

Agenda

Technology and Security Committee

February 3, 2021 | 2:30-3:30 p.m. Eastern
Virtual Meeting

Attendee WebEx: [Join Meeting](#)

Introduction and Chair's Remarks

NERC Antitrust Compliance Guidelines*

Agenda Items

1. **Minutes*— Approve**
 - a. November 4, 2020 Meeting
2. **Proposed Amendments to Committee Mandate — Review and Recommend Corporate Governance and Human Resources Committee Approval**
3. **Supply Chain Compromise — Update**
4. **E-ISAC Operations* — Update**
5. **ERO Enterprise Align Project*— Update**
6. **ERO Enterprise Secure Evidence Locker* — Update**
7. **ERO Enterprise Business Technology Projects*— Update**
8. **Other Business 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.

DRAFT Minutes

Technology and Security Committee Meeting

November 4, 2020 | 3:00-4:30 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 4, 2020, at 3:00 p.m. Eastern, and a quorum was declared present. The agenda is attached as **Exhibit A**.

Present at the meeting were:

Committee Members

Suzanne Keenan, Chair
Kenneth W. DeFontes
Robin E. Manning
Jan Schori
Roy Thilly, *ex officio*

Board Members

Jane Allen
Robert G. Clarke
George S. Hawkins
Jim Piro
James B. Robb, NERC President and Chief Executive Officer
Colleen Sidford

NERC Staff

Tina Buzzard, Assistant Corporate Secretary
Manny Cancel, Senior Vice President and Chief Executive Officer of the E-ISAC
Shamai Elstein, Assistant General Counsel
Stan Hoptroff, Vice President, Business Technology
Dee Humphries, Director, Project Management Office
Mark Lauby, Senior Vice President and Chief Engineer
Justin Lofquist, Director, Enterprise Application Architecture
Sônia Mendonça, Senior Vice President, General Counsel, and Corporate Secretary
Janet Sena, Senior Vice President, External Affairs

Chair’s Remarks

Ms. Keenan welcomed the Committee members and highlighted recent Committee activities.

NERC Antitrust Compliance Guidelines

Ms. Buzzard 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.

Minutes

Upon motion duly made and seconded, the Committee approved the minutes of the August 19, 2020 meeting as presented at the meeting.

E-ISAC Operations

Mr. Cancel provided an overview of E-ISAC's operations. He highlighted (i) updates on E-ISAC activities; (ii) the cyber and physical security threat landscape; (iii) GridEx VI; and (iv) member and partner engagement. Mr. Cancel presented on the process of incorporating policy input feedback from the Member Representatives Committee into the E-ISAC Strategic Plan.

ERO Enterprise Business Technology Projects

Mr. Hoptroff provided an update on the ERO Enterprise business technology projects, referencing the materials included in the advance agenda package. He provided an update on the Geomagnetic Disturbance (GMD) application and the Microsoft TEAMS Collaboration Platform. Mr. Hoptroff reviewed E-ISAC technology projects, including the Salesforce customer relationship management (CRM) tool; (ii) the E-ISAC Portal; and (iii) the Data Analysis Platform. He presented on the Security Advisory Group, an advisory body established by NERC Management that represents all industry sectors, and discussed E-ISAC priorities.

ERO Enterprise Align Project

Ms. Humphries and Mr. Hoptroff provided an update on the ERO Enterprise Align project, noting that it will provide the ERO Enterprise with a secure, effective, and harmonized platform with which to execute its Compliance Monitoring and Enforcement Program (CMEP) responsibilities. They highlighted (i) upcoming milestones; (ii) the Align governance model; (iii) adoption of Align in the Canadian Provinces; (iv) current challenges; and (v) the change management process.

ERO Enterprise Secure Evidence Locker

Mr. Hoptroff and Mr. Lofquist provided an update on the ERO Secure Evidence Locker (ERO SEL). Mr. Hoptroff provided an overview of the ERO SEL, noting that it will support the secure transfer, management, retention, and destruction of sensitive registered entity files used in CMEP activities. Mr. Lofquist presented on (i) the technical implementation of the ERO SEL; (ii) security controls; (iii) the registered entity and Regional Entity experience with the ERO SEL; and (iv) potential risks.

