

Reliability Standards Standing Committee (RSSC)

Meeting Minutes – Meeting #43

Date: December 10, 2018	Time: 9:30am – 3:00 pm
Location:	IESO, 120 Adelaide St, Toronto. 16 th Floor Boardroom
Meeting Sponsor:	Tam Wagner
Meeting Chair and Facilitator:	Scott Berry
Scribe:	Sean Lagan

Attendance

Name	Company	Attended in Person (A)/ Called in (P)
Scott Berry	IESO	A
Sean Lagan	IESO	A
Angie Turek	IESO	A
Helen Lainis	IESO	A
Cristian Dragnea	IESO	A
David Dunn	IESO	A
Monica Adam	IESO	A
Ji Gao	IESO (student)	A
Payam Farahbakhsh	Hydro One	A
Mike Zajmalowski	Northland	A
Kyle Smyth	Northland	A
Serge Dumoulin	Brookfield	A
Abbas Munir	Bruce Power	A
Constantin Chitescu	OPG	A
Hajar Kacem	Transalta	A
Hassib El Murdea	OPG	A
Mike Cooke	OPG	A
David Kwan	OPG	A
Laurie Reid	OEB	A
Dave Kiguel	Independent Consultant	A
Karen Demos	FLP	P
Dennis Hall	Brookfield	P

Kevin Wozniak	Hydro One	P
Dhvani Shah	Hydro One	P
Paul Whitehead	Bruce Power	P
Joel Charlebois	AESI	P
Shahid Khan	Northland	P
Paul Whitehead	Bruce Power	

1. Welcome and Introductions

The forty third RSSC meeting commenced at 9:30 am with brief introductions by each participant. Housekeeping issues were discussed including a description of the location of exits, bathrooms, and the procedure for what to do in the event of a fire/fire drill. Also, in accordance with CIP Compliance, all guests classified as visitors must be escorted by IESO staff.

2. Administrative issues

a) Scott Berry noted the agenda had been reformatted to identify standing and open items. The agenda was then reviewed; no additional agenda items were brought forward. Dave Kwan motioned to accept the agenda as final; Payam seconded the motion. No one opposed and there were no abstentions. The agenda was adopted as final.

b) The minutes from the previous meeting were reviewed by exception and approved. The following minor changes were required;

- Spelling correction to Cristian Dragnea's name
- Jon Veldhuizen's company was updated from Brookfield to Northland,
- Haider Naveed's attendance was updated to attended in person
- L Reid provided a minor change in the TPL-7 update

L. Reid motioned to accept the amended minutes as final; S. Dumoulin seconded.

c) S. Lagan noted all actions from meeting #41 were closed and there were no open actions from meeting #42.

d) Sean Lagan reviewed all submissions for roster changes to the RSSC mailing lists. All further updates can be submitted to sean.lagan@ieso.ca

3. CIP Standards Development Update

Dave Dunn provided an updated on CIP Standards development.

Key points addressed:

- Last meeting talked about CIP-008; most recent vote on CIP-008 passed.

Virtualization standard – slide deck will be presented at CSTF in more detail; Dave invited members to attend for more detail. For RSSC – originated from V5TAG group (still in place with regular conf. calls but fewer recommendations) how do we deal with virtualization? Virtualization concept is 1 piece of hardware with multiple pieces of software running on 1 piece of hardware (i.e. virtual environments on one machine). Standards don't address that concept and many definitions need to be revamped. Current stage – how do we deal with virtualization? We have to change way standards are written. Future for flexibility/adaptability: less prescriptive and more functionally written requirements. Program approach – fundamental change is moving to concept of BES cyber asset rather than BES cyber system. Other change re: malicious code and EACMS (eacms will be retired and replaced with EACS and EAMS). Another concept change – change from ESPs to logical isolation; instead of ESPs we'll have zones; What you have today as ESP will translate easily into zones. And can combine multiple ESPs into one logical zone. Also “super zones” concept – will help entities contain/manage zones effectively b/c can combine into single zone whereas before they were separate. Malicious communications concept – moving away from specific malware language. Interactive Remote Access will include serial connection but won't exclude you from protecting serial connected devices (i.e. serial connected devices will be included). Management Plane – when managing virtual environment, management plane has to be protected the same as application layer because plane is what controls access to application (management plane is new concept in standards and defining management plane). Concept of timeframes: change of timelines to risk-based approach rather than defined 35 day timeline.

