



NORTHEAST POWER COORDINATING COUNCIL, INC.
1040 AVE. OF THE AMERICAS, NEW YORK, NY 10018 (212) 840-1070 FAX (212) 302-2782

December 20, 2016

Members, Reliability Coordinating Committee
and
Members, Task Force on Coordination of Operation
Members, Task Force on Coordination of Planning
Members, Task Force on Infrastructure Security and Technology
Members, Task Force on System Protection
Members, Task Force on System Studies

Re: Minutes of the September 7, 2016 RCC Meeting

Sir / Madam:

Attached are the minutes of the September 7, 2016 meeting of the NPCC Reliability Coordinating Committee, as approved at the December 6, 2016 RCC meeting.

Sincerely,

Phil Fedora

Philip A. Fedora
Assistant Vice President-Reliability Services

cc: NPCC Staff



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

Mr. Schiavone called the meeting of the Reliability Coordinating Committee (RCC), held at the Toronto Marriott Downtown Centre Hotel to order at 10:00 am.

Attendance

Officers of the Reliability Coordinating Committee

| | |
|------------------------------------|--------------------------|
| Michael Schiavone, Chair | National Grid USA |
| Brian Evans-Mongeon, Co-Vice Chair | Utility Services, Inc. |
| Randy Crissman, Co-Vice Chair | New York Power Authority |

Sector 1 - Transmission Owners

| | |
|--|---|
| Central Hudson Gas & Electric Corp. | (via written proxy) |
| Central Maine Power Company | David Conroy |
| Consolidated Edison Company of New York, Inc. | Michael Forte |
| Hydro-One, Inc. | Tom Irvine |
| Long Island Power Authority | (proxy to Robert Eisenhuth - via phone) |
| National Grid USA | Michael Schiavone |
| New Brunswick Power Corporation | Tony O'Hara |
| New York Power Authority | (proxy to Randy Crissman) |
| Vermont Electric Power Company, Inc. | Hantz Presume |

Sector 2 – Reliability Coordinators

| | |
|--|----------------------------|
| Hydro-Quebec TransEnergie | Francois Brassard |
| Ontario Independent Electricity System Operator | Leonard Kula |
| ISO-New England, Inc. | Mike Henderson (via phone) |
| New York ISO | (proxy to Zach Smith) |

**Sector 3 – Transmission Dependent Utilities, Distribution Companies and Load Serving
Entities**

| | |
|--|---|
| Consolidated Edison Company of New York, Inc. | (proxy to Michael Forte) |
| Eversource Energy | Barry Bruun (via phone) |
| Hydro Quebec Distribution | Abdelhakim Sennoun (via phone) |
| Long Island Power Authority | (proxy to Robert Eisenhuth – via phone) |
| New York Power Authority | (proxy to Randy Crissman) |

Sector 4 Generation Owners

| | |
|--|----------------------------------|
| Consolidated Edison Company of New York, Inc. | (proxy to Mike Forte) |
| Dynegy, Inc. | (proxy to Ken Stell - via phone) |
| Eversource Energy | (proxy to Barry Bruun) |



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

| | |
|--------------------------------|---|
| Long Island Power Authority | (proxy to Robert Eisenhuth– via phone) |
| New York Power Authority | Randy Crissman |
| NextEra Energy Resources | Alan Schriber (via phone) |
| Ontario Power Generation, Inc. | David Ramkalawan |
| Talen Energy Supply, LLC | Elizabeth Davis - Alternate (via phone) |

Sector 5 – Marketers, Brokers, and Aggregators

| | |
|--|---|
| Consolidated Edison Company of New York, Inc. | (proxy to Michael Forte) |
| Long Island Power Authority | (proxy to Robert Eisenhuth – via phone) |
| New York Power Authority | (proxy to Randy Crissman) |
| Utility Services, Inc. | Brian Evans-Mongeon |

Sector 6 – State and Provincial Regulatory and/or Governmental Authorities

| | |
|--|---|
| Long Island Power Authority | (proxy to Robert Eisenhuth – via phone) |
| New York Power Authority | (proxy to Randy Crissman) |
| New York State Department of Public Service | Ed Schrom (via phone) |

Sector 7 – Sub-Regional Reliability Councils, Customers, other Regional Entities and Interested Entities

| | |
|---|---------------------|
| New York State Reliability Council, LLC | (via written proxy) |
|---|---------------------|

