Agenda
Technology and Security Committee

February 5, 2020 | 11:00 a.m.-12:00 p.m. Pacific
(Please note the Schedule may be adjusted real-time should meetings conclude early and/or extend past their scheduled end time.)

westdrift Manhattan Beach, Autograph Collection
1400 Park View Avenue
Manhattan Beach, California 90266

Conference Room: Loftlight – Lobby Level

Introductions and Chair's Remarks

NERC Antitrust Compliance Guidelines and Public Announcement*

Agenda Items

1. **Minutes*— Approve**

    a. November 1, 2019 Meeting

2. **E-ISAC Update*— Review**

3. **ERO Enterprise Information Technology Strategy and IT Projects Update*— Review**

4. **ERO Enterprise Security — Review**

5. **Annual Review of Committee Mandate*— Review**

6. **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.

DRAFT Minutes
Technology and Security Committee Meeting
November 1, 2019| 2:00 p.m. – 3:00 p.m. Eastern

Conference Call

Chair Suzanne Keenan called to order a duly noticed open meeting of the Technology and Security Committee (the "Committee") of the Board of Trustees ("Board") of the North American Electric Reliability Corporation ("NERC" or the "Company") on November 1, 2019, at 2:00 p.m. Eastern, and a quorum was declared present. The agenda is attached as **Exhibit A.**

Present at the meeting were:

Committee Members	**Board Members**
Suzanne Keenan, Chair	Robert G. Clarke
Janice B. Case	David Goulding
Kenneth W. DeFontes	Robin E. Manning
George S. Hawkins	James B. Robb, President and Chief Executive Officer
Roy Thilly, *ex officio*	Jan Schori
	Colleen Sidford

NERC Staff
Tina Buzzard, Associate Director
Laura Brown, Director of Programs and Engagement
Eric Hartung, Senior Data Scientist Advisor
Steve Herrin, Director of Operations
Stan Hoptroff, Vice President, Chief Technology Officer, and Director of Information Technology
Sônia Mendonça, Vice President, Interim General Counsel, Corporate Secretary, and Director of Enforcement
Darrell Moore, Associate Director of Situation Awareness
Lauren Perotti, Senior Counsel
Don Prince, Director of Cyber Infrastructure
Michael Walker, E-ISAC Chief of Staff

NERC Antitrust Compliance Guidelines
Ms. Keenan directed the participants' attention to the NERC Antitrust Compliance Guidelines included in the agenda, and indicated that all questions regarding antitrust compliance or related matters should be directed to Ms. Mendonça.

Chair's Remarks
Ms. Keenan welcomed the Committee members and described highlights from the annual NERC Grid Security Conference, or GridSecCon. She thanked SERC, as a co-host, and the NERC team, especially the

E-ISAC, for a great event. Ms. Keenan emphasized the success of the first women's GridSecCon networking breakfast. She also mentioned her attendance at the E-ISAC Members Executive Committee (the "MEC"), noting that the E-ISAC metrics were endorsed by the MEC and will be presented today. Mr. Robb discussed a March 2019 cybersecurity incident that caused brief communications outages across several states, noting that the entity was not subject to NERC Reliability Standards and NERC published a lessons learned related to the incident in September.

Minutes
Upon motion duly made and seconded, the Committee approved the minutes of the August 14, 2019 meeting as presented at the meeting.

ERO Enterprise IT Projects Update
Mr. Hoptroff provided an overview of the ERO Enterprise information technology projects, referencing the materials that had been included in the advance agenda package. He provided an update on the Align project, emphasizing the project's focus on security, evidence, and data handling, including a planned multi-factor authentication feature for user access. Mr. Moore provided an update on the development of the version 3 of the Situation Awareness for FERC, NERC and Regions (SAFNR v3) tool, highlighting key features and functions to enhance situational awareness. Mr. Hoptroff discussed plans to roll out Salesforce, a new customer-relationship management tool, and additional refinements for the E-ISAC Portal.

E-ISAC Update
Mr. Robb provided an update on recent E-ISAC activities, referencing the materials included in the advance agenda package. His update highlighted the E-ISAC's hiring success and detailed the October MEC meeting's focus areas. Ms. Brown provided an overview of GridSecCon, including the panels and topics discussed. She thanked Ms. Keenan for her support of the women's networking breakfast, and she highlighted GridSecCon's large attendance and positive feedback. Ms. Brown discussed the upcoming GridEx V, which will simulate a severe cyber-physical attack on the electric sector and other critical infrastructures across North America. She noted that 420 participating utilities are scheduled to participate at GridEx V, up from 206 utilities at GridEx IV.

