

Minutes of the Meeting

Q4 2022 RSSC: Meeting #56

Meeting date: 12/12/2022

Meeting time: 09:30 a.m.

Meeting location: IESO Hosted MS Teams

Chair/Sponsor: Scott Berry/Darren Matsugu

Scribe: Harish Vijay Kumar

Invitees	Representing	Attendance Status Attended, Regrets, Teleconference
Mike Beuthling	Hydro One	Teleconference - MS Teams
Hassan Vahed Kalankesh	Hydro One	Teleconference - MS Teams
Helen Lainis	IESO	Teleconference - MS Teams
Monica Adam	IESO	Teleconference - MS Teams
Paul Malozewski	Hydro One	Teleconference - MS Teams
Sheraz Majid	Hydro One	Teleconference - MS Teams
Desderius Ngunangwa	Bruce Power	Teleconference - MS Teams
Steven Pichette	Northland Power	Teleconference - MS Teams
Catherine Ethier	OEB	Teleconference - MS Teams
Leigh Mulholland	Capital Power	Teleconference - MS Teams
Chris Moir	OPG	Teleconference - MS Teams
Vladislav Urukov	OPG	Teleconference - MS Teams
Norm Dang	IESO	Teleconference - MS Teams
Dhvani Shah	Hydro One	Teleconference - MS Teams
Sylvian Moore	Boralex	Teleconference - MS Teams

Invitees	Representing	Attendance Status Attended, Regrets, Teleconference
Alex Zbarcea	Hydro One	Teleconference - MS Teams
Joel Charlebois	AESI	Teleconference - MS Teams
Abbas Munir	Bruce Power	Teleconference - MS Teams
Tabasum Bandey	Bruce Power	Teleconference - MS Teams
Dahir Mohamed Haji	Bruce Power	Teleconference - MS Teams
Colin Elwood	Bruce Power	Teleconference - MS Teams
Bendong Sun	Bruce Power	Teleconference - MS Teams
Paul Barrette	Northland Power	Teleconference - MS Teams
Mernaz Malozewski	Guidehouse	Teleconference - MS Teams
Aditya Menon	Hydro One	Teleconference - MS Teams
Ashley Scheelar	TransAlta	Teleconference - MS Teams
Hassib El murdea	OPG	Teleconference - MS Teams
Kevin Samuel	FPL	Teleconference - MS Teams
Darren Matsugu	IESO	Teleconference - MS Teams
Cristian Dragnea	IESO	Teleconference - MS Teams
John Nguyen	IESO	Teleconference - MS Teams
Keven Van Velzen	BBA	Teleconference - MS Teams
AMARASINGHE Dinu(D)	Bruce Power	Teleconference - MS Teams
Prithvi (Shawn) Nandy	Transalta	Teleconference - MS Teams

Agenda Item 1: Welcome and Introductions

Scott Berry kicked off the 55th RSSC meeting at 9:30 AM welcoming participants. Scott requested new RSSC participants to introduce themselves. Scott then shared a safety message about slip, trips and falls due to winter season during shoveling snow on driveways and situational awareness.

Agenda Item 2: Administrative Items

The agenda for the 56th RSSC meeting was reviewed by Scott Berry, Hasseb El Murdea and Sheraz moved to adopt the agenda and the agenda was adopted as constructed.

The minutes of the previous RSSC meeting (55th) were reviewed. Hasseb El Murdea moved to adopt the meeting minutes; these were accepted as drafted.

Scott Berry provided an update on the open action items (listed below).

Action Item Summary

ID	Date	Action	Status	Comments
Q2-2022-01	25/08/2022	Clarify with the standards drafting team on how temparture swing will be incorporated into the cold weather standards	Closed	Helen was scheduled to provided an update under agenda item #4.
Q2-2022-02	25/08/2022	To confirm if the use of previous operational data will be sufficient evidence to prove compliance to all requirements in the modified cold weather standards	Closed	Helen was scheduled to provided an update under agenda item #4.

Agenda Item 3: CIP standards Development Update

Norm Dang delivered the CIP Standards Development Update

Active NERC SDTs

Project 2016-02 CIP Mods SDT - made changes to CIP-002 and CIP-013.

Failed ballot 4 of the CIP V5 VTAG issues.

Project 2020-04 CIP-012 Mods SDT - proposed changes to CIP-012.

Failed ballot 3 on availability requirements for communication links between control centers.