NPCC Staff

| | |
|--------------------------|---|
| Gerry Dunbar | Manager of Reliability Criteria Requirements |
| Phil Fedora | Assistant Vice President, Reliability Services |
| Brian Hogue | Information Systems & Security Management |
| Stanley Kopman | Assistant Vice President Compliance Enforcement and Mitigation |
| Quoc Le | Manager, System Planning and Protection |
| Michael Lombardi | Manager, System Studies |
| Andrey Oks | Director of Operations Coordination |
| Lee Pedowicz (via phone) | Manager, Reliability Performance and Criteria Assessment |
| Paul Roman | Director, Operations Planning |
| Ralph Rufrano | Manager, Events Analysis |
| Rafael Sahiholamal | Senior Reliability Engineer |
| Edward Schwerdt | President & CEO |



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

Guests

| | |
|------------------|---|
| Brent Blanchard | New York Power Authority |
| Farzad Farahmand | Ontario Independent Electricity System Operator |
| Brian Hartwell | Ontario Independent Electricity System Operator |
| John Helme | Chair, Task Force on Infrastructure Security and Technology |
| Liana Hopkins | New York Power Authority |
| Hardeep Kandola | Ontario Independent Electricity System Operators |
| George Wegh | Chair, Task Force on System Protection |

Quorum Statement

Mr. Fedora indicated that a quorum had been achieved, by member attendance, proxy or alternate designation. He also noted having received the following written proxies:

Sector 1 - Transmission Owners

James J. McCloskey – Central Hudson Gas & Electric Corporation

Sector 7 - Sub-Regional Reliability Councils, Customers, other Regional Entities and Interested Entities

Roger Clayton – New York State Reliability Council, LLC

Antitrust Guidelines for NPCC Meetings

Mr. Fedora reviewed the NPCC Antitrust Guidelines in the Agenda package, and suggested contacting NPCC Inc.'s Secretary, Ruta Skucas at (202) 530-6428 for further information.

President & CEO Report

Mr. Schwerdt provide a presentation on the following topics:

ERO Enterprise Strategic Plan

At the end of August, the ERO Executive Management Group (ERO EMG) met to continue its work on development of a draft Strategic Plan for 2017-2020 for the Electric Reliability Organization Enterprise (which is NERC and the eight Regional Entities acting together). Earlier versions of the Strategic Plan had been shared with the NERC Member Representatives Committee for review, and the NPCC Board has previously offered policy input on various aspects of the draft Strategic Plan. The ERO EMG's deliberations were informed by NPCC's comments, as well as the ongoing work of the Reliability Issues Steering Committee, which identifies and prioritizes risks to reliability from an industry perspective.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

The current draft 2017-2020 Strategic Plan retains, mostly unchanged, the five major Goals from the previous year's plan, with more targeted Contributing Activities that link directly to identified emerging risks. The overall Goals are:

- ✓ Goal 1: Risk Responsive Reliability Standards;
- ✓ Goal 2: Objective and Risk-Informed Compliance Monitoring, Enforcement, Organizational Certification, and Registration;
- ✓ Goal 3: Identification and Mitigation of Significant Risks to Reliability;
- ✓ Goal 4: Identification and Assessment of Emerging Risks to Reliability; and,
- ✓ Goal 5: Effective and Efficient Operations of the ERO Enterprise.

Specific activities recommended for inclusion in future NERC and Regional Entity business plans include: supporting outreach and implementation guidance for standards; addressing any non-compliance recidivism issues; incorporating distributed energy resources into expanded probabilistic analyses of resource adequacy; and, assessing system resiliency and cross-sector reliability interdependencies. The proposed Measures of Success focus on improving industry performance outcomes against reliability objectives, as well as ERO Enterprise operational efficiency metrics.

The current schedule calls for a final draft of the Strategic Plan to be included in a September 27th policy input request letter from the NERC Board of Trustees to the industry. The Strategic Plan will be considered for approval by the Board in November.

NPCC Board Strategy Session

The NPCC Board will be meeting later today in a Strategic Planning Session to review of a draft prioritized listing of some nine reliability issues identified by the RISC, which include:

- ✓ cyber security vulnerabilities;
- ✓ changing resource mix;
- ✓ bulk power system planning; and,
- ✓ resource adequacy and performance.

