



NORTHEAST POWER COORDINATING COUNCIL, INC.
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November 12, 2018

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 May 30, 2018 RCC Meeting

Sir / Madam:

Attached is the minutes of the May 30, 2018 meeting of the NPCC Reliability Coordinating Committee, as approved at the September 5, 2018 RCC Meeting

Sincerely,

Phil Fedora

Philip A. Fedora
Assistant Vice President - Reliability Services

cc: NPCC Staff



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Mr. Evans-Mongeon called the meeting of the Reliability Coordinating Committee (RCC), held at the New York Times Square Residence Inn, New York, NY to order at 10:00 am.

Attendance

Officers of the Reliability Coordinating Committee

Brian Evans-Mongeon, Chair	Utility Services, Inc.
Randy Crissman, Co-Vice Chair	New York Power Authority
Dave Conroy, Co-Vice Chair	Central Maine Power Company

Sector 1 - Transmission Owners

Central Hudson Gas & Electric Corporation	(via written proxy)
Central Maine Power Company	David Conroy
Consolidated Edison Company of New York, Inc.	Martin Paszek - Alternate
Eversource Energy	George Wegh
Hydro-One, Inc.	Ajay Garg - Alternate
Long Island Power Authority	(proxy to Robert Eisenhuth)
National Grid USA	(via written proxy)
New York Power Authority	(proxy to Randy Crissman)
New York State Electric & Gas Corp.	Ray Kinney (via phone)
Nova Scotia Power, Inc.	(via written proxy)
Rochester Gas & Electric Corporation	Will Nichols – Alternate (via phone)
The United Illuminating Company	David Bradt
Vermont Electric Power Company, Inc.	Hantz Presume

Sector 2 – Reliability Coordinators

Hydro-Quebec TransEnergie	(proxy to Patrick Doyle)
Ontario IESO	Gabriel Adam
ISO New England, Inc.	Michael Henderson
	Rich Kowalski – Alternate
New York ISO	Zach Smith

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

New Brunswick Power Corporation	Randy MacDonald (via phone)
Consolidated Edison Company of New York, Inc.	(proxy to Martin Paszek)
Hydro Quebec Distribution	Abdelhakin Sennoun - Alternate (via phone)
Long Island Power Authority	Robert Eisenhuth
New York Power Authority	(proxy to Randy Crissman)



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Sector 4 Generation Owners

Consolidated Edison Company of New York, Inc.	(proxy to Martin Paszek)
Dominion Resources Services, Inc.	Sean Bodkin (via phone)
Long Island Power Authority	(proxy to Robert Eisenhuth)
New York Power Authority	Randy Crissman
NextEra Energy Resources	Allen Schriver (via phone)
Ontario Power Generation, Inc.	David Ramkalawan
	David Kwan – Alternate
Vistra Energy Corporation	Ken Still (via phone)

Sector 5 – Marketers, Brokers, and Aggregators

Consolidated Edison Company	Sofia Gadea Omelchenko
Consolidated Edison Energy, Inc.	(via written proxy)
Long Island Power Authority	(proxy to Robert Eisenhuth)
New York Power Authority	Jennie Liu
Utility Services, Inc.	Brian Evans-Mongeon

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

Long Island Power Authority	(proxy to Robert Eisenhuth)
New York Power Authority	(proxy to Randy Crissman)
New York State Department of Public Service	Humayun Kabir – Alternate (via phone)

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

New York State Reliability Council, LLC	Roger Clayton (via phone)
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NPCC Staff

Sal Buffamante	Assistant Vice President Audits and Risk Assessment
Gerry Dunbar	Manager of Reliability Criteria Requirements
Phil Fedora	Assistant Vice President, Reliability Services
Jessica Hala (part-time)	Senior Manager, Finance and Accounting
Brian Hogue	Information Systems & Security Management
Andreas Klaube	Engineer, Operations
Quoc Le	Manager, System Planning and Protection
Michael Lombardi	Manager, System Studies
Jennifer Mattiello (via phone)	Senior Vice President & COO