CIP Standards should consider revisions to definitions of cyber asset and electronic asset point that make it clear the types of permitted architecture and address the security risks of network, server, and storage virtualization. Changes to definitions: clarify “programmable” and getting rid of BCAs and replacing with BCSs. PAMS is a new term because separating control from monitoring. PCA is being retired. PCS is being introduced. EAP is being retired. EACMS = retired and replaced with EACS and EAMS. ESP = retired. ERC = revised to take into account BES Cyber Systems. LIZ = being introduced. Real difference is protecting communication going to and from systems as opposed to around perimeter. IRA = being revised to include concept of serial to connected devices. PSP/Removable media = administrative revisions. Secure configuration = new concept (current baseline methodology is going away? Check with Dave). Whitelisting – only allowed to install certain/known Cristian – who's developing white list? Dave Dunn – entity itself. Challenge is that in reality this is difficult because of small changes and risk if not on whitelist.

Previously CIP standards as a whole have had very technically specific requirements. In the future we need to be less prescriptive and more functional. Standards that are currently under development are embracing this approach and is moving away from cyber asset definition, versus looking at BES Cyber System, specifically;

- CIP-007-6 R3 3.1 deploy methods to deter detect malicious code.
- CIP-005 – new EAC MS and EAMS
 - Moving from ESP to logical isolation (zones)

- Concept of “super” zones- help entities manage zones into single (slide 12)
- Malicious communications (cip-005 R1.4) – using concept around protection against malicious code rather than specific language against malware
- R2- interactive remote access (slide 14)
- CIP 10 (slide 24) move to risk based requirements.

Scott Berry asked - Can market participants come to their own interpretation on what risks are and their associated timelines?

Dave Dunn responded; “the concept here is when you are determining your reporting periods, in your plan you must document how it will operate and what your reporting periods will be. This must be supported based on level of risk you represent to the grid, and participants must show a logical basis for this”

Dave dunn – this is one of largest changes since cip 5. Trying to make language backwards compatible and future proof so that when new technology comes in it is easily adapted to standards. Entities have to review all their documentation and update based on new definitions. Changes apply to medium and high impact only not to low. Current efforts in CIP development are trying to make proposed changes that are backwards compatible as well as future proof.

On the whole, we are doing well on backwards compatible requirements, however the effectiveness of future proofing them is yet to be determined.

This is a fairly large undertaking in terms of work, for example the need to update all existing documentation to reflect all of the definition changes will require significant effort.

Scott Berry asked “what is the anticipated timing?”

Dave Dunn responded As of right now, we are not sure, it is likely going to be in 2020 which will include an implementation plan. We are currently collecting comment for standards, and once they are approved there is likely going to be a two year implementation time frame.

Payam Farahbakhsh asked “In terms of going backwards compatible, this does represent a significant amount of work for Hydro One. Has the drafting team looked at the cost/benefit of this project? It will be a lot of work for a MP. Some of the work- ie. Whitelisting, is major and will require a lot of effort. SCE’s are worried about real time impact of these changes.

Also, it will be difficult to evaluate compliance with standard for auditors- will they make their comments on the developments? It is a good idea for drafting team to get opinion so everyone is on the same page.”

Dave Dunn responded “Auditors are members of drafting team and do participate in the development of the standards. In the end this will be more work for auditors. They will need to look at MP to determine if their plans are effective. Then they need to look at their practice and see if they are doing what they are describing. Auditors have been supportive of this initiative as it gives the ability to audit based on risk that is demonstrated by the entity. The challenge is for market participants to ensure their program is well designed, such that it satisfies the auditor’s

scrutiny. In the long run the auditability will be more effective.” Dave noted auditors to participate in drafting team communications. Dave acknowledged will be a lot of work for auditors. Audit will be more complex than traditional cip audit. Auditors support because it gives them flexibility to audit based on risk. Challenge will be that program/plan is well-designed so that it passes auditor scrutiny. ‘auditability’ of this approach will be more effective. Payam: starting point is risk-assessment. Dave dunn: if doing ICE and you have risk profile, then that will be a basis for designing program.

Payam Farahbakhsh stated “It seems like all of these audits this will start with a risk assessment”

Dave Dunn responded- This reinforces the importance of the ICE program, completion of it will help for audit.

CIP-008 (Slides 38)

Passed comment ballot.