The Board will assess if there are other reliability concerns that are unique to NPCC that should be added or if there are industry issues that have a lower priority within Northeastern North America. Once this is complete, the Board will move on to operationalize the issues by 1) evaluating whether they cause NPCC to consider adjusting the priorities contained in its Business Plan and Budget for 2017; 2) recommending how these prioritized issues could form the focal point for NPCC's 2018 business plan and budget; and 3) developing Board policy input on the draft ERO Strategic Plan. This cyclical process of identification, evaluation, action, assessment and adjustment is critical to keep NPCC in the forefront of ERO Enterprise activities.

Chair Report

Meeting Agenda

Mr. Schiavone referred the RCC to the Agenda provided in the Agenda package.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

The RCC then approved the Agenda.

Mr. Schiavone reminded the RCC that Mr. Evans-Mongeon would succeed him as RCC Chair in 2017. He added that a Nominating Committee needs to be formed to recommend candidate(s) for the position of RCC Co-Vice Chair for 2017. He asked that volunteers for the Nominating Committee contact Mr. Fedora, who would coordinate their efforts.

Development of 2017-2018 Task Force/RCC Work Plans

Mr. Schiavone reminded the Task Force Chairs and the RCC that review and approval of the proposed 2017 - 2018 Task Force/RCC Work Plans will take place at the December 6, 2016 RCC meeting.

Mr. Fedora indicated he would provide the Task Force Chairs the draft ERO Strategic Plan when available, to help inform the development of their respective 2017-2018 Work Plans.

RCC Scope

Mr. Schiavone referred to the RCC Scope provided in the Agenda package, which was approved by the NPCC Board at their meeting on June 30, 2016.

2017 RCC Meeting Dates

Mr. Fedora confirmed the following dates and locations for the 2017 RCC meetings:

- ✓ Wednesday March 1, 2017 - New York Times Square Residence Inn by the Marriott
- ✓ Wednesday May 31, 2017 - New York Times Square Residence Inn by the Marriott
- ✓ Wednesday September 6, 2017 - New York Times Square Residence Inn by the Marriott
- ✓ Tuesday December 5, 2017 - Colonnade Hotel, Boston, MA
(in conjunction with the NPCC Board/Annual/General Meetings)

Consent Agenda

The Reliability Coordinating Committee unanimously approved the following Consent Agenda items (all written proxies in favor).

June 1, 2016 Meeting Minutes

The Draft-For-Approval Minutes of the June 1, 2016 Reliability Coordinating Committee were approved, as provided in the Agenda package, with the corrections noted.

RCC Membership Changes

The following changes to RCC Membership were approved:

Sector 2, Reliability Coordinators

- ✓ Mr. Richard Kowalski succeeds Mr. Don Gates as an alternate member, both of ISO-NE.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

Sector 4, Generator Owners

- ✓ Mr. Ken Stell succeeds Mr. Jim Watson as a member, both of Dynegey Inc.

Task Force Roster Changes

The following changes to Task Force and Working Group memberships were approved:

Task Force on System Studies

- ✓ Mr. George Fatu to serve as a member replacing Mr. Hardeep Kandola, both of IESO.
- ✓ Mr. Hardeep Kandola of IESO to serve as an observer.
- ✓ Mr. Ryan Ramcharan to serve as a member replacing Mr. Vitaly Spitsa, both of Con Edison.
- ✓ Mr. Ben Wu to serve as a member replacing Mr. Rajee Mustafa, both of Orange & Rockland Utilities.

Task Force on Coordination of Planning

- ✓ Mr. Jack Martin of National Grid to serve as a member.
- ✓ Mr. Mark Stevens to serve as an alternate member replacing Mr. Brian Hayduk, both from National Grid.
- ✓ Mr. Ryan Ramcharan to serve as a member replacing Mr. Vitaly Spitsa, both from Consolidated Edison Company of New York, Inc.

Task Force on System Protection

- ✓ Mr. John Babu to serve as an alternate member replacing Mr. Dominick Fontana, both from Eversource Energy.

Task Force on Infrastructure Security and Technology

- ✓ Bambi Rivera of Vermont Electric Power Company to serve as an alternate member.

CO-1 Control Performance Working Group

- ✓ Mr. Tim Lam of the Independent Electric System Operator to serve as an alternate member.
- ✓ Ms. Virginia Hickox and Mr. Phil Miskinis of the NYISO to serve as alternate members.

