

# NERC

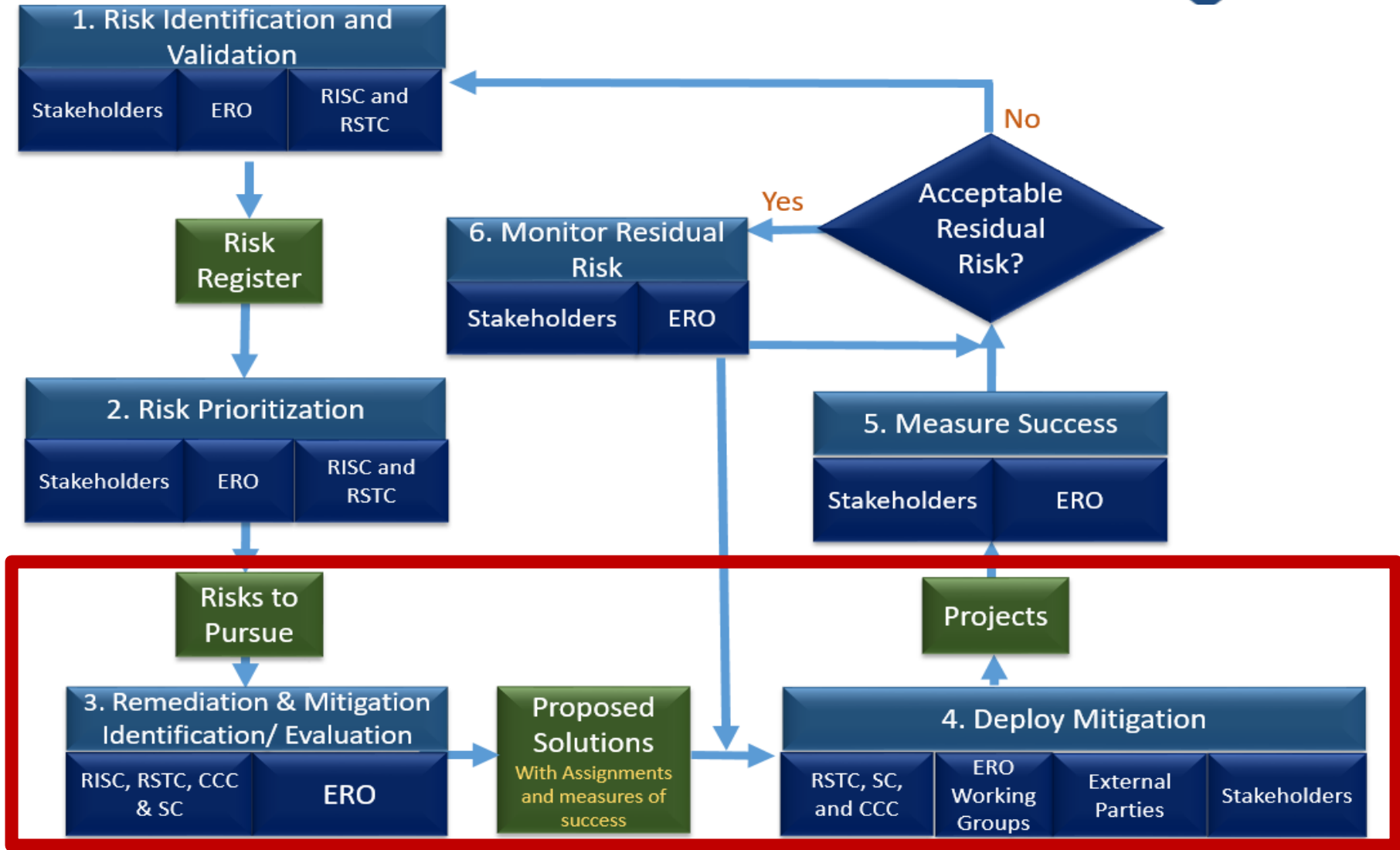
NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## Implementation of ERO Policies, Procedures, and Programs for 2021/2022 Winter Energy Readiness

Mark Lauby, Senior Vice President and Chief Engineer  
Member Representatives Committee Meeting  
August 12, 2021

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- **General support of NERC's efforts to prepare for upcoming winter:**
  - In favor of the ERO Enterprise efforts on preparations for upcoming winter
  - Strong support for filed Cold Weather Reliability Standards
  - Coordination/collaboration encouraged
  - Winter Reliability Assessment will summarize the upcoming seasonal risk

- **Industry concerns:**
  - Alert's administrative burden
  - Tailored approach vs. prescriptive approach is preferred
  - Amount of time available to act before the 2021/2022 winter
  - Lack of jurisdiction over natural gas/fuel supply to generators
  - Market pricing signals must support winter preparation and operation
  - Use of Practice Guides

- **In addition to the items listed above, what other activities would best inform the ERO Enterprise about upcoming winter preparations?**
  - Support for collaboration and building relationships
  - Results from inquiry are highly anticipated
  - Promote early implementation of Cold Weather Standards
  - Assess resource mix issues regards renewables and gas delivery

- **As a result of the reliability assessments, are there specific actions that should be taken by the ERO to address any high risk areas?**
  - Pursue Federal, State and Provincial collaboration towards reliable, resilient, and secure natural gas production and delivery
  - Identify reliance on inter-regional support in Winter Reliability Assessment
  - Focus on resilience in ERO Enterprise Long-Term Strategy
  - Inquire about dual fuel capability of generators
  - Report after this winter with findings

- **Next steps:**

- Level 2 Alert will go to industry after August MRC meeting
- Practice Guide out in August-September timeframe
- Responses are due back by mid-September
- ERO Enterprise will reach out to industry based on results from the Alert September-December timeframe
- Winter Reliability Assessment published early November



# Questions and Answers





# Recent FERC Activities

Andy Dodge  
Director, Office of Electric Reliability  
Federal Energy Regulatory Commission  
August 12, 2021

*The views expressed in this presentation are my own and do not represent those of the Commission or any individual Commissioner*

# Office of Public Participation

- On 06/24/2021, the Commission issued a report on the Office of Public Participation pursuant to a Congressional directive. The report outlines the Commission's work to establish the Office of Public Participation including interim staffing to assist members of the public who wish to learn more about, and participate in, FERC proceedings.
- The establishment of the Office of Public Participation complies with the congressional directive set forth in Section 319 of the Federal Power Act and follows months-long outreach efforts during which the Commission hosted six listening sessions, a full-day virtual Commissioner-led workshop, and a public comment period.
- The Commission intends to hire the Office Director and Deputy by the end of fiscal year 2021. During fiscal year 2022, OPP's initial operations are expected to provide support to the public on education, outreach, and assistance. OPP will also advise on an intervenor funding rulemaking.
- OPP is expected to reach full operating capacity by fiscal year 2024.
- <https://www.ferc.gov/news-events/news/ferc-establishes-office-public-participation>

