



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

March 4, 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 December 1, 2015 Reliability Coordinating Committee Meeting

Sir / Madam:

Attached are the minutes of the December 1, 2015 meeting of the NPCC Reliability Coordinating Committee, as approved at the March 2, 2016 RCC meeting.

Sincerely,

Phil Fedora

Philip A. Fedora
Assistant Vice President-Reliability Services

cc: NPCC Staff



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Mr. Schiavone called the meeting of the Reliability Coordinating Committee (RCC), held at the Albany Marriott 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.	James McCloskey
Central Maine Power Company	David Conroy
Consolidated Edison Company of New York, Inc.	Mike Forte
Eversource Energy	Brad Bentley
Hydro-One, Inc.	Tom Irvine
Long Island Power Authority	(proxy to Bob Eisenhuth – via phone)
National Grid USA	Michael Schiavone
New Brunswick Power Corporation	Randy McDonald (Alternate)
New York Power Authority	(proxy to Randy Crissman)
New York State Electric & Gas Corp.	Ray Kinney (via phone)
Rochester Gas & Electric Corporation	Mike Craven
The United Illuminating Company	Jonathan Appelbaum (Alternate)
Vermont Transco	Hantz Presume

Sector 2 – Reliability Coordinators

Hydro-Québec TransÉnergie	(proxy to Martin Boisvert)
Ontario Independent Electricity System Operator	Leonard Kula
ISO-New England, Inc.	Mike Henderson
New York Independent System Operator	Dana Walters (Alternate)

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

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



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Sector 4 Generation Owners

Consolidated Edison Company of New York, Inc.	(proxy to Mike Forte)
Dominion Energy Marketing, Inc.	Connie Lowe
Dynegy, Inc.	(Jim Watson – via phone)
Eversource Energy	(proxy to Brad Bentley)
Long Island Power Authority	(proxy to Bob Eisenhuth – via phone)
New York Power Authority	Randy Crissman
NextEra Energy Resources	(via written proxy)

Sector 5 – Marketers, Brokers, and Aggregators

Consolidated Edison Company of New York, Inc.	(proxy to Mike Forte)
Long Island Power Authority	(proxy to Bob Eisenhuth – via phone)
New York Power Authority	(proxy to Randy Crissman)
Talen Energy Marketing, LLC	Becky Davis (Alternate)
Utility Services	Brian Evans-Mongeon

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

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

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

New York State Reliability Council, LLC	Roger Clayton
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NPCC Staff

Sal Buffamante	Assistant Vice President Compliance Audits and Investigations
Walter Cintron	Director, Compliance Enforcement
Gerry Dunbar	Manager of Reliability Criteria Requirements
Phil Fedora	Assistant Vice President, Reliability Services
Brian Hogue	Information Systems & Security Management
Andreas Klaube	Engineer, Operations
Stanley Kopman	Assistant Vice President Compliance, Registration & Enforcement
Quoc Le	Manager, System Planning and Protection
Michael Lombardi	Manager, System Studies in Reliability Services



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John Muir	Manager, Compliance Audits
Scott Nied	Manager, Compliance Program Development
Andrey Oks	Director of Operations Coordination
Lee Pedowicz	Manager, Reliability Performance and Criteria Assessment
Paul Roman	Director, Operations Planning
Ralph Rufrano	Manager, Compliance Violation Investigation
Rafael Sahiholamal	Senior Reliability Engineer
Peter Scalici	Senior CIP Specialist
Edward Schwerdt	President and Chief Executive Officer
Rui Da Shu	Senior Engineer- Reliability Standards and Criteria`
Guy Zito	Assistant Vice President of Standards

Guests

Gabriel Adam (via phone)	Ontario IESO
Farid Chagla (via phone)	Ontario IESO
Frank Ciani	New York ISO
Michael Courchesne (via phone)	Chair, CO-12 Working Group
Marc Dusseault	Chair, Task Force on Coordination of Planning
Alex Echeverria	New York Power Authority
Jeff Fenn	SGC Engineering, LLC
Khaqan Khan	Ontario IESO
Dean Latulipe	Chair, SS-38 Working Group
Fred Plett	Utility Analyst - Massachusetts Attorney General
Zachary Smith	New York ISO
George Wegh	Chair, Task Force on System Protection
Isen Widjaja (via phone)	Chair, SS-38 Load Modeling Working Group