May 30, 2018



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Scott Nied	Director, Mitigation
Andrey Oks	Director of Operations Coordination
Paul Roman	Director, Operations Planning
Frantz Roc	Manager, Information Technologies
Ralph Rufrano	Manager, Events Analysis
Rafael Sahiholamal	Senior Reliability Engineer
Edward Schwerdt	President & CEO

Guests

Alessia Dawes (via phone)	Chair, CP-11 Working Group
Kevin DePugh	Chair, Task Force on System Studies
Alex Echevarria	Chair, Task Force on System Protection
David Cadregari (via phone)	Chair, Task Force on Infrastructure Security & Technology
Faheem Ibrahim (via phone)	ISO New England
Dean Latulipe (via phone)	Chair, SS-38 Working Group
Vincent Morissette	Vice Chair, SS-30 Working Group
Alex Rost (via phone)	Vice Chair, Task Force on System Studies
Dan Schwarting (via phone)	Vice Chair, CP-11 Working Group
Dan Valle (via phone)	Consolidated Edison Company of New York, Inc.
William Vesely	Vice Chair, Task Force on Infrastructure Security & Technology
Isen Widjaja (via phone)	Ontario Independent Electricity System Operator

Quorum Statement

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

Sector 1 – Transmission Owners

Frank Pace - Central Hudson Gas & Electric Corporation
Michael Schiavone – National Grid USA
David Stanford – Nova Scotia Power, Inc.

Sector 5 - Marketers, Brokers, and Aggregators

Norman Mah - Consolidated Edison Energy, Inc.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

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

Bulk Power System Resilience

Mr. Schwerdt explained that the Federal Energy Regulatory Commission (FERC) initiated a new proceeding on Grid Resilience on January 8, 2018. Within that Order, the Commission indicated that it understood resilience to mean, "The ability to withstand and reduce the magnitude and/or duration of disruptive events, which includes the capability to anticipate, absorb, adapt to and/or rapidly recover from such an event." This definition is consistent with earlier work by the National Infrastructure Advisory Council (NIAC). The FERC Order requested that the ISOs and RTOs comment on the meaning of resilience to the Commission by March 9th. The timeframe for reply comments to the FERC Order was extended to May 9th; over 100 such submittals were received by FERC.

Included in those reply comments was a submission by NERC, which in summary stated that resilience is an element of reliable operation of the Bulk Power System. NERC's comments built on a framework for resilience developed for it by the Reliability Issues Steering Committee, currently chaired by Mr. Brandien of ISO New England. That framework and how it comports with FERC's understanding of the NIAC definition was recently shared with the NERC Member Representatives Committee during its early May meeting. Of specific note, from an operational reliability perspective, is the acknowledgement of the industry's significant efforts to pre-position the system to a "more-secure state", when possible, in advance of a potential disturbance.

He then stated that ensuring an Adequate Level of Reliability (ALR) supports a resilient Bulk Power System. The first three components of the ALR definition stipulate maintaining voltage and frequency, and the avoidance of cascading outages for a set of pre-determined "normal" contingences and hence operating within a reliable operation state. The last two components of the ALR definition speak to mitigating the adverse reliability impacts and the timely, coordinated and controlled restoration from more "extreme" contingencies.

NPCC's efforts, through the dedicated work of the RCC and the Task Forces and Working Groups under it have long supported both the adequacy and security aspects within the resilient operation of the Bulk Power System. He said that he expects those activities to be affirmed in whatever FERC directive emerges from the proceedings.

NERC President's Reliability Concerns

On March 16th the NERC Board of Trustees named Mr. Robb, formerly the President and CEO of WECC, as their new President and CEO. During the May meetings of the Member
May 30, 2018



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Representatives Committee and NERC Board, he had an opportunity to indicate what he sees as the most critical reliability issues facing NERC and the electricity industry. The reliability concerns identified were: physical and cyber security threats to the bulk power system; the need for resolution of the evolving multiple Reliability Coordinator issue within the Western Interconnection; integration of inverter-based technology; and, addressing the operational aspects of intermittent resources. Future discussions within the ERO Executive Management Group will likely focus on these critical reliability challenges.

