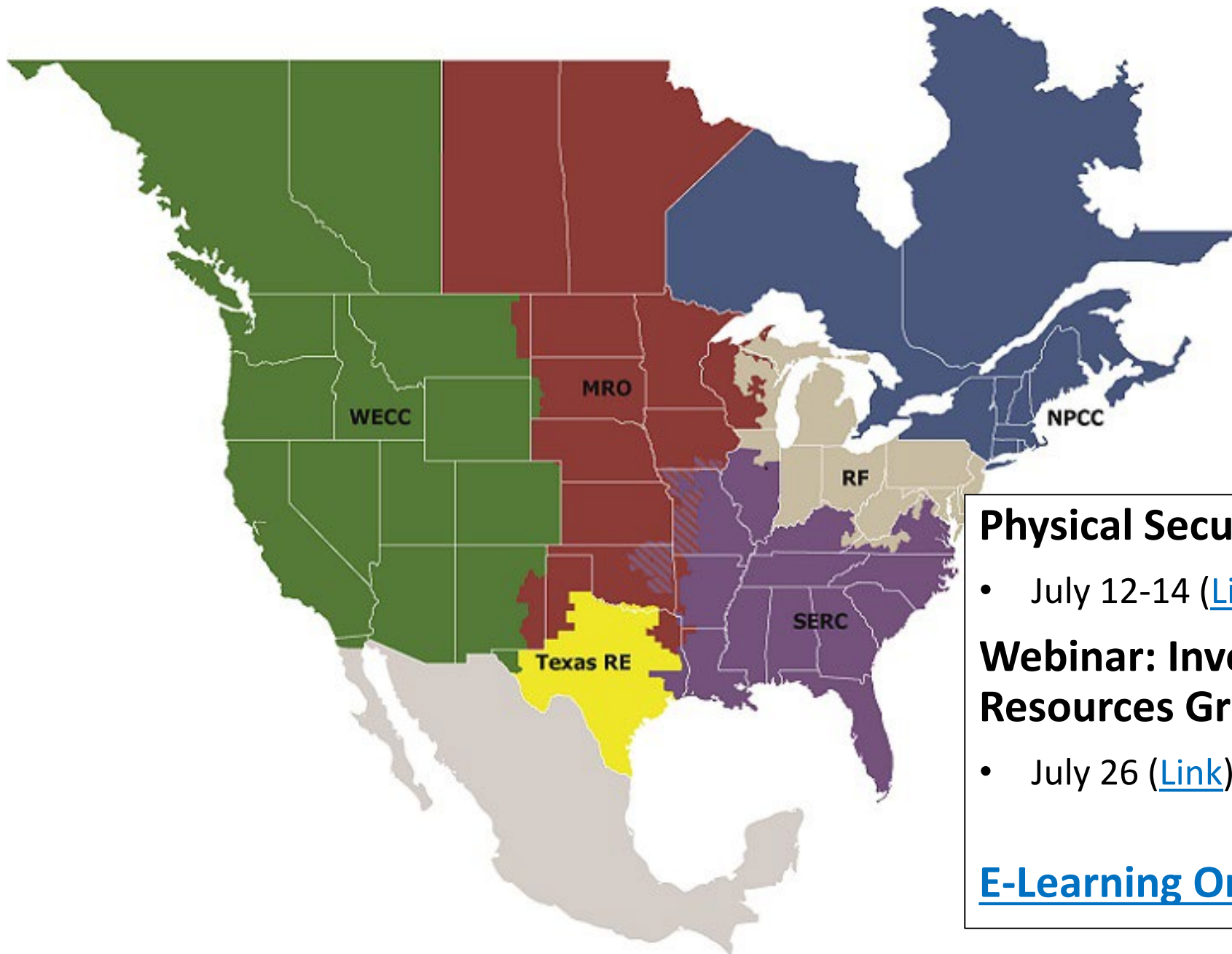
## MRO 2023 Regional Summer Assessment Webinar

- June 29 ([Link](#))

## MRO 2023 CMEP Hybrid Conference

- July 26 ([Link](#))





