Reliability Standards Standing Committee (RSSC)

Minutes of Meeting #40

April 25th, 2018 | 9:30 AM – 3:00 PM | IESO's 16th Floor Boardroom, 120 Adelaide St W, Toronto

Attendance

Participant Name	Company Name	Attendance Status
Haider Naveed	HydroOne	Present
Paul Malozewski	HydroOne	Present
Hajar Kacem	Transalta	Present
Constantin Chitescu	OPG	Present
Helen Lainis	IESO	Present
Dennis Hall	Brookfield	Present
Laurie Reid	Ontario Energy Board	Present
Shadid Khan	Northland Power	Present
David Dunn	IESO	Present
Joel Charlebois	AESI	Present
Hameed Zaman	Transcanada	Present
Munir Abbas	Bruce Power	Present
Scott Berry	IESO	Present
Ben Li	Ben Li Associates	Present
Mike Zajmalowski	Northland Power	Present
Soon Chua	Portlands Energy Centre	Present
David Kwan	OPG	Present
Jon Veldhuizen	Northland Power	Present
Payam Farahbakhsh	HydroOne	Present
Kurtis Chong	IESO	Present (phone)
Paul Whitehead	Bruce Power	Present (phone)
Robert Haromszeki	HydroOne`	Present (phone)
Adrian Martinez	Goreway Power	Present (phone)
Mary Polk	FPL	Present (phone)
John McClean	Alectra	Present (phone)
Blake Huddleston	Engie	Present (phone)
Juri Baroskow	Goreway Power	Present (phone)
Karen Demos	FPL	Present (phone)
Luis Zaragoza	Pattern Energy	Present (phone)
Scribe: Sean Lagan orcp@ieso.ca: Please report any corrections, additions or deletions to scribe.		

All meeting materials are available on the IESO's RSSC webpage at: http://www.ieso.ca/en/sector-participants/engagement-initiatives/standing-committees/reliability-standards-standing-committee

References:

IESO MACD page: http://www.ieso.ca/en/sector-participants/market-oversight/rule-compliance/compliance-overview

IESO Reliability Standards Compliance page: http://www.ieso.ca/en/sector-participants/system-reliability/ontario-reliability-compliance-program

NERC Standards page: http://www.nerc.com/page.php?cid=2

NPCC Regional Standards/Criteria page: https://www.npcc.org/Standards/default.aspx

FERC Electric page: http://www.ferc.gov/industries/electric.asp

SER Project page available at http://www.nerc.com/pa/Stand/Pages/Standards-Efficiency-Review.aspx

Action Item Summary as of the 39th Meeting			
#	**Date**	**Action**	**Status**
1	April 25, 2018	*The IESO will strike a working group with the purpose of identifying the level of detail required in data reporting for market participants to meet their reporting obligations. Any interested party should reach out to Scott Berry or Helen Lainis to join*	*Open*

1. Welcome and Introductions

The fortieth RSSC meeting commenced at 9:30 a.m. with brief introductions by each participant.

2. Administrative Issues

a) The agenda for the meeting was reviewed. The update on NERC Standards Committee Activities was deferred as David Kiguel was unable to attend. No additional items were added to the agenda. Motion to adopt the meeting agenda as final was made and agenda was adopted.

b) The minutes of the last (thirty nine) RSSC meeting were reviewed page by page.

Minor spelling corrections were made to the minutes (corrected GMS to GMD in item 11).

Confirmation that meeting 40 was moved from the original date of April 26 to April 25 due to boardroom availability was documented.

Motions to adopt the meeting minutes as final were made and meeting minutes were adopted.

c) Action items were reviewed and updated.

Item #1

Scott Berry will send an email from orcp@ieso.ca to request webinar topic suggestions for Applicability Criteria webinar

Update: *S. Berry* informed that (item 1) will be resolved through outreach to each MP.

Item #2

Helen Lainis will explore the way to incorporate references to reliability standards in the information catalogue

Update: *H. Lainis* to report on (ITEM 2) as item (ITEM #) in today's meeting.

Item #3

Scott Berry will provide the standard roadmap to RSSC members Open

Update: S. Berry noted that the Standard Roadmap will be presentenced in today's session and is now published on the Implementation plans for certain reliability standards.

d) RSSC Roster updates: Changes to the members of the RSSC distribution list can be emailed to Scott Berry and orcp@ieso.ca.

