

Minutes

Essential Reliability Services Working Group

Face to Face Meeting

September 13, 2017 | 12:00 – 5:00 p.m. Eastern Time

Meeting Location:

The Hilton Quebec
1100 Rene-Levesque EST
Quebec City, Quebec G1R 4P3

In Person Participation: [MEETING REGISTRATION](#)

Cutoff date Tuesday, September 5, 2017

Hotel Registration: [HOTEL REGISTRATION](#)

Cutoff date Monday, August 21, 2017

Remote Participation: Click on the WebEx URL link below to receive remote participation access to the conference

Teleconference: +1-415-655-0002 US Toll | +1-416-915-8942 Canada Toll

WebEx September 13th Meeting

WebEx URL: [Join WebEx meeting](#)

Meeting number (access code): **737 707 923**

Meeting password: **ERSWG2017**

NERC On-Site Contact: Nicole Segal PhD, nicole.segal@nerc.net, (404)-446-2563

Agenda Items

Wednesday, September 13, 2017 (Lunch Provided)

12:00 – 1:00 PM Working Lunch - Provided

1:00 – 1:30 PM

1. Administrative

- a. Welcome and Introductions – *John Moura, NERC Staff*
- b. [NERC Antitrust Compliance Guidelines](#) – *Nicole Segal, NERC Staff*
- c. Facilities & Safety Briefing – *Hotel or NERC Staff*
- d. Chairs Reports– *Brian Evans-Mongeon, Todd Lucas ERSWG Co-Chairs*
 - i. Chairs' comments – welcomed the group and noted several observers in attendance. Highlighted the progress toward meeting end-of-year objectives.
 - ii. Review August 2-3, 2017 Meeting Minutes – David Canter motioned to approve; the minutes were approved by the working group.
 - iii. Review Agenda (make changes as necessary) – No changes were noted.
 - iv. Next meeting confirmation/Future Meetings –

(1) November 6, 2017

(a) ERSWG WebEx Conference Call Meeting (1 PM -5 PM CT)

(b) ERSWG WebEx Leadership Meeting (10:30 AM – 12 PM CT)

No additional in-person meetings anticipated. Conference calls/web meetings will be used as needed to accomplish upcoming deliverables.

1:30-2:15 PM

2. Measures 1 – Measures 4 Frequency Response Update – Frequency Subgroup

- a. Measures 2 and 4 updates relative to the historical perspectives from each of the interconnections and the advancing the data into the SOR processes
 - i. There is no substantive update to this effort and there has been no Resource Subcommittee (RS) meeting since last ERSWG meeting. The ERSWG recapped measures and the mechanisms for analysis. Measure 1: time resolutions vary. Data are provided quarterly to RS in excel format. Looking at Measures 1 through 4 at every RS meeting. Anticipate this becoming 1x or 2x per year in future. Tracking to have technical brief document by end of the year. Objective is to obtain PC and OC approval on the historic Measures 1 through 4 technical brief at the December meeting. The ERSWG intends to have it ready for the November 6 ERSWG conference call. Policy group is working their draft based on input from Julia. Discussed what level of detail is needed. The plan is to prepare a detailed technical brief and a high-level policy brief. The working group discussed IEEE frequency report; ERS members provided input to the IEEE development team but comments have not been adopted.
- b. Update on development of forward looking Measures 1 through 4 analysis methods
 - i. Update on the EIPC/UTK/MISO/NERC discussions - Technical brief will describe measures that ERCOT has implemented and studies done. Same approach with respect to documenting Quebec interconnection / Hydro Quebec studies and method. In WECC and Eastern Interconnect, this issue isn't observed because of the area size; risks are addressed in planning. Looking at five-year-out planning cases and test cases for higher renewable scenarios. Study is being prepared for EIPC, UTK, and MISO area. This will be described in the technical brief. Technical brief draft is being prepared for December. Approval targeted for Q1 2018. Discussed Reliability Assessments Subcommittee (RAS) involvement; will use data obtained from ERSWG's efforts. Discussed how the generator governor modeling capability has improved, but noted it will take time to have governors set up and verified that they perform as modeled. RS is collecting data on unit performance after events.
 - ii. Received input for LTRA which is similar to the draft technical brief. ERSWG will have a review opportunity during the PC review period.
- c. Update on historical Measure 3. - Some BA volunteers are collecting data; will be evaluated in the next (Nov) RS meeting.

2:15 – 2:45 PM

3. Measure 6 BA Level Net Demand Ramping Variability – Ramping Subgroup

- a. It was reported that the brief for regulators and policymakers on Measure 6 – Historic perspective was out for comment to the OC and PC. Comments are due back by October 10, 2017. Update on future ramping document for LTRA (coordination with RAS) - Finished test run of screening with volunteers. Also received comments from RAS. In the process of drafting the technical brief; next step is to get it out to leadership team, RAS, ramping subgroup. Draft of technical brief expected in November to support RAS coordination and LTRA planning. Feedback from RAS will be needed before deciding on path to final technical brief approval. Logistics will be reviewed at the November ERSWG conference call.