Project 2020-03 SDT Supply Chain Low Impact SDT

Passed final ballot of as CIP-003-9 and adopted by NERC BOT

Project 2021-03 SDT TOCC – made changes to CIP-002/CIP-014

Changes to address

- Transmission Owner Control Centres (TOCC) that perform function of a Transmission Operator (CIP-002).
- Define Classification process of Electronic Access Control and Monitoring systems (EACMS), Physical Access Control Systems (PACS) and Protected Cyber Assets (PCA) (CIP-002)
- Change wording related to Interconnection Reliability Operating Limit (IROL) as part of changes started by NERC project 2015-09- System Operating Limits (CIP-002/CIP-014)

New CIP Requirements

CIP-013-2, CIP-005-7 and CIP-010-4 – Standards to address supply chain requirements for PACS, EACMS: New versions come into effect Oct 1, 2022.

CIP-004-7 and CIP-011-3 – BES cybersecurity information (BCSI) in the cloud: New versions come into effect on Jan 1,2024

CIP-003-9 Vendor electronic remote access controls for Low Impact BES Cyber systems(BCS) (effective date: TBD)

Other Items

FERC issued a Notice Of Proposed Rulemaking (NOPR) on Oct 16 on the topic Incentives for Advanced Cybersecurity Investment, which talks about funding methods for new cyber security investments. This does not effect IESO

US Cybersecurity and Infrastructure Security Agency (CISA) Request for Information (RFI) was issued on Sept 9, 2022 Cyber incident reporting requirements, pursuant to the Cyber Incident Reporting for Critical Infrastructure Act of 2022 - does not directly effect IESO, however may be reflected in future changes to CIP-008

Agenda Item 4: O&P Standards Development

Helen Lainis delivered the O&P Standards Development update.

Project 2021-07, Extreme Cold weather grid operatios, preparedness and coordination standards – EOP-011-3 and EOP-012-1

- Final ballots concluded at September 30, 2022 for the following standards and implementation plan:
- EOP-011-3 – Emergency Operations: Passed 95.86/83.64
- EOP-012-1 – Extreme Cold Weather Preparedness and Operations: Passed 95.54/79.04
- NERC filed for regulatory approval on October 28, 2022 and requested that FERC consider approving them on a expedited timeframe.

Project 2017-01, Modifications to BAL-003 Phase II, Freuency response and Frequency Bias setting

- Draft 1 comment period and balloting concluded September 7, 2022 – Failed: 88.89/43.75
- Proposing a new requirement in proposed BAL-003-3 (Requirement R5), that a Balancing Authority must have an Operating Process as part of its Operating Plan to address the needed Frequency Responsive reserves.
- Proposing new requirements R6 and R7.
- Requirement R6 is modeled after the VAR-002-4.1, Requirement R1 and requires the Generator Operator to operate generators with the Governor in service unless the Balancing Authority has been notified that the Governor is out-of-service.
- Requirement R7 states that the Generator Owner is responsible to ensure minimum settings for the Governor droop and dead-band or notification to the Balancing Authority if the settings are not within these minimum settings

Project 2021-04, Modifications to PRC-002-3, Disturbance monitoring and reporting requirements

- Final Ballot for Draft 2 is due December 16, 2022.
- Draft 2 Ballot passed (78.42/96.09) on November 14, 2022.
- Goal is to clarify the necessary notifications in Requirement R1, Part 1.2 relative to Fault Recording (FR) data, and clearly identify the BES Element owners that need to have FR data for transformers and transmission lines with the associated identified bus.

Project 2020-06, MOD-026-2, Verification of Dynamic models and data for BES-connected facilities

- Draft 2 comment period and balloting is due January 18, 2023. SDT addressed comments received from Draft 1.
- MOD-026 and MOD-027 have been merged.
- TP to provide clear requirements and processes (R1)
 - Acceptance criteria, types of models, format, etc.
 - Process for submittal.
- EMT Model requirements (R6)
 - Provisions for legacy equipment
 - More detailed package of information required
 - Verify documentation with model
 - Validate with testing (OEM device testing & field test)
- TP reviews in alignment with developed acceptance criteria.
- Update model required if impact to dynamic performance.
- Synchronous condenser, FACTS devices, HVDC Facilities.

Project 2021-05, Modifications to VAR-002-4.1, Generator Operation for Maintaining Network Voltage Schedules

- Draft 1 comments and balloting due January 13, 2023.
- Goal is to Clarify VAR-002-4.1, Requirement R3, in regards to whether the GOP of a dispersed power resource must notify its associated TOP upon a status change of a voltage controlling

device on an individual generating unit; for example, if a single inverter goes offline in a solar photo-voltaic (PV) Facility.