CO-2 System Operator Training Working Group

- ✓ Mr. Marc Theriault of NB Power-System Operator to serve as a member replacing Mr. Dan Nason.
- ✓ Mr. Hector Nunez to serve as a member replacing Mr. Tom Turgeon, both of ISO-New England.

SS-37 Working Group on Base Case Development

- ✓ Mr. Mark Stevens to serve as a member replacing Mr. Dean Latulipe, both of National Grid.
- ✓ Mr. Dean Latulipe of National Grid to serve as an alternate member.
- ✓ Mr. Ayman Eltantawy to serve as an alternate member replacing Mahmoud Matar Bayoumi, both of the Ontario IESO.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

- ✓ Mr. Mohamed Osman of NERC to serve as an observer.

SS-38 Working Group on Inter-Area Dynamic Analysis

- ✓ Mr. Daniel Sohm to serve as a member replacing Mr. Yasser Atwa, both of the Ontario IESO.

NPCC Directory No. 1 Criteria Clarification - Appendix D – Resource Adequacy

Approved as provided in the Agenda package.

NPCC Directory No. 5 Criteria Clarification - Reserve

Approved as provided in the Agenda package.

Task Force on Coordination of Planning Scope

Approved as provided in the Agenda package.

NPCC Major Project List Update

Approved as provided in the Agenda package.

Reliability Coordinating Committee Actions

NPCC Multi-Area Probabilistic Reliability Assessment for Winter 2016/2017

Mr. Fedora provided an overview of the NPCC Multi-Area Probabilistic Reliability Assessment for Winter 2016/2017 provided in the Agenda package. The Task Force on Coordination of Planning reviewed this report at its August 3-4, 2016 meeting and recommends RCC approval.

The RCC then unanimously approved the NPCC Multi-Area Probabilistic Reliability Assessment for Winter 2016/2017 provided in the Agenda package (all written proxies in favor).

Retirement of the Niagara Type I 230 kV Generation Rejection Special Protection System (SPS#50)

Mr. Blanchard presented the materials included in the Agenda package regarding the proposed removal (retirement) of the Niagara 230 kV Generation Rejection SPS (Type I SPS # 50). The Niagara 230 kV Generation Rejection Scheme Special Protection System (NGRS SPS) was installed in 1969 after the 1965 Northeast Blackout and it predates the commissioning of the PA-301 and PA-302 345 kV Ontario-NY tie lines which went into service in the early '80s. The NGRS SPS was installed to protect against a variety of Western New York contingencies resulting in system instabilities and later extended to mitigate thermal overloads as well. System improvements over the past 25 years have alleviated most these conditions and the NGRS SPS is rarely enabled.



**NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016**

Considering the recommendations of the Task Force on System Studies, provided in the Agenda package, the Task Force on Coordination of Planning reviewed this SPS modification for conformance with NPCC Regional Reliability Reference Directory No. 1 “*Design and Operation of the Bulk Power System*”, and recommends to the RCC to approve the removal (retirement) of the Niagara 230 kV Generation Rejection SPS (Type I SPS # 50).

The RCC then unanimously approved removal (retirement) of the Niagara 230 kV Generation Rejection SPS (Type I SPS # 50) provided in the Agenda package (all written proxies in favor).

Ontario’s Bruce Remedial Action Scheme, replacing NPCC Type I SPS #112

Mr. Farahmand presented the materials in the Agenda package regarding the proposed replacement of the Bruce Special Protection System (SPS), (NPCC Type I SPS #112) with the Bruce Remedial Action Scheme (B-RAS) Type I SPS. The Bruce SPS is to be replaced by January 2017 due to end-of-life with the Bruce Remedial Action Scheme (B-RAS) which will maintain NPCC Type I classification. The B-RAS will be used under certain outage conditions to resolve voltage and transient instability or to mitigate thermal violations of BPS elements in post-contingency conditions. The scheme’s failure to operate could result in instability, un-damped oscillations or cascaded tripping outside the local area. However, its inadvertent operation would not cause any adverse impact outside the local area.

Considering to the recommendations of the Task Force on System Studies, the Task Force on System Protection, and the Task Force of Coordination of Operation provided in the Agenda package, the Task Force on Coordination of Planning reviewed the proposal for conformance with NPCC Regional Reliability Reference Directory No. 1 “*Design and Operation of the Bulk Power System*”, and concluded that the proposed replacement will not impact the operability of the system and recommends the approval of the proposed replacement of the Bruce SPS (NPCC Type I SPS #112) with the Bruce Remedial Action Scheme (B-RAS) Type I SPS.