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

Richard Lagrange - Hydro-Québec Distribution

Sector 4 – Generator Owners

Alan Schriver - NextEra Energy Resources

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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 provided the following report:

ERO Enterprise Strategic Plan 2016-2019

Mr. Schwerdt referred to the NERC Board approved ERO Enterprise Strategic Plan for 2016-2019 included in the Agenda package. This document was developed by the ERO Executive Management Group with input from the Reliability Issues Steering Committee, the NERC Long Term Reliability Assessment Report and the NERC Reliability Leadership Summit. This Strategic Plan sets the goals for NERC and the Regional Entities collectively, and more specifically it informs NPCC's corporate goals and helps prioritize the work of the NPCC committees, task forces and working groups. From a macroscopic level, the strategic plan builds on the successes and maturity of both the standards and compliance areas, and expands the risk informed approach to NERC's assessment efforts for both near-term and longer term reliability risks. Increased near term emphasis is placed on data and analytics and events analysis, while the longer term issues of providing guidance regarding the adequacy or sufficiency of essential reliability services and the need for increasing sophistication of system modeling to assess the reliability impacts of distributed generation are highlighted. It is NPCC's intention to play a key role in these evolving efforts.

U.S. EPA Clean Power Plan (CPP)

Following the Environmental Protection Agency's August 3, 2015 issuance of its CPP regulations, NERC tasked an industry based CPP Planning Committee Advisory Group to provide insights and subject matter expertise to a special reliability assessment, to be conducted by consultants, of various postulated resource scenarios in response to the final CPP rule. That assessment is currently scheduled for completion by the end of March, 2016. Additionally, a sub-group was assigned the drafting of a Reliability Considerations Report for use by state regulators and policy makers in their development of state CPP compliance plans. An early version of that report is now being circulated for review.

FERC Data Request NOPR

On September 17, 2015 FERC issued a Notice of Proposed Rulemaking proposing to grant FERC staff access to NERC's transmission availability data system, generating availability data system, and the protection system mis-operations databases. The proposed access would be limited to data regarding U.S. facilities only and would not require NERC to collect any additional data. FERC indicated that access to these databases would support its monitoring of reliability trends and could identify the need for the development of new or modified Reliability Standards.



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NERC intends to file comments by the December 15, 2015 deadline indicating that the proposed rule is not necessary and requesting that FERC instead issue a directive requiring the creation of an “Information-Sharing Working Group” comprised of FERC and NERC staff. That Working Group would be tasked with developing a means for FERC access to anonymous or aggregated information necessary for FERC implementation of its statutory obligations under section 215 of the Federal Power Act.

Chair Report

Meeting Agenda

Mr. Schiavone referred the RCC to the Agenda provided in the Agenda package. No changes were presented.

The RCC then approved the Agenda.

2016 - 2017 RCC Work Plan

Mr. Schiavone said that the RCC 2016 – 2017 Work Plan would be reviewed later in the meeting, following approval of the proposed 2016 - 2017 Task Force Work Plans.

2016 RCC Roster

Mr. Schiavone referred the RCC to the 2016 RCC Roster provided in the Agenda package.

2016 RCC Meeting Dates

Mr. Schiavone reviewed the proposed dates and locations for the 2016 RCC meetings:

- ✓ Wednesday - March 2, 2016 – New York Times Square Residence Inn by the Marriott
- ✓ Wednesday - June 1, 2016 – New York Times Square Residence Inn by the Marriott
- ✓ Wednesday – September 7, 2016 – Toronto Marriott Downtown - Eaton Centre
- ✓ Tuesday – December 6, 2016 – Omni Montreal (in conjunction with the NPCC Board/Annual/General Meetings)

Consent Agenda

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

September 10, 2015 Meeting Minutes

The Draft-For-Approval Minutes of the September 10, 2015 Reliability Coordinating Committee were approved, with minor corrections noted.

