



RELIABILITY FIRST

Agenda

Board of Directors • Compliance Committee

December 6, 2023 • 1:00 PM – 3:00 PM (ET)

Market Square Conference Center**Concourse Level****801 Pennsylvania Ave. NW****Washington, DC 20004****Room: TBD****Attire: Business**

Open Agenda

- 1. Call to Order and Appoint Secretary to Record Minutes**
Presenter: Joanna Burkey, Chair
- 2. Antitrust Statement**
Presenter: Joanna Burkey, Chair
- 3. Approve Compliance Committee Meeting Minutes**
Presenter: Joanna Burkey, Chair
Reference: [Draft Minutes for the August 23, 2023 Compliance Committee Meeting](#)
Action: [Approve Minutes](#)
- 4. Compliance Monitoring Update**
Presenter: Matt Thomas, Director Compliance Monitoring
Description: Mr. Thomas will lead a discussion regarding monitoring activities, including focus areas for 2024.
Reference: [Presentation](#)
Action: Information and Discussion
- 5. Enforcement Update**
Presenter: Kristen Senk, Director Legal and Enforcement
Description: Ms. Senk will provide an update of enforcement activities, including oversight activities and high-risk focus areas.
Reference: [Presentation](#)
Action: Information and Discussion
- 6. Registration Trends**
Presenter: Jeff Craigo, Senior Vice President Reliability and Risk
Description: Mr. Craigo will review the status of compliance registry for Registered Entities in the RF Region, which is a topic the Compliance Committee reviews annually pursuant to the Compliance Committee Charter.
Reference: [Presentation](#)
Action: Information and Discussion

7. CIP Low Impact Oversight

Presenter: Zack Brinkman, Manager, Critical Infrastructure Protection Monitoring
Description: Mr. Brinkman will discuss RF's monitoring approach for low impact entities, as well as trends and themes RF is observing in its oversight.
Reference: [Presentation](#)
Action: Information and Discussion

8. Winterization Visits

Presenter: Brian Thiry, Director Entity Engagement
Description: Mr. Thiry will provide an update on RF's voluntary winterization outreach program including the scheduled site visits to prepare for the 2023-2024 winter season.
Reference: [Presentation](#)
Action: Information and Discussion

9. Evaluation of the Committee's Performance

Presenter: Matt Thomas, Director Compliance Monitoring
Description: Mr. Thomas will lead the annual review of the Compliance Committee's Performance of Specific Duties for 2023.
Reference: [Summary of Performance of Specific Duties for 2023](#)
Action: [Accept Summary of Performance of Specific Duties for 2023](#)

10. Next Meeting

- TBD

Closed Agenda**11. Confidential Compliance and Enforcement Matters**

Presenter: Kristen Senk and Matt Thomas
Description: Ms. Senk and Mr. Thomas will present confidential matters.
Reference: Confidential Documents
Action: Information and Discussion

12. Adjourn

Roster • Compliance Committee

Joanna Burkey, **Chair** • Independent (2025)
Patrick Cass, **Vice Chair** • Lead Independent (2023)
Lesley Evancho • Independent (2025)
Courtney Geduldig • Independent (2024)
Jason Marshall • S-LSE (2023)
Ken Seiler • RTO (2024)
Simon Whitelocke • At-Large (2024)

Draft Minutes for the August 23, 2023 Compliance Committee Meeting



RELIABILITY FIRST

PUBLIC

DRAFT - Minutes

Board of Directors • Compliance Committee

August 23, 2023 • 1:00 PM – 3:00 PM (ET)

ReliabilityFirst Corporation
3 Summit Park Drive
Cleveland, OH 44131

Open Session

Call to Order – Chair Joanna Burkey called to order a duly noticed open meeting of the Compliance Committee (Committee) on August 23, 2023, at 1:01 pm (ET). A quorum was present*, consisting of the following members of the Committee: Joanna Burkey, Chair; Patrick Cass, Vice Chair; Lesley Evancho; Jason Marshall; Ken Seiler; and Simon Whitelocke. A list of others present during the Committee meeting is set forth in Attachment A.

***Note** – Three of the four independent directors were present. Ms. Geduldig was provided materials and updates, and during the meeting the stakeholder vote of Simon Whitelocke was not counted so that the independent directors maintained majority vote.

Appoint Secretary to Record Minutes – Chair Burkey designated Niki Schaefer, ReliabilityFirst's (RF) Vice President and General Counsel, as the secretary to record the meeting minutes.

Antitrust Statement – Chair Burkey advised all present that this meeting is subject to, and all attendees must adhere to, RF's Antitrust Compliance Guidelines.

Approve Compliance Committee Meeting Minutes – Chair Burkey presented draft minutes for the April 26, 2023 Committee meeting, which were included with the agenda package. Upon a motion duly made and seconded, the Committee approved the minutes as presented.

Guest Speaker – Mark Lauby, Senior VP and Chief Engineer, NERC - Mr. Lauby provided an update on NERC's standards development efforts, and discussed several items related to cold weather preparedness across the ERO Enterprise. He discussed NERC's winterization efforts, and commended RF's winterization program that includes site visits to generating plant and educational workshops. He highlighted the joint FERC, NERC, and Regional Entity Winter Storm Elliott report efforts, and the timeline for the report's completion and public release. He also discussed NERC's recent cold weather alert, and the alert's content and requirements for entities.

In response to a question regarding the impact of distribution on reliability, Mr. Lauby responded that it is important to understand and monitor whether distribution issues are impacting the Bulk Electric System (BES). He stated that NERC is not seeing a lot of these types of issues so far, and discussed how NERC monitors the health of the BES and studies events. Mr. Lauby gave an overview of NERC's work studying inverter-based resources and electric vehicles. Discussion ensued on how NERC is monitoring increasing loads resulting from increased electrification, through its assessments and forecasting efforts.

Inverter Based Resources Update – Jim Kubrak, RF's Manager of Operations and Planning Compliance Monitoring, discussed inverter-based resources (IBRs) such as wind, solar, and battery storage. He noted that IBRs are increasing on the BES, including in the RF footprint. Mr. Kubrak explained how IBRs convert direct current to alternating current, and he walked through key reliability risks associated with IBRs.

He then discussed ERO Enterprise and industry efforts taking place to help reduce these risks, including event analysis of IBR-related events, registration of entities owning IBRs, NERC alerts, webinars, creation and sharing of lessons learned, and modeling and study improvements. In the compliance monitoring space, RF has scheduled engagements in 2024 focusing on Reliability Standards associated with common IBR risks (such as PRC-024 to address ride-through risks, MOD-025 and FAC-002 to address capacity risks, and PRC-027 to address fault contribution risks). Mr. Whitelocke suggested that RF should learn and discuss with other states that already have higher percentages of renewables.

Physical Security Update – Johnny Gest, RF's Manager of Engineering and System Performance, provided an overview of developments related to physical security. He began by describing the attack on the PG&E Metcalf substation in 2013, after which CIP-014 was created. Mr. Gest noted that CIP-014 requires asset owners to perform a risk assessment to identify their critical facilities, evaluate threats and vulnerabilities, and develop and implement a security plan. He discussed how NERC's E-ISAC reported an uptick in physical security events in 2022, and FERC issued an order shortly thereafter directing NERC to study the effectiveness of CIP-014. In NERC's study and report, NERC concluded that CIP-014's existing criteria is adequate for the substations reviewed in the assessment, but that there is a lack of specificity in the requirements for CIP-014's required risk assessment.