After discussion, the RCC unanimously approved Ontario’s Bruce Remedial Action Scheme (B-RAS) Type I SPS) replacing NPCC Type I SPS #112, as provided in the Agenda package (all written proxy in favor).

NPCC Directory No. 11 – Disturbance Monitoring Equipment Criteria

Mr. Weigh explained that the recent approval of the NERC continent wide standard PRC-002-01 Disturbance Monitoring and Reporting Requirements initiated a technical review by the PRC-002-NPCC-01 Standard Drafting Team to compare the reliability attributes of the continent-wide standard with the regional standard. The Standard Drafting Team review resulted in a determination that the regional standard could be retired.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

The NPCC Task Force on System Protection (TFSP) concurred with the Standard Drafting Team recommendation and has developed this new Directory No. 11 (provided in the Agenda package) from the existing A-15 *Disturbance Monitoring Criteria* and functionally related 'B' Guideline documents consistent with the NPCC Directory program.

He stated that the TFSP conducted a comprehensive review of this draft and has incorporated elements of the regional standard which were not addressed in the NERC continent wide standard. Additionally, he noted that the TFSP identified a need to continue to use the Glossary term 'Current Time Zero' which will be incorporated into the NPCC Glossary of Terms upon Full Member approval of the Directory. Mr. Wegehaupt said that the draft of Directory No. 11 was posted to the NPCC Open Process for a forty-five-day comment period, and that the TFSP has reviewed and responded to all comments.

Concurrent with Directory No. 11 approval by the NPCC Full Member Committee, the following NPCC documents (now incorporated within Directory No. 11) would be retired:

- ✓ A-15 - *Disturbance Monitoring Criteria*;
- ✓ B-25 - *Guide to Time Synchronization of Substation Equipment*--- (Directory No. 11 Appendix A);
- ✓ B-26 - *Guide for Application of Disturbance Monitoring Equipment* (Directory No. 11 Appendix B); and,
- ✓ B-28 - *Guide for Generator Sequence of Events Monitoring* (Directory No. 11 Appendix C).

In accordance with the NPCC By-Laws, he asked for RCC approval of Directory No. 11; following RCC recommendation for approval, the Directory will be balloted by the NPCC Full Members for approval.

In response to an applicability question from Mr. Evans-Mongee, Mr. Wegehaupt indicated that Directory No. 11 applies to the generator step up transformers associated with the generator station, if designated as BPS elements. Mr. Evans-Mongee noted that the continent-wide standard does not apply to Generation Owners and Operators, so he questioned how Directory No. 11 requirements can extend to facilities that are not subject to the NERC Standard. Mr. Wegehaupt responded that the applicability of NPCC Directories and NERC Standards can be different.

Mr. Evans-Mongee expressed his concern that some Generation Owners and Operators may not be looking at the Directory No. 11 requirements, because they believe they are exempt under the continent-wide standard. He stated that there are a number of Generator Owners and Operators who are not members of NPCC, so they could choose to ignore the Directory requirements, especially if they are not specifically aware of them. It was pointed out that



**NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016**

interconnection agreements or tariff language generally require conformance with NPCC Directory requirements.

The RCC then recommended NPCC Directory No. 11 – Disturbance Monitoring Equipment Criteria, provided in the Agenda package, be submitted to the NPCC Full Members for ballot approval, with one abstention (Sector 5 – Marketers, Brokers, and Aggregators - Brian Evans-Mongeon, Utility Services Inc.) - all written proxies in favor.

Assessment Report for the 2015 CCEP Implementation Plan

Mr. Kopman reported at its June 20-21, 2016 meeting, the NPCC Compliance Committee voted to approve the Assessment Report for the 2015 CCEP Implementation Plan. The CCEP-1 Process Document directs the Compliance Committee to present an annual assessment report for approval at the 3rd quarter RCC meeting. The assessment report provided in the Agenda package summarizes the Compliance Committee's review and findings associated with the certifications submitted as per the 2015 CCEP Implementation Plan. He then asked the RCC for their approval.

The RCC then unanimously approved the Assessment Report for the 2015 CCEP Implementation Plan provided in the Agenda package (all written proxies in favor).