# Recent White Papers

## FERC and ERO Enterprise Joint Report on Real-Time Assessment, 7/8/2021

- The report outlines recommendations and observed beneficial practices entities can use for real-time assessments to ensure reliability of the Bulk Electric System.
- Review focused on strategies and techniques used by Reliability Coordinators and Transmission Operators to perform these assessments following a loss or degradation of data or tools used to maintain situational awareness.
- This report addresses seven technical areas related to Real-time Assessments, and includes observations, conclusions, and recommendations for each topic. Within the seven technical areas, team's recommendations focus on the following issues and objectives:
  - Maintaining situational awareness when tools are impacted.
  - Ensuring actions are known and consistent in timing and scope.
  - Having feasible, accurate backup plans with related training programs.
  - Establishing verification procedures to ensure that models are accurate.
  - Maintaining awareness of changes to the EMS.
- <https://www.ferc.gov/media/ferc-and-ero-enterprise-joint-report-real-time-assessments>

# Recent White Papers

## **FERC and ERO Enterprise Joint Staff Report on SolarWinds and Related Supply Chain Compromise, issued 7/7/2021**

- Emphasized the need for continued vigilance by the electricity industry related to supply chain compromises and incidents.
- Focused primarily on the ongoing cyber event related to the SolarWinds Orion platform and the related Microsoft's 365 / Azure Cloud Compromise. It also addressed related compromises in products, such as Pulse Connect Secure, Microsoft's on-premise Exchange servers and F5's BIG-IP.
- Recommends specific cybersecurity mitigation actions to better ensure the security of the Bulk-Power System and that electric industry stakeholders fully consider the available diagnostics and mitigation measures to effectively address the software compromise.
- Recommends entities consider reviewing both CISA Alerts and Directives. The CISA Alerts and Directives provide specific mitigation actions set forth in the document including: disconnecting affected systems, conducting deep forensics, performing risk analyses, and consulting with CISA before reconnecting affected systems.

<https://www.nerc.com/pa/CI/ESISAC/Documents/SolarWinds%20and%20Related%20Supply%20Chain%20Compromise%20White%20Paper.pdf>

# Technical Conferences and Workshops

## **Electrification and the Grid of the Future**

Docket No. AD21-12-000. Held 4/29/2021.

- Purpose of the conference was to initiate a dialog between Commissioners and stakeholders on how to prepare for an increasingly electrified future and discuss the shift from non-electric to electric sources of energy at the point of final consumption (e.g., to fuel vehicles, heat and cool homes and businesses, and provide process heat at industrial facilities).
- Post-Technical Conference Comments were received on 7/1/2021 and are under review.

# Technical Conferences

## **Climate Change, Extreme Weather, and Electric System Reliability**

Docket No. AD21-13-000. Was held on 6/1-2/2021.

- Purpose of the conference was to discuss issues surrounding the threat to electric system reliability posed by climate change and extreme weather events, which are increasing in frequency, intensity, geographic expanse, and duration. It also examined how grid operators prepare for and respond to extreme weather events, including, but not limited to droughts, extreme cold, wildfires, hurricanes, and prolonged heat waves.
- Comments were due 4/15/21. Staff is reviewing the comments.

## **Western Resource Adequacy Conference**

Docket No. AD21-14-000. Was held on 6/23-24/2021.

- Purpose of the conference was to discuss resource adequacy developments in the Western Interconnection from varied regional perspectives to discuss challenges, trends, and possible ways to continue to ensure resource adequacy in the Western Interconnection.

# Technical Conferences and Workshops

## **Workshop on shared savings incentives for transmission technologies**

Docket No. RM20-10-000 and AD19-19. To be held on 9/10/2021.

- Purpose of this workshop is to discuss shared savings incentives for transmission technologies (focusing on advanced line rating management, transmission topology optimization, and power flow control).
- Notice of workshop issued 4/15/21.

## **Modernizing Electricity Market Design Technical Conference**

Docket No. AD21-10-000. To be held on 9/14/2021 and 10/12/21.

- The Commission will convene two staff-led technical conferences regarding energy and ancillary services markets administered by RTOs and ISOs.
- The purpose is to discuss potential energy and ancillary services market reforms, such as market reforms to increase operational flexibility that may be needed as the resource fleet and load profiles change over time.

# Commissioner-led Reliability Conference

## **Reliability Technical Conference**

Docket No. AD21-11-000. To be held on 9/30/2021.

- Purpose of the conference is to discuss policy issues related to the reliability of the Bulk-Power System. Supplemental notice on agenda to be issued in the future.
- The Commission issued a Notice on 3/5/2021.



# Joint Inquiry into 2021 Cold Weather Grid Operations

- On 2/16/2021, FERC and NERC announced a joint inquiry into the operations of the Bulk-Power System during the extreme winter weather conditions experienced by the Midwest and Southern Central states. The severe cold weather contributed to power outages affecting millions of electricity customers throughout the region.
- FERC and NERC worked with other federal agencies, states, regional entities and utilities to identify problems with the performance of the Bulk-Power System and, where appropriate, make recommendations for addressing those issues.
- Team is composed of nearly 50 subject-matter experts from FERC, NERC and all six Regional Entities.
- Team has largely completed data gathering and is analyzing data for purposes of making findings, recommendations and drafting the report.
- Commission expects to present summary of key findings and recommendations in advance of this winter season to aid in preparedness.
- Report anticipated late Fall 2021.

# Cold Weather

## **Petition for Approval of Proposed Cold Weather Reliability Standards: EOP-011-2 (Emergency Preparedness), IRO-010-4 (Reliability Coordinator Data Specification and Collection), and TOP-003-5 (Operational Reliability Data), Docket No. RD21-5-000**

- On 6/17/2021, NERC submitted its proposed Cold Weather Reliability Standards.
- In its Petition, NERC states that the proposed Cold Weather Reliability Standards would advance reliability by requiring generators to implement plans for cold weather preparedness. Additionally, they would require the exchange of information related to a generator's capability to operate.
- Also in its Petition, NERC states the proposed standards address recommendations arising from FERC and NERC Staff's report on the causes of the January 17, 2018 Cold Weather Event affecting the south-central United States.
- Comments were due 7/29/2021. Staff is reviewing the petition and comments.

# Recent Reliability Orders

## **Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, Docket No. RM21-17-000.**

- On 7/15/2021, the Commission issued an Advance Notice of Proposed Rulemaking presenting potential reforms to improve the electric regional transmission planning and cost allocation and generator interconnection processes.
- The Commission believes proactively planning for transmission needs of the changing resource mix may be necessary to ensure that transmission rates remain just and reasonable and not unduly discriminatory or preferential.
- A forward-looking, more comprehensive approach to transmission planning and cost allocation can identify more efficient or cost-effective solutions for meeting future transmission needs and may ultimately produce more benefits for transmission customers while also reducing transmission costs relative to a status quo in which the same transmission needs are solved using piecemeal, shorter-term investments.
- The Commission invites comments on the potential reforms and responses to the specific questions. Comments are due 10/12/2021 and Reply comments are due 11/9/2021.

# FERC NARUC Joint Task Force on Transmission (2)

- On 6/17/2021 the Joint Task Force was announced in Docket No. AD21-15-000.
- Members will explore transmission-related issues to identify and realize the benefits of transmission while ensuring that the costs are allocated efficiently and fairly.
- Order requests NARUC nominate up to 10 state regulators for the task force.
- All task force meetings will be open to the public and will provide opportunity for comment on the record under Docket No. AD21-15.
- The Joint Task Force plans to hold it's first meeting in Fall 2021.
- <https://www.ferc.gov/media/e-1-ad21-15-000>

- Thank you!
- Questions?

