

# Minutes

## Member Representatives Committee

August 9, 2017 | 1:30 p.m. – 4:30 p.m. Eastern

Westin Ottawa  
11 Colonel By Drive  
Ottawa, ON K1N 9H4, Canada

Chair John Twitty, with Vice Chair Jason Marshall present, called to order the North American Electric Reliability Corporation (NERC) Member Representatives Committee (MRC) meeting on August 9, 2017, at 1:35 p.m., Eastern. The meeting announcement, agenda, and list of MRC members in attendance are attached as **Exhibits A, B and C**, respectively.

### Introduction and Chair's Remarks

Mr. Twitty thanked Mr. Marshall for chairing the May 2017 meeting in his absence, welcomed new MRC members and attendees, and acknowledged the attendance of the Board, Michael Bardee and others from the Federal Energy Regulatory Commission (FERC), Murray Doehler from CAMPUT, Pat Hoffman from the Department of Energy, and Sergio Marchi from the Canadian Electricity Association.

Mr. Twitty noted that the biennial ERO Enterprise Effectiveness Survey will be distributed to stakeholders next year and asked for volunteers from the MRC to serve on an ad hoc group to provide input on the survey.

Mr. Twitty recognized the MRC responses to the July 5, 2017, policy input request from Roy Thilly, chairman of the Board. He reminded attendees that full presentations were conducted at the committee meetings and will not be repeated during the MRC meeting.

### NERC Antitrust Compliance Guidelines and Public Announcement

Kristin Iwanechko, committee secretary, called attention to NERC's antitrust compliance guidelines and the public meeting notice. Any questions should be addressed to NERC's general counsel, Charles Berardesco.

Ms. Iwanechko declared a quorum present with the following recognized proxies:

- Carol Chinn for Vicken Kasarjian – State/Municipal Utility
- Bill Gallagher for David Osburn – Transmission-Dependent Utility
- John Hughes for Michelle D'Antuono – Large End-Use Electricity Customer
- Herb Schrayshuen for Jackie Roberts – Small End-Use Electricity Customer
- Gordon van Welie for Peter Gregg – ISO/RTO

## **Minutes**

The MRC approved, on a motion by Martin Sidor and seconded by Sylvain Clermont, the draft minutes of its May 10, 2017, meeting in St. Louis and its July 12, 2017, conference call.

## **Schedule for MRC Officer and Sector Elections**

Mr. Twitty announced the annual nomination and election of the MRC chair, vice chair, and member representatives from each sector. The schedule for the 2017 nominations and elections is as follows:

### **MRC Officer Nominations and Elections:**

Wednesday, August 30 – nomination period opens

Friday, September 29 – nomination period closes

Wednesday, November 8 – election of officers for following year by current MRC members

### **MRC Member Nominations and Elections:**

Wednesday, September 13 – nomination period opens

Monday, November 13 – nomination period closes

Thursday, December 7 – election begins

Monday, December 18 – election ends

## **Board of Trustees Nominating Committee Update**

Fred Gorbet, chair of the Board of Trustees Nominating Committee (BOTNC), noted that the BOTNC had a meeting the previous day and unanimously agreed to re-nominate the two trustees up for re-election (Jan Schori and George Hawkins). With Ken Peterson being term limited and Deborah Parker's recent resignation, the BOTNC is working with a search firm to fill two vacant positions. The BOTNC will be meeting in September to narrow down the slate of candidates, interview the candidates in November, meet again in early December to agree on two nominees, and finally, send a recommendation to the MRC in mid-December.

## **Responses to the Board's Request for Policy Input**

Mr. Twitty acknowledged the MRC's responses to Roy Thilly's July 5, 2017, letter requesting policy input on supply chain risk management. The following comments on the policy input topics are not all inclusive, but provide the general tenor and scope of the discussion:

### **Supply Chain Risk Management**

Howard Gugel, senior director of standards and education at NERC, noted that the final ballot of the supply chain risk management standards closed on July 20 with over 80% approval of all standards and those standards are being presented to the Board the next day for adoption. Mr. Gugel stated that the standard drafting team focused on high and medium impact Bulk Electric System (BES) cyber systems and did not include requirements for low impact systems. However, he emphasized that risks from low impact systems should not be ignored and NERC intends to monitor such risks. He highlighted the modifications made to the standards and noted that the standard drafting team developed implementation guidance which was endorsed by the ERO as part of the standards development process. He also noted that the implementation period is 18 months following regulatory approval.

