

Agenda

Reliability Issues Steering Committee

July 28, 2022 | 3:00-4:30 p.m. Eastern
Virtual Meeting

Attendee WebEx Link: [Join Meeting](#)

Introductions and Chair's Remarks

NERC Antitrust Compliance Guidelines

Agenda Items

1. 2023 RISC Reliability Leadership Summit Draft Framework* - **Review**
2. 2022 Emerging Risks Survey* - **Review**
3. Other Matters, Closing Remarks, and Adjournment

*Background materials included.

Antitrust Compliance Guidelines

I. General

It is NERC'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 that violates, or that 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 NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. Prohibited Activities

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

- Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

III. Activities That Are Permitted

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation, Bylaws, and Rules of Procedure are followed in conducting NERC business.

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

Agenda Item 1
Reliability Issues Steering
Committee Meeting
July 28, 2022

2023 RISC Reliability Leadership Summit

Action

Review

Summary

The 2023 RISC Reliability Leadership Summit (Summit) is tentatively scheduled for in-person on January 24-25, 2023 in Washington, DC. In an effort to ensure desired speakers and C-Level participants are secured, NERC management has commenced the process of developing the agenda and determining the Summit panels. On July 7, NERC Management and RISC Leadership met to review submitted recommendations by Committee members and will review the following four (4) proposed panels at the July 28 meeting:

- Security (Physical and Cyber)
- Changing Resources/New Technologies
 - Clean Energy Transition
 - Inverter-Based Resources
 - Changing Nature of Resource Adequacy
- Resiliency of the Bulk Power System
 - Extreme Events
 - Cross-Sector Interdependencies
- Energy Policy
 - States/Federal

Agenda Item 2
Reliability Issues Steering
Committee Meeting
July 28, 2022

2022 Emerging Risks Survey

Action

Review

Summary

The objective of the Emerging Risks survey is to gauge if the ERO Reliability Risk Priorities Report is providing the correct level of information and recommendations to ultimately have an effect in the likelihood and impact to the bulk power system risks, as well as a data point into the risk prioritization process.

As part of the 2020 Emerging Risks Survey, respondents were asked if each of the eleven (11) identified risks from the 2019 RISC Report were still relevant and to rank them from 1-11, with 11 as highest and 1 as lowest. Each risk was identified as still relevant and in evaluating the rankings, the responses were classified as Low (1-4), Moderate (5-8), and High (9-11) to provide an overall view of each risk. This information is useful for industry as a whole to prioritize and dedicate resources and budget. The 2021 ERO Reliability Risk Priorities Report identified modified risks and mitigating activities which will subsequently be incorporated into the 2022 Emerging Risks Survey.

Committee Members will be asked to review the prior survey and provide input into the 2022 Emerging Risks Survey prior to its distribution in October 2022.

Introduction

The following survey provides identified bulk power system (BPS) reliability risks and recommended mitigating activities to control them compiled by the NERC Reliability Issues Steering Committee (RISC) in the 2019 ERO Reliability Risk Priorities Report. The survey serves as a vehicle to prioritize identified risks as well as to potentially identify new and emerging risks.

Additionally, the survey responses set a framework for the development of the 2021 ERO Reliability Risk Priorities report (See the [2019 report for background](#)) which will provide an overview of inherent BPS risks, current mitigating activities and recommendations for additional activities to control the risks. This report is widely used by the Electric Reliability Organization, industry, policymakers, and regulators to more fully understand inherent risks to the BPS and serve as a guide to further develop and refine mitigating strategies. The RISC report is expected to be released in August 2021.

The deadline for completion is January 15, 2021. Should you have any questions with respect to the survey or obstacles with using SurveyMonkey feel free to contact Tina Buzzard at (404) 446-9686, tina.buzzard@nerc.net.

The survey will take approximately 10-15 minutes to complete. You are able to stop and return to the survey at any time if unable to complete in one sitting, however *you must return to the survey on the same device used when starting the survey originally*.

The RISC thanks you for your time and effort in completing the survey!

Survey Participant Information

Name:

Title

Company

Size

Type

Select all that are appropriate.

- Transmission
- Generation
- Distribution
- Other

Affiliation



Risk Profiles

In 2019, the RISC reviewed and assembled information from ERO Enterprise stakeholders and policymakers and focused subgroup work to develop an initial composite set of risk profiles. Further review and consolidation resulted in four high level risks: Grid Transformation, Extreme Natural Events, Security Risks, and Critical Infrastructure Interdependencies.

Is each of these risk profiles still relevant?

	Yes	No
Grid Transformation	<input type="radio"/>	<input type="radio"/>
Extreme Natural Events	<input type="radio"/>	<input type="radio"/>
Security Risks	<input type="radio"/>	<input type="radio"/>
Critical Infrastructure Interdependencies	<input type="radio"/>	<input type="radio"/>

Other profiles for consideration?

Grid Transformation

In the 2019 ERO Reliability Risk Priorities Report, the following are the identified risks under Grid Transformation, considering current times, are these risks still relevant?