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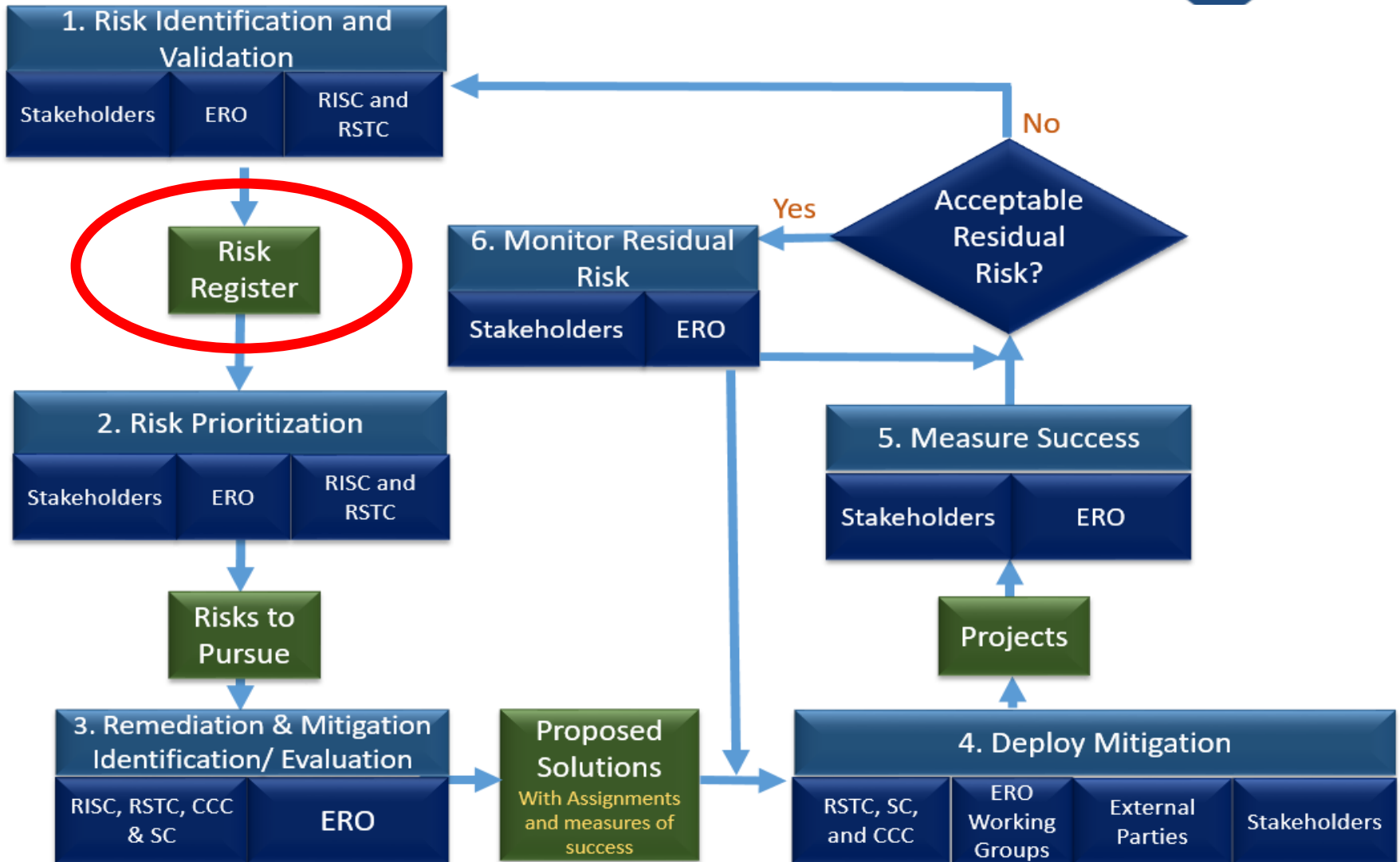
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# Risk Registry

Soo Jin Kim, Director of PRISM  
Member Representatives Committee Meeting  
August 12, 2021