RCC Membership Changes

The following changes to RCC Membership were approved:



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Sector 2, Reliability Coordinators

- ✓ Mr. Marc Roy succeeds Mr. Alden Briggs, who formerly retired from the New Brunswick Power Corporation as the member.
- ✓ Mr. Gaetan Benoit from the New Brunswick Power Corporation succeeds Mr. Marc Roy as the alternate member.
- ✓ Mr. David Short from the Independent Electricity System Operator to serve as the alternate member.
- ✓ Ms. Caroline Dupuis from the Hydro-Québec TransÉnergie to serve as the alternate member.

Sector 5, Marketers, Brokers and Aggregators

- ✓ Ms. Alyson Slanover succeeds Mr. Mayer Sasson as the alternate member, both from the Consolidated Edison Company of New York.

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

- ✓ Mr. Edward Schrom succeeds Ms. Diane Barney, who formerly retired from the New York Department of Public Service, as the member.
- ✓ Mr. Richard Quimby from the New York Department of Public Service succeeds Mr. Edward Schrom as the alternate member.

Task Force Roster Changes

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

Task Force on Coordination of Planning

- ✓ Mr. Rob Vance will serve as the alternate member for the New Brunswick Power Corporation.
- ✓ Mr. Kevan Jefferies moved from member and will serve as the alternate member for Ontario Power Generation, Inc.
- ✓ Mr. Paul Dabrowski succeeds Mr. Kevan Jefferies as the member, both from Ontario Power Generation, Inc.

Task Force on Coordination of Operation

- ✓ Mr. Jon Sawyer succeeds Mr. Jim Castle as the alternate member for New York Independent System Operator.
- ✓ Mr. Allan MacNaughton succeeds Mr. Scott Brown as the alternate member for New Brunswick Power Corporation.

Task Force on Infrastructure Security and Technology

- ✓ Ms. Helen Honan succeeds Mr. Bill Temple as a member, both from Eversource Energy.
- ✓ Mr. David Cadregari from Rochester Gas & Electric Corporation succeeds Mr. Bill Temple from Eversource Energy as the Vice-Chair.
- ✓ Mr. John Helme from Utility Services will assume the Chair from Mr. Jonathan Appelbaum from the United Illuminating Company in 2016.
- ✓ Ms. Suzanne Black from NRG Energy to serve as a member.
- ✓ Mr. Yan Hugues Boily from Hydro-Québec TransÉnergie to serve as a member.

Task Force on Infrastructure Security and Technology

- ✓ Ms. Patricia Lynch from NRG Energy to serve as a member.



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SS-37 Working Group on Base Case Development

- ✓ Mr. Andrew Zielinski moved from alternate member to succeed Mr. Think as the member, both from the New York Independent System Operator.
- ✓ Mr. Eric Allen will no longer serve as an Observer from NERC. No replacement has been named.

SS-38 LMWG Load Modeling Working Group

- ✓ Mr. Simon Couture-Gagnon of Hydro-Quebec Distribution succeeds Mr. Isen Widjaja of the Independent Electricity System Operator as Chairman.
- ✓ Mr. Edward Davidian succeeds Mr. Isen Widjaja as a member, both from the Independent Electricity System Operator. Mr. Isen Widjaja will remain on SS-38 LMWG as an alternate member.

CO-8 Working Group on System Operations Managers

- ✓ Mr. Gaetan Benoit will represent the New Brunswick Power Corporation, as the member.
- ✓ Mr. Rod Hicks will represent New Brunswick Power Corporation, as the alternate member.

CP-8 Working Group on Review of Resource and Transmission Adequacy

- ✓ Ms. Anna Lafoyiannis will represent the Independent Electricity System Operator, as the alternate member.

Quebec Area Interim Review of Resource Adequacy

The RCC approved the Task Force on Coordination of Planning's recommendation for approval of the 2015 Quebec Area Interim Review of Resource Adequacy.

New England Area Interim Review of Resource Adequacy

The RCC approved the Task Force on Coordination of Planning's recommendation for approval of the 2015 New England Area Interim Review of Resource Adequacy.

Maritime Area Interim Transmission Review

The RCC approved the Task Force on Coordination of Planning's recommendation for approval of the 2015 Maritimes Area Interim Transmission Review.

New England Area Interim Transmission Review

The RCC approved the Task Force on Coordination of Planning's recommendation for approval of the 2015 New England Area Interim Transmission Review.