Mr. Gest then discussed the recent NERC/FERC joint physical security conference, during which representatives from the federal government, registered entities, the ERO, and other organizations discussed physical security, CIP-014, and best practices regarding event prevention, response, and recovery. He reported that during the conference, panelists stressed the importance of information sharing, both with law enforcement and among the industry. Panelists also discussed how CIP-014 should be risk-based, tailored, and evolve over time, as each facility has different risks and needs. There was then discussion among the Committee on NERC's CIP-014 study methods and models, and the importance of

resilience and redundancy measures. There was also discussion on the importance of giving the industry advance notice of revisions to a Reliability Standard.

Compliance Committee Charter Discussion – Chair Burkey led a discussion on proposed changes to the Compliance Committee Charter (Charter), which included changing the name of the Committee to the “Risk and Compliance Committee” and expanding the Committee’s scope to focus on risks to the grid beyond compliance (including how RF addresses risks through various tools and methods). The proposed changes also included the Committee having oversight of the Stakeholder Advisory and Technical Committees (which previously resided with the Nominating and Governance Committee).

Ms. Schaefer discussed additional proposed changes to the Charter that would move the nominations of hearing officers to the Nominating and Governance Committee. She also noted additional minor changes to the Charter for consistency with the other Committee Charters. Upon a motion duly made and seconded, the Committee approved the changes to the Charter.

Next Meeting – Chair Burkey noted that the next Committee meeting will occur in Washington, DC on December 6, 2023. At 2:28 pm, Chair Burkey moved the Committee into closed session.

Closed Session

Confidential Compliance & Enforcement Matters – Kristen Senk, Tom Scanlon, and Matt Thomas presented on confidential matters.

Adjourn – Chair Burkey adjourned the Committee meeting at 3:08 pm (ET).

As approved on this 6th day of December, 2023 by
the Compliance Committee,

Niki Schaefer
*Vice President General Counsel & Corporate
Secretary*

Attachment A

Others Present During the Compliance Committee Meeting

Steve Belle • Dominion Energy
Jeff Craigo • ReliabilityFirst
Beth Dowdell • ReliabilityFirst
Scott Etnoyer • Talen
Tim Gallagher • ReliabilityFirst
Megan Gambrel • ReliabilityFirst
Johnny Gest • ReliabilityFirst
Vinit Gupta • ITC
Diane Holder • ReliabilityFirst
Erik Johnson • ReliabilityFirst
Rhonda Jones • Invenergy
Marcus Noel • ReliabilityFirst
Nicholas Poluch • Talen
Tom Scanlon • ReliabilityFirst
Niki Schaefer • ReliabilityFirst
Kristen Senk • ReliabilityFirst
Jennifer Sterling • Exelon
Brian Thiry • ReliabilityFirst
Matt Thomas • ReliabilityFirst
Jody Tortora • ReliabilityFirst
Jim Uhrin • ReliabilityFirst

Compliance Monitoring

COMPLIANCE MONITORING UPDATE

Matt Thomas, Director, Compliance Monitoring

Washington, DC

December 6, 2023



RELIABILITY FIRST

2023 MONITORING UPDATE



Process Changes: reduced time onsite where practical, moved to a rolling schedule, piloted process enhancements around controls and culture



Field Walkdowns: expanded field walkdowns to include winterization reviews



Align and Secure Evidence Locker (SEL) Rollout

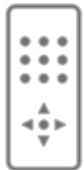
2024 FOCUSES



2024 Compliance Monitoring and Enforcement Program Implementation Plan (CMEP IP)



Increased and purposeful outreach and collaboration relating to high-risk areas, Inverter-Based Resources, cold weather, and Standard revisions



Continued focus on internal controls in monitoring engagements and outreach activities