3. Standard Efficiency Review (SER)

S. Berry from Compliance Assurance delivered an update on the NERC's Standards Efficiency Review (SER) Project. He went through the SER Project objectives, scope, project structure, evaluation criteria and timelines.

The project has been broken into three teams that will look at the standards and requirements in their respective time horizons (long-term planning, operations planning, and real time operations).

The project has unofficially been refined to consist of 2 phases.
Phase one of the SER effort is to identify NERC Standard requirements that can be retired based on the established evaluation criteria. Phase two will involve modifications to existing NERC standard requirements.

S. Berry provided an update that at this time, 70-80% of all identified requirements have been reviewed.
The groups have identified up to 30 candidates for retirement, and provided supporting documentation of the rational for the proposed actions.

The Long Term Planning team has identified 144 requirements to review.
To date, the LTP has recommended 14 requirements for retirement, 10 requirements to be transferred to the Operations Planning Team, and 15 requirements for modification.
The team is on pace to complete their review by May 15.

S. Berry provided an overview of the SER team's process in reviewing and assessing a particular requirement.
Joel Charlebois asked if the SER was reviewing any of the NERC blackout reports.
S. Berry responded that the SER was looking at these documents as well as anything that was used to guide in their production.

S*. Berry* provided a SAR example illustrated a standard where particular requirements were administrative in nature and that they would candidates to be moved into the measures section of the standard. Scott noted that NERC is still determining if it will consolidate families of standards into one SAR with multiple tabs for each standard.
S. Berry reviewed the SER project timelines, noting that the SAR(s) should be submitted to the Standards Committee on July 5.

Comment from *B. Li* that we strongly believe standards are developed to drive behavior.
By reducing scope of standards, we may lose sanction capability. We may want to discuss with NERC senor staff regarding the implications of this work.
Question to SAR team – this is ongoing work- if this expands scope of work –does it result in amendment to scope? (S. Berry confirms that there would be an amendment to scope if required)

Comment from *B. Li* around the participation of -NERC and FERC staff in drafting the SAR. We need to get the Standard Drafting Team direction from FERC/NERC to ensure we get their opinion on proposals to retire requirements. This is important so we don't provide a recommendation that goes to FERC/NERC that won't work.

S. Berry noted that FERC has been in attendance at first meeting and webex calls- but that they are not providing comment or opinion. At the end of this day, this is a good exercise from industry, but the final call on proposed changes will be made by FERC, and they may not support changes – specifically if they implemented a standard with a directive.

General discussion is had around FERC's involvement in this process, as well as their limited appetite to accept change.

P.Malozewski asked – Regarding the content on public website (comments), is anything contributed from the STF members?
S. Berry: - general comments are from participants. This is different than what was available within portal for STF team participants.
K. Chong asked, if there is there a process within NERC where an entity needs to recertify or reaffirm
S. Berry responded-the process is in place, you must meet criteria to determine if qualify to recertify.

C. Chitescu asked what will the end result be for entities?
S. Berry responded, if we retire a requirement or standard, we would have arguments that activity within the standard is already covered in a recognized business process to complete the function. There will not be a threat of penalty to entity by not complying. These tend to be requirements that are administrative in nature.

4. Applicability Criteria (MM 11.1) Update

As an action item from meeting thirty nine, *H. Lainis* from Compliance Assurance provided an update on the requirements specified in appendix 4.15-4.21 of Market Manual 11.1.Helen reviewed the IESO's Market Manual 11.3: Reliability Information Catalogue. This catalogue lists the reliability-related information requirements that market participants need to provide to the IESO. Helen identified the data in this manual that would cover the required data and information that the IESO needs from Generator and Transmission Owners/Operators to perform its reliability functions (as per Requirements R1 and R2 of NERC Reliability Standard IRO-010-2 and Requirements R1 to R4 of TOP-003-3). The data specified in section 7 of the Market Manual 11.1: Applicability Criteria for Compliance with NERC Reliability Standards and NPCC Criteria is consistent with the Market Manual 11.3.