Mr. Hartung discussed the 2020 E-ISAC performance metrics, which were endorsed by the MEC in October 2019, noting that the metrics align with the E-ISAC's long-term strategic plan. Mr. Hawkins noted the depth of the metrics and inquired about whether metrics could be developed to measure timeliness while balancing the need to disseminate information quickly and the need for completeness. Mr. Hartung noted ongoing discussions regarding the development of quality-based metrics. Mr. Thilly thanked E-ISAC staff and the MEC for its work and noted the importance of metrics to the Board's oversight role. Upon motion duly made and seconded, the Committee accepted the proposed 2020 E-ISAC metrics.
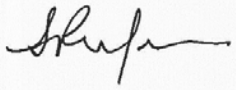
Mr. Herrin provided an update on efforts to increase E-ISAC member information sharing, highlighting the development of a guide for members on information sharing and the growing participation in CRISP.

Mr. Robb provided an overview of the 2020 E-ISAC priorities, including building trust and connectivity with government and international partners and using metrics to improve operations. The Committee discussed increasing security operations staffing.

Adjournment
There being no further business, and upon motion duly made and seconded, the meeting was adjourned.

Submitted by,

Sônia Mendonça
Corporate Secretary

E-ISAC Update

Action
Review

Summary
Management will provide the Committee with an overview of the first quarter (Q1 2020)
Member Executive Committee conference call held on January 23, 2020. The following topics
were on the agenda for the MEC conference call:

- Strategic plan update (timing and key elements);

- Updates on 2020 performance metrics results;

- Member information sharing initiatives;

- Operations (long-term data strategy and 24/7 operations); and

- Strategic partner engagements.

The primary focus of management's presentation at this meeting will be an overview of the
timing and key elements of a planned update to the E-ISAC Long-Term Strategic Plan, including
MEC feedback at the January 23 conference call. The long-term strategic plan has been in place
for three years and there is an opportunity to build on the success to date, evaluate and refine
the E-ISAC's products and services, sharpen focus on resource allocation and drive additional
value and focus moving forward.

Management will review work which is both underway and planned, as well as the timing and
coordination of the update in relation to NERC's 2021 Business Plan and Budget process and
schedule.

ERO Enterprise Information Technology Projects Update

Action
Review

Background
During the November 1, 2019 Technology and Security Committee conference call, NERC provided an update on several ERO Information Technology topics, including:

- The status of the **Align** Project[1];

- The status of the November release of the Centralized Organization Registration ERO System (**CORES**) entity registration system enhancement;

- The status of version 3 of the Situation Awareness for FERC, NERC and the Regional Entities (**SAFNRv3**);

- The development of additional analytical capabilities for the E-ISAC; and

- The E-ISAC new customer relationship management system (which went to production in October).

Summary
Since the November meeting, additional configuration and testing was completed for the first release of **Align.** A number of refinements, clarifications, and enhancements, identified from user feedback, were implemented to help ensure a successful launch of the system for self-reports, enforcement and mitigation. The goal remains for the first release of **Align** to occur later in 2020.

There continues to be a strong focus on ensuring the security and protection of the **Align** application and related data. In addition to the implementation of multi-factor authentication (**MFA**) for access to the **Align** solution (which is also being implement for many other online ERO Enterprise resources), additional work continues to enhance ERO Enterprise policies, procedures, and technology solutions to best manage security risks.

The design of an ERO Enterprise **Data Locker** to support the secure transfer, management, retention and destruction of sensitive registered entity files used in CMEP activities is also underway. The development of a functional specification that will aid registered entities in implementing and hosting their own **Data Lockers** (should they so desire) is also in progress. This would allow registered entities to grant the ERO Enterprise access to sensitive files without needing to actually transfer that information into the custody of an ERO Enterprise system.

NERC IT continues in its mission to deliver technology solutions supporting the effective and efficient use of resources for registered entities, the ERO Enterprise and the E-ISAC.

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[1] The Align Project (previously referred to as the CMEP Technology Project) is a strategic initiative designed to support the ERO Enterprise as it continues to evolve as a risk-informed regulator. It supports three ERO Enterprise goals: implementation of a risk-informed CMEP (Goal 2), reduction of known risks to reliability (Goal 3), and improving the efficiency and effectiveness of the ERO (Goal 6).

Annual Review of Committee Mandate

Action
Review

Background
As part of the annual review of all Board committee mandates, the NERC Legal Department has reviewed the current Technology and Security Committee (TSC) mandate and is not recommending any further revisions at this time.