QUESTIONS & ANSWERS

FORWARD TOGETHER  RELIABILITYFIRST



Enforcement Activities

ENFORCEMENT ACTIVITIES

Kristen Senk, Director, Legal and Enforcement

December 6, 2023

Washington, DC



AGENDA



VIOLATION INTAKE

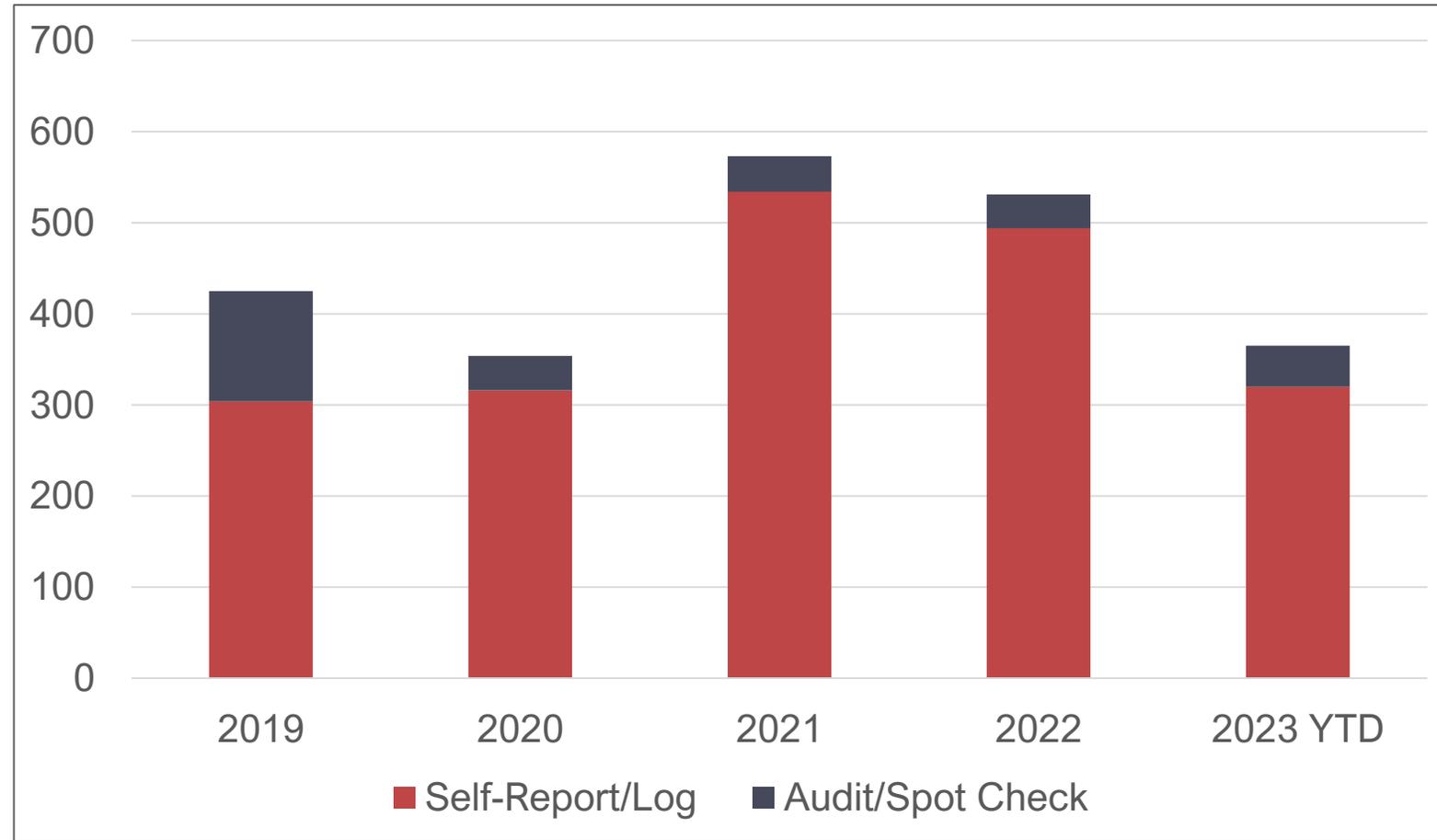
VIOLATION DISPOSITIONS

INVENTORY

OTHER FOCUS AREAS

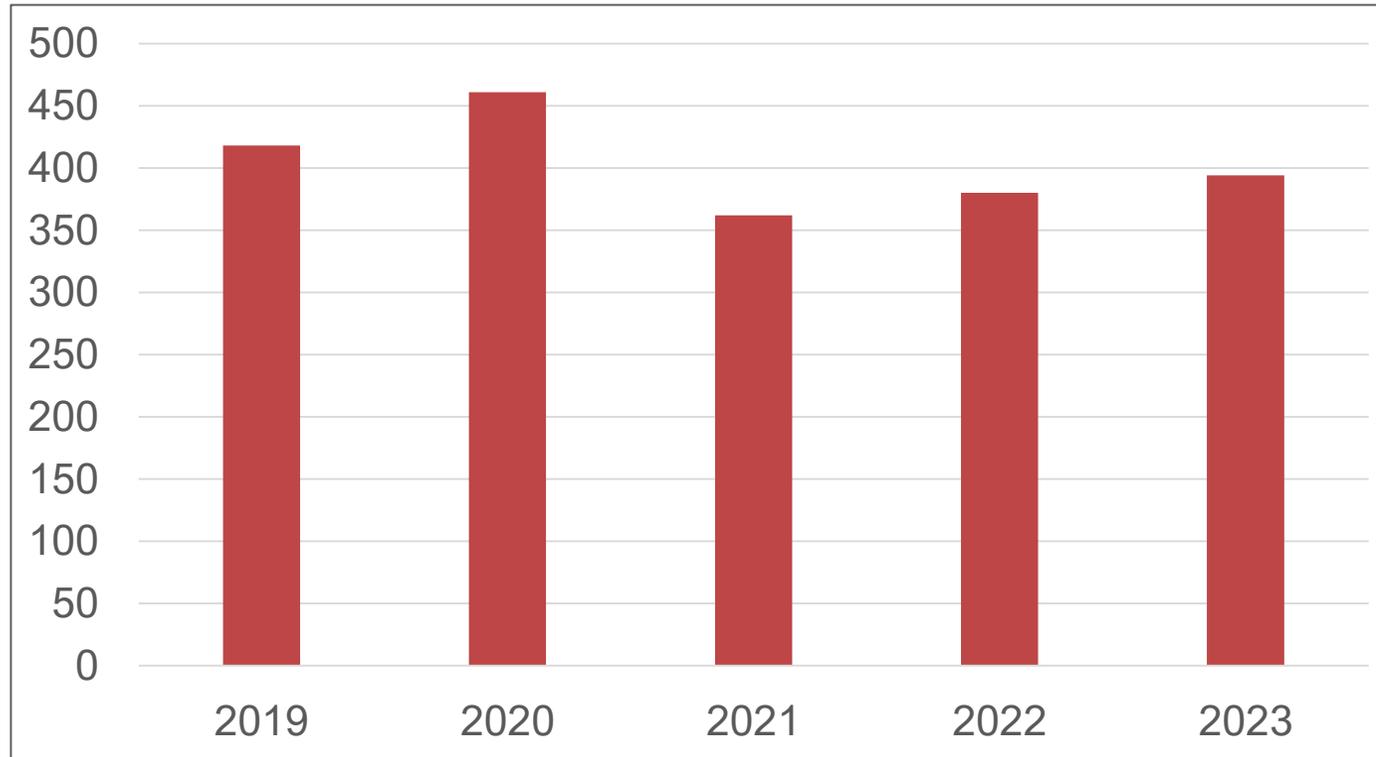


RF ANNUAL VIOLATION INTAKE



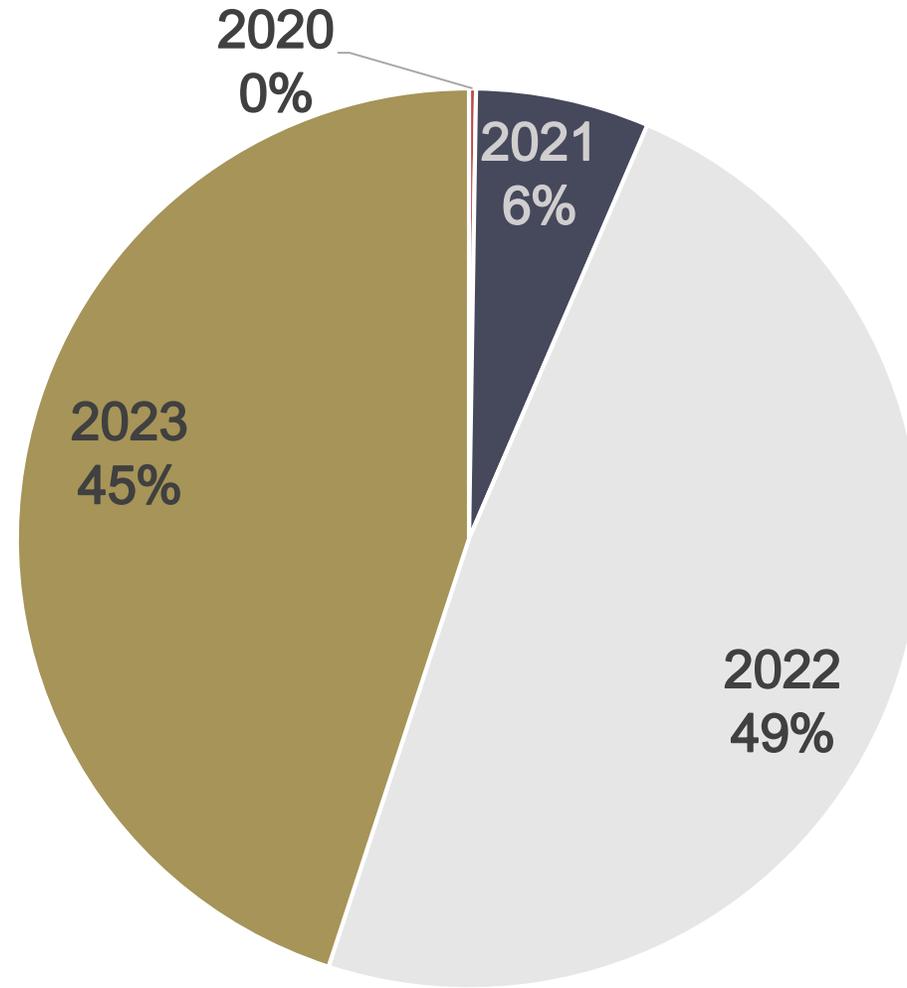
- Slight decrease in intake (closer to projected average); majority CIP; highest intake among Regions