- Address recommendations from Enhanced Periodic Review of Voltage and Reactive Standards” for IBR Voltage/VAR control and operation

Project 2021-01, Modifications to MOD-025 and PRC-019

- Draft 1 comment period and balloting concluded November 17, 2022.
- Standards affected through this project are
 - o MOD-025-2 – Verification of Real and Reactive Power Capability for BES Facilities
 - o PRC-019-2 – Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection
- Issue with existing MOD-025
 - o Verification testing activities require significant time, expertise, and coordination, however, they do not result in data that should be used by planners for modeling purposes.
 - o Aim is to retain testing activities are useful and focus on more effective means of collecting useful data for planning models.
- Summary of changes
 - o Applicable entities
 - o Facilities
 - o Focus on providing value added information to TP - Composite capability curve
 - o Three methodology options for Facility Real and Reactive Power capability verification
 - o Periodicity
 - o Attachment updates
 - o Requirement R3 (new)
 - o Requirement R4 (new)
- Modifications to PRC-019
 - o Mis-coordination between generator capability, control systems, and protection functions.
 - o Developed with a bias toward synchronous generation and does not sufficiently outline the requirements for all generation resource types.
- Summary of changes
 - o Applicable Facilities updated to Align with BES definition and reflect installation & operation of IBR Facilities
 - o Periodicity to six years to align with PRC-005
 - o Footnote associated with R1 noting as-left settings should be used in coordination study and compliance evidence
 - o Protective function and Protection System clarification
 - o R1.2 added, which is specific for IBR generating Facilities - IBR unit defined

- R2 modified to align with PRC-027 and added IBR unit specific language
- Attachment 1 updates for IBR language

Project 2021-05, Modifications to PRC-023, Transmission Relay

- Draft 1 comment and balloting concluded December 5, 2022. Passed – 78.46/99.36
- Goal it to remove PRC-023-4 Requirement R2 in order to eliminate entities disabling their OOSB elements unnecessarily. It will remove an unnecessary exclusion (Attachment A – 2.3) for relays that no longer need an exclusion.

Project 2021-06, Modifications to IRO-010 and TOP-003

- Draft 1 comments and balloting is due December 15, 2022
- As written the standards create a zero-defect expectation for each Registered Entity receiving a data specification to demonstrate perfect performance on every item in the data specification for an entire audit period (excessive administrative burden and retention to demonstrate compliance). Proposing a risk-based approach where performance triggered upon an event or unresolved data conflicts between entities.
- Evaluate removing other data exchange requirements dispersed in other standards. This may require enhancing the standards to allow each Registered Entity with responsibilities to perform the tasks identified in IRO-010-2 and TOP-003-3 the ability to request and receive any information it needs from other Registered Entities to perform those tasks.

NERC Standards Development Improvement Process

NERC Board of Trustees approved a resolution to adopt proposed changes to the NERC Rules of Procedure (and standards development process). These include:

- RSTC will be able to create SARs for Standards Committee acceptance without the formation of a SAR drafting team.
- SDTs will be able to minimize posting periods (as they so determine).
- Elimination of the final ballot to prevent entities who did not vote in a passing ballot to deny the standard from passing after the fact.
- Board must have the authority to submit a standard to respond to a FERC directive in order to meet its ERO obligations.
- NERC Staff is directed to manage a Registered Ballot Body review process.

Agenda Item 5: NERC Standards Implementation Roadmap

Scott Berry delivered the NERC Standards Implementation Roadmap

Scott gave a brief overview of the updated standards Roadmap, there was a minor correction with the posted roadmap and Scott indicated that the roadmap with the changes incorporated will be posted online for the participants after the meeting.

Agenda Item 6: MACD Update (Self Certifications, compliance assessments)

Monica Adams delivered the MACD Update.

Monica mentioned that the Compliance monitoring plan will be published in the Ontario Reliability Compliance Program (ORCP) website after the holidays. There will not be a lot of difference in MACD's plan and NERC's plan in terms of compliance for the standards and rules, the 2023 CMP will consider the applicability of reliability standards in Ontario, the reliability risks of the standards at continent-wide and regional level as reflected in the NERC Compliance Monitoring and Enforcement Program (CMEP) and NPCC IP, Power system infrastructure changes as observed by the IESO and emerging threats and vulnerabilities impacting the power system.