4. CAISO Presentation – Clyde Loutan

- a. LTRA includes a case study on CAISO ramping, showing various impacts of 6000 MW of rooftop PV on the system. Actual solar production is highly variable from one day to the next. Wind generation variability is similar. There is a need to have a lot of operating flexibility to deal with this. Expected 3-hour ramps will increase through 2020. 1-hour ramps can be about 50% of 3-hour ramps, so planning for 3-hour ramps can be inadequate. Examined various ramp periods: 3-hour to 1 min. Looked at periods in a given day when CPS1 scores were bad (poorly controlling frequency); hourly look was important to spot the problem because daily performance did not indicate a problem. Renewable Portfolio Standard (RPS) poses a problem for reliability because it adds to the non-dispatchable generation. Challenged to accommodate evening ramp; frequency can sag. Storage or faster ramping is needed. Regulatory and policy decisions made in early part of the decade did not support reliability services (active power management, voltage and frequency ride through, and voltage control). Challenge is to convey the reliability issue to state policy makers.

2:45 – 3:30 PM

5. Distributed Energy Resources – DER Subgroup

- a. Update on draft technical brief/reliability guide to provide guidance on DER data needs for TPs, BAs, & TOPs/RCs. - Draft in development for discussion at the November meeting.
- b. Load Forecasting Progress – **John Simonelli**
 - i. Discussed background on the issue beginning with RS, and their proposal for a guideline. ISO-NE doesn't have extensive penetration, but they have stringent forecasting goals. Load forecasters use variety of tools, work with universities, and apply judgment. DER subgroup determined that a survey of the industry would be beneficial. Believe RAS was identified as a possible group to assist with the industry survey would be appropriate. Proposed next steps can be based on the survey and may include an industry workshop. Questions have been drafted. Propose the subgroup provide the draft to NERC for edit and review, and determination of which subgroup would be appropriate. Within the PC, PJM volunteered to contribute. Southern Co and Duke also volunteered to contribute. Participants discussed RAS involvement; some information is being obtained in the current LTRA. Proposal for further RAS involvement via the proposed survey could be discussed with RAS in

November. Tasking would be formalized through the PC at the December meeting. The ERSWG agreed on the approach.

- c. SAR for DER is moving forward. Comment period closed. Looking at data collection. Aiming to have a plan in 2-4 weeks.

3:30 – 3:45 PM Break

3:45 – 4:30 PM

6. Policy Subcommittee – Policy Subgroup

- a. Technical Briefs
 - i. Historic Looking Measures 1 through 4
 - ii. Historic Looking Measure 6 - OC and PC reviewing policy brief; comments due to committee secretaries by Oct 10. RS gathers CPS1 data and trends; works with BAs on identified trends. OC has some concerns about level of review and the resulting reporting that would be done with the Measure 6 data. Discussed that charts were taken out of context, and they do not indicate failures on the part of the BA. Charts identifying BAs will not be published. Discussed how CPS1 was used to identify ramping issues in the West. Discussed use of BAL for short-term evaluation; CPS1 for identifying long term performance. Discussed the history of the effort, and how the morning and evening ramps were not being addressed by existing reliability metrics and methods.
 - iii. Drafts of Technical brief on Measure 6 Forward, DER will be prepared for November meeting.
- b. Provide updates on reaching out to policy makers and any other on-going activities - Working with MRC; provided MRC with 1-page write up on Measure 7 and the draft Measure 6 historical. MRC feedback was positive.

4:30 – 5:00 PM

7. Other Measures, Open Issues and New Items

- a. Round table and parking lot discussion
- b. Reminder next meeting:
 - i. November 6, 2017
 - (1) ERSWG WebEx Conference Call Meeting (1 PM -5 PM CT)
 - (2) ERSWG WebEx Leadership Meeting (10:30 AM – 12 PM CT)
 - (a) Chair noted that this is expected to be the last in-person meeting. Invited comments on open issues. Discussed that there are still some DER issues that are open (e.g. DER in restoration; outreach on P1547), but it is appropriate for PC and OC to determine courses of action. Indicated that the group will be completing its charge and scope based upon the projections discussed in the meeting, though some actions will carry the ERSWG into 2018 to actually complete. ERSWG discussed making recommendations for where outstanding DER issues should be

handed off or resolutions should be initiated. Discussed NERC efforts with Argonne National Labs and IEEE task force created on TSO and DSO. More entities (Google, Tesla) are doing more in terms of resources and greater capability is emerging.

Meeting adjourned at 4:00 pm eastern