RF ANNUAL DISPOSITIONS



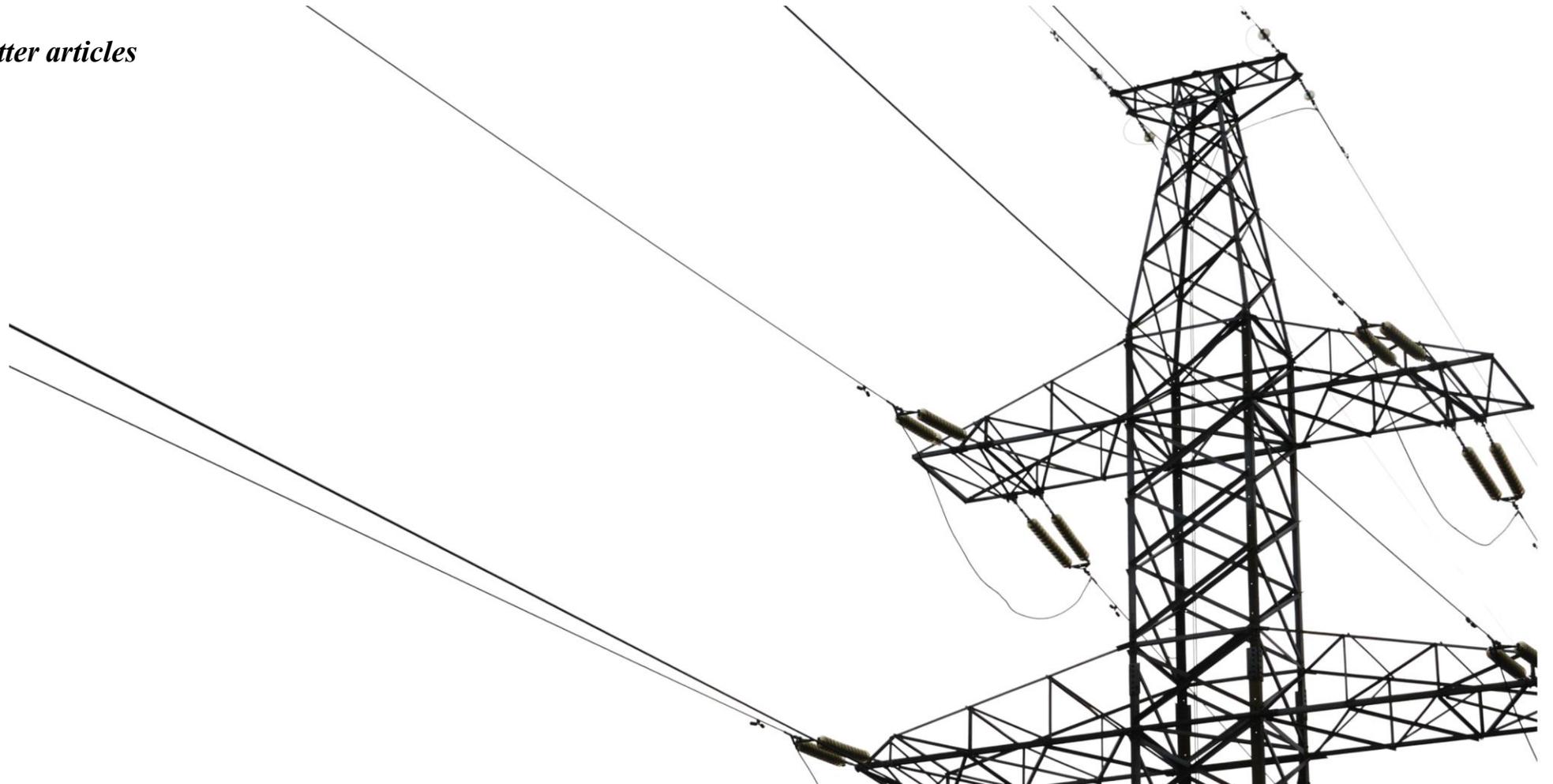
- Focus on aging inventory and higher risk issues; highest output among Regions
- High-risk areas: access provisioning/revocation, protecting BES Cyber System Information, managing electronic security perimeters, and protection system maintenance and testing

RF VIOLATION INVENTORY



Outreach

- *Targeted outreach to multiple entities*
- *EBA conference panels*
- *Recurring newsletter articles*
- *RF Workshop*
- *ERO webinars*