	Yes	No
Changing Resources Mix	<input type="radio"/>	<input type="radio"/>
Bulk Power System Planning	<input type="radio"/>	<input type="radio"/>
Resource Adequacy and Performance	<input type="radio"/>	<input type="radio"/>
Increasing Complexity in Protection and Control Systems	<input type="radio"/>	<input type="radio"/>
Human Performance and Skilled Workforce	<input type="radio"/>	<input type="radio"/>
Loss of Situational Awareness	<input type="radio"/>	<input type="radio"/>

Are there other identified risks to be considered under Grid Transformation?

The following are the recommended mitigation activities under Grid Transformation. Are these activities still appropriate?

If you think the mitigation activity is still appropriate, how effective do you think the activity will be at reducing the likelihood and impact of a reliability event associated with the risks listed above. Please choose:

High – Significant measurable mitigation is achieved

Medium – a moderate, but measurable mitigation is achieved

Low – Little or no measurable mitigation is achieved

	Activity Still Appropriate	Likelihood Reduction	Impact Reduction
Update data, modeling and assessment requirements to ensure valid and accurate results given resource and grid transformation (ongoing effort).	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
The technical committees should establish and implement an approach to evaluate the potential impacts of energy storage on reliability.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
Improve inverter-based resource BPS interconnection and operation and stay abreast of new technologies, such as storage/hybrid resources.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
Ensure sufficient operating flexibility at all stages of resource and grid transformation.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>

Are there other mitigation activities for consideration?

Extreme Natural Events

In the 2019 ERO Reliability Risk Priorities Report, the following are the identified risks under Extreme Natural Events, considering current times, are these risks still relevant?

	Yes	No
Hurricanes, Tornados/Derecho, Extreme Heat/Drought, Wild Fires, Flooding, Extreme Cold	<input type="radio"/>	<input type="radio"/>
Earthquakes	<input type="radio"/>	<input type="radio"/>
Geomagnetic Disturbances	<input type="radio"/>	<input type="radio"/>

Are there other extreme natural events to consider?

The following are the recommended mitigation activities under Extreme Natural Events. Are these activities still appropriate?

If you think the mitigation activity is still appropriate, how effective do you think the activity will be at reducing the likelihood and impact of a reliability event associated with the risks listed above. Please choose:

High – Significant measurable mitigation is achieved

Medium – a moderate, but measurable mitigation is achieved

Low – Little or no measurable mitigation is achieved

	Activity Still Appropriate	Likelihood Reduction	Impact Reduction
Special assessments of extreme natural event impacts, including capturing lessons learned, creating simulation models, and establishing protocols and procedures for system recovery and resiliency.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
Development of tools for BPS resiliency	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
Understanding of Geomagnetic Disturbance (GMD) events on BPS.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>

Are there other mitigation activities for consideration?

Security Risks

In the 2019 ERO Reliability Risk Priorities Report, the following are the identified risks under Security Risks, considering current times, are these risks still relevant?

	Yes	No
Physical Security Risks	<input type="radio"/>	<input type="radio"/>
Cyber Security Risks	<input type="radio"/>	<input type="radio"/>
Electromagnetic Pulse Risk	<input type="radio"/>	<input type="radio"/>

Are there other security risks to consider?

The following are the recommended mitigation activities under Security Risks. Are these activities still appropriate?

If you think the mitigation activity is still appropriate, how effective do you think the activity will be at reducing the likelihood and impact of a reliability event associated with the risks listed above. Please choose:

High – Significant measurable mitigation is achieved

Medium – a moderate, but measurable mitigation is achieved

Low – Little or no measurable mitigation is achieved

	Activity Still Appropriate	Likelihood Reduction	Impact Reduction
NERC, in collaboration with industry, should evaluate the need for additional assessments of the risks of attack scenarios (e.g., vulnerabilities related to drone activity, attacks on midstream or interstate natural gas pipelines or other critical infrastructure).	<input type="button" value="▼"/>	<input type="button" value="▼"/>	<input type="button" value="▼"/>
The Electricity Information Sharing and Analysis Center (E-ISAC) should encourage continued industry efforts on workforce cyber education to raise awareness of methods and tactics used by cyber attackers (e.g., email phishing, credential theft).	<input type="button" value="▼"/>	<input type="button" value="▼"/>	<input type="button" value="▼"/>
NATF and NAGF should develop supply chain cyber security superior practices.	<input type="button" value="▼"/>	<input type="button" value="▼"/>	<input type="button" value="▼"/>
E-ISAC should execute a long-term strategy to improve cyber and physical security information-sharing, protection, risk analysis, and increase engagement within the electric sector as well as with other ISACs.	<input type="button" value="▼"/>	<input type="button" value="▼"/>	<input type="button" value="▼"/>
NATF, NAGF, Trades Associations, and E-ISAC should develop tiered security performance metrics. Such metrics would track and evaluate events and use predictive analysis to identify and address prospective vulnerabilities on a risk-prioritized basis.	<input type="button" value="▼"/>	<input type="button" value="▼"/>	<input type="button" value="▼"/>
NERC should facilitate the development of planning approaches, models, and simulation approaches that reduce the number of critical facilities and mitigate the impact relative to the exposure to attack.	<input type="button" value="▼"/>	<input type="button" value="▼"/>	<input type="button" value="▼"/>
NERC's EMP taskforce should highlight key risk areas that arise from the EPRI's EMP analysis for timely industry action.	<input type="button" value="▼"/>	<input type="button" value="▼"/>	<input type="button" value="▼"/>

Are there other mitigation activities for consideration?