Scope and Schedule for the 2016 NPCC Long Range Adequacy Overview

The RCC approved of the Scope and Schedule for the 2016 NPCC Long Range Adequacy Overview.

Reliability Coordinating Committee Actions

2015 – 2016 NPCC Winter Reliability Assessment

Mr. Courchesne presented the 2015 – 2016 NPCC Winter Reliability Assessment provided in the Agenda package. The assessment was prepared by the NPCC CO-12 Seasonal



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Assessment Working Group and focuses on the assessment of reliability within NPCC for the 2015/2016 Winter Operating Period.

The NPCC CP-8 Working Group's multi-area probabilistic reliability assessment for the 2015/2016 Winter period was previously approved by the RCC at its September 2015 meeting. Results of CP-8 Working Groups assessment are included in Appendix VIII.

This report was recommended for RCC approved by the Task Force on Coordination of Operation.

The RCC then unanimously approved the 2015 – 2016 NPCC Winter Reliability Assessment as provided in the Agenda package (all written proxies in favor).

New York Comprehensive Review of Resource Adequacy

Mr. Walters reviewed the 2015 New York Comprehensive Review of Resource Adequacy and gave the presentation provided in the Agenda package.

The review was based upon the New York ISO's most recent reliability planning process under Attachment Y of its Open Access Transmission Tariff approved by the Federal Energy Regulatory Commission. The results were reflected in the 2014 Reliability Needs Assessment and the 2014 Comprehensive Reliability Plan, which was approved by the New York ISO's Board of Directors in July 2015. The findings confirmed that the initially identified Reliability Needs in the 2014 RNA are resolved and no additional solutions are required.

The Task Force on Coordination of Planning reviewed the report (provided in the Agenda package), and agreed with its conclusion that the New York Area will comply with the NPCC Resource Adequacy Criterion that requires a Loss of Load Expectation (LOLE) value of no more than 0.1 days/year for all years from 2016 to 2020, and recommends RCC approval.

The RCC then unanimously approved the New York Comprehensive Review of Resource Adequacy as provided in the Agenda package (all written proxies in favor).

Ontario Comprehensive Review of Resource Adequacy

Mr. Chagla reviewed the 2015 Ontario Comprehensive Review of Resource Adequacy and gave the presentation provided in the Agenda package. Over the forecast horizon, both the summer and winter peaks are expected to decline under the median growth scenario; downward pressure from price impacts, increased conservation savings and the growth in embedded generation output outstrips the underlying growth anticipated from economic expansion and population growth.



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The Task Force on Coordination of Planning reviewed the report (provided in the Agenda package), and agreed with its conclusion that the Ontario Area will comply with the NPCC Resource Adequacy Criterion that requires a Loss of Load Expectation (LOLE) value of no more than 0.1 days/year for all years from 2016 to 2020, and recommends RCC approval.

The RCC then unanimously approved the Ontario Comprehensive Review of Resource Adequacy as provided in the Agenda package (all written proxies in favor).

NPCC 2015 Long Range Adequacy Overview

Mr. Fedora explained that the NPCC 2015 Long Range Adequacy Overview (LRAO) evaluated, on a consistent basis, the long range adequacy of NPCC and neighboring Regions' plans to meet their Resource Adequacy Planning Criteria through a multi-area probabilistic assessment for the period from 2016 to 2020, based on the information reported in NERC 2014 Long Term Reliability Assessment and the respective NPCC Area Reviews of Resource Adequacy. The study demonstrated that the NPCC areas are estimated to have, on average, an annual Loss of Load Expectation (LOLE) less than 0.1 days/year through the 2016 – 2020 study period.

The Task Force on Coordination of Planning reviewed the report (provided in the Agenda package), agreed with the report's assessment and recommends RCC approval.

Mr. Schwerdt asked if the data was available for 2015 and other historical years, in order to get a sense of past estimates, and aid in establishing analytics regarding NPCC trends. Mr. Fedora replied that these trends are shown in NERC RAS Probabilistic Assessment for NPCC Region, an assessment which is conducted every two years.