Mr. Gugel highlighted input received in response to the policy input questions:

- To help support effective implementation, NERC should execute processes similar to what was done for CIP version 5, including additional implementation guidance, communication through webinars, inclusion of vendors, consistent audit guidelines, and engagement of the Critical Infrastructure and Protection Committee.
- To evaluate the effectiveness of the standards, NERC should establish an expert group for feedback on success, engage technical committees, use the E-ISAC to track incidents, and integrate a supply chain compromise scenario into the GridEx exercise, but should allow some time for implementing the standards prior to evaluating effectiveness.
- Risks and related issues not covered by the standards that NERC should study or address include legacy support/resellers, mapping of NERC standards to non-ERO standards, low impact risks mitigated by implementation for medium and high impact BES cyber systems, and standards in other sectors.
- To address additional potential supply chain risks, NERC should use webinars effectively, facilitate secure reporting, engage vendors and suppliers, participate in cross-industry forums, and post and share lessons learned.

Mr. Gugel noted that to support standards deployment, NERC will form an industry advisory group, conduct ERO Enterprise auditor training, hold industry webinars and workshops, provide outreach to vendors on controls, engage the Critical Infrastructure and Protection Committee, forums, and trades to develop additional Implementation Guidance, and evaluate effectiveness within two years of implementation. To address additional residual risks, Mr. Gugel noted that NERC will: engage the technical committees to develop reliability guidelines; form vendor-industry working groups on supply chain risks; review supply chain risk practices in other industries and communicate effective strategies; ensure BES supply chain risks are addressed by product manufacturing standards; provide the latest government intelligence to industry; partner with the Department of Energy (DOE) Idaho National Laboratory to test legacy and planned equipment on supply chain vulnerabilities; and issue E-ISAC bulletins.

- An MRC member asked how vendors are regulated since they are not under Section 215 of the Federal Power Act. Mr. Gugel acknowledged that vendors are not subject to NERC Reliability Standards, but noted that they are engaged in procurement based on CIP-013. He also noted that NERC will be reaching out to vendors through industry forums to communicate expectations and form joint vendor and industry groups.
- An MRC member suggested that NERC partnering with DOE Idaho National Laboratory is outside of NERC's role and asked whether NERC's intent is to facilitate industry doing this. Mr. Gugel stated that NERC is supportive of industry partnering with DOE Idaho National Laboratory.
- MRC members discussed the potential ability to certify vendors through an independent auditor.
- An MRC member reinforced that the FERC filing should address how the risk from low impact systems is to be handled.

### **Additional Policy Discussion of Key Items from Board Committee Meetings**

Board committee chairs provided a high level overview of the agenda items discussed at each of the Board committee meetings. Attendees did not have any additional comments in response to the

discussions from the Standards Oversight and Technology Committee and Corporate Governance and Human Resources Committee meetings. Attendees shared the following comments in response to the discussions at the Compliance Committee and Finance and Audit Committee meetings.

### **Compliance Committee**

- Mr. Bardee noted that FERC staff is reviewing the remote access study report that was filed by NERC and is working with NERC to determine whether all of the redacted material should remain non-public.

### **Finance and Audit Committee**

- Jan Schori, chair of the Finance and Audit Committee, requested clarification on a comment in the policy input responses regarding NERC and the Board having more involvement in regional budgets. MRC members clarified that this comment was regarding increasing efficiencies in the budget process and avoiding duplication.
- An MRC member commented that budgets are not mutually exclusive and need to be viewed holistically.
- A Regional CEO noted there is a robust process for the Regional Entity budgets and encouraged stakeholders to continue to participate in that process.