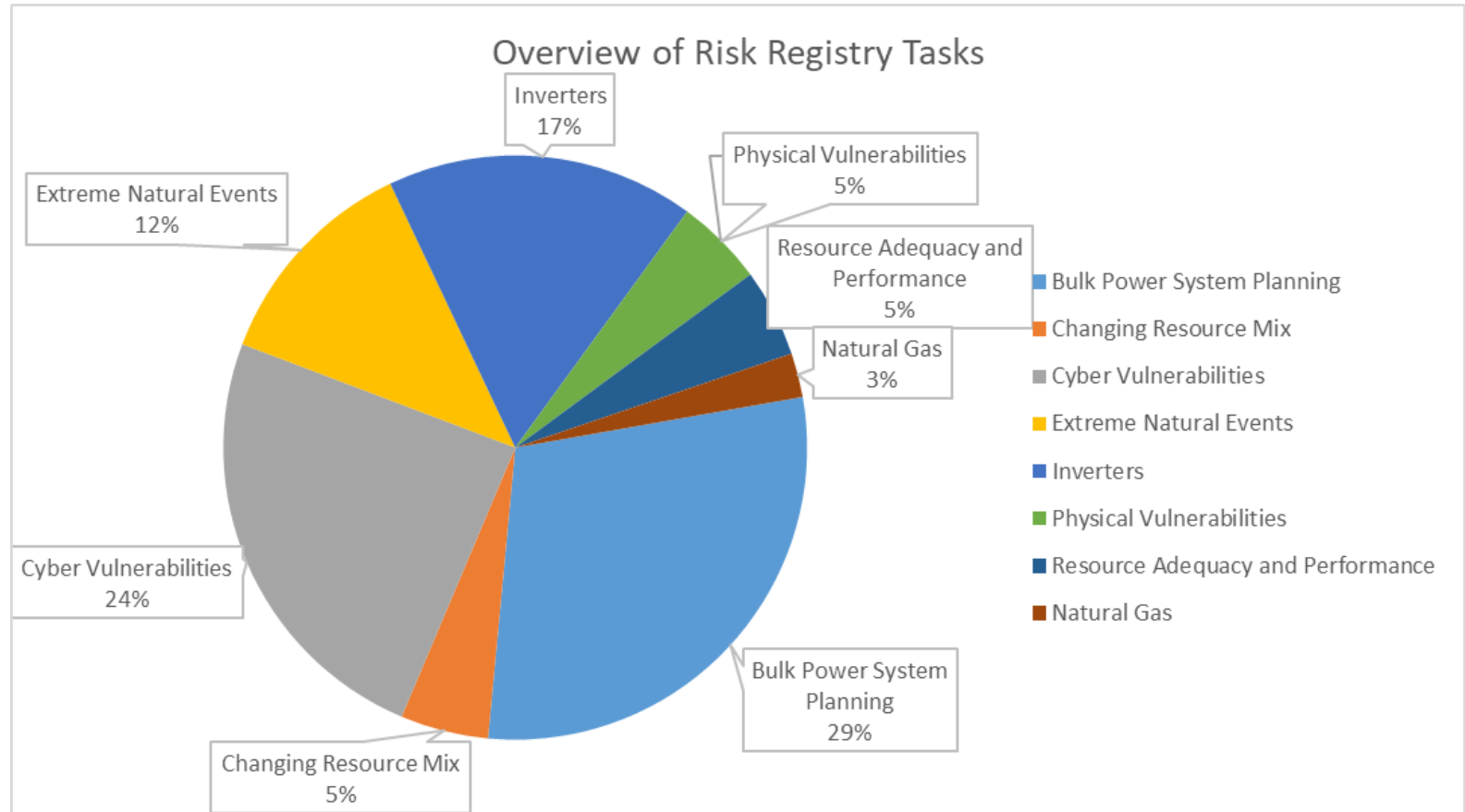
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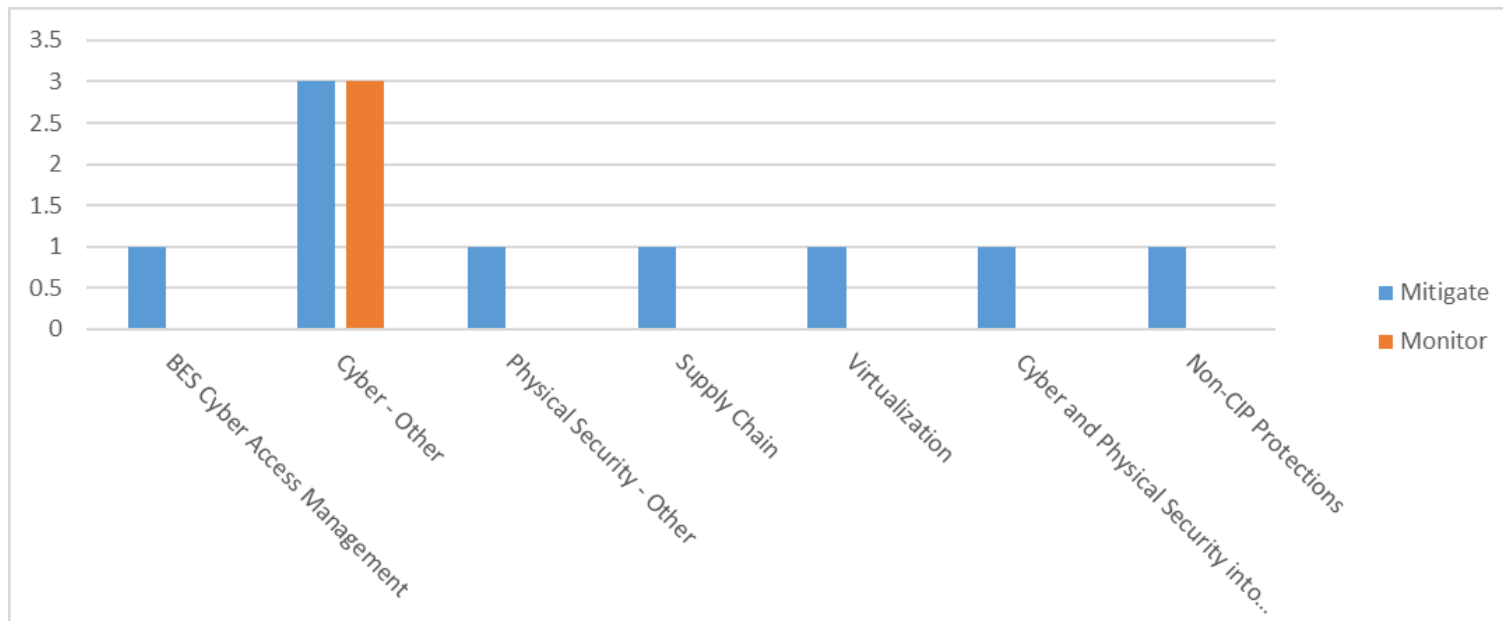


