

Conference Call Notes Project 2013-03 (Geomagnetic Disturbance) Standard Drafting Team

April 14, 2014 | 2:00 p.m. – 4:00 p.m. ET

Dial-in: 1.866.740.1260 | Access code: 6251541 | Security code: 0414

Web access: Go to www.readytalk.com and enter access code 6251541

Administrative

1. Introductions

The chair began the conference call at 2:00 p.m. EDT, April 14, 2014. Participants were:

| Members | | | |
|-------------------|----------------------------------|--------------------------|---------------------------------|
| Name | Company | Name | Company |
| Frank Koza, Chair | PJM Interconnection | Randy Horton, Vice Chair | Southern Company |
| Donald Atkinson | Georgia Transmission Corporation | Emanuel Bernabeu | Dominion Resource Services, Inc |
| Kenneth Fleischer | NextEra Energy | Luis Marti | Hydro One Networks |
| Qun Qiu | American Electric Power | Antti Pulkkinen | NASA GSFC |
| Mark Olson | Standards Developer | | |

| Observers | | | |
|----------------|---------|------------------|--------------|
| Name | Company | Name | Company |
| Regis Binder | FERC | Mary Agnes Nimis | FERC |
| Justin Kelly | FERC | Tyler Giles | MISO |
| Mario Kiresich | SCE | Don Fallon | PSEG |
| Bill Harm | PJM | Ken Petroff | PSEG Nuclear |
| | | | |

2. Determination of Quorum

The rule for NERC Standard Drafting Team (SDT or team) states that a quorum requires two-thirds of the voting members of the SDT. Quorum was achieved as 8 of 8 total members on the call.

3. NERC Antitrust Compliance Guidelines and Public Announcement

NERC Antitrust Compliance Guidelines and public announcement were reviewed by Mark Olson. There were no questions raised. Participant conduct policy was reviewed.

Agenda

- 1. Chair Introductory Remarks.** Frank Koza welcomed the drafting team and observers. He reviewed the agenda.
- 2. Benchmark GMD Event** – The revised initial draft of the benchmark GMD event whitepaper was reviewed. Antti Pulkkinen presented the revised 1-in-100 year data curves which include data from 1993-2013 from IMAGE magnetometer chain. Emanuel Bernabeu presented updated results of extreme value statistics analysis of the storm data. Frank Koza asked the team to consider whether the reported 2012 near-miss coronal mass ejection should be discussed in the whitepaper or considered in benchmark analysis. Antti responded that because it did not impact the earth we can only use it as an input to models. Consequently it is more appropriate for it to be considered by researchers. The team agreed that adding it to the whitepaper would create confusion and not be of value. The paper will be updated with extreme value statistics and an improved magnetic latitude figure for clarity.
- 3. Draft Transformer Assessment whitepaper-** Paper was reviewed by the team and is accepted with minor editorial changes.
- 4. Initial draft TPL-007-1 standard.** The drafting team reviewed the initial draft standard TPL-007 and made several clarifying changes to the requirements, measures, and rationale boxes. A footnote was

added in table 1 to make it clear that planners needed to assess harmonic affects to determine BES equipment which may be susceptible to outage. The team discussed using a MW limit or a duration limit as possible ways to put bounds on non-consequential load loss in the performance specifications of the standard and determined that these would not be appropriate for a high-impact, low frequency event like the 1-in-100 year storm. Bill Harm will review the footnote for clarity and consistency with TPL-001. Ken Fleischer recommended changes to measure M6 for clarity; accepted by the SDT. It was agreed that the benchmark GMD event time series needed to be added to Appendix 1.

5. **Implementation Plan was reviewed.**

6. **Next Steps.** The team agreed that another call to discuss revisions was not necessary and final drafts would be approved by email. Mark Olson will circulate potential dates for industry webinars and communication opportunities. A schedule of upcoming engagements was reviewed.

7. **Reviewed future meetings**

- a. June 3-6 (Atlanta)
- b. August 19 – 22 (Toronto)
- c.

8. **Adjourn**

- a. The meeting adjourned at 4:00 p.m. EDT on April 14, 2014