QUESTIONS & ANSWERS

Kristen Senk

Kristen.senk@rfirst.org



Registration Update

REGISTRATION UPDATE

Jeff Craigo, Sr. Vice President, Reliability & Risk

*December 6, 2023
Washington, DC*

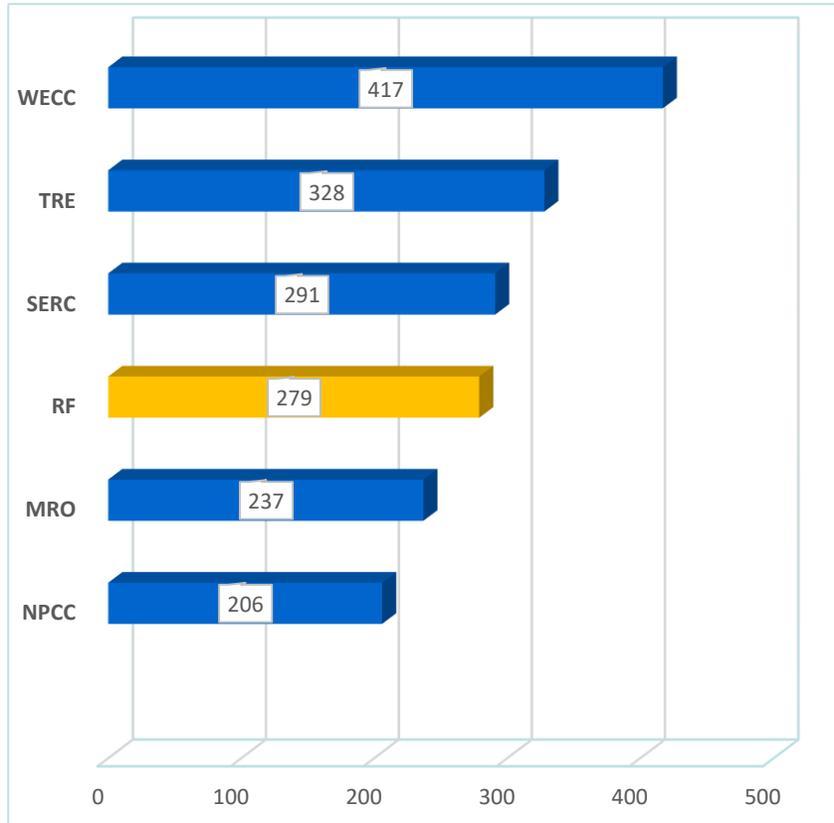


AGENDA

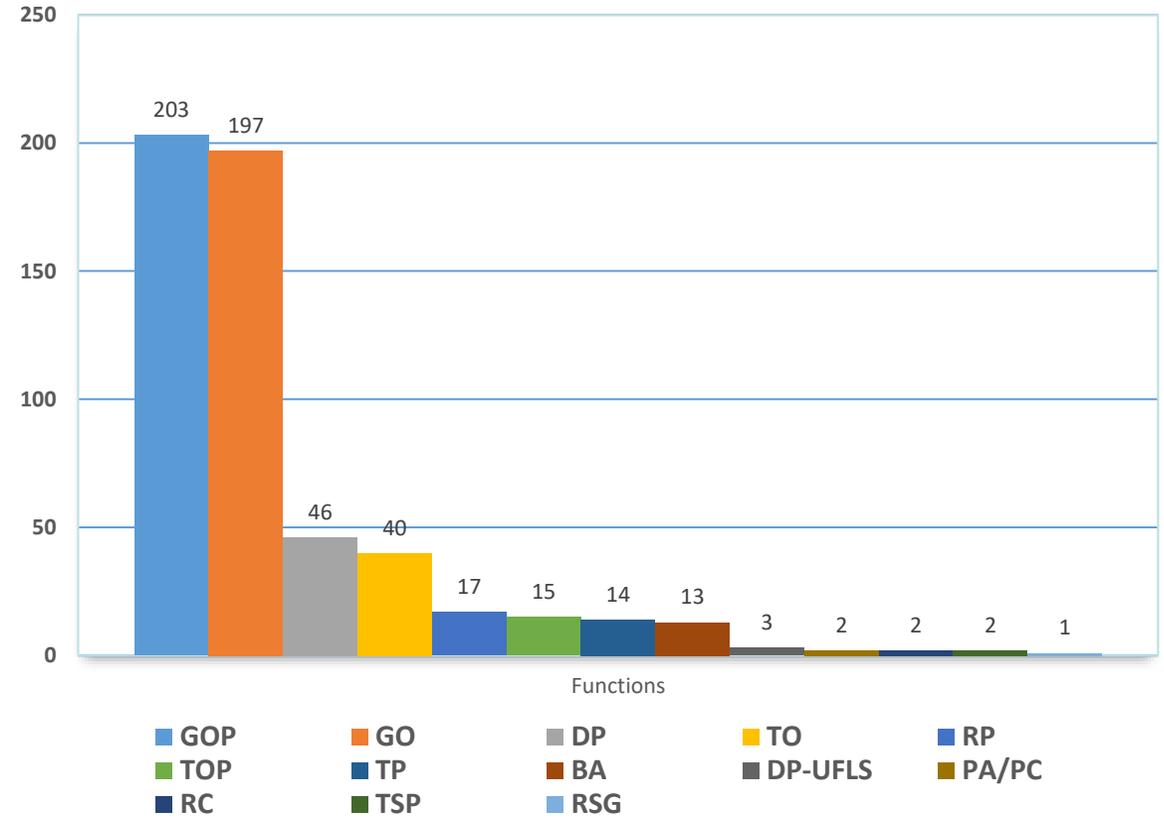
- 2023 REGISTRATION OVERVIEW
- INVERTER BASED RESOURCES
ORDER UPDATE AND PROJECTIONS

2023 REGISTRATION OVERVIEW

NERC Compliance Registry (NCR) as of 11/14/2023



RF Functions



INVERTER BASED RESOURCES ORDER UPDATE AND PROJECTIONS



INVERTER BASED RESOURCES ORDER UPDATE AND PROJECTIONS

40 potential IBR assets identified (≥ 20 MVA and connection of ≥ 60 kV)

- 31 associated with current Registered Entities
 - 27 wind, 3 solar and 1 battery

- 9 potential new registrations requiring new registrations
 - 6 wind, 2 solar and 1 battery



QUESTIONS & ANSWERS

Jeff Craigo

Jeff.Craigo@RFirst.org

CIP Low Impact

CIP LOW IMPACT OVERSIGHT

Zack Brinkman, Manager of CIP Compliance

December 6, 2023
Washington, DC



AGENDA



APPROACH

THEMES

MOVING FORWARD



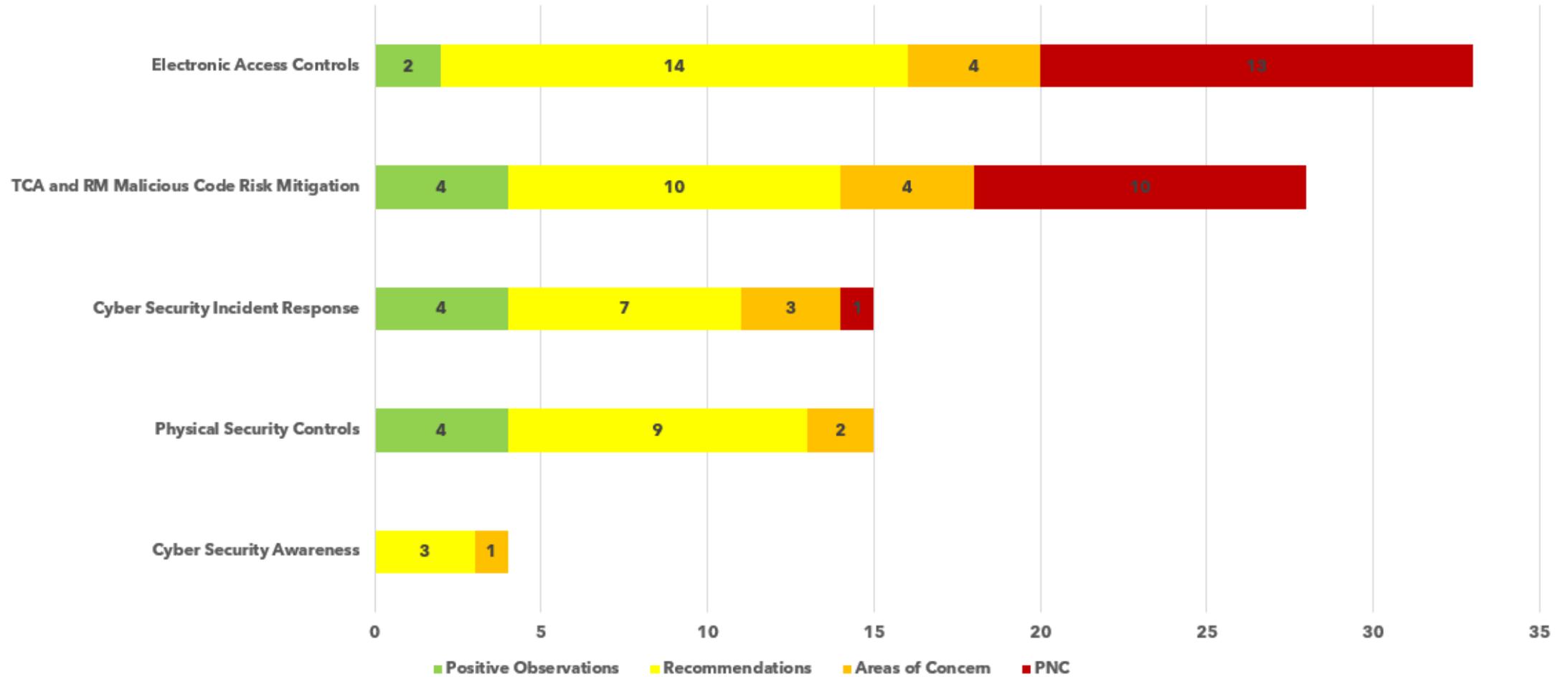
APPROACH

- Aggregated Risk & Localized Risk
- Addressing the Risk
- ERO Themes



THEMES

2021 - Q3 2023 CIP-003 R2 Breakdown



MOVING FORWARD

- Inverter Based Resources
- Low Impact Outreach and Continued Oversight
- Continued Evolution of CIP-003