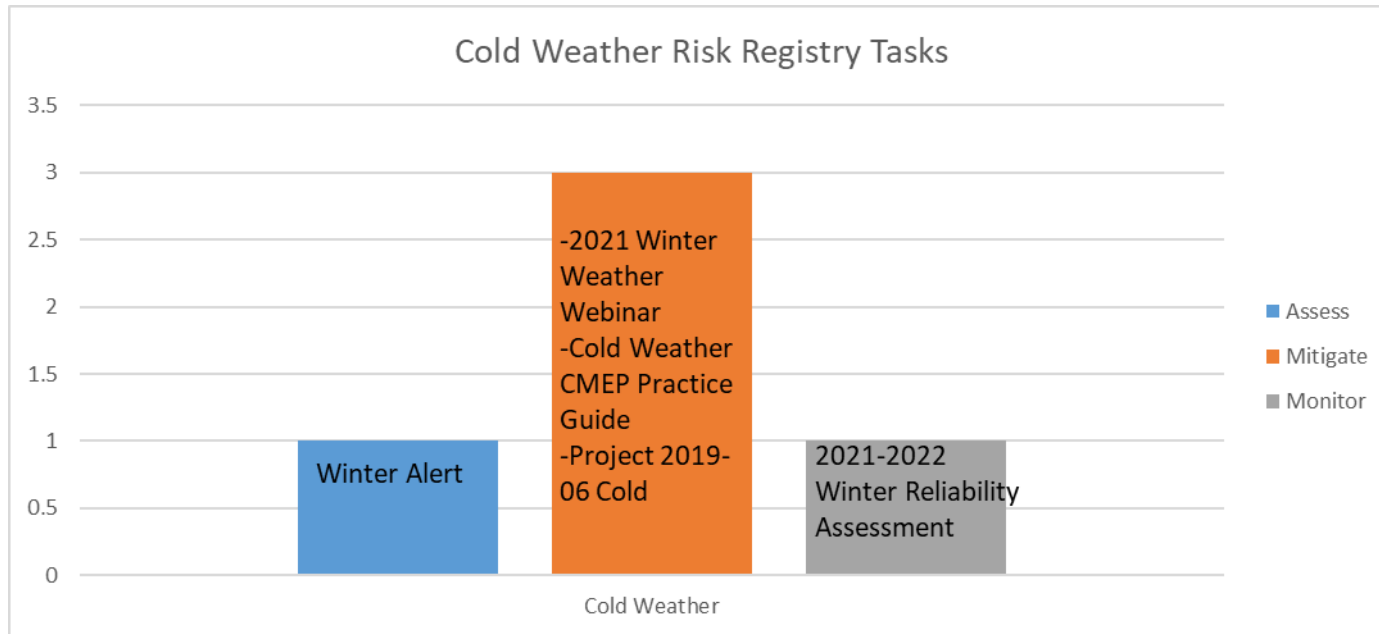


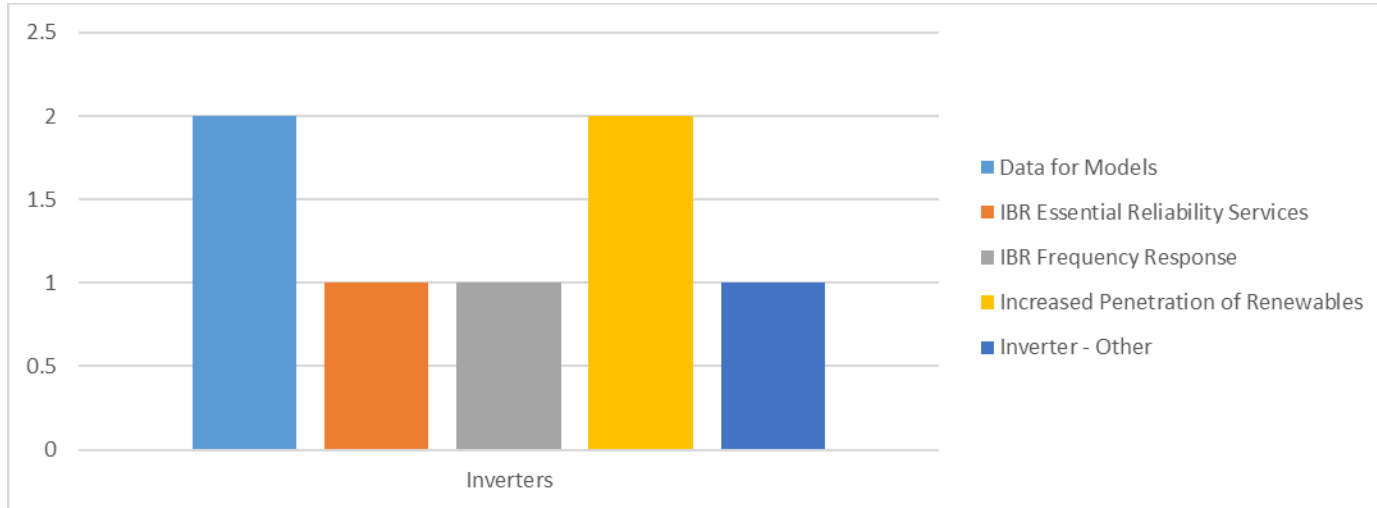


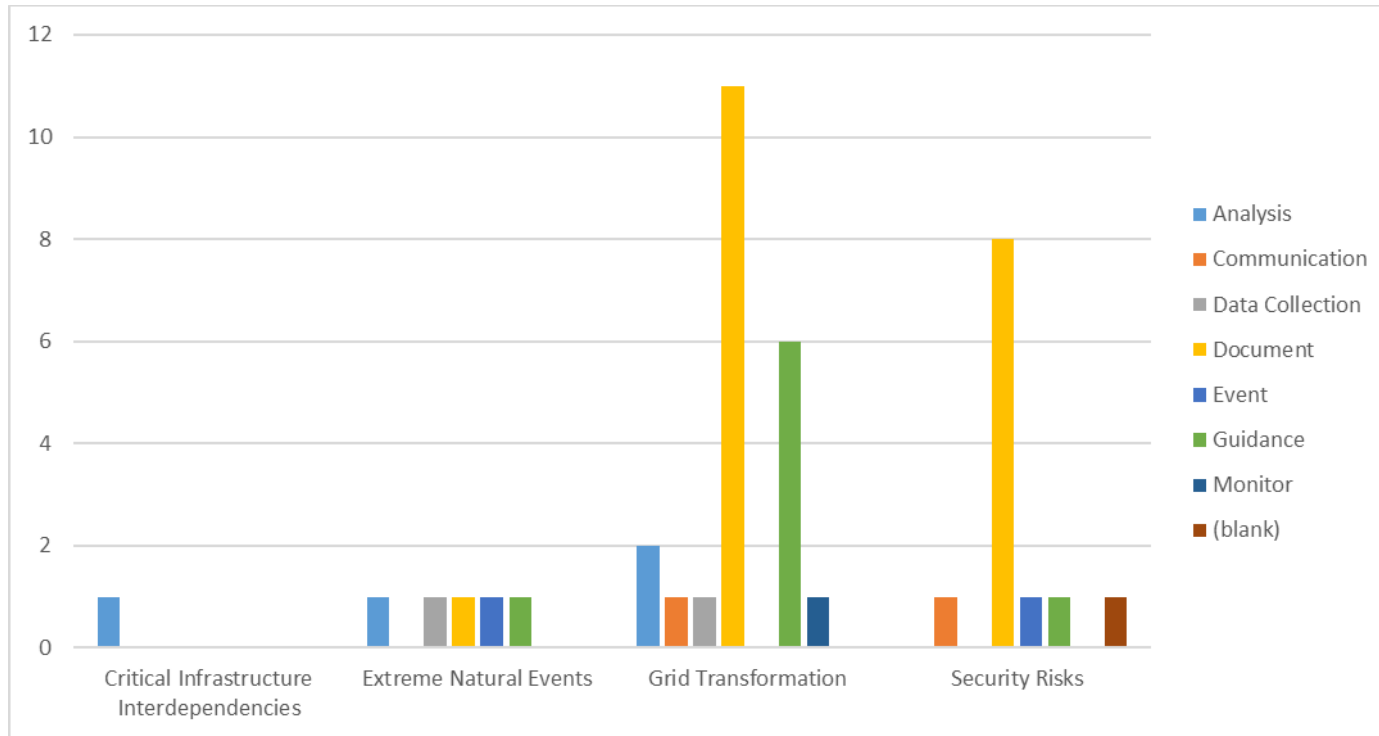
- Energy Adequacy
- Security Risks (Cyber and Physical)
- Extreme Events (including Cold Weather)
- Inverters