Mr. Schwerdt then introduced Ms. Hala, who presented an overview of NPCC's Draft 2019 Business Plan and Budget provided in the Agenda package.

Ms. Hala reported while NPCC was able to maintain a flat budget for the last two years, for 2019, NPCC's total budget and assessments are increasing by 4.6%; the Regional Entity budget and assessments going up by 4.6% and the Criteria Services division budget and assessments are increasing by 4.0%.

NPCC is budgeting for an increase of two FTEs; one engineer in Compliance (in order to increase in-house expertise where a contractor would otherwise be used) and one accounting associate (in place of an ongoing series of interns) which will allow for transfer of knowledge in the long term, rather than losing that knowledge with the ending of each internship. NPCC is currently fully staffed with 39 FTE's. There are no changes in headcount for the Criteria Services division.

NPCC's Business Plan is fully aligned with the ERO Enterprise Operating Plan and Long-Term Strategy, and it is that business plan that drives the budget (Risk responsive Reliability Standards; risk-informed compliance; Identification and mitigation of existing and emerging risks to reliability; physical and cyber security risks; Effective and efficient ERO Enterprise operations).

Personnel expenses are increasing by 4.4%, which is driven by a 3.5% average wage package increase; a 10% increase in medical insurance premiums; and the addition of the two FTEs.

- ✓ Meetings and Travel expenses are going up by 2.3% primarily based on inflationary increases;
- ✓ The increase in Consultants and Contracts (8.3%) is mainly driven by an increase in the sophistication, and number, of reliability assessment activities (probabilistic assessments); and,
- ✓ The decrease in capital expenditures is due to lower development costs related to software development.

The Working Capital and Operating Reserves Policy remains unchanged since last year; the reserve requirement policy will continue to be revisited each year by the NPCC Finance and Audit Committee.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

- ✓ Operating Reserves requirement is a range between 8.33% and 25% (90 days) to provide more stability in annual funding assessment;
- ✓ The Working Capital requirement target level of 8.33% (30 days) of the annual budget; and,
- ✓ Projected RE Total Reserve balance at year end 2019: \$2,933,713 (19.42% of total budget).

Last year, (2017) upon recommendation by the MDCC, (Management Development and Compensation Committee) and approval by the full Board, NPCC established a Business Continuity Reserve.

She also noted that the first Draft the NERC's 2019 Business Plan & Budget has been posted on their website for stakeholder review and comment.

Chair Report

Agenda

Mr. Evans-Mongeon said that the SP-10 Working Group on Cyber Security for Protection Systems Roster was struck from the Consent Agenda, in order to allow more time for consideration of its formation. In addition, the Eastern Interconnect Reliability Assessment Group Informational Item has been moved to the Items for Discussion.

The RCC then approved the Agenda provided in the Agenda package with these changes.

NERC Natural Gas Report Recommendation – July 10, 2018 Workshop

Mr. Evans-Mongeon reported that NERC will be conducting a technical workshop in Atlanta, Georgia on July 10, 2018 to discuss the recent NERC key findings and recommendations in recent reports with a particular emphasis on NERC's report titled Special Reliability Assessment: Potential Bulk Power System Impacts Due to Severe Disruption on the Natural Gas System. Panel sessions will discuss the developments since the report was released, and work toward developing solution sets (for example, NERC Standards or Guidelines) around NERC recommendations. The workshop announcement and Agenda is included in the Agenda Package.

A NERC Planning Committee Advisory Group has been formed to discuss the workshop take-aways, potential actions items, recommendations and next steps; a report is planned to be developed and presented to the NERC Board of Trustees by the end of the year.

NERC Reliability Issues Steering Committee and NERC Planning Committee Integration Planning Strategies

Mr. Evans-Mongeon explained that the process that the NERC Reliability Issues Steering Committee (RISC) uses to identify and quantify of current and emerging reliability issues that support the development of risk-informed recommendations for industry to pursue to



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

improve reliability performance. Last February, the NERC BOT approved the latest version of the RISC report; the NERC Planning Committee has identified 34 items directly related to their activities. The Planning Committee leadership has met with their various subcommittees to review the identified 34 items; in order to align follow-up assignments/objectives to the respective groups. Subsequently, these groups have started working on addressing those objectives. As a result, some identified objectives have been brought back to the RISC for clarification.