Both *J. Charlebois* indicated AESI, and *P. Farahbakhsh* indicated that H1 would want to participate, and a general conversation was held concerning that presently, some of the details may be unclear for Market Participants if all real time operations material is to be provided to the IESO.
Hydro One's position is that they prefer this list to be as comprehensive as possible and tied to all reliability standards and specific requirements that they must satisfy.
C Chitescu on behalf of OPG suggests that we may want to look at CIP 12 and what falls under that standard in terms of data that must be protected.

K. Chong suggested that there is potential for an issue when market participants provide information to IESO. It is not always clear what compliance obligation they are meeting, and that sometimes, all of the data requirements are not all in one place. This leads to uncertainty if all data requirements are being satisfied. This is an issue when a Market Participant is trying to demonstrate compliance to MACD.

The current Issue is around what level of detail needs to be stated around the specified requirements.

S. Berry suggests that In the interest of time- we will put an action item to strike up a working group to cover that off. Anyone who is interested in participating in group must notify Helen or Scott. They will develop scope of work, and set up some dates to target meetings/milestones.

5. TPL-007-2 GMD SAR Update

H. Lainis and L. Reid provided an update on the TPL-007-2.

The Canadian Electricity Association submitted a SAR to NERC to look at benchmark of TPL v 2 to propose a Canadian variance as we are finding based on our operating experience that the benchmark and supplemental benchmark that are proposed within the standard are too extreme.

The standard implies that Ontario would need a corrective action plan which could be very costly.
NERC has accepted the SAR and have asked for nominations to the SDT.

The IESO and Hydro One have put forth an application to OEB to have reviewed.

L. Reid has indicated that the board has issued an acknowledgement letter indicating that the application has been received. As a part of the application, the IESO and Hydro One are asking for a stay of the standard. The idea is that V2 does not come into effect in Ontario, and when V3 comes into effect in Ontario it will have taken the geographic nature of Canada into consideration.

Phone Question- Does SAR allow you to change benchmark value not just the supplemental?
L. Reid- Want to propose benchmark will be subject to Canadian entities to modify with discretion from regulators.

Phone Question- Was there an effort in place to have the first version of the standard stayed?
L. Reid- We did not get application in on time.

Phone Question- Does the IESO have the ability to change the dates on implementation plans in Ontario?
H. Lainis - There are other mitigating factors that go into the implementation dates.

6. MOD-032 Data Reporting Obligations

S. Lagan provided an update on the MOD-032-1 data reporting obligations effecting market participants owning or operating BES facilities.

MOD-32-1 requires market participants to provide modeling data in a specified format within a set time frame. Requirement 2 of the standard indicates that market participants must provide the IESO with written notification if their equipment has not been modified since Jan 1, 2016.
In an effort to assist market participants in the submission of this data, the IESO will notify market participants on July 1 of their reporting requirements including a set of instructions to satisfy Requirement two of the standard. The IESO has set up a mailbox to receive the Market Participants confirmation, and will provide them with an automatic reply to serve as confirmation that their submission was received.

7. CIP Standards Development Update

D. Dunn provided an update to the RSSC on the following CIP Standards;

CIP-003-7:
D. Dunn informed CCT that version 7 was recently approved by FERC. Revisions are relevant to entities with Low Impact BES Cyber Systems; IESO has only High Impact BES Cyber Systems.

CIP-002-6:
D. Dunn informed that revisions reflected in version 6 address compliance timeframes for new BES assets or Low Impact BES asset types reclassified as Medium or High Impact. Entities have 12 months to comply with applicable CIP Standards' requirements for that asset where reclassification is due to reasons within an entity's control. An entity has 24 months to comply with applicable requirements where a new asset is categorized as Medium or High Impact, or where reclassification to Medium or High Impact is due to circumstances beyond an entity's control, e.g. as directed by another entity. D. Dunn added that IESO BES assets are High Impact; if IESO reassessed and reclassified BES assets as High Impact, then Market Participant may be impacted due to reclassification.

CIP-012-1:
D. Dunn informed that this Standard addresses communications between Control Centers and protecting data exchanged between different Control Centre's. Original version of Standard addressed data for monitoring and control capabilities; new version (not yet FERC approved) only addresses data for monitoring. D. Dunn added that IESO owns data link between Control Centers.