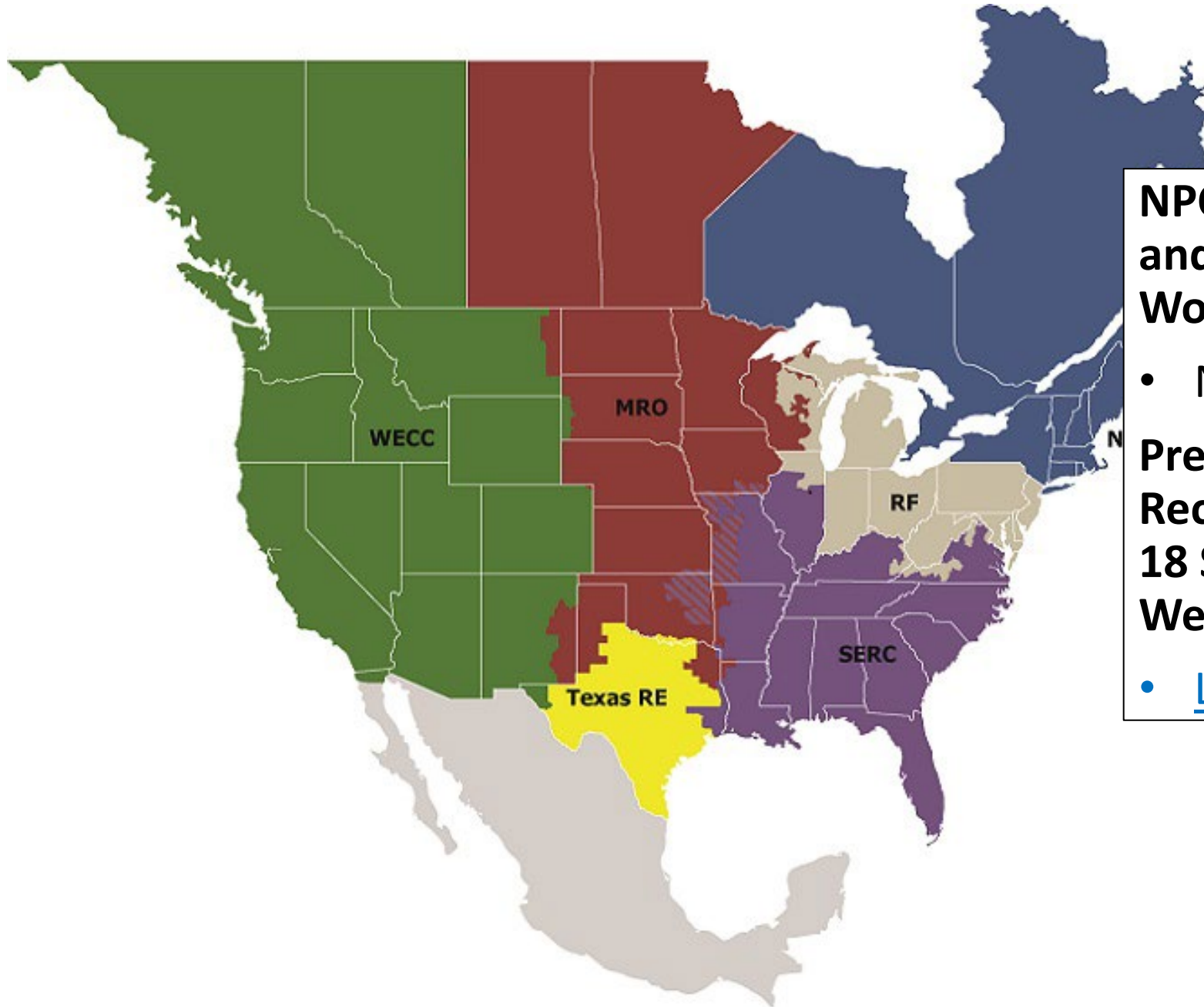
## Physical Security Workshop

- July 12-14 ([Link](#))

## Webinar: Inverter-Based Resources Growth

- July 26 ([Link](#))

[E-Learning Online Courses](#)

