ERO Executive Spotlight – Manny Cancel, Senior Vice President and Chief Executive Officer, E-ISAC

Staying One Step Ahead through Collaboration and Knowledge-Based Defense

My first year with NERC has been an extraordinary time from a cyber and physical security perspective. I have been in this industry for nearly 40 years. While cyber and physical security has been a top priority for the past decade or so, the volume, complexity and velocity of threats affecting the electricity sector have differentiated this past year. This trend shows no sign of subsiding. Despite unprecedented new risks from aggressive nation-state threat actors, persistent domestic civil unrest, extreme weather and evolving pandemic conditions, the team at NERC’s Electricity Information Sharing and Analysis Center (E-ISAC) has maintained its focus on analyzing and sharing timely and actionable information with members and partners. This allows them to maintain the level of situational awareness required to mitigate their exposure to these threats.

Staying one-step ahead of our adversaries is vital. We rely heavily on intelligence that U.S. and Canadian government agencies and industry partners provide us as well as the insight gained through voluntary information sharing from our asset owners and operators (AOOs). In the past year, we have observed a significant and positive trend. Industry and partners are coming together, sharing and collaborating more than ever. The breadth and depth of our membership, — which has seen a 25% increase in member organizations and 89% in industry partners in the past year — provides us with a robust and knowledge-based defense.

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Headlines

Lauby Participated in FERC and Virginia Tech EnVision Forum

GridSecCon 2021 Call for Abstracts
Collaboration and Knowledge-Based Defense (cont’d)

To stay ahead, the E-ISAC team is constantly improving its processes and service offerings, moving to full 24x7x365 operations in the past year. This level of coverage allows us to better monitor threat intelligence and support our members and partners by researching, analyzing and disseminating information. In addition, through capabilities such as the Cybersecurity Risk Information Sharing Program (CRISP), the E-ISAC has been working with AOOs to analyze real-time cyber and physical security data for patterns of incidents. Our team of analysts then disseminates responses and alerts on cyber and physical security threats through a secure portal where members can access indicators of compromise and reverse engineering of malware. We recently assessed and shared information regarding potential retaliatory threats arising from President Biden’s sanctions on Russia related to the December 2020 SolarWinds compromise.

That particular compromise demonstrated our ability to help our members and partners mitigate potential compromises to their systems. Using multiple toolkits, the E-ISAC analyzed information that allowed us to best assess the potential impacts of the attack. Subsequently, the E-ISAC worked with government and industry partners through calls and webinars summarizing the threat and mitigation actions. The E-ISAC and the Electricity Subsector Coordinating Council (ESCC) also formed an industry Supply Chain Compromise Tiger Team comprised of industry security professionals, who produced materials and facilitated webinars to improve overall industry response. Webinars have included presentations from Crowdstrike, FireEye, Microsoft and SolarWinds. In addition, we issued 97 Portal postings related to the supply chain and Microsoft Exchange compromises and held one critical broadcast program. The E-ISAC also posted job aids designed to assist the industry’s implementation of some of the free tools to mitigate the supply chain threat. Material and webinar recordings are available on the E-ISAC Portal at 2020 Supply Chain Compromise.

The E-ISAC’s annual security conference, GridSecCon (October 18–20), is co-hosted this year by Texas RE. Our biennial exercise, GridEx (November 16-17), will bring together cyber and physical security leaders from industry and government.

Our industry has a history of sharing and mutual assistance. Every day in the E-ISAC, we see this with industry and partners coming together to create a strong, knowledge-based defense built on sharing and collaboration. Our membership reflects all sizes and types of entities, from large investor-owned utilities to the smallest municipalities. Helping our members to successfully prepare for and rebuff cyber and physical attacks is what keeps the E-ISAC one of the most dynamic and challenging environments that I have had the privilege of working in.

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Additional panel participants included Patricia Hoffman, acting assistant secretary, Office of Electric Reliability, U.S. Department of Energy; Gordon van Welie, president and chief executive officer, ISO New England; and Brent Wanner, world energy, Outlook Power Sector Modelling, International Energy Agency. Colette Honorable, partner, Reed Smith, moderated the panel.