Changes to that only Canada reports to EISAC and optionally to cyber incident reporting centre

Changes on if you have high or medium assets

Organizations must define medium and high risk.

CIP-008 - Concept in Ontario: 2 step manner. Forcing entities to report to 2 organizations (NCIS and E-ISAC). In Canada, preference not to report to US gov.. Now Canada only has to report to E-ISAC with optional reporting to CCIRT. If you have high or medium assets, what will change in reporting is compromise or attempt to compromise, will also have to be reported. Report to IESO (no change in requirement to report to IESO).

Joel: guidance in what is an attempt to compromise? Dave noted they are drafting guidance and norm dang is leading effort to draft guidance. Dave noted examples of criteria for attempt to compromise. They will provide suggestions, guidance, things to look for in attempt to compromise. Dave presented example of classification scheme as nature of things to look for when defining criteria. There will be a lot of variety in criteria based on each entity. Key is defining criteria that demonstrates appropriate to risk.

Unidentified Phone participant asked “Will there be guidance on what an entity should consider an attempt to compromise?” (There may be a large discrepancy between what is considered)

Dave Dunn responded- “Currently the drafting team will provide guidance (IESO Norm Dang is involved).

Scott Berry added “I think the end game is to turn something around that resembles trending/lessons learned”

Dave Dunn responded “Correct- what are attack trends, what does landscape look like, what do we need to look out for? EISAC has ramped up- growing in size, and preparing for managing a large volume of info coming in, and adjusting how they provide information back to entities based on their analyses.” Scott – end game of reporting is ? dave dunn: end game is information that E-isac can use to report out (e.g. identifying trends). E—isac has ramped up/staffing increases to manage large volume of info coming into them. Have also revamped how they’re reporting out; can register

to receive notifications/alerts following e-isac analysis.

Payam Farahbakhsh asked “Does the IESO have preference for how reporting process will work? Specifically, is the IESO ready to receive thousands of reports each week?”

Dave Dunn responded that while methodology won’t change, we need to come to an agreement on what is reportable. What level and frequency makes sense to ensure consistency. Payam: is ieso ready to receive volume of data from mps reporting. Dave: methodology won’t change but do we need to come to an agreement about what’s reportable? Conversation within CSTF will have to be had and MACD will have to understand. The ieso won’t be in same position as MP for reporting. Current model won’t change and there may be discrepancy between what MP thinks is reportable and what ieso identifies as reportable. Dave added that we in Ontario need to discuss for consistency.

4. Update on NERC Standard Committee Activities

Dave Kiguel provided an update on Standard Committee activity since the last RSSC meeting. David also mentioned there was an upcoming face to face meetings of SC in Atlanta this wednesday where the agenda includes the two California SARs that were rejected, and re-written by the NERC Planning and NERC Operating committees. Presently it looks like there may be some consensus to accept that SAR.

Dave Kiguel provided an update on the Standard Committees Elections. Dave submitted nomination in segment 8 (because no one else had been nominated from Canada.). Dave reiterated that it is important Canadians participate more in the management of standard development (in the Standard Committee), the SC charters a minimum 2 Canadians, so if no Canadians are elected, they go through non successful candidates and appoint Canadian representatives for 1 year terms based on who had the highest rating.

2 teleconference since last RSSC (October and November); face-to-face meeting of standards committee meeting on Wednesday (atlanta). Agenda for this meeting will include inverter-based resource SARs (2). These were rejected by committee and since rewritten by operating and planning committee by NERC. These will be included in Wednesday’s agenda and there seems to be more consensus on them. Election for new standards committee members was conducted. Annual elections but terms are two-year terms. Dave K. was reluctant to nominate. No other Canadians nominated but charter grants 2 Canadians in committee. If after regular elections, no Canadian’s are elected, can appoint Canadian to have representation in standards committee.

Dave provided updated on the following activities
Standards Processes Manual Revisions

- Approved revised Standards Committee Procedure document, “Approving the Posting of Supporting Technical Documents” under Section 11 of the Standard Processes Manual (SPM), to be effective concurrently with version 4 of the SPM.