CIP-005-6, CIP-010-3, CIP-013-1:
D. Dunn stated that the proposed Standards address supply chain risk management for systems associated with BES operations. D. Dunn delivered a summary of Standard CIP-013-1 that addresses security controls for supply chain risk management. Entities are required to have a plan that includes security requirements to address risks pertaining to procurement and contract negotiations with vendors. This is forward looking i.e. applicable to new contracts. Impact to IESO is that a plan has to be developed to address the requirements, evidence to demonstrate that the plan is in place is required, and evidence to demonstrate that the requirements in the contract were, at a minimum, negotiated. The process of developing contracts will require coordination with legal and procurement. D. Dunn also added that ISOs are working together to develop suggested common contract language and that this language was shared by IESO with its vendors.

D. Dunn presented a summary of NERC's Notice of Penalty to an ISO for CIP-003-3 violations.
The breach was discovered by an external white hat security researcher that was able to access large quantity of data belonging to the ISO; the researcher notified the ISO and ISO, in turn, notified the Regional Entity. An investigation determined that a third party vendor ported data (including IP addresses and configuration parameters for SCADA system) to its own environment which was not properly

protected. The ISO had not classified the data as CIP-protected information because it was in a pre-production environment, and therefore had limited controls to protect the data in this environment. The duration of the violation was 80 days, from the date the vendor exposed the data on the Internet, through when the data was discovered. The duration between points of exposure to completing mitigation plan was 590 days. The ISO self-reported after the mitigation plan was identified. The Regional Entity determined the violations posed a serious risk to the reliability of the BES and a $2,700,000 penalty issued to the ISO.

D. Dunn confirmed Lessons Learned, once publicly available, will be presented to the CCT. Early lessons learned: (i) access controls that are required and implemented in a production environment should also be implemented in the pre-production environment (ii) self-report is time-sensitive and should be submitted immediately, noting that the mitigation plan will follow.

8. MACD CMP Status Update

M. Adam provided a status update the CMP year to date.
The first batch of self-certification requests went out on April 16th to a group of market participants. This group has until the end of May to submit evidence to self-certify. Those who have RC-005 in plan for this year also received the RC-005 template spreadsheet. MACD has resources available to support market participants with the completion of the spreadsheet. It is noted that it is not mandatory for market participants to use the spreadsheet to submit the required information, however it is considered best practice to do so.
It was noted that the RCT tool will not support the submission of excel attachments (this is a bug the IESO is looking to resolve in the RCT tool enhancement project), so market participants must use the collaboration community in the online portal to submit the excel file.
Notices for Q3 and Q4 certifications will come later this year.
Presently, some of the 2017 self-certifications have been identified as requiring some follow up on items and a review of their submissions by MACD. MACD will notify market participants once the review is complete. Presently, 90% of certification requests are already closed.

Regarding Q2 certifications; market participant replies must go through the RCT tool, except the excel spreadsheet for RC-005 5 which again should be submitted through the collaboration tool.

9. Standards Enforcement Dates Update/Roadmap

A. Turek provided an update on the approaching standard enforcement dates as well as a walkthrough of the standards roadmap through to the end of 2019.

Two standards have come into effect since last meeting;

- IRO-18
- TLP-10

These standards provide requirements for real time monitoring to support system operations.
This includes the criteria for evaluating the quality of data.
When FERC issued order, there is directive to increase IRO-18 R1 and R 10 and TPL 10 R 10 from low to high risk.

A.Turek noted the following approaching standard enforcement dates;

Q3 2018

- CIP-009-6 R2.3
- CIP-020-2 R3.2, 3.2.1, 3.2.2
- MOD-026-1 R2, R2.1-2.1-6
- MOD-027-1 R2, 2.1-2.1.5
- TPL-007-1 R3, 4, 7

Q4 2018

- CIP-003-6 R2 (Sections 2 and 3)
- TOP-001-4

Q1 2019

- BAL-005-1
- TPL-007-1 R5

Q2 2019

- EOP-004-4
- EOP-005-3
- EOP-006-3
- EOP-008-2

Beyond Q2

- PRC-002-2, R2-4, 6-11
- PRC-012-2
- PRC-026-1 R2-4
- TPL-007-1 R3, 4, 7
- TPL-007-1 R6, 6.1-6.4

10. NERC 2017 Lessons Learned

S. Berry presented the NERC Lessons Learned issued since the previous RSSC meeting and the associated corrective actions.
There were two lessons learned since the last RSSC meeting. They have been summarized on the NERC compliance page. The first incident pertains to a breaker failure due to trip coil polarity. The trio coils were installed incorrectly. Compounding the issue was that it was not tested prior to being put in service and ultimately failed.