Critical Infrastructure Interdependencies

In the 2019 ERO Reliability Risk Priorities Report, the following are the identified risks under Critical Infrastructure Interdependencies, considering current times, are these risks still relevant?

Yes

No

Sector interdependence is becoming more critical, such as the added importance of digital communications for electric system protection and control and voice communications for emergency response and restoration.

Subsector interdependence is increasing (e.g., growing reliance on natural gas as an electrical generation fuel source with potential needs for fuel switching in the event of natural gas unavailability), creating the potential for more limiting contingencies, including single-point failures.

Cross-sector and subsector implications and coordination are not routinely socialized or thoroughly tested during drills.

Governmental oversight and regulatory constructs differ widely among the sectors and subsectors, impeding information sharing and alignment.

Are there other critical infrastructure interdependencies to consider?

The following are the recommended mitigation activities under Critical Infrastructure Interdependencies. Are these activities still appropriate?

If you think the mitigation activity is still appropriate, how effective do you think the activity will be at reducing the likelihood and impact of a reliability event associated with the risks listed above. Please choose:

High – Significant measurable mitigation is achieved

Medium – a moderate, but measurable mitigation is achieved

Low – Little or no measurable mitigation is achieved

	Activity Still Appropriate	Likelihood Reduction	Impact Reduction
NERC, in collaboration with industry and industry partners, should identify and prioritize limiting conditions and/or contingencies that arise from other sectors that affect the BPS.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
NERC and industry partners should host strategic interactions among critical infrastructure partners (e.g., industry and regulators) to identify and align on mutual priorities.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
NERC and industry partners should increase emphasis on cross-sector considerations in industry drills (e.g., NERC Grid-Ex, DOE drills, utility exercises (e.g., Southern California Edison (SCE) Resilient Grid Exercise)).	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
NERC should evaluate the need to conduct special regional assessments that address natural gas availability and pipeline impacts under physical attack scenarios.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
EPRI and the DOE should continue their work on communication alternatives but also the use of same or similar technologies for critical SCADA data. New technologies should be explored that could assist in providing unique and hardened back-up telecommunication methods for the most critical data.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>
NERC and industry partners should conduct various meetings and conferences to highlight the importance of cross-sector interdependence and coordination, such as the NERC Reliability Summit, NATF/EPRI resiliency summits, and FERC/DOE technical conferences.	<input type="button" value="▲"/>	<input type="button" value="▲"/>	<input type="button" value="▲"/>

Are there other mitigation activities for consideration?

Risk Ranking

Considering your responses above, please rank the 11 identified risks with 11=highest, 1=lowest.

	11	10	9	8	7	6	5	4	3	2	1
Changing Resource Mix	<input type="radio"/>										
Bulk Power System Planning	<input type="radio"/>										
Resource Adequacy and Performance	<input type="radio"/>										
Increasing Complexity in Protection and Control Systems	<input type="radio"/>										
Human Performance and Skilled Workforce	<input type="radio"/>										
Loss of Situational Awareness	<input type="radio"/>										
Extreme Natural Events	<input type="radio"/>										
Physical Security Vulnerabilities	<input type="radio"/>										
Cybersecurity Vulnerabilities	<input type="radio"/>										
Critical Infrastructure Interdependencies	<input type="radio"/>										
Electromagnetic Pulse	<input type="radio"/>										

Considering your responses above, please classify the 11 identified risks as:

Monitor (risks that have been long recognized with commensurate NERC and industry monitoring for proper mitigation), or

Manage (newly emerging, requiring active management with a more aggressive immediate approach necessary for effective foresight and mitigation).

	Monitor	Manage
Changing Resource Mix	<input type="radio"/>	<input type="radio"/>
Bulk Power System Planning	<input type="radio"/>	<input type="radio"/>
Resource Adequacy and Performance	<input type="radio"/>	<input type="radio"/>
Increasing Complexity in Protection and Control Systems	<input type="radio"/>	<input type="radio"/>
Human Performance and Skilled Workforce	<input type="radio"/>	<input type="radio"/>
Loss of Situational Awareness	<input type="radio"/>	<input type="radio"/>
Extreme Natural Events	<input type="radio"/>	<input type="radio"/>
Physical Security Vulnerabilities	<input type="radio"/>	<input type="radio"/>
Cybersecurity Vulnerabilities	<input type="radio"/>	<input type="radio"/>
Critical Infrastructure Interdependencies	<input type="radio"/>	<input type="radio"/>
Electromagnetic Pulse	<input type="radio"/>	<input type="radio"/>

2020 RISC Emerging Risks Survey

Thank you for taking the time to complete the 2020 RISC Emerging Risks Survey!