NERC Planning Committee Activities on Distributed Energy Resources (DER)

Mr. Evans-Mongeon reviewed the existing impacts of DER on the transmission/distribution system interface. To help understand and assess the existing issues, the Planning Committee has issued guides, recommended informational data collection and modeling in conjunction with related the activities of the Essential Reliability Services Working Group and DER Task Force. A continuing effort will look into understanding the future potential impacts from DER. He described a Planning Committee DER brainstorming session following their March 6-7, 2018 meeting and a related April 10-1, 2018 FERC Technical Conference that more broadly discussed the potential effects of DER and DER aggregators on the Bulk Power System.

Consent Agenda

The Reliability Coordinating Committee unanimously approved (all written proxy votes in favor) the following Consent Agenda items:

February 28, 2018 Meeting Minutes

The Draft-For-Approval Minutes of the December 5, 2017 Reliability Coordinating Committee were approved, with the changes as identified in the Agenda package and noted at the meeting.

RCC Membership Changes

The following changes to RCC Membership were approved:

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

- ✓ Mr. Dermot Smyth of Consolidated Edison Company of New York, Inc. succeeds Mr. Daniel J. Grinkevich as the member. Mr. Grinkevich has left the company. Mr. Chris Overberg succeeds Mr. Smyth as the alternate member.

Sector 4 - Generator Owners

- ✓ Mr. Daniel Valle of Consolidated Edison Company of New York, Inc. succeeds Mr. Robert Winston as the alternate member.
- ✓ Mr. William Smagula steps down as the Eversource Energy's representative; the alternate member remains the same.
- ✓ Mr. Ken Stell of Vistra (f/n/a Dynegy, Inc.) replaces Mr. James Watson as the member.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Task Force Roster Changes

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

Task Force on System Protection

- ✓ Mr. Ron Tutty from Nova Scotia Power, Vice Chair has retired.

Task Force on System Studies

- ✓ Mr. Frank Walsh succeeds Mr. Christopher Malone as the member, both of The United Illuminating Company.

Task Force on Infrastructure Security and Technology

- ✓ Mr. Daniel Valle succeeds Mr. Dan Grinkevich as the Consolidated Edison Company of New York, Inc. member. Mr. Grinkevich has left the company.
- ✓ The following have also left their respective companies:
 - Mr. Ron Adam of NRG Energy;
 - Michael Bilheimer of The United Illuminating Company; and,
 - Ms. Whitney Wallace of Vistra (f/n/a Dynegy, Inc.).
- ✓ The following have left the Task Force due to been reassigned to other duties at their respective company:
 - Mr. Jacquelin Bisson of Hydro-Quebec TransEnergie;
 - Mr. Yan Hugues Boily of Hydro-Quebec TransEnergie;
 - Mr. Come Chaput of Hydro-Quebec TransEnergie;
 - Mr. Steve Moynihan of ISO-New England, Inc.;
 - Ms. Alexandra St-Hilaire of Hydro-Quebec TransEnergie; and,
 - Ms. Jenifer Vallace of the Northeast Power Coordinating Council, Inc.
- ✓ The following representatives are additions to the Task Force:
 - Mr. Sylvain Bertrand as the alternate member for Hydro-Quebec TransEnergie.
 - Mr. Daniel Camp as the alternate member for Eversource Energy.
 - Mr. Antonio Carneiro as the alternate member for the New York Power Authority.
 - Mr. Norm Dang as the alternate member for the Ontario Independent Electricity System Operator.
 - Mr. Mario Lajoie as the member for Hydro-Quebec TransEnergie.
 - Mr. Joe Neglia as the alternate member for PSEG Fossil LLC.
 - Ms. Vicki O'Leary as the member for Eversource Energy.
 - Ms. Bambi Rivera as the alternate member for the Vermont Transco.
 - Mr. Rod Smith as the member for Nova Scotia Power, Inc.
 - Mr. Robert Thompson as the alternate member for the Central Maine Power Company.
 - Mr. William Vesely as the alternate member for the Consolidated Edison Company of New York, Inc.
- ✓ Mr. William Vesely from the Consolidated Edison Company of New York, Inc. succeeds Mr. Michael Bilheimer (formerly from The United Illuminating Company) as the Vice Chair.