Mr. Schwerdt then asked how consideration of at-risk generation (for example, 4,200 MW of gas-fired generation in New England) is taken in account in the LRAO. Mr. Fedora responded that the LRAO is conducted using base case assumptions, assuming expected load (50/50) values, to calculate an annual LOLE; no severe case assumptions are developed as is done for the shorter-term NPCC pre-seasonal summer and winter assessments.

Mr. Schwerdt said he raised the question regarding the methodology and the assessment of asymmetric risks so that the RCC would have an appreciation for the sensitivities surrounding the average annual results shown.

Mr. Henderson replied it's important to separate operations planning considerations from this type of on-average long-term LOLE analysis; an examination of the upcoming winter season, for instance, may take many specifics into consideration – available EOPs, transfer capability, fuel switching capability, higher than expected loads, maintenance schedules etc. – to evaluate the short term risk.



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Mr. Schwerdt said he was looking for ways to bridge the gap from long-term assessment evaluation versus the short-term, in order to tease out any early warning signs.

Mr. Henderson replied the LOLE metric would not serve as the proper metric for short-term resource adequacy assessment, given the probabilistic weightings that are assumed in the on-average annual calculation of LOLE.

Mr. Fedora said the LRAO is updated every year, based on the Area's best plans to provide for the capacity to meet the forecast loads with respect to the anticipated future conditions, and does provides an independent verification that the NPCC Areas are planning to meet the NPCC Resource Adequacy criteria. The results should be considered as reflective of a reference case, rather than a more severe scenario case.

The RCC then unanimously approved the NPCC 2015 Long Range Adequacy Overview as provided in the Agenda package (all written proxies in favor).

NPCC 2015 Overall Transmission Reliability Assessment (OTRA)

Mr. Latulipe presented the SS-38 Working Group on Inter Area Dynamics "2015 NPCC Overall Transmission Reliability Assessment" for the year 2020 NPCC system as provided in the Agenda package. The study builds upon and supplements the Transmission Reviews conducted annually by each of the NPCC Areas by examining the system from a broader regional and inter-regional perspective. The 2015 OTRA evaluated:

- ✓ the dynamic performance of the year 2020 NPCC system from a standpoint of system
- ✓ robustness, by simulating various extreme and beyond criteria contingencies;
- ✓ the impact of any developments in the adjacent PJM region and simulate the effect of
- ✓ extreme contingencies originating in the PJM region; and,
- ✓ from a dynamic perspective, the most severe gas pipeline contingencies identified in the
- ✓ EIPC Gas-Electric System Interface analysis, and evaluate beyond criteria contingencies
- ✓ associated with gas pipelines by simulating overlapping electrical faults.

The analysis performed for the 2015 NPCC OTRA showed that:

- ✓ Except for three known contingencies, the NPCC system projected for 2020 remained stable with no inter-Area and inter-regional impacts for all tested extreme contingencies including those initiated from adjacent RF region.
- ✓ the NPCC system projected for 2020 exhibited an acceptably stable and damped dynamic response with no inter-Area and inter-regional impacts for all simulated beyond criteria
- ✓ Contingencies;
- ✓ The dynamic responses of the projected 2020 system to all simulated gas pipeline
- ✓ contingencies including simulated overlapping electrical faults with the gas pipeline
- ✓ contingencies were stable and well damped; and,
- ✓ In general, the results are consistent with past OTAs and demonstrate the overall strength
- ✓ and robustness of the NPCC system.



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A sensitivity analysis of the impact distributed generation has on the dynamic performance of the NPCC system will be submitted as an addendum to the “2015 NPCC Overall Transmission Reliability Assessment,” planned to be submitted for approval at the March 2, 2016 RCC meeting.

The RCC then approved the NPCC 2015 Overall Transmission Reliability Assessment as provided in the Agenda package (with one abstention – Richard Lagrange, Sector 3 - Transmission Dependent Utilities, Distribution Companies and Load Serving Entities – Hydro-Quebec Distribution; all other written proxies in favor).

TFCO Directory No. 8 Criteria Clarification for Ontario Power Generation

Mr. Kula reviewed a clarification (provided in the Agenda package) of the criteria contained within the “*NPCC Regional Reliability Reference Directory No. 8 - System Restoration*” and its applicability as rendered by the Task Force on Coordination of Operation on behalf of Ontario Power Generation.