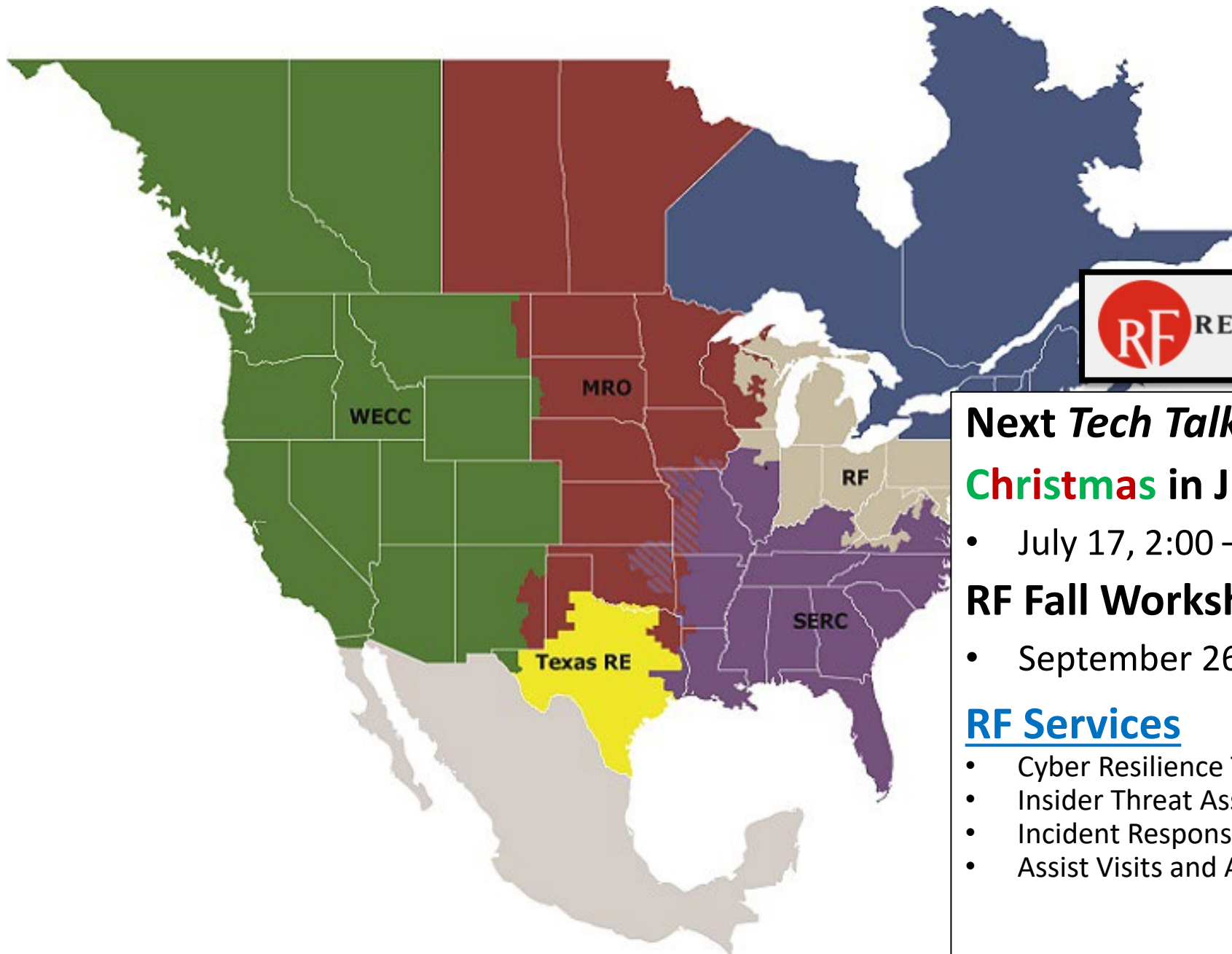


## NPCC Fall Compliance and Reliability Workshop

- November 8 ([Link](#))

## Presentations and Recordings from May 18 Spring Reliability Webinar

- [Link](#)



## Next *Tech Talk with RF*

### Christmas in July

- July 17, 2:00 – 3:30 PM ([Link](#))

### RF Fall Workshop

- September 26-27 ([Link](#))

### RF Services

- Cyber Resilience Tool
- Insider Threat Assessment
- Incident Response Tabletops
- Assist Visits and Appraisals

# ReliabilityFirst Fall Workshop 2023



PUBLIC

Please join us for the 2023 Fall Workshop at the Omni William Penn Hotel in Pittsburgh! On Day One, lunch will be served prior to the start of the workshop, and a reception will follow Tuesday evening. On Day Two, breakfast will be served prior to the start of the workshop and lunch will be served afterward. Please see details below on the topics and speakers planned for the event.

## Day One, Tuesday, Sept. 26, 2023

Topic	Speaker(s)
Welcome	Brian Thiry, Director of External Affairs and Entity Engagement, ReliabilityFirst
Working Together with State Public Utility Commissions amid the Great Energy Transition Human Performance in the Energy Industry	Commissioner Stephen DeFrank, Vice Chairman, Pennsylvania Public Utility Commission Lesley Evancho, Chief Human Resources Officer, EQT and Independent Director, RF Board of Directors
Securing in Small Bytes: Tactically Addressing Cybersecurity in Critical Infrastructure	Matthew E. Luallen, Lead Research Scientist, Information Trust Institute at the University of Illinois, Urbana-Champaign
Parallels and Interdependencies between the Water and Electric Industries	Justin Ladner, President, Pennsylvania American Water
Panel Discussion: Electric Grid Interdependencies with State Government, Natural Gas, Cybersecurity and Water Industries	Host: Kevin Walker, President and CEO, Duquesne Light Holdings, Inc. Panelists: <ul style="list-style-type: none"> <li>• Commissioner Stephen DeFrank, PA PUC</li> <li>• Lesley Evancho, EQT</li> <li>• Matt Luallen, UIUC</li> <li>• Justin Ladner, Pennsylvania American Water</li> </ul>

