

Agenda

NERC Technical Session

February 15, 2023 | 1:15-3:00 p.m. Mountain

JW Marriott Tucson
3800 W Starr Pass Blvd.
Tucson, AZ 85745

Conference Room: Tucson Salons E-F

Introduction and Chair's Remarks

NERC Antitrust Compliance Guidelines*

Agenda Items

- 1. Bulk Power System Awareness and Winter Preparations – NERC Alert Update* (40 mins)**
- 2. North Carolina December 2022 Physical Attack Event (SERC)* (10 mins)**
- 3. Panel Session: Reliable, Resilient, and Secure Integration of Inverter-Based Resources the BPS* (45 mins)**
- 4. Closing Remarks and Adjournment**

*Background materials included.

NERC 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.

Bulk Power System Awareness and Winter Preparations – NERC Alert Update

Action

Information

Background

NERC's Bulk Power System Awareness (BPSA) group acquires and disseminates timely, accurate, and complete information regarding the current status of the bulk power system (BPS) and threats to its reliable operation, to enable the ERO Enterprise to effectively assure the reliability of the BPS. During major system disturbances, extreme weather, fires, hurricanes, physical events, and geomagnetic disturbances, etc. the BPSA group facilitates effective communications among the ERO Enterprise, industry, and government stakeholders.

NERC BPSA, in collaboration with the Electricity Information Sharing and Analysis Center (E-ISAC) and the ERO Enterprise Situation Awareness teams, is responsible for the following:

- Maintaining a near real-time situation awareness of conditions on the BPS;
- Notifying industry of significant BPS events that have occurred in one area, and which have the potential to impact reliability in other areas; and
- Maintaining and strengthening high-level communications, coordination, and cooperation with government agencies regarding real-time conditions.

Summary

The BPSA presentation at the February 14, 2023 technical session provides a snapshot of the BPS and some of the reports, events, and activities over the fourth quarter of 2022. It also includes a high level preliminary overview of the December winter storm Elliott impacts on the BPS and some of the actions that were taken by the NERC registered entities.

The presentation will also provide an update on the activities of the ERO Enterprise leading up to this winter season and the cold weather preparation following the September 12, 2022 Cold Weather Preparations for Extreme Weather Events Level 2 Alert. Similar to last year, the ERO Enterprise collaborated on activities across the board; however, given the recent performance during Elliot, the ERO Enterprise is also sharing ways to improve for the rest of this season and next year.

North Carolina December 2022 Physical Attack Event

Action

Information

Summary

On December 3, 2023 unknown individuals with suspected criminal intent caused a physical attack to two substations (one 115kV and one 230 kV) in Duke's system in North Carolina, resulting in ~40,000 customer outages. SERC management will provide an update on the investigation into this event.

Panel Session: Reliable, Resilient, and Secure Integration of Inverter-Based Resources to the BPS

Action

Information

Background

This panel will facilitate a technical discussion on reliability, resilience, and security aspects of integrating rapidly growing levels of bulk power system (BPS)-connected inverter-based resources (IBR). Panelists will discuss the unique function and operational characteristics of inverters, reliability benefits these resources can provide, and potential limitations and challenges that must be addressed to ensure reliable and secure operation of the BPS.

The rapid integration of BPS-connected IBRs driven predominantly by decarbonization targets is the most significant driver of grid transformation across North America. These resources present unique operational benefits; however, they can also present significant risks to the BPS if industry fails to adapt the way the grid is planned, designed, and operated. In particular, ensuring adequate interconnection requirements and processes, using accurate models to conduct reliability studies, and ensuring adequate operational visibility and flexibility for these resources will be critical moving forward.

The speed of change continues to challenge grid planners, operators, protection engineers, and many other facets of the electricity sector. For instance, the *2022 NERC Long-Term Reliability Assessment*¹ projects a rapid growth of IBRs—mostly solar photovoltaic (PV), wind, battery energy storage systems, and hybrid plants—representing over 70% of new generation in development connecting to the BPS. Tier 1 and Tier 2 resource projections exceed over 250 GW over the next 10 years. Over 88+ GW of fossil-fueled, synchronous generation is slated for retirement over the same assessment period.

Reliable operation of the BPS will require maximizing the operational capabilities from inverter-based resources, addressing known and emerging reliability issues presented by the growing levels of these resources, and that these resources support and provide essential reliability services during both normal operation and system disturbances.

¹ http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2022.pdf