### **ERO Enterprise Long-Term Strategy, Operating Plan, and 2018 Metrics**

Mike Walker, senior vice president and chief financial and strategic development officer at NERC, provided a high level overview of the draft ERO Enterprise Long-Term Strategy, Operating Plan, and 2018 Metrics, noting that the first drafts of each document were posted for stakeholder comment. He stated that the development of the Long-Term Strategy was an opportunity to step back and recognize emerging risks and the changing bulk power system (BPS) ecosystem. The first draft of the Long-Term Strategy includes six focus areas: (1) risk based compliance, enforcement, and assessments; (2) technical resources and capabilities; (3) security; (4) communication; (5) ERO Enterprise-wide operating effectiveness and efficiency; and (6) international engagement. Mr. Walker noted that it would be reviewed periodically as needed. Mr. Walker also noted that the six goals in the Operating Plan are consistent with the last approved version and highlighted the notable changes: a refined vision, mission, and core principles; an additional goal focused on security; updates to contributing activities in support of the Long-Term Strategy; and the addition of Regional Entity contributing activities. Mr. Walker also reviewed the proposed 2018 metrics, which continue the focus of the 2017 metrics, and highlighted notable changes: removal of the compliance severity index in Metric 5 to instead measure the percentage of serious risk violations; removal of the Metric 6 sub-metric related to cold weather; greater focus on ERO Enterprise efficiency and effectiveness in Metric 7; and inclusion of historical data for each metric. He also noted that in addition to the ERO Enterprise metrics, NERC and each of the Regional Entities have more individual task oriented goals and metrics tied to internal performance and compensation. Overall, the Long-Term Strategy informs the three-year Operating Plan, which then influences the annual business plans and budgets. The metrics are used to track performance.

With respect to next steps, Mr. Walker noted that stakeholder comments on the first drafts are due the following week, and NERC and the Regional Entity CEOs will meet to address the comments and prepare

second drafts to post for stakeholder comment in September. The final documents will be presented to the Board in November for approval.

Roy Thilly, Board chair, reminded MRC members that as the leaders of the NERC stakeholder community, the Board has requested MRC members step back from the detailed process and identify what they see as the two or three most important achievements for the ERO Enterprise over the next five to seven years. The following summarizes the areas proposed by MRC members in response to this request:

- More extensive outreach to industry, regulators, and politicians on the risks identified in technical reports.
- Continue investments in analytics.
- Look at what others are doing to mitigate risks in adapting to the changing resource mix.
- Achieve streamlined body of standards focused only on the essential requirements.
- Achieve regulatory certainty to minimize the need for subjective judgement on compliance and enforcement matters.
- Simplify the compliance monitoring and enforcement program and increase outreach on new and revised standards.
- Coordinate and streamline activities to focus on the core mission with some activities/programs possibly transferred to the forums.
- Continue increasing alignment within the ERO for all program areas.
- Ensure efficiencies and avoid duplication, particularly in the standards and compliance areas.
- Put in place a true cost-benefit tool, looking at the impact of standards on society as a whole.
- Truly tri-lateralize NERC and recognize shared goals and aspirations.
- Increase focus on cyber security.
- Identify current funding sources for the program areas and consider other sources in the long-term.
- Use the regulatory boundaries of Section 215 of the Federal Power Act and the existing definition of Adequate Level of Reliability as the starting point for the Long-Term Strategy.

Gerry Cauley, president and CEO of NERC, expressed his appreciation for the discussion and commented that geopolitical change can create new imperatives for the ERO that are not currently anticipated, and therefore, results in new areas of focus for the ERO.

Highlighted below are general comments made during the discussion on the ERO Enterprise Long-Term Strategy, Operating Plan, and 2018 Metrics.

- An MRC member suggested additional mapping between the Long-Term Strategy and Operating Plan.
- A Board member commented that the amount of collaboration and opportunity for input is very impressive.

## **Technical Rationale for Reliability Standards**

Mr. Gugel provided background on the guidelines and technical basis included with many NERC Reliability Standards, which was initially designed to support results based standards, provide standard drafting teams a mechanism to explain the technical basis for a Reliability Standard, and provide technical guidance to help support effective application. Going forward, there will no longer be a guidelines and technical basis section included with Reliability Standards. However, standards drafting teams will be able to prepare a new document entitled “Technical Rationale”, which will allow for the development of technical information previously included in the guidelines and technical basis section. Compliance related language was not intended to be included in the guidelines and technical basis section and will not be in Technical Rationale. However, standards drafting teams and industry are able to propose implementation guidance as part of the standards development process. Mr. Gugel provided a status of the Technical Rationale process, noting that the process has been developed, endorsed by the Standards Committee, and is starting to be implemented. He provided an overview of related activities, including development of ERO guidance on the existing guidelines and technical basis section and future technical rationale in Q3 2017, reviewing the existing guidelines and technical basis section for possible compliance guidance language in Q4 2017, and transitioning the existing guidelines and technical basis section to technical rationale from Q4 2017 through Q3 2018.

Mr. Gugel also reminded attendees about relevant standards documents including: (1) applicability, requirements, and effective dates which are the mandatory and enforceable components of Reliability Standards; (2) the standards filings for approval and subsequent regulatory orders ; (3) technical information that is not mandatory and enforceable, such as technical rationale, whitepapers, and reliability guidelines; and (4) audit and compliance documents that are not mandatory and enforceable, such as Reliability Standard Audit Worksheets, Implementation Guidance, and CMEP Practice Guides.