QUESTIONS & ANSWERS

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Winterization Update

WINTERIZATION UPDATE

Brian Thiry, Director of External Affairs and Entity Engagement

December 6, 2023
Washington, DC



AGENDA



PROGRAM HISTORY

WINTER STORM ELLIOTT

NERC WINTER ASSESSMENT

PROGRAM PERFORMANCE

COLD WINTER WINTERIZATION 2023-2024



WINTERIZATION PROGRAM KEY DATES

2013-2014

● Polar Vortex

2018

● South Central United States
Cold Weather Event

2021

● Winter Storm Uri

2022

● Winter Storm Elliott

2023

● Updates to RF's Cold Weather
Winterization (CWW) Program

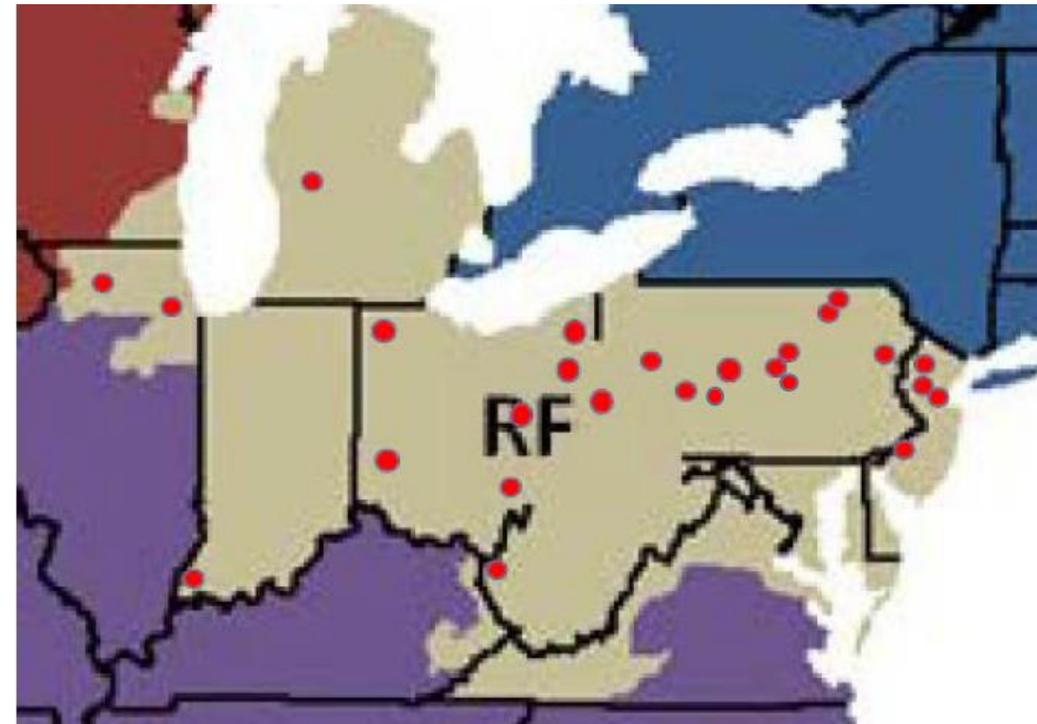


HISTORICAL SURVEYS AND VISITS

Who? Newly commissioned plants and existing generators that experienced a cold weather outage

When? Surveys late summer; visits October-December

1.0	PLANT WINTERIZATION - OVERALL CONCERNS & ISSUES
1.1	How many boiler-turbine-generator enclosures are of the outdoor type, i.e., boiler room and turbine-generator room are not enclosed and directly exposed to weather conditions?
1.2	How many boiler-turbine-generator enclosures are of the semi-outdoor type, i.e., boiler room partially enclosed with portions directly exposed to weather conditions but turbine generator room fully enclosed?
1.3	How many boiler-turbine-generator enclosures are of the indoor type, i.e., boiler room and turbine-generator room are fully enclosed and not directly exposed to weather conditions?
1.4	Due to the applicable type of configuration, describe any past problems (trips, derates, fail-to-start, etc.) caused by extreme weather and list the amount of megawatts impacted.
1.5	Does your entity presently have a plant winterization plan for all generating facilities?
1.6	Briefly describe the training program or exercise which prepares plant personnel for extreme cold weather conditions.
1.7	What plant personnel are specifically assigned or responsible for the plant winterization plan related to directing key activities before, during and after severe winter weather events?
1.8	To what level of corporate management is the plant winterization plan communicated?
1.9	What is the status of the your plant winterization plan?
1.11	What is your facility(ies) minimum starting temperature(s)?
1.12	What is your facility(ies) minimum design/operating temperature(s) and how long can the facility operate at that temperature?



WINTER STORM ELLIOTT

Inquiry into Bulk-Power System Operations During December 2022 Winter Storm Elliott

FERC, NERC and Regional Entity Staff Report
October 2023



NORTH AMERICAN ENERGY STANDARDS BOARD
1415 Louisiana St., Suite 3460 • Houston, Texas 77002 • Phone: (713) 356-0060 • Fax: (713) 356-0067
email: naesb@naesb.org • Web Site Address: www.naesb.org

Via email & posting
November 8, 2023

TO: NAESB Members, NAESB Advisory Council, NAESB Gas-Electric Harmonization (GEH) Forum Participants, and Interested Parties
FROM: Michael Desselle, Chairman of the Board of Directors, NAESB
RE: FERC, NERC and Regional Entity Staff Report Concerning 2022 Winter Storm Elliott

Dear NAESB Members, NAESB Advisory Council, NAESB GEH Forum Participants, and Interested Parties,

As you may know, on November 7, 2023, the Federal Energy Regulatory Commission (FERC or Commission) and the North American Electric Reliability Corporation (NERC) released a final report on Winter Storm Elliott, *Inquiry into Bulk-Power System Operations During December 2022 Winter Storm Elliott* (Report).¹ In the Report, Recommendation 5 calls for the "The North American Energy Standards Board [to] convene natural gas infrastructure entities, electric grid operators, and LDCs to identify improvements in communication during extreme cold weather events to enhance situational awareness."

The Report included a second quarter 2024 deadline for the activity, and identified specific areas for consideration that would expand upon the existing NAESB gas-electric coordination standards. Per the Report, these areas are intended to support improved communication and information sharing among operators of production facilities, other natural gas infrastructure entities, Balancing Authorities, shippers, and end-use customers (i.e. Local Distribution Companies) when situations arise before or during extreme weather events that may have potential adverse impacts on reliability. Specifically noted for consideration are communications concerning aggregated volume data or confirmed scheduled quantities for upstream delivery points on the pipeline system and communications concerning operational issues, including locational information and estimated outage duration, that will help BAs, LDCs, and shippers in planning for potential critical notices, operational flow orders or force majeure events. The Report also recognized that these communications will require safeguards to protect commercially sensitive information and pointed to those utilized by Bulk Electric System entities.