Bob Cummings, president, Red Yucca Power Consulting, and NERC’s former senior director of Engineering and Reliability Initiatives, participated in the “Technology in the Digital Age” panel on April 26. Matthew Gardner, director of system protection, Dominion Energy; Tom O’Brien, senior vice president, and chief information officer, PJM; Kenyon Wells, senior vice president, CGI; and Tongxin Zheng, director of advanced technology Solutions, ISO New England, also participated in this
Panel. Ralph Cavanaugh, senior attorney and energy co-director of climate and clean energy program, Natural Resource Defense Council, moderated this panel.

Other topics included:

- Regulations in Grid Security and Resilience
- Electrical Energy Systems of the Future
- Technology and Security in the Digital Age
- A Changing Generation Mix and its Associated Regulatory Issues
- New Platforms for Partnership and Innovation

**GridSecCon 2021 Call for Abstracts**

We recently sent an abstract submission request for NERC and Texas RE’s GridSecCon 2021, welcoming submissions AOOs in physical or cyber security roles, academic researchers, and industry and government experts. The deadline for submitting an abstract for a training or breakout session was April 21. The E-ISAC will notify those with successful submissions by May 17. For more information or assistance, please contact events@eisac.com.

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**Compliance**

**Compliance Guidance Update**

A key factor in the success of compliance monitoring and enforcement of mandatory standards rests on a common understanding among industry and ERO Enterprise CMEP staff of how they can achieve and demonstrate compliance. For many standards, this is straightforward. For others, a variety of approaches may achieve the same objective. Industry develops Implementation Guidance, for industry, and the guidance requires ERO Enterprise endorsement. This guidance provides examples for implementing a standard.

The NERC Compliance Assurance department NERC updated the ERO Enterprise Non-Endorsed Implementation Guidance tracking spreadsheet to include the following:

- CIP-005-6 R2.4_R2.5 Vendor Support via Web Conferencing (NATF)

**CMEP Practice Guides Posted**

The ERO Enterprise develops CMEP Practice Guides to reflect the independent, objective professional judgment of ERO Enterprise CMEP staff. The ERO Enterprise may initiate their development following policy discussions with industry stakeholders. Following development, NERC posts the CMEP Practice Guides on its website. For registered entities using this guidance as a reference, some aspects of the guidance may assist CMEP staff in determining compliance and some parts may assist CMEP staff in understanding registered entity’s risk mitigation activities. This understanding of risk mitigation may affect monitoring processes such as requests for information. In addition, the risk mitigation may adjust a registered entity’s compliance oversight plan.

NERC posted to the Compliance Guidance page a CMEP Practice Guide on considerations for CMEP staff regarding application of the Bulk Electric System (BES) definition to Battery Energy Storage Systems (BESS) and Hybrid Resources. The guide also provides associated guidance related to the NERC Registration requirements for the owners and operators of these resources.

**Program Alignment Update**

NERC resolved an issue pertaining to a CMEP Practice Guide on considerations for CMEP staff regarding application of the BES definition to Battery Energy Storage Systems and Hybrid Resources. The ERO Enterprise Program Alignment Process enhances efforts to identify, prioritize and resolve alignment issues across the ERO Enterprise. Using this process, NERC captures identified issues from the various resources in a centralized repository. The Consistency Reporting Tool uses a third-party application, EthicsPoint, which allows stakeholders to submit consistency issues—anonymously, if desired.

**Reliability Risk Management**

**Lessons Learned Posted**

In April, NERC posted three new lessons learned on the Lessons Learned page.

The Controlled Islanding due to Wildfire Event Lesson Learned addresses an incident in which a registered entity...
experienced a wildfire in a transmission right of way on a critical transmission corridor. To enable the firefighters to use aerial suppression agents on the fire, the entity de-energized all the transmission lines in the corridor, forming an electrical island. The registered entity was able to separate successfully a part of the system in a controlled manner and was able to assist firefighters in controlling the fire effectively. This is of primary interest to System Operators, Transmission Owners, Transmission Operators, Generator Owners, Generator Operators and Balancing Authorities.

The **Catastrophic Failure of 345 kV Oil Filled Metering Current Transformer in a Transmission Substation** Lesson Learned addresses an incident in which a 345 kV substation line current transformer C-phase experienced a catastrophic failure and caused the current transformer to explode, sending a significant amount of bushing glass shrapnel throughout the switchyard and creating a fire in the switchyard. This is of primary interest to Transmission Owners, Transmission Operators, Generator Owners and Generator Operators.