The 2023 CMP priority areas will be

- Critical Infrastructure protection (CIP),
- Inadequate Models impacting planning and operations (MOD, PRC, TOP),
- Gaps in Program Execution (FAC, Directory 4 & 11),
- Automatic UFLS (PRC 006, NPCC 2),
- Inverter Based resources (PRC 024-3),
- Cold weather response (EOP -011-2).

Monica also mentioned about the 2023 Data submission schedule and mentioned about reintroducing the reporting for PRC-004-6, IESO will streamline the reporting for this and create a process for data submission.

Monica encouraged Market participants to self-report any potential breaches to standards at any time upon discovery and not to wait until the time of self-certification or audit.

Monica provided details about self-certifications, MACD will issue self-certifications starting the late Q1/Early Q2 2023 and notifications will be via the Reliability compliance tool or the MACD Compliance monitoring workspace. NERC RSAW (or a link to) will accompany the self-certification request for a specific reliability standard. Market participant is expected to submit the completed RSAW or a narrative on how it meets compliance. Market participant is expected to attach evidence of compliance (e.g.: documented policies, procedures and plans, maintenance reports, etc.). PRC-005-6 Maintenance work sheet template is expected to be filled out and submitted as self certification evidence.

Sheraz from Hydro One enquired about the mis-operation standards and wanted to know if IESO is expecting what Market participants are submitting to NERC, Monica mentioned that IESO is working on establishing a process for collecting this data, Scott provided further clarification that IESO does not have visibility on data submitted through Mis-operation Information Data Analysis System(MIDAS),and mentioned that the information IESO will be looking for might not be too different from what is asked on MIDAS and that more information will be provided in the next RSSC meeting.

Chris requested on clarification if all the self –certification requests will be released at the same time at around 2023 end of Q1/ beginning Q2. Monica mentioned that it will likely be all standards together at the same time and mentioned that she will provide more information on the next RSSC meeting.

Agenda Item 7: OPSRP Update

Scott delivered the OPSRP Update

- OPSRP:
 - Updates have been made to the OPSRP and the latest version (effective December 19, 2022) has been shared with restoration participants, reliability coordinators, and transmission operators.
 - Updates included minor content and grammatical clarifications, as well as revised drawings to include Lakeshore TS.
- Restoration Workshops:
 - All four virtual workshops for 2022 have been completed. Positive feedback was received, and the key piece of feedback was the desire to resume in-person sessions.
 - We are happy to share that there will be three in-person workshops in 2023, as well as one virtual workshop to accommodate those who are unable to attend in-person. Details and registration links will be shared in the near future.
- Directory 8:
 - The Directory 8 review team implemented feedback received where appropriate and the updates and comments were provided to TFCO on December 1st, 2022. TFCO accepted updates and comments and agreed to move to RCC with recommendation for approval. We learned that RCC has also approved as is.
 - Of note, updates to Section 8.4 of the directory helps address the concerns of OPG and Bruce Power on wording related to testing. The updates support the process for OPG and Bruce Power to provide alternative methods in meeting test criteria.

Agenda Item 8: Lessons Learned and NERC Alerts

Harish Vijay Kumar delivered the Lessons Learned and NERC Alerts published by NERC since the last RSSC meeting. NERC posted two lessons learned and one NERC Alert since the last RSSC meeting.

Lessons learned

- EMS pausing during database deployment
- Loss of Energy Management system functionality due to server resource deadlock

NERC Alerts

Cold Weather preparation for extreme weather events - II

Agenda Item 9: Closing Remarks

Scott Berry invited Market Participants to share topics of their interest, which they would like to discuss in the next RSSC meeting within next month.

Harish gave an update on the UFLS survey and the next steps of the process with the collected data.

Scott thanked Paul Malozewski for his participation and contribution to the RSSC throughout his tenure at Hydro One.

Adjournment

The meeting schedule for 2023 was provided to the Committee members. The dates for 2023 were discussed and agreed.

Q1 – March 16th – may be In-person (Adelaide Office)/Teams – Update will be provided soon

Q2 – June 15th In-person (Adelaide Office)/Teams – Update will be provided soon

Q3 – September 14th In-person (Adelaide Office)/Teams – Update will be provided soon

Q4 – December 14th In-person (Adelaide Office)/Teams – Update will be provided soon

The meeting adjourned at 11:39 AM.