Project 2018-03 Standards Efficiency Review Retirements

- Appointed members, chair, and vice chair to the standard drafting team (SDT)
- Phase 1 of the SER project identified potential requirements for retirement because they are no longer essential for BPS reliability.
- Phase 1 proposed to move forward with retiring 86 requirements, out of the 107 appearing in the SAR.
- Remaining 21 to be considered in Phase 2 due to reliability concerns and more work required in other standards.
- No Canadians nominated to SDT

SCEC Action Without a Meeting

- Authorized initial posting of Project 2018-02 (Modifications to CIP-008 Cyber Security Incident Reporting) documents for a 20-day formal comment period, with ballot pool formed in the first 15 days, and parallel initial ballots and non-binding polls on the VRFs and VSLs conducted during the last 5 days of the comment period. Included:
 - Reliability standard CIP-008-6 Cyber Security – Incident Reporting and Response Planning and associated proposed new definition; and
 - Implementation Plan associated with the above.
- Authorized initial posting of documents under Project 2018-01 (Canadian-specific Revisions to TPL-007-2) for a 45-day formal comment period with a parallel initial ballot conducted during the last 10 days of the comment period. Included:
 - Reliability Standard TPL-007-3 – Transmission System Planned Performance for Geomagnetic Disturbance Events; and
 - Implementation Plan – Project 2018-01 Canadian-specific Revisions to TPL-007-2.
- Approved by 100% of voter pool.
- Final ballot ends at 8pm today- (anyone who needs to change vote from their initial ballot vote, or did not vote in initial)

Reference Inventory Project

Endorsed a project led by the SCPS to develop a process to compile an inventory of all references to any standards development project in NERC documents.

Try to complete a database of all documentation that has anything to do with a standard.

It will require major effort to undertake this.

SC approved to ask Process committee, to develop a formal process

Cristian Dragnea asked: “Does this include historical info?”

Dave Kiguel responded: “Yes- any work or documentation that have had anything to do with that standard should be included.”

Project 2017-01 Modifications to BAL-003-1.1 “Frequency Response and Frequency Bias Setting”

Authorized initial posting of proposed Reliability Standard BAL-003-2, the associated Implementation Plan, and VSLs and VRFs for a 45-day formal comment period, with ballot pool formed in the first 30 days, and parallel initial ballot and non-binding poll during the last 10 days of the comment period.

- Supporting documents for BAL-003-1 were developed using engineering judgment on the data collection and process needed to determine the Interconnection Frequency Response Obligation (IFRO).
- After implementation, minor errors in assumptions and process inefficiencies have been identified thus the approaches embedded in the standard for annual samples need to be modified.

Review of the Standard Grading Spreadsheet

Approved the proposed scope of the project for a team of SCPS members to work in collaboration with NERC staff to review the current Standards Grading template.

Team will review the format and content of the current template and present recommended changes to the Standards Committee (SC) for adoption.

Review of the Single Portal

Approved the proposed scope of the project for a team of SCPS members to coordinate with NERC staff on reviewing the current NERC Single Portal.

The team will:

- Revise any links used by the Single Portal that are currently corrupted;
- Assist in implementation of any improvements and or new technology related to the Single Portal or its successor technology.

5. NERC Lessons Learned

Angie Turek presented on NERC Lessons Learned..

Two lessons learned have been updated on NERC website since previous RSSC meeting.

Networking Packet Broadcast Storms

- Applicable to BA/GOP/RC/TOP/TO
- Key Lessons Learned;
 - Entities should use BPDU packet propagation prevention where a non-spanning tree protocol enabled device could be connected.
 - Complete physical separation between SCADA Operations networks and business networks, VoIP, and external facing networks is preferred over VLAN for avoiding network traffic congestion and security issues.

Incorrect Field Modification and RAS Operation Lead to Partial System Collapse

- Applicable to TO/TOP/GO/GOP/BA/RC
- During an outage to isolate a 500 kV line disconnect switch and install a temporary bypass

to facilitate its replacement, the position of an auxiliary contact multiplier relay was incorrectly modified by field staff. This incorrect multiplier position enabled line stub bus protection, which misoperated due to the increase in flow despite there being no actual line fault. This incorrect multiplier position also prevented the remedial action scheme (RAS) from operating as designed for the loss of the respective 500 kV circuit. The actuations resulted in separation of a large portion of the entity's system, load losses, generator trips, and islanding of a small pocket sustained by local generation.