- Noting that the guidelines and technical basis section was also used to communicate the standard drafting teams’ intent when developing a standard, an MRC member asked if standard drafting teams will be expected to develop technical rationale going forward. Mr. Gugel stated that technical rationale is a tool for standard drafting teams to use, but is not a requirement.
- An MRC member suggested that revisions may be necessary to the Standard Processes Manual.
- An MRC member asked about the standard drafting teams’ involvement with the compliance aspect during development of a standard. Mr. Gugel noted that standard drafting teams informally engage both NERC’s and Regional Entities’ compliance staff to provide a compliance perspective during development. The MRC member suggested there may be an opportunity to formalize the standard drafting teams’ engagement with compliance.
- An MRC member asked why the information in the guidelines and technical basis section is being transferred to a document separate from the standard. Mr. Gugel noted that with the information included in the standard, it appears to be misinterpreted as mandatory and enforceable, which it is not.
- MRC members asked whether the information in the guidelines and technical basis section would be transferred verbatim or if there would be modifications, and if industry input would be requested. Mr. Gugel noted that aside from any compliance guidance language which would be



removed, the intent would be to transition the technical information verbatim to technical rationale. Mr. Gugel also noted that industry input will be requested throughout the transition.

- An MRC member asked whether NERC anticipated a period of time in the transition where the information being transitioned was not included somewhere. Mr. Gugel stated that he does not expect this to happen.

### **Update on Security Issues**

Marc Sachs, senior vice president and chief security officer at NERC, provided background on cyber security threats, noting that they can generally be broken down into five areas: reputation damage, theft of intellectual property, ransomware, direct manipulation of control systems, and mechanical or logical damage. He provided examples and descriptions of a typical phishing email, infected attachments, ransomware, and control system manipulation. Mr. Sachs noted that over the past several weeks, the following have brought media attention: (1) WannaCry ransomware which was a cyber attack on May 12, 2017, affecting multiple global sectors; (2) CrashOverride/Industroyer control systems malware which was linked to a 2016 cyber incident in Ukraine; (3) Petya (aka NotPetya) ransomware which targeted Ukraine in 2017; and (4) Nuclear 17 investigation which is an advanced persistent threat (APT) adversary targeting multiple infrastructure sectors.

- An MRC member asked whether the type of operating system being run makes a difference. Mr. Sachs stated that the operating system does not matter if it is not properly patched.

### **Accountability Matrix**

Ms. Iwanekho invited questions or comments regarding the accountability matrix included in the MRC agenda package, which is updated quarterly and captures key action items from the quarterly MRC and Board meetings and the policy input letter responses.

### **Regulatory Update**

Mr. Berardesco invited questions or comments regarding the regulatory report, which highlights Canadian and Mexican affairs, as well as past and future significant FERC filings.

Mr. Berardesco also discussed NERC and Southwest Power Pool Regional Entity's (SPP RE) mutual agreement to terminate their Regional Delegation Agreement which would dissolve SPP RE. This will require formal Board approval and reassignment of the registered entities currently within SPP RE. Until the transition is complete, SPP RE will continue to operate and SERC will continue to act as the Compliance Enforcement Authority (CEA) for SPP Regional Transmission Organization. Every entity within SPP RE should have received a letter outlining the process to select a new Regional Entity, including the ability of a registered entity to request a transfer to a specific region, along with information that should accompany the request. An invitation-only webinar will be held for affected entities to ask questions about the transition. NERC and FERC are authorized to approve all transfers through amendments to the relevant regional delegation agreements.

Mr. Cauley reinforced that, as noted in SPP's public announcement, the dissolution will allow SPP to focus on market operations and reliability coordination and is a good opportunity for NERC to advance the ERO model for CEA independence. NERC is working closely with the three regions, MRO, RF and SERC, that have expressed an interest in accepting registered entities from SPP RE.

### **Future Meetings**

The following are future dates for the MRC Pre-Meeting and Informational Sessions:

- October 12, 2017

The following are future NERC Board and MRC meetings dates and locations:

- November 8-9, 2017 – New Orleans, LA
- February 7-8, 2018 – Ft. Lauderdale, FL
- May 9-10, 2018 – Washington, D.C.
- August 15-16, 2018 – Calgary, Canada
- November 6-7, 2018 – Atlanta, GA

### **Adjournment**

There being no further business, the meeting terminated at 5:04 p.m., Eastern.

