

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Project 2019-01

## Modifications to TPL-007-3

Standard Drafting Team Meeting

April 30, 2019

11:00 a.m. – Noon Eastern

**RELIABILITY | ACCOUNTABILITY**



## Administrative

- Review NERC Antitrust Compliance Guidelines and Public Announcement
- Roll Call and Determination of Quorum

## Agenda

- Chair Introductions and Remarks
- Review FERC Order 851
- Review Comments on SAR
- Review Project Timeline

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition. It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Participants are reminded that this meeting is public. Notice of the meeting was widely distributed. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

<b>Chair</b>	Emanuel Bernabeu	PJM Interconnection
<b>Vice Chair</b>	Per-Anders Lof	National Grid
<b>Members</b>	Mike Steckelberg	Great River Energy
	Rui Sun	Dominion Energy
	Jow Ortiz	Florida Power & Light (NextEra Energy)
	Cynthia Yiu	Hydro One Networks Inc.
	Reynaldo Ramos	Southern Company Services
	Aster Amahatsion	American Electric Power
	Justin Michlig	MISO

- **Perception:**

- FERC issues a directive, TPL-007 team only meets them “half-way”.
- Recognize and manage the perception.

- **Aggressive Timeline:**

- We will have to make some compromises.
- Team needs to be engaged – everybody will get homework!

- **Main Issue: The Science**

- The science for the supplemental event is still evolving.
- TPL-007-2 did not require a CAP because we could not define the “size of the box,” the orientation of the field inside and outside the box, and the geoelectric field amplitude outside the box.

# **FERC Order 851**

## **Geomagnetic Disturbance Reliability Standard - Reliability Standard for Transmission System Planned Performance for Geomagnetic Disturbance Events (Issued November 15, 2018)**

## FERC Order No. 851 – Final Rule

### Geomagnetic Disturbance Reliability Standard; Reliability Standard for Transmission System Planned Performance for Geomagnetic Disturbance Events

**Summary:** The Federal Energy Regulatory Commission approves Reliability Standard TPL-007-2 ... The Commission also directs NERC to develop and submit modifications to Reliability Standard TPL-007-2: (1) to require the development and implementation of corrective action plans to mitigate assessed supplemental GMD event vulnerabilities; and (2) to authorize extensions of time to implement corrective action plans on a case-by-case basis.



## **FERC Order No. 851 – Final Rule**

¶4. The Commission directs NERC to submit the modified Reliability Standard for approval within 12 months from the effective date of Reliability Standard TPL-007-2.

¶5 (and ~¶30). We [FERC] also direct NERC, as proposed in the NOPR, to prepare and submit a report addressing how often and why applicable entities are exceeding corrective action plan deadlines as well as the disposition of extension requests, which is due within 12 months from the date on which applicable entities must comply with the last requirement of Reliability Standard TPL-007-2. Following receipt of the report, the Commission will determine whether further action is necessary.

## **FERC Order No. 851 – Final Rule**

¶24: ... the NOPR identified two aspects of Reliability Standard TPL-007-2 that are inconsistent with Order No. 830: (1) the lack of any requirement to develop and implement corrective action plans in response to assessed supplemental GMD event vulnerabilities; and (2) a general allowance, per proposed Requirement R7.4, of extensions of time to complete corrective action plans as opposed to permitting extensions of time on a case-by-case basis.

¶29: ... we see no basis for requiring corrective action plans for benchmark GMD events but not for supplemental GMD events.

¶30: ... we direct NERC to develop a timely and efficient process, consistent with the Commission's guidance in Order No. 830, to consider time extension requests on a case-by-case basis.

## FERC Order No. 851 – Final Rule

¶35: NERC’s comments reiterate the rationale in its petition that requiring mitigation “would result in the de facto replacement of the benchmark GMD event with the proposed supplemental GMD event.” NERC maintains that “while the supplemental GMD event is strongly supported by data and analysis in ways that mirror the benchmark GMD event, there are aspects of it that are less definitive than the benchmark GMD event and less appropriate as the basis of requiring Corrective Action Plans.”

¶42: Reliability Standard EOP-010-1 does not ensure satisfactory mitigation or provide an adequate substitute for mitigation as contemplated in Order No. 830.

## FERC Order No. 851 – Final Rule

¶45: ... the standard drafting team and personnel working on the GMD research work plan could operate in parallel and share information to ensure that research relevant to the Commission’s directive is incorporated into the modified Reliability Standard.

¶48: NERC does not offer support for its comment in response to the NOPR’s observation that sensitivity analysis can serve, among other methods, as a method to refine the geographic scope of localized GMD impacts on planning areas.

# **Comments on SAR**

## **Project 2019-01 Modifications to TPL-007-3**

**There were 24 sets of responses, including comments from approximately 67 different people from approximately 51 companies representing 7 of the Industry Segments**

## Comments on SAR - Project 2019-01

### One CAP/study instead of two - Supplemental and benchmark – 1 (2)

Using this Version 2 methodology [supplemental event; enhanced electric field magnitude], every part of the system is ultimately evaluated with the higher electric field magnitude.

In our view, the supplemental event represents a more extreme scenario. As such, adding a corrective action plan requirement to the supplemental event obviates the need for studying the benchmark event. ... we believe the SDT should instead pursue only one single GMD Vulnerability Assessment using a reference peak geoelectric field amplitude not determined solely by non-spatially averaged data.