Given the clear direction provided by the Commission in the Report and the identification of actionable standards development areas included in Recommendation 5 for NAESB, I have conferred with the Managing Committee and have directed the staff to initiate activities to prepare for the development of standards in the areas identified in the report. Within the coming weeks, NAESB will distribute proposed language that will build upon the provisional

¹ The Report can be found through the following hyperlink:
https://www.naesb.org/pdf4/ferc_nerc_regional_entity_staff_report_Nov2023_cold_weather_outages_110723.pdf

2023–2024 Winter Reliability Assessment

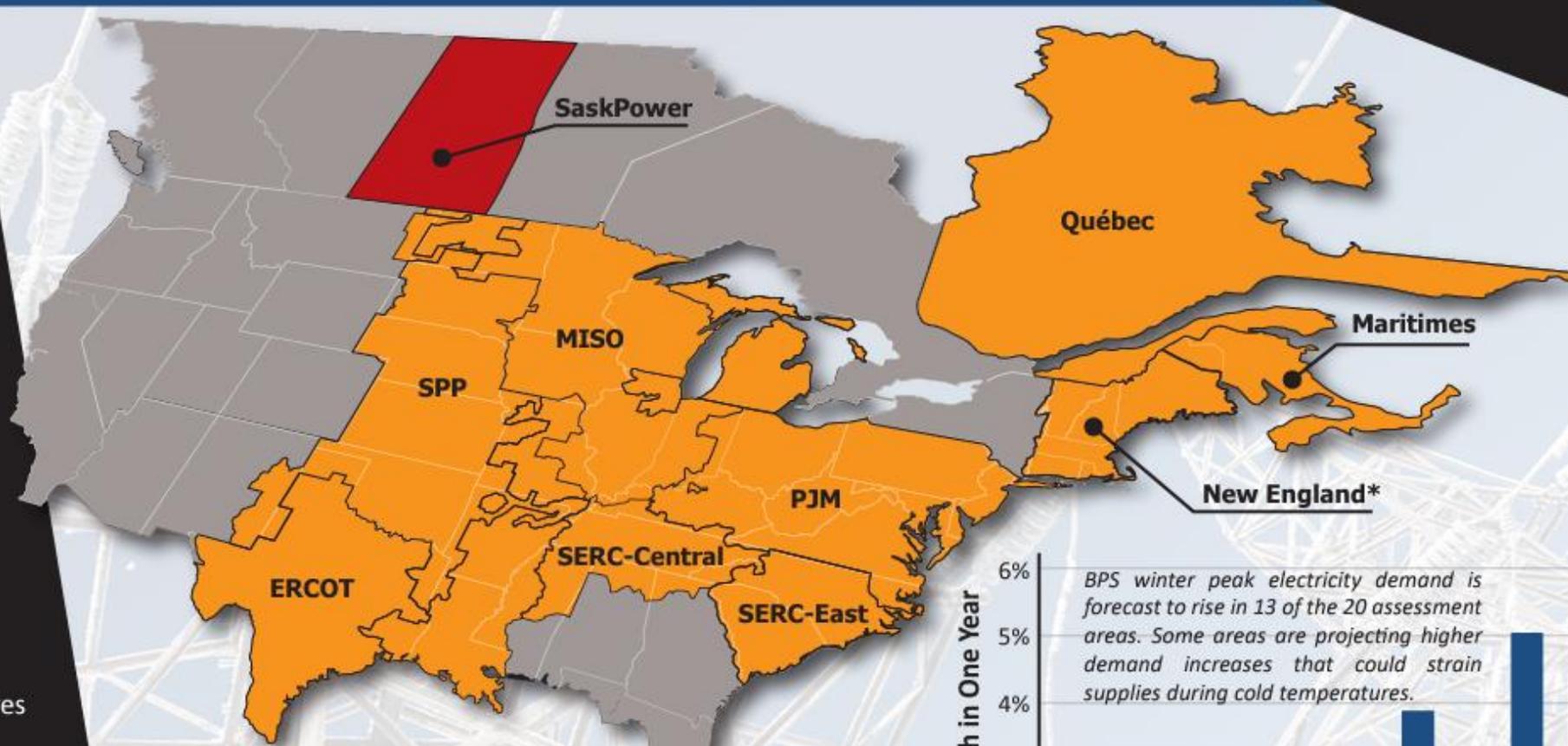
[WRA](#) | [WRA Video](#)

NERC
NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

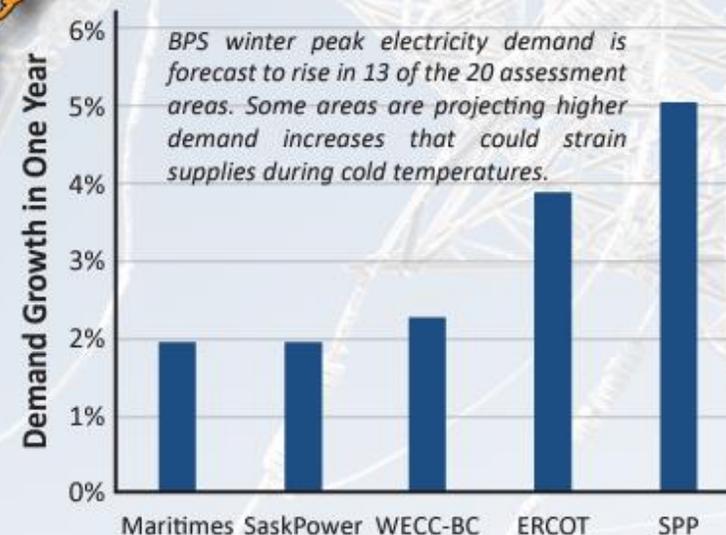
A large portion of the North American bulk power system is at risk of insufficient electricity supply during peak winter conditions. Prolonged, wide-area cold snaps threaten the reliable performance of bulk power system generation and the availability of the natural gas used by many generators. When electricity supply becomes constrained, system operators can face a simultaneous, sharp increase in demand as electric heating systems consume more power in cold temperatures. In some areas not typically exposed to prolonged frigid temperatures, generating capacity can be forced off-line and may require load-shedding procedures to maintain reliability.

Assessed Capacity Potential Shortfalls in MW

■ SaskPower: 400	■ SERC-Central: 5,700
■ Maritimes: 900	■ Québec: 5,500
■ MISO: 16,000	■ ERCOT: 6,800
■ PJM: 12,000	■ SERC-East: 2,700
■ SPP: 8,500	



Low	Elevated	High
Sufficient operating reserves expected	Potential for insufficient operating reserves in above-normal conditions <i>*Limited Natural Gas Infrastructure</i>	Potential for insufficient operating reserves in normal peak conditions



WINTERIZATION PERFORMANCE

- RF visited 55 generating units since 2018
 - 39 (71%) experienced an outage during Elliott
 - 24 (44%) experienced a winter freeze issue during Elliott
 - 15 (27%) experienced an environmental/lack of fuel outage during Elliott
- GADS data analysis on the 24 generating units
 - 19 of the 24 units maintained or improved their Starting Reliability (SR)
 - 14 of the 24 units decreased their Equivalent Forced Outage Rate (EFOR)
- Statistical comparison with units that were not visited
 - Improved performance related to SR and EFOR