Adjournment

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

Submitted by,



Sônia Mendonça
Corporate Secretary

Proposed Amendments to Committee Mandate

Action

Review and recommend approval by the Corporate Governance and Human Resources Committee (CGHRC).

Background

The Technology and Security Committee (TSC) is required to review its mandate annually and recommend to the CGHRC any changes it considers advisable. As part of that annual process, NERC management proposes that the TSC review and recommend CGHRC's approval of revisions to the mandate to include provisions that recognizes the TSC's role in:

1. Reviewing NERC's cyber security posture at least once annually;
2. Providing the Finance and Audit Committee (FAC) and the Board of Trustees (Board) with recommendations regarding the Electricity Information Sharing and Analysis Center's (E-ISAC's) budget as part of the annual business plan and budgeting process; and
3. Serving as the Board's liaison with the Electricity Subsector Coordinating Council's Member Executive Committee for the E-ISAC.

Clean and redline versions of the mandate incorporating these revisions are included in the read-ahead material for the TSC's February 3, 2021 meeting.

Board of Trustees Technology and Security Committee Mandate

Approved by the Board of Trustees: February 2, 2018

Committee Membership

The Board of Trustees Technology and Security Committee (TSC or the Committee) of the North American Electric Reliability Corporation (NERC) shall be composed of not less than three and not more than six of the independent members of the Board of Trustees (Board). The members of the TSC shall be appointed or reappointed by the Board at the regular meeting of the Board immediately following each Annual Meeting of the Members Representative Committee. Each member of the TSC shall continue to be a member thereof until a successor is appointed, unless a member resigns, is removed, or ceases to be a trustee of the corporation. When a vacancy occurs at any time in the membership of the TSC, it may be filled by the Board.

Purpose

The purpose of the TSC is to assist the Board by providing oversight to the corporation's (i) information technology program, (ii) information security program, and (iii) Electricity Sector Information Sharing and Analysis Center (E-ISAC), as well as performing such other responsibilities as directed by the Board or this Mandate.

Committee Authority and Responsibilities

To carry out its purpose, the TSC shall have the following authority and responsibilities:

Technology and Information Security:

1. As part of the annual business plan and budgeting process, provide the Finance and Audit Committee and the Board with recommendations regarding management proposed resource requirements and funding for (i) the design, procurement, installation, operation, and maintenance of information technology hardware, software and applications, including hardware, software, and applications hosted by third parties, supporting NERC's operations and program area initiatives; and (ii) investments in, or supporting, the development of new technology to improve and ensure the reliability of the bulk power system in North America, historic examples of which included funding for the development of transmission system awareness tools, synchrophaser technology, technology used to monitor and manage transmission congestion, and data reporting tools providing information regarding generator, transmission system, and demand side resource availability and performance.
2. Provide oversight on behalf of the Board with respect to the corporation's overall computer systems environment, including procedures to keep the systems secure and contingency plans developed to deal with possible computer failures.

3. [Review NERC's cyber security posture in a closed session of the Committee at least once annually.](#)
4. Respond to the Board's requests to the Committee for advice and recommendations on any technology-related issues.

E-ISAC:

1. Provide oversight on behalf of the Board of the E-ISAC and its related programs.
2. [As part of the annual business plan and budgeting process, provide the Finance and Audit Committee and the Board with recommendations regarding the proposed E-ISAC budget.](#)
3. [Serve as the Board's liaison with the Electricity Subsector Coordinating Council's Member Executive Committee for the E-ISAC.](#)
4. Respond to the Board's requests for advice and recommendations on any E-ISAC related issues.

Additional Responsibilities:

1. Recommend to the Board such actions as may further the purposes of NERC's technology and information security, and NERC's E-ISAC and related programs.
2. Perform such other functions as may be delegated from time to time by the Board.