- Corrective Actions taken;
 - The position of the auxiliary multiplier was corrected for the Line A disconnect switch.
 - Process documents will be revised to clearly state that a status check (both primary and auxiliary devices) must be performed prior to operating auxiliary devices.
 - The event was reviewed with all control room staff and field staff to re-enforce the importance of clear communication and verifying device status during switching
 - The viability of adding an alarm point to monitor RAS contingency status

Scott Berry enquired how many people receive notification of Lessons Learned when they are posted from NERC? He advises entities to ensure they are aware of when NERC posts, and to ensure they distribute through organization to ensure everyone is aware if it is applicable to them,

6. Standards Enforcement Date Update/Roadmap

Angie Turek reviewed updates to Enforcement Date since RSSC Meeting 42.

Bal-002-3 has been recently added with a July 1 2019 Enforcement Date- please note that this is different than the United States ED.

The following CIP Standards have July 1 2020 Enforcement dates

CIP Standards

- CIP-005-6
- CIP-010-3
- CIP-13-1

Standards coming into effect next quarter;

- BAL-005-1 Jan 1 2019
- FAC-001-3 Jan 1, 2019
- TPL-007-1 R5

Mike Zajmalowski noted that the Standard compliance date for BAL-002-3 is listed as April 1, 2019, *Angie Turek* responded that the OEB review ended after approved, so due to delay it comes in

effect in Can on jul 1 2020.

Scott Berry: directed participants to the milestone document posted online as a resource for enforcement dates in Ontario.

Hajar Kacem noted that the previous postings of the Milestone page use to have functionality mapped into main standards tab of thte document (not just individual requirements) and noted ti would be helpful is this information was included. would like to see applicability TO/TOP etc. set up as it was before rather than on separate tab as we have now.

Sean Lagan will contact Hajar offline to develop some specific requirements for future updates on the recently developed Standards Mapping database tool.

7. MACD Activities and CMP Status Updates

Monica Adam from MACD provided updated current MACD activities.

All 2018 certification requests have been issued.

Evidence from participants has been submitted, with some reviews now closed.

There are still some ongoing discussions around some additional information and evidence that is required.

The following is feedback from MACD on this round of submissions, including what entities should focus on when packaging evidence which may reduce the follow up and effort for both MACD and the entity;

- Completed RSAWs and IESO guided SC Worksheets must be included in the submissions.
- Any documents that are referenced in the submission should be included in the submission.
- It is important for Market Participants to know that market rules have no RSAW, so please ensure you are utilizing the IESO Guided worksheet that is provided to explain how the entity complies with the associated market rules.

Best Practice for specific standards;

- NERC FAC-008-3.
 - Facility rating methodology covers all in-series equipment and addresses all sub-requirements in the standard;
 - Facility ratings are consistent with the methodology and they address normal/emergency, summer/winter conditions.
- NERC COM-001-2.1/IESO Market Rules Ch. 2, App. 2.2
 - Good submission included a completed guided worksheet that provides a narrative on how your arrangement meets the market rules. (the standard is very high level,

- so hence the inclusion of the market rule)
- Entities must read the market rule requirement and describe their arrangement based on the specific rule, rather than providing a generic statement that they are meeting the market rule.
- NERC PRC-005-6:
 - Submissions have improved with the usage of the template worksheet
 - An entity protection system maintenance and testing (PSMP) program must be updated to reflect the version that is in effect during that reporting period. For example V6 had some new components, and the entity must provide evidence to show that they did include the additional components in their program.
 - Equipment was grouped by protection system component type;
 - The PSMP showed the component attributes and included maintenance intervals and activities;
 - The last two testing dates as well as the next scheduled date were provided.

Monica provided some general observations from the Self Certification reviews;

- Some areas that are opportunities for improvement are as follows;
 - Submissions did not include a completed RSAW or an alternative compliance narrative;
 - Documents provided were not dated, signed, and did not cover the entire reporting period;
 - Especially in relation to Market Rules, the IESO Guided SC Worksheet was not submitted or completed. Further, neither a compliance narrative nor evidence of compliance was provided.
 - Improvements are required in documentation practice. Market Participants must ensure they include RSAW or an alternative compliance narrative that has a clear description on how you are satisfying requirement, and includes clear documentation that is dated, covers reporting period that supports the descriptions.
 - If you receive request for a market rule- focus on the market rule rather than the standard to ensure you are providing specific evidence that shows you are meeting the market rule.
- Two areas where MACD had to frequently follow up with participants about providing evidence that they are meeting requirement;
 - Generic responses that are not specific to the rule or standard they are certifying
 - It is not sufficient to say “I do this and that every year’ you need to show proof of the control that you have in place (training certificate, or a copy of the annual email you issue),
 - Facility Rating Methodology needs improvement.