The **Battery Energy Storage System Cascading Thermal Runaway** Lesson Learned addresses a fire that started in a BESS, resulting in a remote alarm triggering at approximately 16:55 PST. The utility, maintenance provider and firefighters responded to the site. At approximately 20:04 PST, an explosion occurred that injured several firefighters and significantly damaged the BESS. A comprehensive investigation of the event identified the cause of the fire as being a cascading thermal runaway event, which an internal cell failure within one battery cell in the BESS initiated. This is of primary interest to Transmission Owners, Transmission Operators, Generator Owners, Generator Operators and Resource Planning.

A successful Lesson Learned document clearly identifies the lesson, contains sufficient information to understand the issues, visibly identifies the difference between the actual outcome and the desired outcome and includes an accurate sequence of events, when it provides clarity.

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**Standards**

**Webinar Resources Posted**

NERC posted the [streaming webinar](#) and [slide presentation](#) for the April 13, 2021 Project 2017-01 – Modifications to BAL-003 White Paper webinar.

NERC posted the [streaming webinar](#) and [slide presentation](#) for the April 14, 2021 Project 2019-06 – Cold Weather Industry webinar.

NERC posted the [streaming webinar](#) and [slide presentation](#) for the April 27, 2021 Project 2019-02 – BES Cyber System Information Access Management Industry webinar.

**Drafting Team Nomination Period Open for Project 2021-02 – Modifications to VAR-002**

NERC is seeking nominations for Project 2021-02 – Modifications to VAR-002 drafting team members through **May 13, 2021**. Drafting team activities include participation in technical conferences, stakeholder communications and outreach events, periodic meetings and conference calls. Approximately one face-to-face meeting per quarter can be expected (on average three full working days each meeting) with conference calls scheduled as needed to meet the agreed-upon timeline the drafting team sets forth. NERC is seeking individuals who possess experience in the following areas:

- Dispersed power producing resources
- Real-time and same day operations planning with a Generator Operator, Generator Owner and Transmission Operator
- Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls and Protection
- Understanding how data provided by the applicable Generator Operators and Transmission Operators is analyzed and used appropriately

Previous drafting team experience is beneficial but not required. See the project page and nomination form for additional information. Use the electronic form to submit a nomination. Contact [Wendy Muller](#) regarding issues using the electronic form. An unofficial Word version of
the nomination form is posted on the [Standard Drafting Team Vacancies](#) page and the [project page](#). By submitting a nomination form, you are indicating your willingness and agreement to participate actively in face-to-face meetings and conference calls. The Standards Committee is expected to appoint members to the drafting team in June 2021, and they will notify nominees shortly after they have been appointed. For more information on the Standards Development Process, refer to the [Standard Processes Manual](#).

### Supplemental Nomination Period Open for Project 2020-02 SAR Drafting Team Members

NERC is seeking additional nominations for Project 2020-02 – Transmission-connected Dynamic Reactive Resources Standard Authorization Request (SAR) drafting team members through **8 p.m. Eastern, Monday, May 17, 2021**.

NERC’s 2017 Long-term Reliability Assessment identified the potential risk of increasing amounts of reactive power that nonsynchronous sources supply. In response to the concern, the Planning Committee (PC) assigned the System Analysis and Modeling Subcommittee (SAMS) to study the issue. The SAMS developed the *Applicability of Transmission-Connected Reactive Devices* white paper, which the PC approved by the PC at its December 2019 meeting. The PC Executive Committee reviewed the draft SAR from SAMS at its January meeting and subsequently approved the SAR by email vote ending on February 11, 2020. The SAR was posted for industry comment March 30–May 13, 2020, and drafting team member nominations were solicited. However, the project was temporarily paused before a SAR drafting team was appointed.

Use the [electronic form](#) to submit a nomination and contact Wendy Muller regarding issues with the system. An unofficial Word version of the nomination form is posted on the [Standard Drafting Team Vacancies](#) page and the [project page](#). By submitting a nomination form, you are indicating your willingness and agreement to participate actively in face-to-face meetings and conference calls. The time commitment for this project is expected to be one face-to-face meetings per quarter (on average two full working days each meeting) with conference calls scheduled as needed to meet the agreed upon timeline the team sets forth. Face-to-face meetings will be conducted only when CDC health guidelines permit. Team members may also have side projects, either individually or by sub-group, to present for discussion and review. Lastly, an important component of the team effort is outreach. Members of the team will be expected to conduct industry outreach during the development process to support a successful ballot. Previous drafting team experience is beneficial but not required.