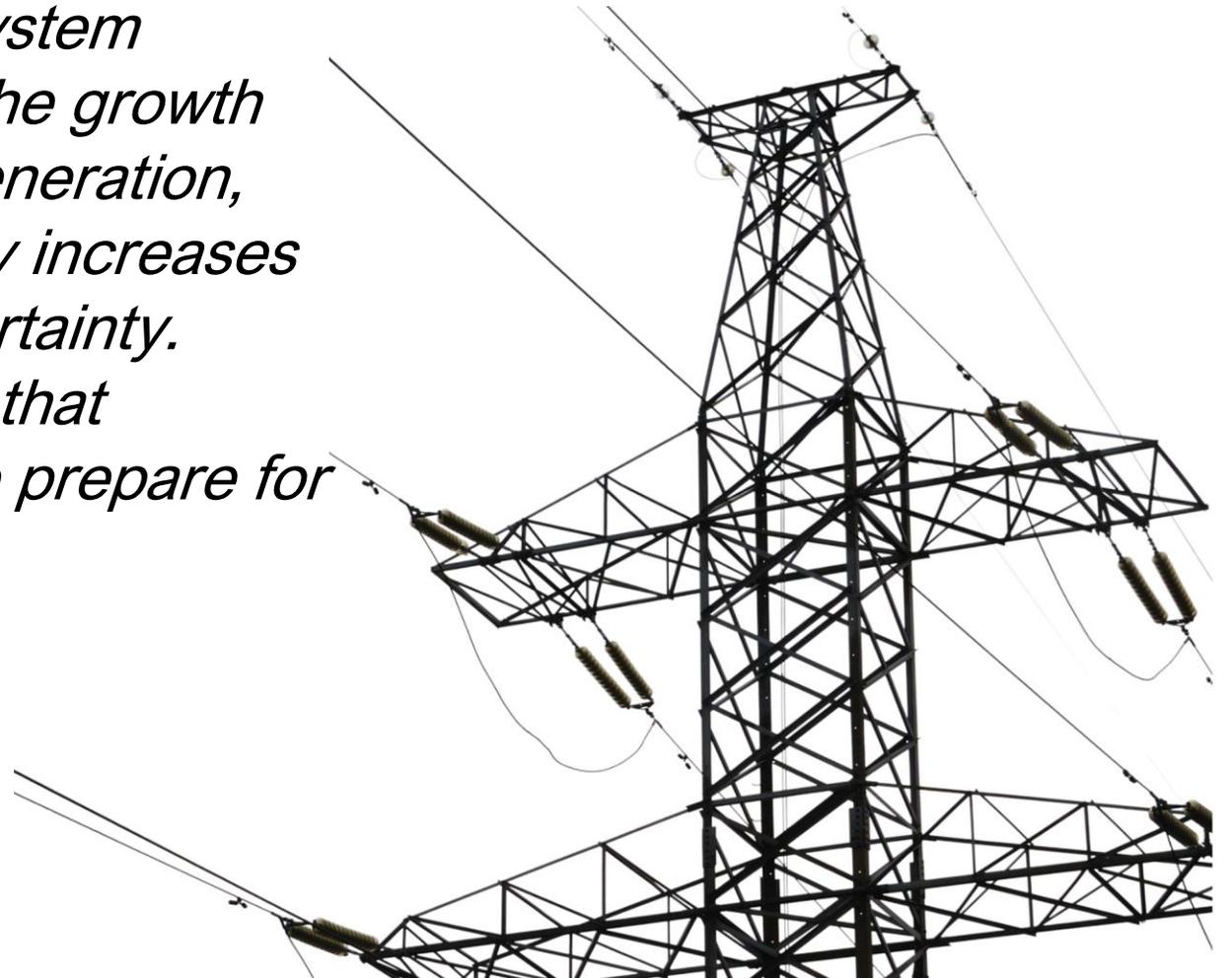
COLD WEATHER WINTERIZATION (CWW) UPDATE 2023/2024

FORWARD TOGETHER  RELIABILITYFIRST



“Extreme cold weather events can cause electricity demand to deviate significantly from historical forecasts. Electricity demand in winter is closely tied to outside temperature. As electric heat pumps and heating systems become more prevalent, their combined effect on system demand is even more pronounced. The growth of intermittent resources, like solar generation, on the distribution system significantly increases load forecasting complexity and uncertainty. Once again, we strongly recommend that operators take the necessary steps to prepare for winter.”

*-Mark Olson, NERC’s manager of
Reliability Assessments*



QUESTIONS & ANSWERS

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Summary of Performance of Specific Duties for 2023

**DRAFT SUMMARY OF
COMPLIANCE COMMITTEE'S
PERFORMANCE OF SPECIFIC DUTIES FOR 2023**

Revision: November 14, 2023

	Required Activity	Outcome	Performed Activity
1.	Review and evaluate the effectiveness, efficiency, and risk-based approach of RF's compliance monitoring and enforcement program.	Completed	Accomplished during April meeting by Tom Scanlon, Enforcement Update; Accomplished by Derek Kassimer in April, Winterization Program Update; Accomplished by Johnny Gest in April, Regional Risk Assessment; Accomplished during August meeting by Jim Kubrak, Inverter Based Resources Update; Accomplished by Johnny Gest in August, Physical Security Update; Accomplished during December meeting by Matt Thomas, Compliance Monitoring Update; Accomplished by Kristen Senk in December, Enforcement Update
2.	Recommend for adoption by the Board amendments/modifications of compliance monitoring and enforcement program, including the hearing procedures, as necessary or appropriate	Not Applicable.	Not applicable this year to date.
3.	Review status of RF compliance registry for Registered Entities in the Region	Complete	Completed in December with presentation by Jeff Craigo, Registration Trends
4.	Review RF's regional risk assessments used to identify the reliability risks that serve as the focus of RFs compliance and enforcement program and any other compliance and enforcement activity output that the Committee deems necessary, regarding the application and execution of a risk-based approach to ReliabilityFirst's compliance monitoring and enforcement program.	Complete	Accomplished by Derek Kassimer in April, Winterization Program Update; Accomplished by Johnny Gest in April, Regional Risk Assessment; Presentation in April North Carolina Physical Security Attack Cluster by Bill Peterson; Accomplished during August meeting by Jim Kubrak, Inverter Based Resources Update; Accomplished by Johnny Gest in August, Physical Security Update; Accomplished during December meeting by Zack Brinkman, Cyber Security Update.
5.	Appoint members to the Hearing Body under the compliance monitoring and enforcement program's hearing procedures.	Not Applicable	Not applicable this year to date.
6.	Oversee RF's completion of the annual compliance implementation plan	Complete	Completed in December with presentation by Matt Thomas, Compliance Monitoring Update
7.	Review sanctions and penalties imposed by RF in connection with violations of Reliability Standards	Complete	Accomplished during April, August, and December meeting (Reviewed Confidential Compliance & Enforcement Matters) by Kristen Senk and Matt Thomas.
8.	Consider any input provided by Registered Entities on compliance issues and RF's compliance and enforcement activities	Pending	ERO Enforcement Group led discussions with NERC Compliance, Certification Committee on Self-Logging and Enforcement Processes. Throughout the year we've had in-person leadership discussions with several entities regarding feedback from compliance activities and enforcement actions. Received specific feedback from entities first compliance monitoring engagements within Align and shared with Align Users Group.
9.	Review information from compliance staff regarding significant compliance issues	Complete	Accomplished during April, August and December in closed session with discussion led by Kristen Senk and Matt Thomas.
10.	Perform other activities as requested by the Board	Complete	Accomplished throughout the year.
11.	Conduct an evaluation of the Committee's performance and charter at least annually and adopt approved changes as appropriate	Pending	Committee endorsed Charter changes in August and the Board approved new Charter for after December Meeting; Evaluation of performance to be performed in December.
12.	Report regularly to Board regarding Committee's activities	Complete	Accomplished during every Board of Directors meeting by Committee Chair or Co-Chair

Confidential Documents