- The Facility Ratings Methodology (FRM) did not include all series-connected elements;
- FRM did not address normal/emergency and summer/winter conditions;
- FRM did not include the assumptions used to determine the facility ratings nor did it provide associated evidence;
- FRM did not include the ratings for all equipment subject to R1 and/or R2, nor did it show the most limiting equipment;
- FRM did not include evidence to demonstrate that the facility ratings are consistent with the FRM (R6). Evidence could include: manufacturers ratings, nameplates, calculations, industry ratings, engineering drawings.

Entities should ensure they provide a saintly check on submissions to ensure everything is supported with evidence, to limit the back and forth between entity and MACD.

Dave Kiguel asks a question around other standards that were required but not listed in today's review.

Monica Adam responded that typically the other self-certifications were completed well if they were not flagged today. But the general rules around providing a narrative and evidence to support it still apply as a best practice.

Dave Kiguel asked if there could be feedback on submissions by end of year?

Monica Adam responded that given the number of certifications and submissions, MACD will not be able to close out the submissions with feedback by the end of the year.

Hajar Kacem noted that as market participants, we appreciated the PRC-005-6 spreadsheet that is provided. While we may not have the time to prepare that for all standards, it is a huge help.

Cristian Dragnea responded on behalf of MACD "thank you- we took best practice from entities and are trying to spread it around. Thank you to anyone who provided that to us, as well as feedback."

Monica Adam continued with a 2019 CMP status update

The 2019 CMP is to be posted by year end 2018.

The 2019 CMP will list the reliability standards (NERC reliability standards, NPCC criteria and Ontario market rules) to be the focus of MACD's compliance monitoring activities in 2019.

2019 Monitoring Priority Areas

- Critical Infrastructure Protection
- Outage Management
- Emergency Preparedness/Event Response
- Maintenance and Management of BES Assets
- Planning and System Analysis
- Determination and Reporting of Equipment Failures

To be more closely aligned with NERC, there is no human performance area this year, we changed the focus area to areas with highest risk to the reliability of the power system.

Participants can expect

- MACD will conduct quarterly self-certifications starting in Q2 2019;
- Market participants selected will receive notification either via the reliability compliance tool or the MACD Compliance Monitoring collaboration community;
- NERC RSAW will accompany the self-certification for a specific reliability standard; expectation to submit the completed RSAW or a narrative on how you meet compliance; use the “Compliance Assessment” section of the RSAW to guide your submission;
- The expectation from MACD is for reporting entities to attach evidence of compliance (e.g. policies, procedures, tests results, etc.);
- PRC-005-6 template to be issued with self-certification; to be filed out and submitted.

Monica reiterated the importance of self-reporting as soon as a possible non-compliance is discovered. Participants can develop mitigation plans after they self-reported, but alert us as soon as you know of a potential violation. This does not just apply to standards that are in the CMP for the year, but it applies to all standards that are applicable to a market participant.

Self-certifications will be staggered (as in previous years), there will likely none issued in Q1 as MACD requires time to wrap up 2018, and get everything in place for 2019.

Monica opened the floor for questions

Hajar Kacem asked “If you’ve been working actively on self certs and audits, do you have a timeframe for closing self-reporting? We can’t close anything until we get the close out letter.

Cristian Dragnea responded that it is important for the Market Participant to keep track of their submissions. Participants need to wait until they receive a close out letter to formally close any outstanding matters. MACD issues close outs to any self-reported matters, similar as in the past, however, there is currently a backlog. MACD does not presently have a set timeline on when the close out letters will be issued.

Scott Berry noted that this is the same as NERC/NPCC. It is not uncommon that a close out may not have been issued after a year as it takes time to process submissions.

Hajar Kacem –noted that the letter provides closure, so I do appreciate getting them.

Payam Farahbakhsh asked what were the Ontario specific factors that were considered in developing the 2019 CMP?

Monica Adam responded that IESO business units help to identify areas where there may be issues—as they have the visibility into day to day operations. An example of this would include cases of outage planning, model submissions that are not correct or provided, this feedback helps to provide confirmation on the areas we need to focus on in Ontario.

8A. NERC Standards Development

Helen Lainis provided an update on NERD Standards Development.