The RCC then approved the TFCO Directory No. 8 Criteria Clarification for Ontario Power Generation as provided in the Agenda package (with one abstention – Richard Lagrange, Sector 3 Transmission Dependent Utilities, Distribution Companies and Load Serving Entities – Hydro-Quebec Distribution; all other written proxies in favor).

2016 NPCC Criteria Compliance Enforcement Program Implementation Plan

Mr. Kopman presented the 2016 NPCC Criteria Compliance Enforcement (CCEP) Program Implementation Plan provided in the Agenda package.

The RCC reviewed and approved the CCEP Implementation Plan recommended by NPCC Compliance Committee for the NPCC Criteria (i.e., NPCC Directories) that will be actively monitored for the specified CCEP compliance years. The Implementation Plan specifies the due dates, compliance years, and the reporting and certifying entities for each submittal. Full Members will be required to Self-Report compliance with these Criteria/Directories.

The RCC then approved the 2016 NPCC Criteria Compliance Enforcement Program Implementation Plan as provided in the Agenda package (all written proxies in favor).

Mr. Kopman thanked the RCC for their approval of the 2016 CCEP, and briefly explained the Compliance Committee’s plans to expand the CCEP to cover all active criteria that is enforced in NPCC for the 2017 CCEP.



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2016-2017 Task Force Work Plans

The Task Force chairs highlighted their respective 2016-2016 Task Force Work Plans provided in the Agenda Package.

Mr. Schwerdt asked if the Task Force on Coordination of Planning or the Task Force on System Studies 2016-2017 Work Plan includes the consideration of the NERC Essential Reliability Services Task Force Recommendations with respect to the development of the State Implementation Plans required for the EPA Clean Power Plan. Mr. Dusseault indicated that the Task Force on Coordination of Planning would take care of this consideration.

The RCC then approved the 2016-2017 Task Force Work Plans, as provided in the Agenda package (all written proxies in favor).

2016-2017 RCC Work Plan

Following review and approval of the NPCC Task Forces' respective 2016-2017 Work Plans, the RCC reviewed its 2016-2017 Work Plan.

The RCC then recommended the 2016-2017 RCC Work Plan as provided in the Agenda package for NPCC Board approval (all written proxies in favor).

Presentations

Review of Canadian Bulk Electric System (BES) Definition Implementation

The Canadian RCC representatives presented their processes for the implementation and application of the NERC BES definition in their respective provinces. Based on their review of the processes and methodologies presented, the Task Force on Coordination of Planning, the Task Force on System Protection, the Task Force on System Studies, and the Task Force on Operations each concluded that there are no reliability impacts outside of each provincial boundary resulting from the application and the implementation of the BES definition by the NPCC Canadian entities.

The RCC reviewed and accepted the Task Force findings regarding the Canadian BES Definition Implementation.

Mr. Schwerdt then thanked the Canadian representatives, the Task Forces and NPCC staff for preparing a very thorough analysis; he stated that NPCC's intent to demonstrate that an adequate assessment was conducted has been met.

Status Reports

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



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NPCC Regional Standards Committee (RSC) Report

Mr. Zito referred the RCC to the materials provided in the Agenda package, and reported on the following:

- ✓ The NPCC drafting team completed their evaluation of the Disturbance Monitoring Standard PRC-002-NPCC-01 and determined that the regional standard should be retired. A ballot will shortly be underway to seek stakeholder approval. In parallel with this effort there will be some remaining attributes of the NPCC regional standard, not covered by the continent-wide PRC-002-2, which will move over into a new Directory document currently being drafted by NPCC staff and Task Force on System Protection. The continent-wide PRC-002-2 in conjunction with the new Directory will ensure no gaps exist upon retirement of the regional standard.
- ✓ The RSC has approved the PRC-006-NPCC-1 Automatic Underfrequency Load Shedding Drafting Team consisting of TFSS members and other interested individuals. The Drafting Team will be removing any redundancies with the NERC continent-wide standard PRC-006-2, and ascertain whether the continent-wide NERC Standard supports adequate underfrequency load shedding to allow for retirement of the NPCC Regional Standard.
- ✓ An RSAR to revise the Quebec variance appearing in PRC-006-2 has been approved; the NPCC drafting team has been formed and the draft revision is being developed.
- ✓ Development of a NERC “cost” of standards implementation analysis process; NPCC is leading an effort on behalf of the NERC Standards Committee to develop a Cost of Risk Reduction Analysis (CRRA).
- ✓ The RSC continues to monitor the progress of NERC Project 2010-05.3 – Remedial Action Schemes (RAS), (similar to NPCC’s Special Protection Systems) in order to assess its impact on the NPCC criteria for Special Protection Systems in Directory No. 7.