Submitted by,



Kristin Iwanechko  
Secretary



# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## Meeting Announcement

Board of Trustees Committees  
Member Representatives Committee  
Board of Trustees

August 9-10, 2017 | Ottawa, Ontario

**The Westin Ottawa**  
11 Colonel By Drive  
Ottawa, ON K1N 9H4  
Canada

Click here for: [Meeting Registration and Hotel Information Link.](#)

The Schedule of Events and meeting agenda packages for the August 9-10 meetings will be posted on or about July 27. Please note the Schedule may be adjusted real-time should meetings conclude early and/or extend past their scheduled end time.

For more information or assistance, please contact [Tina Buzzard](#) (via email).

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RELIABILITY | ACCOUNTABILITY

# Agenda

## Member Representatives Committee

August 9, 2017 | 1:30 p.m. – 4:30 p.m. Eastern

(Please note the Schedule may be adjusted real-time should meetings conclude early and/or extend past their scheduled end time.)

Westin Ottawa  
11 Colonel By Drive  
Ottawa, ON K1N 9H4, Canada

Conference Room: Confederation II/III (4<sup>th</sup> Floor)

### Introduction and Chair's Remarks

### NERC Antitrust Compliance Guidelines and Public Announcement\*

### Consent Agenda

1. **Minutes\* - (Approve)**
  - a. May 10, 2017 Meeting
  - b. July 12, 2017 Conference Call
2. **Future Meetings\***
3. **Schedule for MRC Officer and Sector Elections\***

### Agenda Items

4. **Board of Trustees Nominating Committee Update\***
5. **Responses to the Board's Request for Policy Input\***
  - a. Supply Chain Risk Management\*
6. **Additional Policy Discussion of Key Items from Board Committee Meetings\***
  - a. Standards Oversight and Technology Committee (August 3, 2017)
  - b. Corporate Governance and Human Resources Committee
  - c. Compliance Committee
  - d. Finance and Audit Committee
7. **ERO Enterprise Long-Term Strategy, Operating Plan, and 2018 Metrics\***
8. **Technical Rationale for Reliability Standards\***
9. **Update on Security Issues\***
10. **Accountability Matrix\***
11. **Regulatory Update\***

\*Background materials included.

**Member Representatives Committee - Attendance (August 9, 2017)**

**Voting Members**

<b>First Name</b>	<b>Last Name</b>	<b>Sector</b>
John	Twitty	Chair
Jason	Marshall	Vice Chair
John	Pespisa	1. Investor-Owned Utility
Jennifer	Sterling	1. Investor-Owned Utility
Carol	Chinn	2. State/Municipal Utility
Vicken	Kasarjian	2. State/Municipal Utility - Proxy Carol Chinn
Jay	Bartlett	3. Cooperative Utility
Greg	Ford	3. Cooperative Utility
Sylvain	Clermont	4. Federal/Provincial
Lam	Chung	4. Federal/Provincial
Tony	Montoya	4. Federal/Provincial
Bill	Gallagher	5. Transmission Dependent Utility
David	Osburn	5. Transmission Dependent Utility - Proxy Bill Gallagher
Martin	Sidor	6. Merchant Electricity Generator
Donald	Holdsworth	6. Merchant Electricity Generator
Michelle	D'Antuono	8. Large End-Use Electricity Customer - Proxy John Hughes
Jay	Barnett	8. Large End-Use Electricity Customer
Jackie	Roberts	9. Small End-Use Electricity Customer - Proxy Herb Schrayshuen
Herb	Schrayshuen	9. Small End-Use Electricity Customer
Gordon	van Welie	10. ISO/RTO
Peter	Gregg	10. ISO/RTO - Proxy Gordon van Welie
Bill	Magness	10. ISO/RTO
Rob	McGarrah	11. Regional Entity - FRCC - Proxy Stacy Dochoda
Lou	Oberski	11 Regional Entity - RF

**Non-Voting Members**

<b>First Name</b>	<b>Last Name</b>	<b>Sector</b>
Murray	Doehler	Canadian Provincial
Tab	Gangopadhyay	Canadian Federal
Pat	Hoffman	U. S. — Federal
Michael	Bardee	U. S. — Federal
Richard	Doying	Regional Entity - MRO
Harvey	Reed	Regional Entity - NPCC
Lee	Xanthakos	Regional Entity - SERC
Liz	Jones	Regional Entity - Texas RE
Jim	Robb	Regional Entity - WECC
Kristin	Iwanechko	Secretary