IST-2 Telecommunications Working Group



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

- ✓ The following have been left the Working Group due to being reassigned to other duties at their respective companies:
 - Mr. Steve Moynihan of the ISO-New England, Inc.; and,
 - Mr. Troy Wells of the New Brunswick Power Corporation.
- ✓ Mr. Javier Echevarria of Northeast Power Coordinating Council, Inc. to serve as an alternate member.

SS-37 Working Group on Base Case Development

- ✓ Mr. Rafael Sahiholamal of Northeast Power Coordinating Council, Inc. will no longer serve as an alternate member.
- ✓ Mr. Mohab Elnashar succeeds Mr. Nilkamal Fernandopulle as the member, both of the Ontario Independent Electricity System Operator.

SS-38 Working Group on Inter-Area Dynamic Analysis

- ✓ Mr. Edwin Thompson succeeds Ms. Matilda Duli as the member from the Consolidated Edison Company of New York, Inc.

CO-1 Working Group on Control Performance

- ✓ Ms. Candida D'Costa replaces Ms. Jessica Tang as the alternate member for the Ontario Independent Electricity System Operator.

CO-2 Working Group on System Operator Trainers

- ✓ Mr. Andrew Salter becomes the alternate member for the Ontario Independent Electricity System Operator. This position was previously vacant.

CO-11 Working Group on Restoration

- ✓ Mr. John Antonakos from the Ontario IESO succeeds Mr. Robert Golen from the New York ISO as Chair.
- ✓ Mr. Patrick Toner from Hydro-Quebec succeeds Mr. John Antonakos from the Ontario Independent Electricity System Operator as Vice-Chair.
- ✓ Mr. Harris Miller from the New York ISO becomes the alternate member replacing Raj Dontireddy.
- ✓ Ms. Caroline Janelle from Hydro-Quebec is removed as the alternate member.
- ✓ Mr. Tim Shannon from Hydro One becomes an alternate member.
- ✓ Ms. Sanda O'Niel from Eversource Energy is removed as the alternate member.
- ✓ Mr. Sean MacDonald from the Consolidated Edison Company of New York, Inc. is removed as the alternate member.

NPCC Directory No. 1 – Criteria Clarification

Approved as provided in the Agenda package.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Reliability Coordinating Committee Actions

2017 New England Comprehensive Area Transmission Review

Mr. Rost provided an overview of the 2017 New England Comprehensive Area Transmission Review (Review) provided in the Agenda package. The Review assessed the reliability of the New England Area Bulk Power System by examining the impact of changes in forecasted system conditions and planned facilities. The Review concluded that the planned transmission system for the New England Area for the year 2022, in combination with the planning processes underway to address the voltage, thermal and short circuit issues described in the Report (Sections 2.4.1.5, 2.4.1.7 and 6.3, respectively), is in conformance with the NPCC Regional Reliability Reference Directory No. 1 - *Design and Operation of the Bulk Power System*.

The Task Force on System Studies conducted a review and accepted the Review at its March 2018 meeting. The Task Force on Coordination of Planning considered the Review at its May 10-11, 2018 meeting, agrees with the completeness and acceptability of the 2017 New England Comprehensive Area Transmission Review, and recommends RCC approval.

The RCC then unanimously approved the 2017 New England Comprehensive Area Transmission Review provided in the Agenda package (all written proxies in favor).

2017 Ontario Comprehensive Area Transmission Review

Mr. Widjaja provided an overview the 2017 Ontario Comprehensive Area Transmission Review (Review) provided in the Agenda package. The Review assessed the reliability of the Ontario bulk power system by examining the impact of changes in forecasted system conditions and planned facilities. The Review concluded that the planned transmission system for the Ontario Area for the planned year 2022 is in conformance with the NPCC Regional Reliability Reference Directory No. 1 - *Design and Operation of the Bulk Power System*.