He then thanked the all Task Force members for their support of Standards Activities.

NPCC Reliability Directory Status

Mr. Dunbar highlighted the following provided in the Agenda package:

Directory No. 8 System Restoration

The Task Force on Coordination of Operation and its Restoration Working Group the CO-11 has undertaken a comprehensive review of Directory No. 8; proposed revisions will be posted to the NPCC Open Process Review.

Directory No. 7 - Special Protection Systems

The Regional Standards Committee (RSC) continues to monitor the progress of NERC Project 2010-05.2 –Special Protection Systems in order to assess its impact on the NPCC criteria for Special Protection Systems in Directory No. 7.

He also provided an update on the status of the new Disturbance Monitoring Directory document currently being drafted by NPCC staff and Task Force on System Protection.



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NPCC Compliance Committee

Mr. Kopman reviewed the Registration and Enforcement materials provided in the Agenda package and highlighted the following items:

- ✓ Phase 1 Risk Based Registration Phase 1 activities; by deactivating 57 Load Serving Entities, NPCC has completed the implementation of all aspects of Risk Based Registration Phase 1 that were approved by FERC.
- ✓ Participation in the risk-based enforcement activities related to the Self-Logging of minimal Risk Issues and Compliance related to the Self-Logging of Minimal Risk Issues and Compliance Exceptions; currently, NPCC has 11 entities participating in the Self-Logging program and are in the process of evaluating five other additional candidates.
- ✓ MRRE process for coordinated oversight; NPCC is involved in ten MRRE groupings, and is the Lead Regional Entity for one. NPCC conducted a WebEx with for the MRRE group consisting of Orange and Rockland Utilities (in NPCC) and Rockland Electric Company (in RF), discussing background, responsibilities, sharing of information and timelines.

Mr. Buffamante then highlighted the following Compliance Audits and Risk Assessment activities reported in the Agenda package.

- ✓ CIP Version 5 Physical and Cyber activities; compliance Monitoring will focus on the transition to CIP Version 5 in accordance with the NERC Transition Guidance.
- ✓ NPCC incorporated the 2015 spot check program into the newly implemented guided self-certification initiative. Guided self-certifications utilize a risk based approach and focus on requirements of standards that have the most serious risk factors.

He stated that NERC's assessment report of the implementation of the NPCC Entity Risk Assessment found NPCC to be fully aligned with NERC Inherent Risk Assessment and Internal Control Evaluation criteria.

Task Force on System Studies (TFSS)

Mr. Conroy provided a brief update on the following TFSS activities:

- ✓ Ongoing NPCC Area transmission Reviews;
- ✓ Overall Transmission Reliability Assessment;
- ✓ NPCC Electric System Map;
- ✓ Bulk Power System (BPS) List; and,
- ✓ NPCC Document C-29 - Procedures for System Modeling: Data Requirements & Facility Ratings.

SS-38 Working Group

Mr. Latulipe reported that the SS-38 Working Group on Inter-Area Dynamic Analysis is scheduled to hold a meeting on January 13, 2016 to complete the sensitivity analysis on the impact of Distributed Generation as an addendum to the 2015 NPCC Overall Transmission Reliability Assessment report.

Load Modeling Working Group (LMWG)

Mr. Widjaja reviewed the status report provided in the Agenda package. He noted that NERC has recently announced the formation of a new Load Modeling Task Force (LMTF) December 1, 2015



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and has solicited industry's participation. This is an opportunity for the SS38-LMWG to collaborate with the NERC LMTF on this effort to drive the advancement and utilization of dynamic load modeling on an interconnection-wide basis.