## Day Two, Wednesday, Sept. 27, 2023

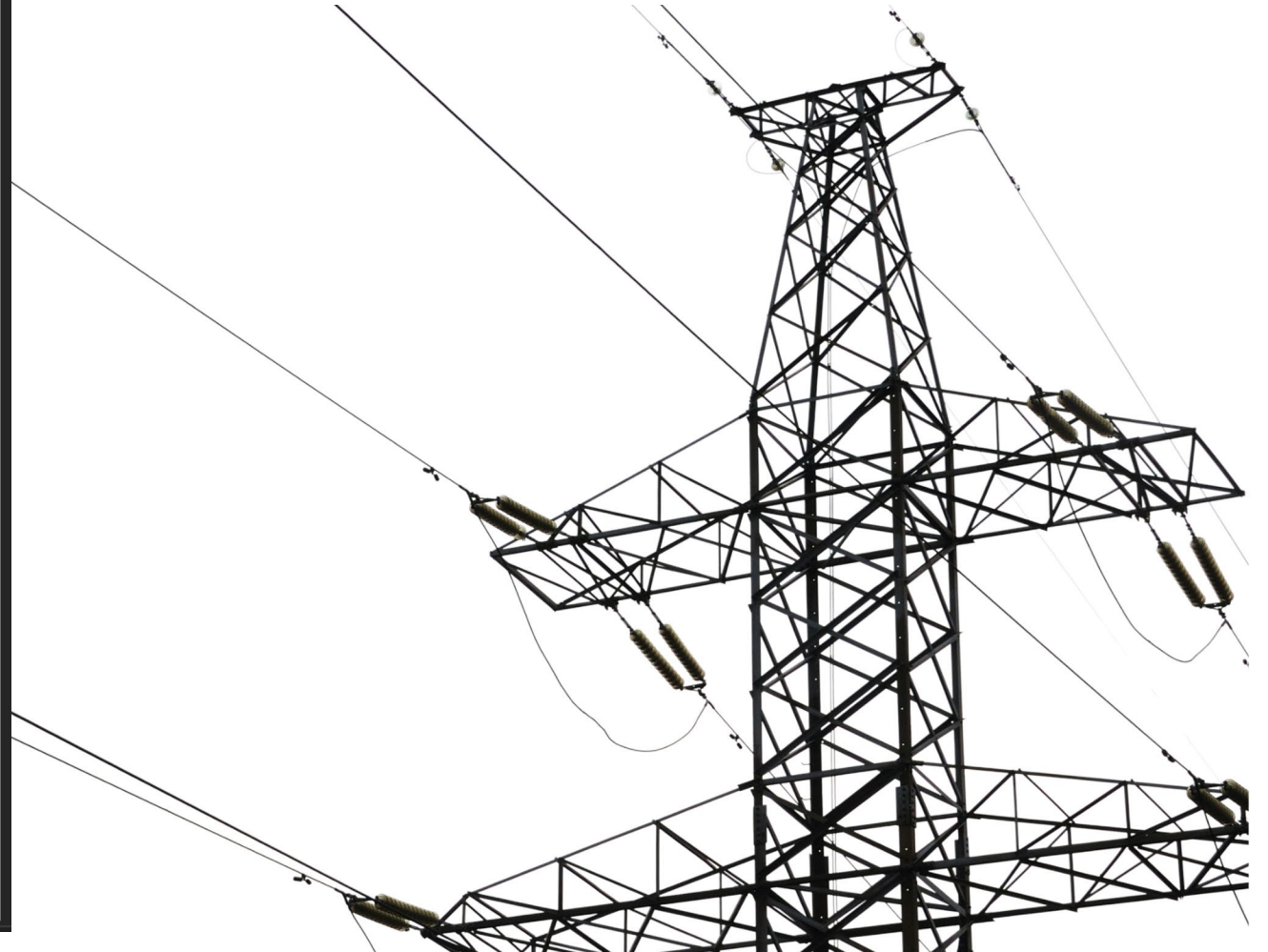
Topic	Speaker(s)
Welcome	Brian Thiry, Director of External Affairs and Entity Engagement, ReliabilityFirst
Federal Energy Regulatory Commission (FERC) Notice of Proposed Rulemaking (NOPR) Updates Updates on NERC Projects	Kal Ayoub, Critical Infrastructure and Resilience Advisor to the Chairman, FERC Latrice Harkness, Director of Standards Development, NERC
The Journey to Building a Successful Internal Controls Program	Talen Energy & DTE Energy
Noncompliance Trends	Max Reisinger, Senior Counsel, ReliabilityFirst
CMEP Updates	RF Staff