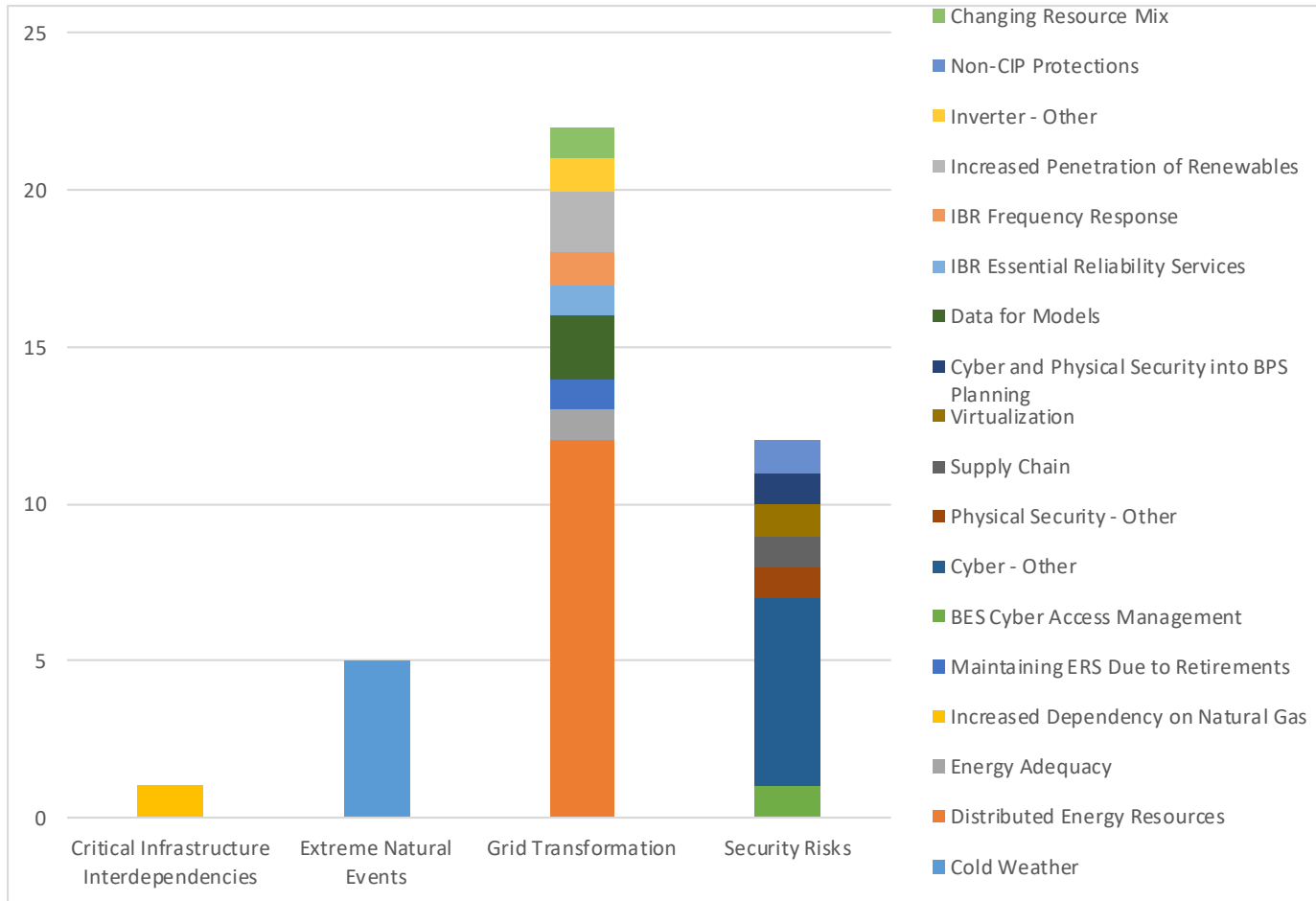
- Probabilistic Analysis Forum
- Energy Reliability Assessment Task Force (ERATF)
- Gas-Electric Planning Basis (N-1)



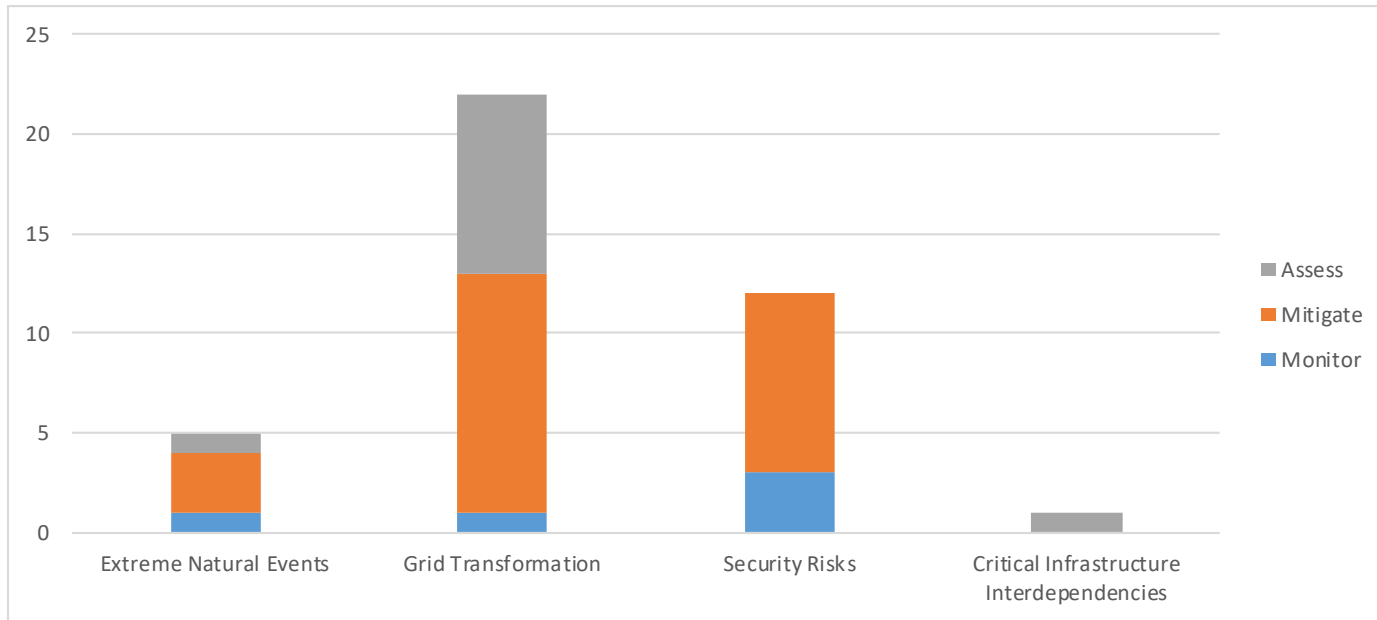














# Questions and Answers

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# Bulk Power System Awareness