The Task Force on System Studies conducted a review and accepted the Review at its March 2018 meeting. The Task Force on Coordination of Planning considered the Review at its May 10-11, 2018 meeting, agrees with the completeness and acceptability of the 2017 Ontario Comprehensive Area Transmission Review, and recommends RCC approval.

The RCC then unanimously approved the 2017 Ontario Comprehensive Area Transmission Review provided in the Agenda package (all written proxies in favor).

NPCC Directory No. 2 – Emergency Operations

Mr. Doyle reviewed the revised draft of NPCC Regional Reliability Directory No. 2 - *Emergency Operations* provided in the Agenda package. The NPCC Task Force on



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Coordination of Operation (TFCO) and its CO-8 Systems Operations Managers Working Group conducted a comprehensive review of Directory No. 2 to ensure that the criteria in the document is consistent with the evolving NERC Standards and to reformat the revised criteria into NERC style requirements.

The Directory was posted to the NPCC Open Process for a forty-five day comment period; the TFCO has responded to all comments. The TFCO recommended that the RCC submit the NPCC Regional Reliability Directory No. 2 - *Emergency Operations* provided in the Agenda package to the NPCC Full Membership for final approval by ballot.

The RCC then recommended balloting the Revised NPCC Regional Reliability Directory No. 2 *Emergency Operations* provided in the Agenda package for Full Member approval (three written proxies in favor, one abstention - Consolidated Edison Energy, Inc.– Sector 5).

A-10 Selection Criteria

Mr. Evans-Mongeon reviewed the background associated with the comprehensive review of the NPCC Document A-10 - *Classification of Bulk Power System Elements* and the request for the Task Force on Coordination of Planning (TFCP) to identify a criteria to be considered for the selection of a methodology.

Mr. Adam added that the comments and feedback provided by the RCC were considered and incorporated in the A-10 Selection Criteria provided in the Agenda package; the principles considered were to:

- ✓ Identify critical facilities for the applicability of NPCC Directories;
- ✓ Simplify the existing methodology to make it less labor-intensive; and,
- ✓ Improve consistency across NPCC Areas in the application and outcomes of the
- ✓ methodology.

Mr. Paszek asked how the selection criteria would be transferred to the CP-11 Working Group. Mr. Evans-Mongeon replied that the selection criteria is intended for the RCC to decide which methodology would be recommended, given the results provided by CP-11 Work Group.

In response to question from Mr. Henderson, Mr. Evans-Mongeon affirmed the selection criteria would provide the ability for NPCC to do verification required for compliance.

The RCC then approved the A-10 Selection Criteria provided in the Agenda package (two written proxies in favor, two abstentions - Consolidated Edison Energy, Inc.– Sector 5 and Central Hudson Gas & Electric Corporation – Sector 1).



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Items for Discussion

Review of A-10 Methodology

Mr. Adam introduced Ms. Dawes and Mr. Schwarting, who presented the CP-11 Working Group's status of their Phase 2 Action Plan review of NPCC Document A-10 - *Classification of Bulk Power System Elements*, provided in the Agenda package. She provided an overview of the concepts under consideration, the status of the CP-11 Working Group's testing of the proposed methodologies and the next steps. The connectivity-based methodology (3) is not being pursued.

The RCC discussion topics included the selection criteria, the consideration of grandfathering previously identified BPS elements, elimination of certain testing, and the schedule. Mr. Evans-Mongeon expressed his appreciation of the work being done by the CP-11 Working Group to meet the schedule and objectives.

In response to a question from Mr. Evans-Mongeon, Mr. Adam indicated that the elimination of the connectivity-based method was presented to the Task Force on Coordination of Planning and discussed.

Strategic Review of NPCC Criteria

Mr. Dunbar provided an update of the strategic review of the NPCC criteria, reviewing the background and purpose of the review. He explained that this review was initiated by the NPCC Board of Directors to determine if, with the continuous enhancement and strengthening of the NERC standards, there is still a need for the NPCC Regional Criteria to close potential reliability gaps in the NERC Reliability Standards or whether any additional specificity or stringency beyond the NERC Standards is necessary. The Task Force on Coordination of Planning approved Action Plan and Scope of Work for the Strategic Review is included in the Agenda package.