# Register Today!

## Sept 26-27 Omni William Penn, Pittsburgh, PA

[Eventbrite Link](#)



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June 12, 2023





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

# TECH TALK REMINDER

Tech Talk with RF announcements are posted on our calendar on [www.rfirst.org](http://www.rfirst.org) under UPCOMING EVENTS



UPCOMING EVENTS [VIEW ALL](#)

June 12, 2023

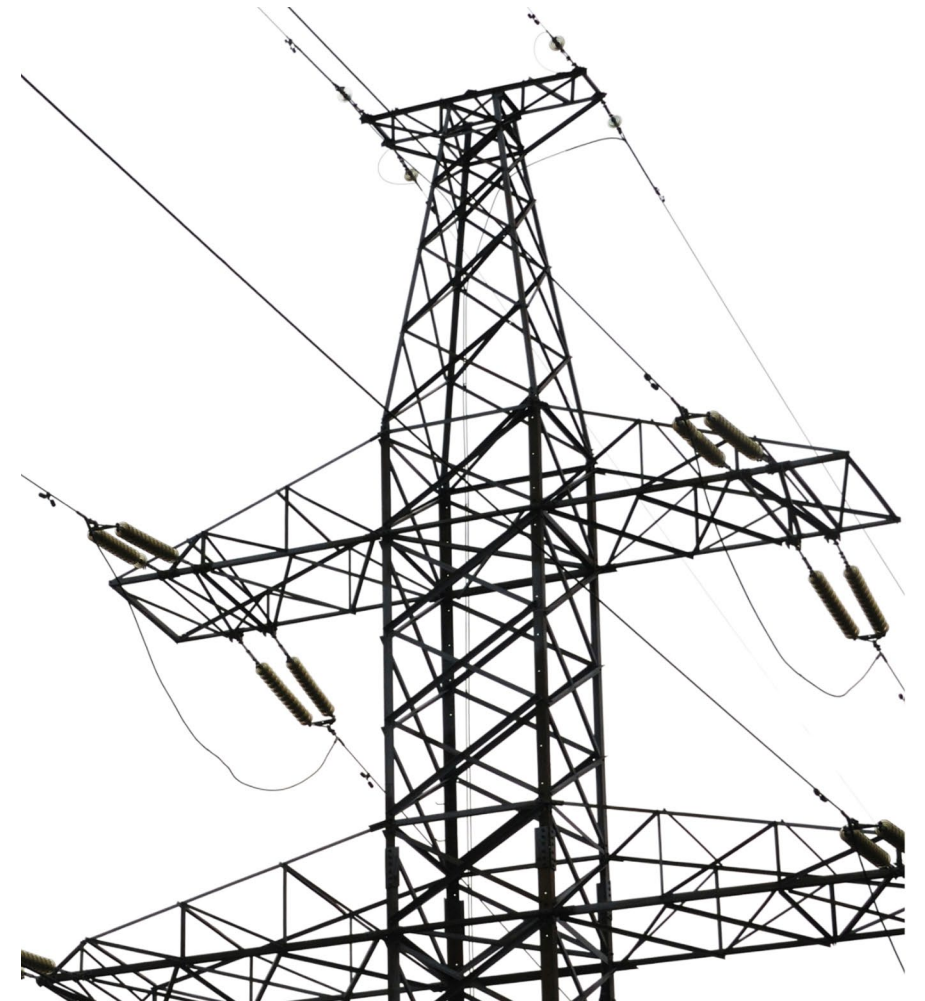
**Technical Talk with RF**



# 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

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## NERC AND RF 2023 SUMMER ASSESSMENTS

- TIM FRYFOGLE, RF
  - Principal Engineer, Engineering and System Performance (ESP)

## VALUE OF EV MANAGED CHARGING TO BPS

- LUKE LAVIN, NREL
  - Researcher III, Grid Planning and Analysis Center

# QUESTIONS & ANSWERS