Presentations

NPCC EPA Clean Power Plan Analysis

Mr. Lombardi provided an overview of the materials provided in the Agenda package regarding a NPCC study examining the possible impacts on system frequency, voltage, and ramping assuming EPA Clean Power Plan (CPP) enactment, including consideration of related Regional Greenhouse Gas Initiative (RGGI) and state initiatives in New England and New York. Phase 1 of the study is targeted to be completed by the end of September 2016, with Phase 2 scheduled to be completed by the end of December 2016.

NERC Misoperations Information Data Analysis System (MIDAS)

Mr. Sahiholamal reviewed the materials provided in the Agenda package describing the background, objectives, and reporting process associated with the NERC Misoperations Information Data Analysis System (MIDAS).

NPCC Event Replication Development

Mr. Roman presented the process described in the Agenda package that is being developed by NPCC to create base cases that replicate pre-event conditions for use in investigation of major system events. He described the actions taken so far, and outlined the next steps.

Mr. Smith stated he was pleased that NPCC was undertaking this initiative, and encouraged all the Planning Coordinators to support it and use it as an opportunity to develop the procedures they need to meet the closely related requirements of MOD 33.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

NPCC Governor Model Update

Mr. Roman then summarized the presentation provided in the Agenda package regarding the current update of NPCC governor modeling in ERAG MMWG Base Cases to better reflect actual performance. He reviewed the progress made by New York, New England, New Brunswick, Nova Scotia and Ontario.

Status Reports

Mr. Schiavone referred the RCC to the materials provided in the Agenda package; the RCC discussed the following Agenda items:

NPCC Regional Standards Committee Report

Mr. Dunbar referred the RCC to the Regional Standards Committee (RSC) report provided in the Agenda package, and highlighted the following activities:

- ✓ The RSC recently provided comments and ballot recommendations for the EOP Standards, the revisions to the CIP Standards and a CIP interpretation, as well as providing suggestions regarding the revision of the NERC Functional Model;
- ✓ NERC Standards grading effort - the NERC Board of Trustees directed NERC through review of the results of the Enhanced Periodic Reviews to grade all existing NERC continent wide standards which have been in effect (enforceable) for a year or longer. The results of the grading exercise will be the basis to inform future Standards development and revision.; and,
- ✓ Cost of Risk Reduction Analysis - NPCC is leading an effort on behalf of the NERC Standards Committee to develop a Cost of Risk Reduction Analysis that promotes the development of a NERC “cost” of standards implementation analysis process.

NPCC Compliance Committee

Mr. Kopman referred the RCC to the Compliance and Enforcement materials provided in the Agenda package and highlighted the following monitoring and enforcement items:

- ✓ 2017 Compliance Monitoring and Enforcement Program (CEMP) Implementation Plan - This plan is due to NERC on November 1st and will build upon the Risk Elements and Focus Area requirements that appear in the 2017 ERO CMEP Implementation Plan;
- ✓ Registered Entity Webinars regarding the top 10 violated Standards;
- ✓ Inherent Risk Assessment/Internal Control Evaluations efforts underway; and,
- ✓ Processes for mapping the NERC and NPCC Risk Elements to the NERC Risk Factors for performing Inherent Risk Assessments.

The RCC then discussed the Internal Control Evaluations. Mr. Kopman further explained the Internal Control Evaluation process and how it is used to further determine the focus and selection of appropriate tools to be used by NPCC under the CMEP.

Task Force on System Protection

- ✓ **SP-7 Working Group Review of Protection Systems Misoperations**

Mr. Wegehaupt summarized the activities of the SP-7 Working Group provided in the Agenda package, and reviewed the status of the protection misoperation review as completed through September 7, 2016



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

the First Quarter (Q1) 2016. He stated there were no Special Protection System operations (or misoperations) reported for Q1 2016.

He reported that the reporting of protection system misoperations and operations that occurred in the 2nd Quarter 2016 has been implemented via the new NERC Misoperation Information Data Analysis System (MIDAS).

✓ **SP-9 Working Group on Telecommunication Circuits Used for Teleprotection and Remedial Action Schemes**

Mr. Wegh reported that the SP-9 Working Group has developed a work plan and that Action items have been assigned. The SP-9 Working Group is planning conference calls between now and the next face-to-face meeting (January 2017) to address the identified Action Items.