## Situational Awareness 2021

Darrell Moore, Director

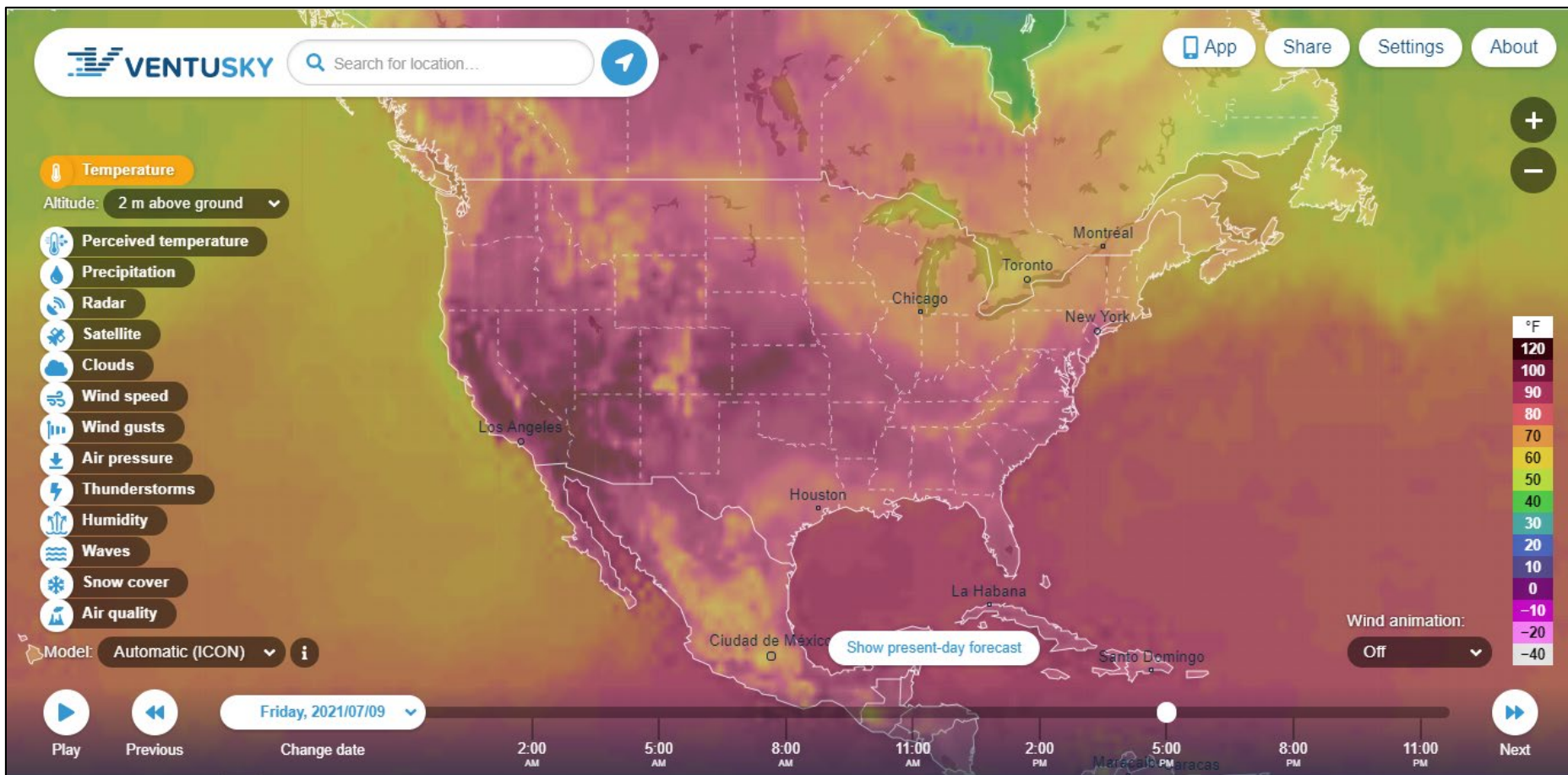
Bulk Power System Awareness and Personnel Certifications

Member Representatives Committee Meeting

August 12, 2021

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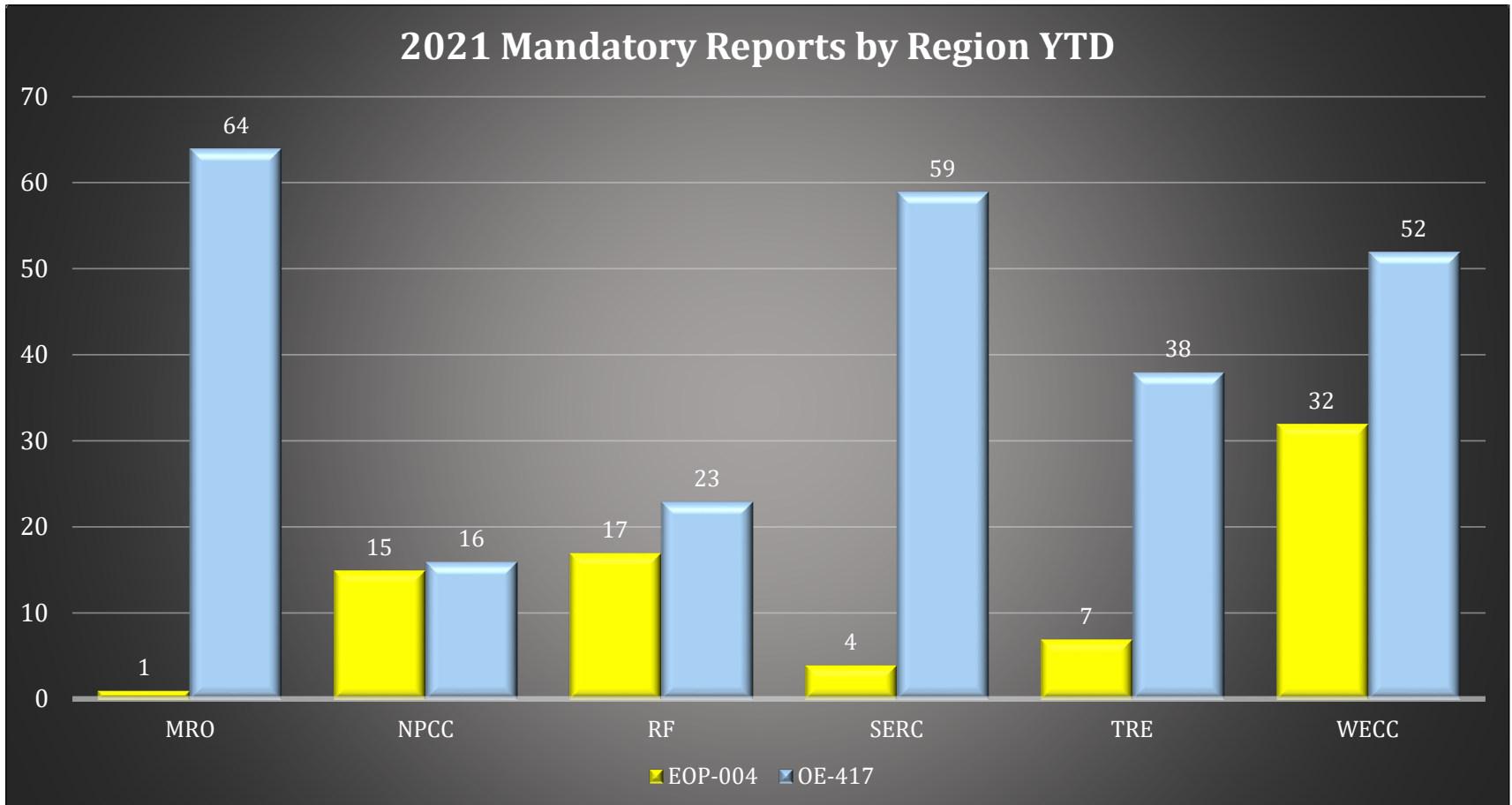