The Standards Committee is expected to appoint members to the drafting team in June or July 2021, and they will notify nominees shortly after they have been appointed.

### Nomination Results and Opening of Standards Committee Special Election for Segment 4

The Standards Committee (SC) nomination period for the special election for Segment 4 to fill the remainder of the 2021–2022 term closed April 20, 2021. The following individuals were nominated to represent Segment 4:

- Alice Wright
- Karie L. Barczak

An election began on Thursday, April 29, 2021 for Segment 4, and will remain open for ten calendar days closing on Monday, May 10, 2021 at 8:00 p.m. Eastern. Each individual or entity that is a member of Segment 4 may vote. Detailed information on each candidate is posted on the [Standards Committee’s Nominations and Elections web page](#). Click [here](#) to vote if you represent Segment 4. Proxies are allowed; proxy designations should be emailed to Katrina Blackley prior to voting. In accordance with the Procedure for Election of Members of the SC contained in Appendix 3B of the NERC Rules of Procedure, to be elected a nominee must meet both of the following criteria:

- Receive the highest total number of votes in that Segment; and
- Receive a simple majority of the votes cast in that Segment.

If you have any questions, please contact Alison Oswald.
Regional Entity Events

Northeast Power Coordinating Council, Inc. (NPCC)
- Spring 2021 Compliance and Reliability Webinar, May 19

ReliabilityFirst (RF)
- Registered Entity Align and ERO SEL Training, May 4
- Registered Entity Align and ERO SEL Training, May 12
- Technical Talk with RF, May 17
- Registered Entity Align and ERO SEL Training, May 18
- RF Regional Compliance User Group (CUG), May 21

SERC Reliability Corporation
- 2021 Extreme Weather Webinar, May 18
- Align Release 1 Training: Registered Entity Overview Webinar, June 10
- The Scoop on Insider Threats Webinar, June 15

Texas RE
- Talk with Texas RE - Align Update, May 11
- Talk with Texas RE - Summer Outlook, May 27
- Talk with Texas RE - Energy Storage, June 17
- Talk with Texas RE - Self-Log Submittals, June 24
- Reliability 101 - History & Introduction to Texas RE, July 13

WECC
- Align training (multiple dates)

Upcoming Events

For a full accounting of NERC events, such as meetings and conference calls for standard drafting teams, other standing committees, subcommittees, task forces, and working groups, please refer to the NERC calendar.

- Standards Committee Conference Call – 1:00–3:00 p.m. Eastern, May 19, 2021 | Register

Filings

NERC Filings to FERC in April

April 5, 2021
Motion to Intervene and Comment regarding Mabee Cold Weather Complaint | NERC and Texas RE submitted a Motion to Intervene and Comment regarding a complaint by Michael Mabee related to Reliability Standards under Docket No. EL21-54-000.

April 6, 2021
Joint Comments of NERC and the Regional Entities on Cybersecurity Incentives NOPR | NERC and the Regional Entities submitted comments on a Notice of Proposed Rulemaking regarding cyber security incentives.

April 13, 2021
Joint Answer to Complaint | NERC and NPCC submitted a joint answer to the complaint by George Berka.

April 15, 2021

April 29, 2021
Compliance Filing on the Revised Delegation Agreements With Regional Entities | NERC submitted a compliance filing in accordance with FERC’s December 30, 2020 Order directing NERC to modify certain terms in the Revised RDAs.

April 30, 2021
GMD Research Work Plan Final Report Informational Filing | NERC submitted an informational filing regarding research done under the Geomagnetic Disturbance (GMD) Research Work Plan. The filing includes the final report.

There were no NERC Canadian Filings to FERC in April.

Careers at NERC

BPS Cyber Security Specialist
Location: Atlanta
Details
**CIP Assurance Advisor**
Location: Atlanta
Details

**Senior Engineer or Advisor – Performance Analysis**
Location: Atlanta
Details

**Senior Cyber Security Analyst**
Location: Atlanta
Details

**Senior Data Analyst – Performance Analysis**
Location: Atlanta
Details

**Senior Network Administrator**
Location: Atlanta
Details

**Business Change Lead**
Location: Washington, D.C.
Details