An initial draft for comment will be provided to the appropriate NPCC Task Forces by the end of June. The draft will identify high level reliability principles that the NPCC criteria supports and will also consider the reliability benefit of the criteria.

Subsequent to NPCC Task Force review, a first draft of the report will be presented to the RCC and the Regional Standards Committee (RSC) at their respective September meetings for a simultaneous 30-day comment period; a final draft will be submitted to the RCC and the RSC for consideration at their December 2018 meetings.

Mr. Evans-Mongeon noted that NPCC members not represented on the NPCC Task Forces have a chance to provide their input during 30-day comment period following the September 5, 2018 RCC meeting.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Mr. Dunbar said that the strategic review of the NPCC criteria was presented at the NPCC Spring Compliance and Standards Workshop.

Mr. Smith asked if the NPCC Directories would be reviewed for administrative requirements as opposed to the actual criteria requirements. He was specifically interested in the identification of any potential efficiencies that can be gained to reduce the level of effort his staff has to do to meet the NERC Standards, NPCC Criteria, and New York State Reliability Council Rules, for example.

Mr. Dunbar responded the review is not meant to be a granular standard requirement by requirement comparison to the criteria. The report being developed is meant to be at a high level.

Mr. Schwerdt added that meeting NPCC criteria requirements should be usable to satisfy NERC standards or other requirements. He referred to the resilience concepts outlined in his report as an example.

Preliminary Under Frequency Load Shedding (UFLS) Study Results

Mr. Latulipe summarized the preliminary base line results of the UFLS study provided in the Agenda package. He explained each of the five NPCC Areas are currently at different stages of the UFLS assessment. His presentation included description of the preliminary results available for the New England, New York, and Ontario Areas. Mr. Morissette presented the preliminary results for the Québec Area UFLS study. The Maritimes Area (New Brunswick and Nova Scotia) conduct their own study; the results were not available for presentation at this meeting.

All NPCC Areas are scheduled to complete their base line simulations and document the results by the end of June, so that sensitivity simulations for Distributed Energy Resource penetration and dynamic load modeling can be conducted in the July and August 2018 timeframe in accordance with the approved schedule. Results are planned to be presented to the RCC at their September 5, 2018 meeting.

The RCC discussed the preliminary results, discussion topics included the load model representation, the preliminary Ontario results, and the schedule.

Credit for Complementary Controls

Mr. Nied explained the comprehensive NERC reviews/oversight of NPCC activities on all its CMEP activities as provided in the Agenda package, including documentation of NPCC's audit findings and rationale, as well as "third-party complementary controls" that an entity may claim.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

The “third-party complementary controls” examples he cited to meet NERC Standards requirements included:

- ✓ entity control credit claims for the work done by the NPCC SP-7 Working Group in reviewing system protection misoperations and corrective actions that may result to satisfy the requirements of PRC-004-5(i): or,
- ✓ entity TP/PC claim controls are that follow the NPCC Directory and Task Force Process for:
 - SS-37 Working Group on Base Case development;
 - ERAG MMWG development of solved power flow models for the Eastern Interconnection; and,
 - SS-38 Working Group Inter Area Dynamics Analysis and Studies.

Mr. Nied said that in response to NERC recommendations, NPCC Compliance staff needs to increase the ability to demonstrate through documentation that claimed third-part processes and procedures were reviewed/understood and tested for quality/robustness by:

- ✓ Conducting interviews/discussions with NPCC Working Group leaders via phone, email, and/or WebEx;
- ✓ Through the CC Controls Working Group who are familiar with NPCC Task Force and Working Group activities; and,
- ✓ Documenting the controls (by cataloging Charters, Scopes, procedures, work plans, flow diagrams, etc.).

Presentation on these CC Control Working Group activities will be scheduled for the NPCC Fall Compliance and Standards Workshop.

Mr. Evans-Mongeon expressed concern that this approach may require validation of each and every one of the third-party processes an entity may claim. He asked, once accepted/validated by NPCC, if the third-party process(es) will be posted/available so others could apply them, if applicable.