Task Force on Coordination of Planning (TFCP)

✓ **Revision of NPCC A-10 Criteria**

Mr. Smith summarized the review of NPCC Document A-10 “*Classification of Bulk Power System Elements*” currently being undertaken by the TFCP by the CP-11 Working Group; discussions in formulating the scope of the review continue to be focused on the appropriateness of the current applicability of NPCC Document A-10 to determine Bulk Power System Elements for multiple purposes (e.g., Directory No. 1 “*Design and Operation of the Bulk Power System*” and Directory No. 4 “*Bulk Power System Protection Criteria*”) and specific issues with the A-10 methodology itself (e.g. inconsistency in results, high level of effort). The TFCP is interested in identifying screening methodologies that could reduce work effort and lead to greater consistency.

Accordingly, the TFCP is comparing the outcomes of the A-10 methodology with the outcomes associated with the screening criteria for buses associated with the single point of failure testing contained in the NERC Section 1600 Data Request for Order 754. The results of this comparison will be reviewed and discussed over the next TFCP meetings and will form the basis for a develop a detailed scope for this review.

He reported that the TFCP is in the process of developing the CP-11 Working Group roster; he encouraged participation from all the interested Task Forces. Once drafted, the TFCP will discuss the scope of the review with the interested Task Forces and RCC, and consider the comments received prior to finalization.

✓ **SPS-RAS Transition**

Mr. Smith reviewed the TFCP’s activities related to NPCC’s transition to the revised definition of a Remedial Action Scheme (RAS) which was approved by FERC on November 19th, 2015 and now provides a continent-wide uniform definition of these protection systems.

The TFCP plans to review the NPCC Special Protection System (SPS) list maintained by the TFSS in order to identify which existing SPS’s conform to the revised definition, which existing SPS’s do not conform and which newly defined RAS’s have not undergone a regional review.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

Task Force on System Studies

✓ **SS-38 Working Group**

Mr. Le summarized the SS-38 Working Group activities provided in the Agenda package. He reported that the SS-38 Working Group is developing a draft report documenting the additional follow-on effort requested by the RCC following its approval of the *"Addendum to the 2015 NPCC Overall Transmission Assessment Report: Sensitivity Study on the Impact of Distributed Generation."* The report will be submitted for RCC approval in December.

In addition to this effort, the SS-38 Working Group is looking into the concerns related to the static and dynamic reactive capability on the transmission system, and potential reliability risks resulting from lower system inertia. A report regarding this effort will also be presented to RCC for approval in December.

✓ **SS-38 Load Modeling Working Group**

Mr. Le reported that the Load Modeling Working Group is drafting a report documenting the End-use load models developed by NPCC Areas to improve the accuracy of dynamic load model data; the report will include the results of simulations with the model for large system disturbances involving inter-area dynamics. He explained that this is a joint effort with the NERC Load Modeling Task Force.

In response to a question from Mr. Henderson regarding the future work anticipated for the SS-38 Working Group, Mr. Le indicated that the drivers are associated with fulfillment of NPCC Corporate Goals, related NERC initiatives, and the required NPCC periodic assessments and studies. Mr. Fedora added that the future work for the SS-38 Working Group should be discussed and prioritized when the Task Force on System Studies prepares their Work Plan for 2017-2018.

Task Force on Infrastructure Security & Technology (TFIST)

Mr. Helme reviewed the Cyber and Physical Security information provided in the Agenda package. He summarized the following efforts:

- ✓ Recent TFIST actions;
- ✓ Development of a Whitepaper regarding the Ukrainian Incident;
- ✓ CIP Standard Development, including Sub Team activities and related timelines; and,
- ✓ BES Cyber Assets Definition and Concepts.

2016 - 2017 Task Force Work Plan Progress

Mr. Schiavone referred the RCC to the materials provided in the Agenda package.