Committee Meetings

The TSC shall meet at least twice a year by conference call or in person. Meetings may occur at the same place in conjunction with the regular Board meetings of the corporation, or as determined by the members of the TSC, using the same meeting procedures established for the Board. Meetings may be held in either open or closed session as set forth in the Bylaws of the corporation.

A majority of the Committee members shall constitute a quorum. Except where prescribed differently by law: (a) any action or decision of the TSC requires a vote of a majority of the Committee members then in attendance at any Committee meeting provided a quorum is present; and (b) participation may be telephonic or by Action Without a Meeting. The Committee may hold special meetings as circumstances require. Minutes of each Committee meeting shall be maintained as part of the Committee's record.

Governance

The Board, or in the event of their failure to do so, the members of the TSC, shall appoint a chair from among their members. The TSC Chair shall be responsible for leadership of the Committee, including scheduling of meetings, setting agendas, presiding over Committee meetings, and making reports to the Board. A member(s) of the NERC staff shall assist the Chair and shall serve as the non-voting secretary.

Review

The TSC shall review this mandate annually and recommend to the Board Corporate Governance and Human Resources Committee any changes it considers advisable. Any changes must be approved by the full Board. The TSC shall complete a self-assessment annually to determine its effectiveness.

Board of Trustees Technology and Security Committee Mandate

Approved by the Board of Trustees: February 2, 2018

Committee Membership

The Board of Trustees Technology and Security Committee (TSC or the Committee) of the North American Electric Reliability Corporation (NERC) shall be composed of not less than three and not more than six of the independent members of the Board of Trustees (Board). The members of the TSC shall be appointed or reappointed by the Board at the regular meeting of the Board immediately following each Annual Meeting of the Members Representative Committee. Each member of the TSC shall continue to be a member thereof until a successor is appointed, unless a member resigns, is removed, or ceases to be a trustee of the corporation. When a vacancy occurs at any time in the membership of the TSC, it may be filled by the Board.

Purpose

The purpose of the TSC is to assist the Board by providing oversight to the corporation's (i) information technology program, (ii) information security program, and (iii) Electricity Sector Information Sharing and Analysis Center (E-ISAC), as well as performing such other responsibilities as directed by the Board or this Mandate.

Committee Authority and Responsibilities

To carry out its purpose, the TSC shall have the following authority and responsibilities:

Technology and Information Security:

1. As part of the annual business plan and budgeting process, provide the Finance and Audit Committee and the Board with recommendations regarding management proposed resource requirements and funding for (i) the design, procurement, installation, operation, and maintenance of information technology hardware, software and applications, including hardware, software, and applications hosted by third parties, supporting NERC's operations and program area initiatives; and (ii) investments in, or supporting, the development of new technology to improve and ensure the reliability of the bulk power system in North America, historic examples of which included funding for the development of transmission system awareness tools, synchrophaser technology, technology used to monitor and manage transmission congestion, and data reporting tools providing information regarding generator, transmission system, and demand side resource availability and performance.
2. Provide oversight on behalf of the Board with respect to the corporation's overall computer systems environment, including procedures to keep the systems secure and contingency plans developed to deal with possible computer failures.

3. Review NERC's cyber security posture in a closed session of the Committee at least once annually.
4. Respond to the Board's requests to the Committee for advice and recommendations on any technology-related issues.

E-ISAC:

1. Provide oversight on behalf of the Board of the E-ISAC and its related programs.
2. As part of the annual business plan and budgeting process, provide the Finance and Audit Committee and the Board with recommendations regarding the proposed E-ISAC budget.
3. Serve as the Board's liaison with the Electricity Subsector Coordinating Council's Member Executive Committee for the E-ISAC.
4. Respond to the Board's requests for advice and recommendations on any E-ISAC related issues.

Additional Responsibilities:

1. Recommend to the Board such actions as may further the purposes of NERC's technology and information security, and NERC's E-ISAC and related programs.
2. Perform such other functions as may be delegated from time to time by the Board.

Committee Meetings

The TSC shall meet at least twice a year by conference call or in person. Meetings may occur at the same place in conjunction with the regular Board meetings of the corporation, or as determined by the members of the TSC, using the same meeting procedures established for the Board. Meetings may be held in either open or closed session as set forth in the Bylaws of the corporation.