Mr. Nied responded that the catalog of controls approach will be presented at the NPCC Fall Compliance and Standards Workshop; he indicated he would have to check if/how the catalog would be maintained and posted.

May RCC NPCC Goal Deliverables

Mr. Evans-Mongeon referred the RCC members to the materials provided in the Agenda package regarding the following May RCC NPCC Goal deliverables:

- ✓ Goal III-1 - Composite Misoperations Metric. Mr. Sahiholamal reported on the development an NPCC composite misoperation metric to support risk identification and mitigation.
- ✓ Goal III-2 -Trend Analysis of 2015-2016 Events. Mr. Rufrano presented an assessment and trend analysis of all ERO-wide 2015 and 2016 events.
- ✓ Goal III-3 - Current Planning practices for Distributed Energy Resources (DER). Mr. Lombardi reported the identified current practices for incorporation of installed DERs in



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

planning practices, from a transmission system planning and modeling perspective. For consistency, the New York Public Service Commission DER Definition was used.

Eastern Interconnection Reliability Assessment Group

Mr. Roman provided the Eastern Interconnection Reliability Assessment Group update provided in the Agenda package.

NERC Agenda Items

Joint Session: Planning, Operating & Critical Infrastructure Protection Committee June Meeting

Mr. Oks reviewed the following items planned for presentation at Joint Session included in the Agenda package:

- ✓ Standards Efficiency Review and Standards Grading Project;
- ✓ Level 2 NERC Alert II: Loss of Solar Resources during Transmission Disturbances due to Inverter Settings;
- ✓ 2018 State of Reliability Report Update; and,
- ✓ NERC Rules of Procedure Section 1600 Data Request for Geomagnetic Disturbance (GMD) Data.

Operating Committee (OC) Meeting

Mr. Rufrano then highlighted the following items from the June OC Agenda included in the Agenda package:

- ✓ Approval of the Reliability Coordinator Reliability Plan Reference Document;
- ✓ Approval of the Reliability Guideline: Cyber Intrusion Guide for System Operators; and,
- ✓ WECC Reliability Coordinator Updates:
 - Mountain West
 - California ISO
 - Peak RC
- ✓ Lessons Learned from Hurricane Irma.

Planning Committee (PC) Meeting

Mr. Fedora highlighted the following items on the Draft June Planning Committee Agenda included in the Agenda package:

- ✓ Endorse the NERC Rules of Procedure Section 1600 Data Request for Geomagnetic Disturbance Data (US entities);
- ✓ Approve the Establishment of a Misoperations Information Data Analysis System (MIDAS) Working Group;
- ✓ Action Plan for Addressing Assessment Report Recommendations Update;
- ✓ Discussion of RISC Report Elements and Prioritization in PC Work Plans;
- ✓ Discussion of PC Activities for Distributed Energy Resource (DER) Impacts; and,
- ✓ Special Reliability Assessment on Accelerated Generation Retirements Impacts Update.



NORTHEAST POWER COORDINATING COUNCIL
Reliability Coordinating Committee Minutes
May 30, 2018

Critical Infrastructure Protection Committee (CIPC)

Mr. Hogue noted the following items from the June CIPC Agenda included in the Agenda package:

- ✓ Approval of the Supply Chain Working Group Charter;
- ✓ Approval of the Physical Security Guidelines Work Group Guideline for Extreme Events;
- ✓ Department of Energy - GridEx V Update;
- ✓ Emerging Technology Roundtable Update - Natural Gas at Generation Stations Presentation;
- ✓ CIP Cloud: FEDRAMP Federal Cloud Model Presentation; and,
- ✓ Supply Chain Update.

2018 NERC Summer Reliability Assessment

Mr. Fedora noted that the 2018 NERC Summer Reliability Assessment was released today, and would be added to the Agenda package.

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

Next RCC Meeting Date

Wednesday September 5, 2018

Location

Courtyard by Marriott - Saratoga Springs
Saratoga Springs, New York

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 – David Ortiz, David O’Connor, Juan Villar

La Régie de L’Énergie – Daniel Soulier

Ontario Energy Board – Veronica Mendes

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.

May 30, 2018

17