Helen provided an overview of the Canadian-specific Revisions to TPL-007-2:

GMD Planning Standard highlighting how TPL-007-3 will allow Canadian entities to address;

- Enable the option for Canadian Registered Entities to leverage operating experience, observed GMD effects, and on-going research efforts for defining alternative Benchmark GMD Event(s) and/or Supplemental GMD Event(s) specific to their unique topology
- Allow the use of Canadian-specific data to improve modelling and validate simulations
- Allow modifications to timelines and/or actions of Corrective Action Plans due to varying regulatory practices/processes in Canadian jurisdictions

Helen recapped the Standard Development process and key dates for ballots, and NERC BOT approval as well as noted the contributions of IESO and H1 staff on the Standards Drafting team.

Dave Kiguel stated “After board of trustees adoptions, since the standard has no changes for US entities, there is no need for FERC approval. So NERC will only do an informational filing w/ FERC.”

Helen Lainis reviewed the Implementation plan for TPL-007-1 and noted that as of right now, the IESO is finding that no Market Participants have been impacted, but we need to get BUS information from other interconnections to feed into our study to determine if any Market Participant will be impacted. The expectation is that there will be no impact, if there is the IESO will issue an email to notify all participants.

Because we have been establishing our own threshold, intercan is telling us it will be the 3 instead of the 8, it looks like there likely wont be an impact to Ontario MP.

Laurie Reid asked “What is the process for establishing a lower threshold?”

Helen Lainis: “Intercon completed study.”

Laurie Reid: “Who signs off on that at NERC?”

Helen Lainis: “not sure, we will look into that.”

Helen Lainis provided a review of the final ballots

TPL-001-5- mostly impacts hydro 1, implications to Ontario are minimal.

FAC – Establish and Communicate System Operating Limits was a failed ballot.

This was a contentious standard because FERC has a different view than how industry looks at- specifically around the concept of cascading.

FERC has a narrow view of cascading which can lead to more load shedding.

The IESO is working with FERC to hopefully revise this definition.

If FERC does not adjust this definition, the implications of shedding load is huge. We would likely have to bring OEB in to advocate. There is likely limited movement in 2019, but may be an issue down the road due to implications on how grid is operated and power system quality.

Pre-Ballot Reviews and Ballots:

NPCC Regional Standard PRC-006-NPCC-1 "Automatic Under-frequency Load Shedding Requirements
The IESO will vote in favour.

8B. NPCC Criteria developments

Helen Lainis provided an overview of the developments to NPCC Criteria documents;

Cosmetic revisions are coming to Directory 5 to align with NERC Standard style requirements
Directory 7 is undergoing revisions to align with the NERC new definition for RAS

Helen then reviewed Phase 2 of the NERC SER project;

This is ongoing important work. The goal being fewer standards, and a decrease in administrative requirements that are not specific to supporting reliability. The goal of Phase 2 of the project will be to look at alternatives to retirement, consolidation of requirements.

Dave Kiguel stated that when requirements are being retired, at this point in time, the opinion is to keep version numbers and requirement numbers the same with notation around that requirement is retired. The reason for this is to not have to update all documentation with reference to requirements that's number may change once we retire retirements within the same standard.

Helen reviewed NERC Initiatives for 2019, also noting that there has been some concern over the value proposition from E-ISAC. NERC should consider including the objective of working with stakeholders to develop metrics for the E-ISAC as a part of Goal 6: Improving ERO Enterprise Efficiency and Effectiveness of the ERO Enterprise Operating Plan Goals. Helen noted that NERC is to address this via a roadshow and reaching out to Canadian entities to collect feedback.

Helen reviewed NERC Reliability Issues Steering Committee Report on Resilience, and some discussion was had around if we are addressing resilience. US regulators say we are using markets to address it. The conclusion is that NERC addresses resilience through system restoration efforts and planning.

Helen Lainis presented on NPCC initiatives

NE ISO initiative to look at regional criteria – if it is needed w/ advancements in NERC standards

Independent study concludes that NPCC criteria DOES add value around reliability but going forward When revision to directory, they must complete a cost benefit analysis.

Helem Lainis reviewed the A-10 Classification of Bulk Power System Elements

Dave Kiguel stated that one of the main objectives to revisiting A-10 criteria, was mostly to address inconsistencies on how A-10 criteria was used in different reasons, not so much the list of BPS elements (the main concern was consistency). Changing the definition is not addressing this consistency question.