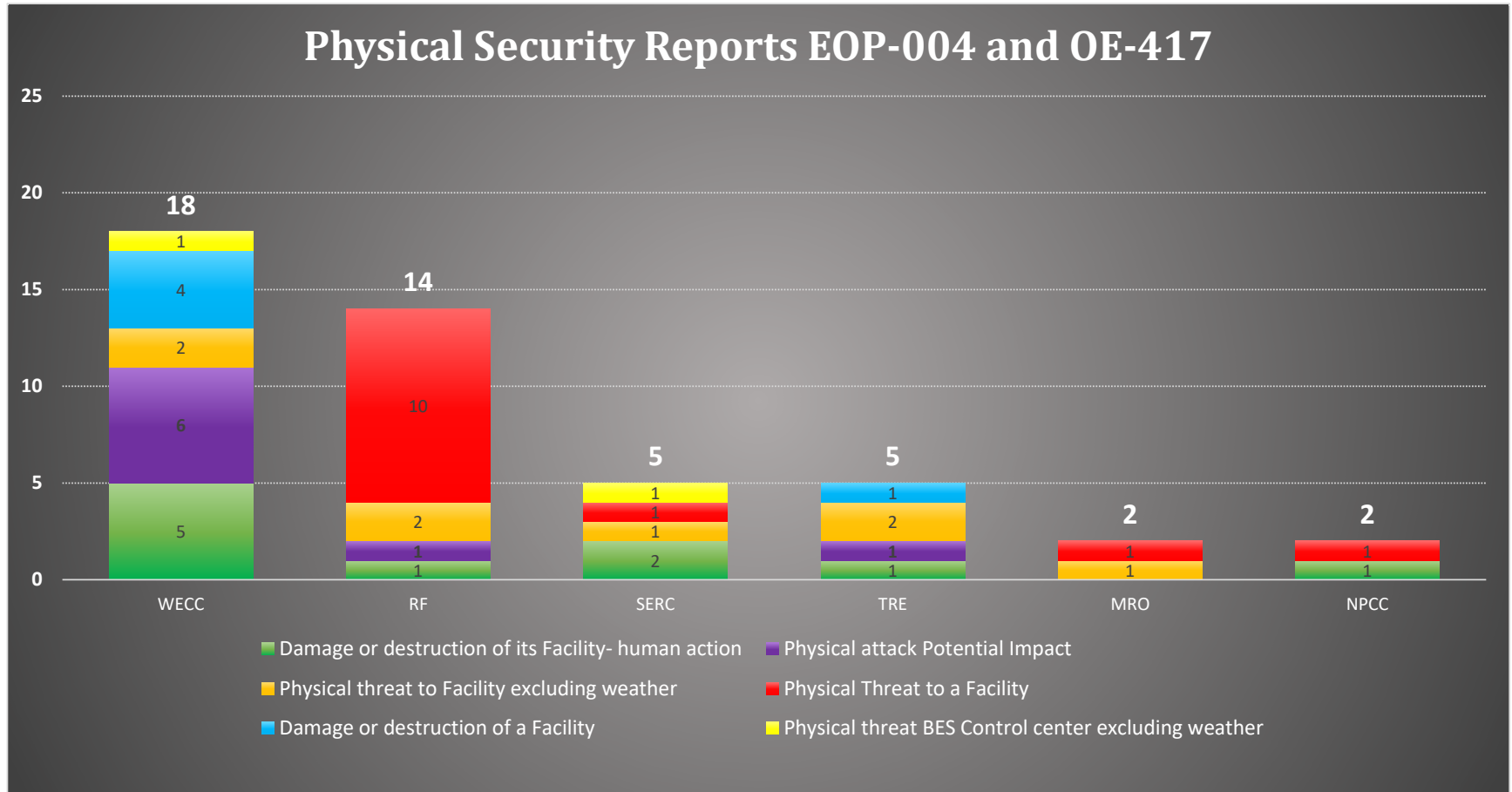
- Registered Entities
  - Suspended unnecessary maintenance
  - Maintained system stability
    - Supported fire fighting efforts
    - Conformed to import transfer limits
    - Balanced resources
    - Shed ~810 MW of interruptible load
  - Anticipated emergency actions and poised operations to shed firm load
    - EEA-3 declared for CAISO, NEVP, BANC
  - Kept public informed, issued public appeals
- Government Officials
  - Declared State of Emergency which freed up regulated capacity ~700 MW
- Public conservation



## All EOP-004 and OE-417 Reports

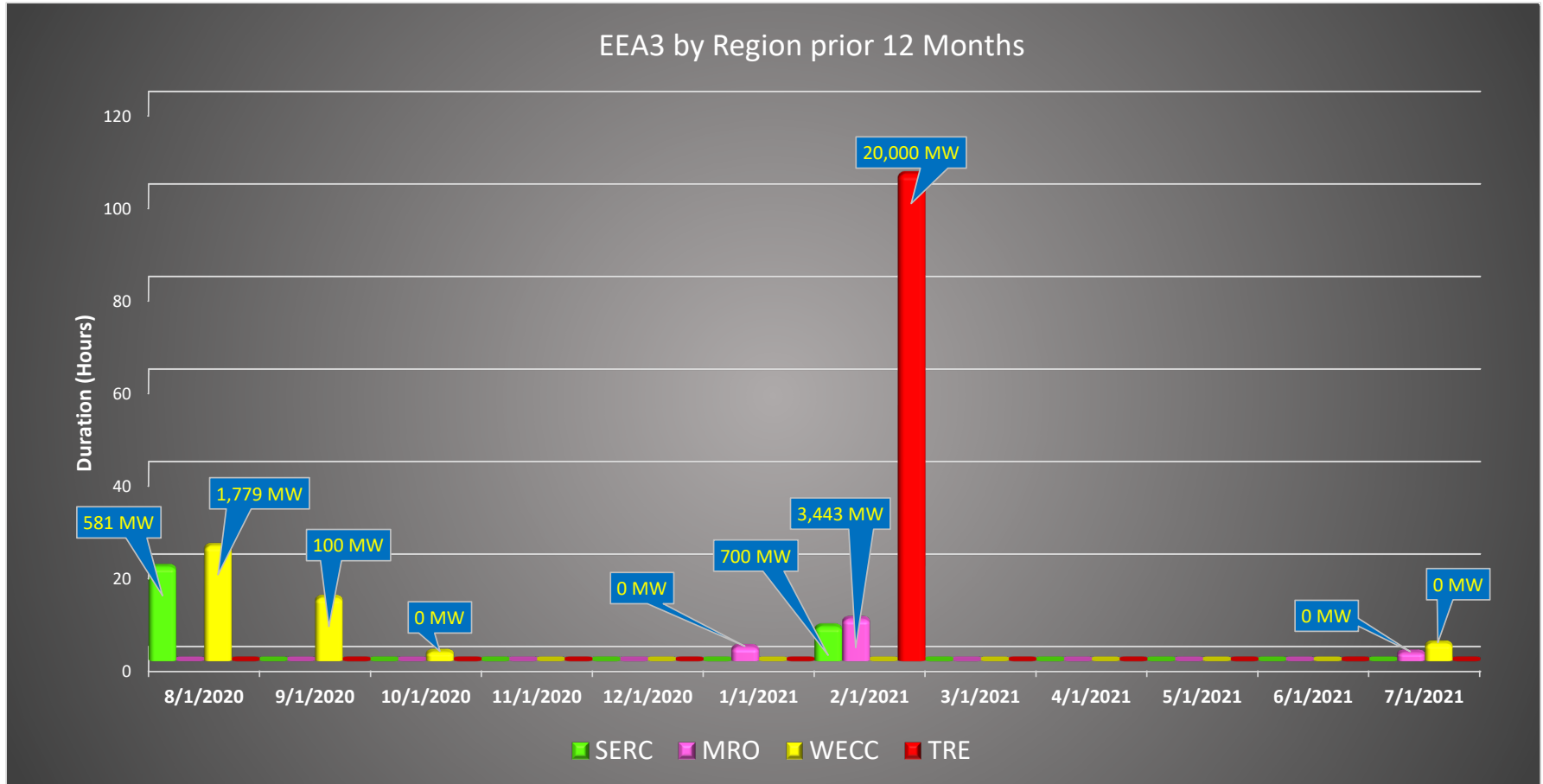


## Physical Security Reports EOP-004 and OE-417





## EEA3 reports – 12 month view





# Questions and Answers