NPCC Reliability Assessment Program (NRAP) Highlights Report

Mr. Fedora reported that the NRAP Highlights Report was updated as of September 2, 2016 and has been posted on the NPCC website.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

NERC Agenda Items

Operating Committee (OC)

Mr. Rufrano reviewed the following Draft September 2016 NERC Operating Committee Agenda items:

- ✓ Election of OC Executive Committee;
- ✓ Approval of a revised ERO Event Analysis Process for ERCOT;
- ✓ Approve posting of the following Reliability Guidelines:
 - Situational Awareness for the System Operator;
 - Inadvertent Interchange;
 - Integrating Reporting ACE with the NERC Reliability Standards;
 - Time Monitoring Reference Document; and,
 - Frequency Response Sharing.
- ✓ Frequency Response Initiative – approval of a proposed Generator Survey to be conducted for selected frequency events;
- ✓ Operating Reliability Subcommittee’s Recommendation Related to the Disposition of the Data Exchange Working Group – proposal to either disband the Working Group or recommend they report to the Eastern Interconnection Data Sharing Network;
- ✓ OC Strategic Plan and Charter Revisions – discuss the need for an OC Strategic Plan separate from the NERC Strategic Plan;
- ✓ Approve a recommendation that addresses the accumulated Eastern Interconnection Unaccounted Inadvertent Interchange; and,
- ✓ Endorsement of the 2016 Frequency Response Annual Analysis.

Planning Committee

Mr. Fedora reviewed the following items on the Draft September Planning Committee Agenda:

- ✓ Approve proposal regarding Primary Frequency Response;
- ✓ Approve discontinuance of NERC Spare Equipment Database and SEWG Disbandment;
- ✓ Status update of Reliability Assessment Subcommittee activities: 2016 NERC Long-Term Reliability Assessment;
- ✓ Approve Disbandment of the Probabilistic Assessment Improvement Task Force;
- ✓ Approval of Data Reporting Instructions for Generating Availability Data System (GADS) Wind Data Reporting Instructions;
- ✓ Approve posting of Draft Reliability Guideline: PMU Placement and Installation for Industry Comment Period;
- ✓ Final approval of the Reliability Guideline on Power Plant Model Verification; and,
- ✓ Informational status of proposed revisions to the NERC Functional Model.

Critical Infrastructure Protection Committee

Mr. Hogue highlighted the following items on the Draft September 2016 NERC Critical Infrastructure Committee Agenda;

- ✓ Approval of the updated charter of the Compliance Enforcement Input Working Group;
- ✓ GridSecCon 2016 Preview – to be held in Quebec City;



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

- ✓ CIP Standards Updates CIPv5 - Revisions Standards Drafting Team, Cyber Systems in Control Centers NOI, and Supply Chain Standard Roundtable Discussion; and,
- ✓ Initial Observations, Insights and Lessons Learned from CIPv5 Implementation – Roundtable Discussion.

Informational Items

Mr. Schiavone referred the RCC to the materials included in the Agenda package. The following Informational Items were discussed at the meeting:

Event Analysis Program Status

Mr. Rufrano provided an overview of the Trending Analysis of EMS outages provided in the Agenda package.

RCC Nominating Committee

Mr. Fedora reported that Messrs. Henderson and Irving volunteered to serve on the Nominating Committee.

Mr. Schiavone encouraged anyone interested in the RCC Co-Vice Chair position to contact the Nominating Committee. Mr. Fedora then reviewed the RCC procedures concerning the selection and representation for the RCC Co-Vice Chairs.

NPCC 2016 General Meeting Agenda

Mr. Fedora reviewed the NPCC 2016 General Meeting Agenda provided in the Agenda package.

With no other matters to consider, the RCC meeting was adjourned.

Next RCC Meeting Date
Tuesday, December 6, 2016

Location
Hotel Omni Mount Royal, Montreal
Quebec

Distribution of Approved Minutes

NPCC Full & General Member Representatives and Alternates
Members, NPCC Board of Directors
Members, NPCC Reliability Coordinating Committee
Members, NPCC Public Information Committee
Members, NPCC Compliance Committee
Members, NPCC Regional Standards Committee
Members, NPCC Task Force on Coordination of Operation
Members, NPCC Task Force on Coordination of Planning
Members, NPCC Task Force on Infrastructure Security and Technology
Members, NPCC Task Force on System Protection



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
September 7, 2016

Members, NPCC Task Force on System Studies

NPCC Officers

NPCC Staff

Ruta Skucas, Esq.

and

Federal Energy Regulatory Commission – Mike Bardee, David O’Connor, Juan Villar

La Régie de L’Énergie – Daniel Soulier

Ontario Energy Board – Peter Fraser

United States Department of Energy – David Meyer

New Brunswick Department of Energy and Mines – David Sallows

Nova Scotia Utility & Review Board – S. Bruce Outhouse, Q.C.