Task Force on Infrastructure Security & Technology (TFIST)

Mr. Appelbaum reviewed the Cross Border Emergency Telecommunications status report provided in the Agenda package by the Telecommunications Working Group (IST-2). He indicated that the Systems Operations Managers Working Group (CO-8) and IST-2 performed this work.

In summary, the monthly satellite tests from November 2014 to October 2015 show that Iridium communications to/from ISO-New England, the New York ISO, the IESO, TransEnergie and NPCC were mostly successful; IST-2 members are investigating/resolving technical issues. In addition, the New York ISO is investigating ongoing site geographical connectivity issues.

Mr. Appelbaum then highlighted the recent Cyber and Physical Security activities, as provided in the Agenda package.

SP-7 Working Group - Review of Protection Systems Misoperations

Mr. Wegh reviewed the status of the SP-7 Working Group on Protection System Misoperation activities as completed through the Second Quarter 2015 provided in the Agenda package.

Task Force on Coordination of Planning (TFCP)

Mr. Dusseault indicated that the TFCP will be initiating a review of the NPCC A-10 Criteria; the last review was undertaken in 2009.

Mr. Fedora reported that the NPCC Review of 2016 – 2020 NPCC Interconnection Assistance Reliability Benefits (a/k/a the 2015 NPCC Tie Benefits Study) will be completed no later than December 31, 2015; following Task Force of Coordination of Planning review, approval will be sought at the March 2, 2016 RCC meeting.

NPCC Reliability Assessment Program (NRAP) Highlights Report

Mr. Fedora reported at the NRAP Highlights Report was updated as of November 27, 2015 and has been posted on the NPCC website.

2015-2016 Work Plan Progress

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



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NERC Agenda Items

Operating Committee (OC)

Mr. Rufrano reviewed the following Draft December 2015 NERC Operating Committee Agenda items:

- ✓ Draft Reliability Guideline: RCs – BAs – TOPs Communication: Loss of Real-Time Reliability Tools Capability / Loss of Equipment Significantly Affecting ICCP Data;
- ✓ Time Monitoring Reference Document; and,
- ✓ Geomagnetic Disturbance Reference Document Definition for Situational Awareness.

Planning Committee (PC)

Mr. Fedora reviewed the following items from the Draft December 2015 NERC Planning Committee Agenda:

- ✓ Reliability Assessment Subcommittee (RAS) Leadership Update;
- ✓ Short-Term Reliability Assessment (STRA) Plan; and,
- ✓ Essential Reliability Services Task Force recommendations.

Critical Infrastructure Protection Committee (CIPC)

Mr. Hogue noted that there are no voting items on the Draft December 2015 NERC Critical Infrastructure Committee Agenda; he highlighted the following items:

- ✓ Supply Chain Notice of Proposed Rulemaking Update;
- ✓ CIP -014-1 Guidance (“Physical Security” Standard);
- ✓ CIP V5 Transition and CIP V5 Revisions; and,
- ✓ GridEx III Report

Informational Items

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

NERC Items

Mr. Fedora reported that the NPCC Governmental/Regulatory Affairs Advisory Group would be meeting following the RCC meeting to further discuss the materials referenced in the Agenda package related to NERC’s Reliability Review of the Clean Power Plan.

He also mentioned that the NERC Board of Trustees will be meeting in December to consider approval of the *NERC 2015 Long-term Reliability Assessment* and the *NERC 2015/2016 Winter Assessment*.

GridEx III

Mr. Schiavone referred the RCC to the NERC Media Release included in the Agenda package; a report detailing findings and recommendations from GridEx III is expected to be completed by NERC in the first quarter of 2016 and posted to NERC’s website.



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Events Analysis Program (EAP)

Mr. Rufrano provided a summary of the NPCC Event Analysis Program Update provided in the Agenda Package.

NPCC Frequency Response Activities

Mr. Roman provided a presentation of the NPCC Frequency Response Activities provided in the Agenda Package.

Eastern Interconnection Reliability Assessment Group Activities

Mr. Roman reviewed the Eastern Interconnection Reliability Assessment Group Activities provided in the Agenda Package.

Other Matters

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

Next RCC Meeting Date

Wednesday, March 2, 2016

Location

Marriott New York Times Square
Residence Inn

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

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.