The second lesson learned was a result of state estimator outages requiring tuning/calibration ems settings. The key takeaway is for reliability coordinators to ensure that they trouble shoot the state estimator occasionally to ensure proper calibration and the accuracy of readings. The state estimator must reflect current reality, not necessarily what it was when installed. There is NERC documentation available on the on mitigation for losing EMS functions.

11. Transmission System Code (TSC) Update

L. Reid issued an update on the TSC code.
Results of the working group were issued as a final notice.
The Ontario Energy Board requested a delay between the approval and enforcement. The amendments to the code will be posted on the 27th and comes into effect on the 30th.
They do not affect existing contracts
No Questions were asked.

12. Update on NERC Standards Committee Activities

The update on NERC Standards Committee Activities was differed as *D. Kiguel* was unable to attend the meeting.

13. A. NERC Standards Development

Ben Li provided an update on the following standards developments

- **TPL-001-5**

Project is initiated to revise standard to address three key areas;

- Planned outages lasting less than 6 months
  - Proposed changes do not appear to meet the FERC directive. To ensure reliability all planning events need to be assessed for known outages, not just the P1 event that is explicit stated in the requirement.
- Spare equipment strategy in stability analysis
  - Added a requirement to address this directive seems reasonable.
- Single point of failure protection system
  - Planning Event P5 is revised to explicitly indicate failure of single components in protection system
  - Planning Event P8 is created as opposed to being listed as an extreme event
  - Corrective action plans are required to meet performance requirements as in the case of other Planning Events, including
    - No Cascading
    - No Islanding
    - No Instability
    - This does beyond the initial intent of avoiding cascading, and appears to exceed the normal planning criteria. There is a general discussion around if this goes beyond the intent of FERC's directive. It is noted that Hydro One did not vote in favor of the standard.

- **PER-003-2**

PER-00302 was included in a project to review a set of PER standards to fulfill NERC's obligation to review, and revise as appropriate, its Reliability Standards once every 10 years

  - The only change made to the PER-003 standard is the addition of a footnote to clarify that the NERC certificates referenced in the standard pertain to those certificates identified in the NERC System Operator Certification Program Manual.

Ben Li states that these changes are reasonable and non-impactful
It is noted that the IESO voted affirmative and that the Standard passed final ballot with >96% support

- **BAL-002-3**

NERC are concerned that single contingency was not clear in standard.
They revised initial version 1 standard in version 2. They kept the previous requirement that the Balancing Authority is not required to recover ACE if they are in emergency alert (EEA).
NERC says the BA must tell RC that they cannot recover ACE.
If RC declares EEA- why do they need BA to notify them that there is an EEA alert and they are unable to recover ACE?
The requirement is redundant with existing requirements and standards. However it has no impact to the IESO as they are both the BA and RC. As such the IESO plans to vote affirmative (option: abstain).

Brian will be proposing a comment that the requirement should become applicable once the BA is out of emergency.

- **CIP-002-6 and CIP-012-2**

These CIP Standards were covered in Dave Dunn's presentation, in the interest of time we will not repeat

13. B. NPCC Standards Development

NPCC Directory #1 Request for Clarification (RFC)
This directory stipulates operating criteria.
NYISO has made a request for clarification on the contingency listed – why does directory 1 omit N-1/-1 event such as open breaker followed by an open breaker?

As far as question 1 goes- the opening of a second breaker is not a contingency.

Q2: Does Directory 1 postulate that the opening up of a circuit breaker falls within the definition of a "system adjustment"? A- Yes, it does. Provided that it can be implemented within the re-preparation time frame (30 minutes).

The IESO supports proposed response.

14. Other Items

N/A

15. Next Meeting

Next meeting: July 11, 120 Adelaide Street, Toronto.

Following meeting- proposed- September 27 as a tentative date.