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Governance

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Review

The TSC shall review this mandate annually and recommend to the Board Corporate Governance and Human Resources Committee any changes it considers advisable. Any changes must be approved by the full Board. The TSC shall complete a self-assessment annually to determine its effectiveness.

Electricity Information Sharing and Analysis Center (E-ISAC) Operations

Action

Update

Background

Management will provide the Technology and Security Committee an update regarding E-ISAC Operations. The update will include a discussion of E-ISAC's activities in response to the supply chain compromise and related cyber security incidents affecting the U.S. government and private industry, member engagement and feedback initiatives, Cybersecurity Risk Information Sharing Program operational technology pilots, strategic partnerships, and GridEx, among other items.

ERO Enterprise Align Project Update

Action Update

Background

The Align tool, together with the ERO Secure Evidence Locker (ERO SEL), will provide the ERO Enterprise with a secure, effective, and harmonized platform with which to execute its Compliance Monitoring and Enforcement Program responsibilities. These new tools will allow the retirement of existing legacy systems in use at NERC and the Regional Entities, and substantially increase the security of registered entity data and ERO Enterprise work products. Further, it will enable better oversight of Regional Entity processes, improve the quality and security of reporting, and provide substantial registered entity convenience with the integration to the Align tool (but not to the ERO SEL) of the Centralized Organization Registration ERO System registry and the standards repository.

At the November 3, 2020 Technology and Security Committee (TSC) meeting, NERC provided an update on the status of the Align Project. Since the November meeting, NERC has continued advancing the project. All Release 1 configuration and testing is complete. Training for Regional staff is underway in several Regions, with an initial launch of Release 1 on March 31 with MRO and Texas RE. Release 2 development is complete, with Release 2 user acceptance testing beginning in February. Release 2 will be ready for use by the ERO Enterprise in late Q2.

ERO Enterprise Secure Evidence Locker Update

Action

Update

Background

The ERO Secure Evidence Locker (ERO SEL) will support the secure transfer, management, retention, and destruction of sensitive registered entity files used in Compliance Monitoring and Enforcement Program (CMEP) activities. It will complement the development of the Align tool, which is a work and data management system that the ERO Enterprise will use to manage all ERO Enterprise-developed work products used in CMEP activities. Collectively, the Align tool and the ERO SEL will provide a platform to enable harmonization of Regional Entity practices driving to a common registered entity experience while facilitating the secure submission, review, and retention of evidence generated during CMEP activities.

Development of the ERO SEL is on track for completion for launch in conjunction with Release 1 of Align at the end of March 2021. NERC and Regional Entity testing is complete, and registered entity testing of the SEL is underway. The third-party security assessment is also underway.

NERC has also recently conducted an end-to-end security architecture review for the ERO SEL. This activity was undertaken as an extra precaution following the supply chain compromise that was reported in mid-December 2020. At this time, NERC has not identified the need to make any architectural changes.

ERO Enterprise Business Technology Projects

Action Update

Background

During the November 2020 Technology and Security Committee (TSC) meeting, NERC provided an update on several ERO Business Technology projects, including:

- The Geomagnetic Disturbance Data (GMD) application
- Microsoft TEAMS Collaboration Platform
- Technology projects for the Electricity Information Sharing and Analysis Center (E-ISAC), including the Salesforce customer relationship management tool and the E-ISAC Data Analysis Platform

NERC also provided an update on the formation of the Security Advisory Group (SAG).

Summary

NERC Information Technology continues in its mission to deliver technology solutions supporting an effective and efficient use of resources for registered entities and across the ERO Enterprise. Since the November 2020 meeting, NERC has made continued progress in the development of the GMD System, the implementation of Microsoft Teams, refinement of the E-ISAC's adoption of Salesforce, and the implementation of the E-ISAC's Data Analysis Platform. NERC also held its first meeting of the SAG on January 28, 2021. Management will provide additional information on these projects and the SAG meeting at the TSC's open meeting on February 3, 2021.