Helen Lainis responded that - most ISO were using the same methodology (with exception of one), their logic being we have NERC planning standards, why do we need to methodology?

Dave Kiguel noted that the task force did a good job, (initiative was lead by H1)

Helen Lainis reviewed the Regional Implementation of the revised ERO Glossary term Remedial Action Schemes (RAS); noting that SME;s will attend next RSSC to communicate the impact to members, as well as provide information on how IESO will roll out program.

Payam Farahbakhsh: "Where there any objections from any ISO's?"

Helen Lainis responded: "No, NE and NY supported."

Helen noted NERC Standards for future enforcement:

PRC-027 is coming in 2020 but entities (Transmission Owners and Generator Owners) must look at effective date for requirements as well as understand what their obligation are and what must be in place for that enforcement date.

Scott Berry noted that we have a volunteer SME to attend next RSSC meeting to provide overview of program, describe impact to entities, and explain how Market Participants can show compliance.

PER-006-1 is effective on October 1, 2020.

IESO Workbooks for MOD and PRC Reliability Standards;

The IESO is currently drafting a workbook for PRC-025 to be posted by Q4 2018 – Q1 2019

The IESO has posted the following workbooks for the MOD and PRC Reliability Standards:

MOD-025, MOD-026, MOD-027, PRC-019, and PRC-024. The IESO are presently drafting a PRC-025 workbook, and will be posted upon completion.

Scott Berry notes that the meeting will break for lunch at 12:10 and will reconvene at 12:45

9. TPL-007- Canadian Variance Update

Laurie Reid provided an update on Canadian-specific Revisions to TPL-007-2: GMD Planning Standard.

In March of this year, IESO and Hydro One filed a joint application to the Ontario Energy Board asking for a review of the standard and requesting a stay of the operation of TPL-007-2 pending the outcome of the NERC standard development process for the Canadian Variance.

On October 31, 2018, the OEB granted a stay of the operation of the TPL-007-2 under Section 36.2(6) of the Electricity Act, 1998. The OEB stay of operation means that version TPL-007-2 **will not** come into effect in Ontario even though FERC approved it.

The NERC BOT is expected to adopt version 3 of the standard at the February meeting. The IESO will post an implementation plan for version 3.

The OEB may consider that, if the stay remains in effect until version 3 has supplanted version 2, there is no point to reviewing version 2.

10. MOD-025, 026, 027 Update

Sean Lagan provided an update on the MOD 25 26 27 reporting, noting that participants who have missed submission dates, or appear likely to miss 2019 reporting dates will be contacted by Compliance Assurance to develop a plan to get back onto schedule. Market Participants are expected to keep to their previously agreed upon schedule unless they arrange a new date with IESO Compliance Assurance, and Performance Validation staff.

Mod workbooks/submissions. Sean – mps have heard from ieso about submissions from first group. Compiled list of entities that missed deadline or at risk of missing deadline in 2019. These entities will be contacted between dec and jan to develop new schedule which will be new compliance deadline. If you don't meet that date, you will be encouraged to self-report. Expected to comply with existing schedules that will be agreed to. If entities feel like they can't meet these deadlines, then contact us. Scott added for clarity, implementation plan is 100% compliance 2021, 80% by 2020.

Scott Berry noted that not only is there a Standard Compliance date, but that the IESO needs sufficient time to review each submission to ensure they are compliant. As such, due to resourcing constraints, it is critical that MP's submit their data on the agreed upon dates.

11. Event Reporting Updates

This item was covered during the Lessons Learned discussion

12. Milestones Spreadsheet Update

Milestone date updates were provided by Angie Turek during the Standards Roadmap review.

Sean Lagan gave a brief update on the IESO's new mapping tool and advised RSSC members to contact him with any enhancements they wish to see in the reports section.

Dave Kiguel highlighted the importance of subscription for the NERC milestone message.

13. Next Meeting

The following dates are agreed to for the 2019 RSSC Meetings;

March 28 – Location TBD

June 18: 120 Adelaide st. Toronto, 16th Floor Boardroom

September 16: 120 Adelaide st. Toronto, 16th Floor Boardroom

November 25: 120 Adelaide st. Toronto, 16th Floor Boardroom

14. Adjourn

A motion to adjourn the meeting is approved at 1:17 PM