... we believe a more prudent path would be for the SDT to determine an agreeable reference peak geoelectric field amplitude for a single GMD Vulnerability Assessment that potentially requires a Corrective Action Plan.

## Comments on SAR - Project 2019-01

### **One CAP/study instead of two - Supplemental and benchmark – 2 (2)**

The NSRF would like to suggest that the SDT consider modifying the standard to include only one Corrective Action Plan for Requirement R7 that will mitigate performance issues identified in the benchmark GMD Vulnerability Assessment (R4) and/or the supplemental GMD Vulnerability Assessment (R8).

The SSRG recommends the Standards Drafting Team (SDT) consider the potential of redundancy in the development of two Correction Action Plans (CAPs). ... SSRG recommends that the SDT consider that one CAP could cover both studies.

## Comments on SAR - Project 2019-01

### No CAP for supplemental event – Against directive in Order

Without a sound foundation developed, requiring CAPs for the supplemental GMD event could lead to unnecessary mitigation measures and an immense amount of industry resources spent on a still developing science. CHPD suggests that the benchmark GMD event be fully vetted before moving onto additional scenarios such as the supplemental event.

... the supplemental GMD event should be considered as an extreme event and although useful to create situational awareness, it should not mandate design requirements. ... PJM recommends that the Drafting Team not require Corrective Action Plan(s) for the supplemental GMD event.

Since the suppl[e]mental analysis may be considered an extreme event to the benchm[ark] assessment, then the CAP would not be required for the supplemental analysis to be consist[e]nt with TPL-001-4.



## Comments on SAR - Project 2019-01

### Suggestions for case-by-case extensions – 1 (2)

Cost Impacts are an important aspect to be studied. Considerations of estimated time-extensions cost impacts and company budget cycles is requested to be measured in the time-extension decisions.

To replace the Corrective Action Plan time-extension provision in Requirement R7.4 with a process through, which extensions of time are considered on a case-by-case basis please consider the following:

- (1) A clear criteri[on] for approval and disapproval of the extension of time.
- (2) An appeal process for revisiting timetables that are not agreed upon by the Responsible Entity and the Regional Entity.
- (3) Clearly identifying what supporting documentation is acceptable in the new process.

## Comments on SAR - Project 2019-01

### **Suggestions for case-by-case extensions – 2 (2)**

Another item for consideration is to attach a guideline to the standard that addresses the following questions:

- (1) How will the reviews be scheduled and address who are the participants and their role in the new process?
- (2) What means will this review be conducted (conference call or in-person)[?]
- (3) Does the review team have time parameters they will enforce?
- (4) Will there be circumstances that would be able to by-pass the review and provide a standard extension time that if there are circumstances outside of those, then the case review be concluded?

### **No case-by-case extensions - Against directive in Order**

Adding the case-by-case basis would increase the administrative burden to entities while adding very little benefit to the reliability of the BPS.

## Comments on SAR - Project 2019-01

### Canadian consideration

... the scope should include adding a variance similar to D.A. 7.3. for the new requirement to cover the CAP timelines/milestones associated with regulatory approvals in Canada, where applicable.

### Comment for FERC

Reclamation also recommends FERC provide ample time for NERC to develop standards to avoid the problem of improperly scoped standards being quickly thrown together simply to meet short deadlines.

### Request for implementation guidance type document

[I]t would be beneficial to develop a guideline with as much as details as possible for entities to follow.

## Comments on SAR - Project 2019-01

### **SAR scope expansion**

... we suggest expanding the scope of the SAR ... to consider making a revision to “Table 1: Steady State Planning GMD Event”. The recommendation is to add an item “d.” to the “Steady State:” criteria: “d. System steady state voltage performance shall be within the criteria established in Requirement R3.”

### **SAR scope expansion - Against directive in Order**

The NSRF suggest expanding the scope of the SAR to provide the SDT with the ability to consider removing or revising requirement R11 and R12.

The monitoring requirements are outside the requirement flowchart for Planning Analysis and vulnerability assessment.

## Comments on SAR - Project 2019-01

### Study tool - Computation capabilities

BPA's concern is that this [refined computation] capability does not presently exist within the study tools, and as such, study work would be using widely varying assumptions. ... an action may actually put the system in a less stable state after the action when compared to riding through the event without taking an action that is actually unnecessary. BPA believes that this Reliability Standard (TPL-007) should not request study work beyond the capacities of the study tools until those tools are made capable of producing refined studies requested by the FERC order No. 851.

## Conference Calls

- May 15, 2019 11:00 a.m. – Noon Eastern
  - Review History of Standard
  - Start discussion on draft language to meet Order 851
- May 22, 2019 11:00 a.m. – Noon Eastern
  - Action Items Review
  - In-Person meeting prep

## First In-Person Meeting

- June 4-5, 2019
- NERC Office – Atlanta, GA

Anticipated Date	Location	Event	Comments
April 30, 2019	Conference Call	SDT WebEx	Review deliverables and walk through standards. Request draft language from members.
May 15, 2019	Conference Call	SDT WebEx	Review history of standard. Begin discussion on draft language.
June 4-5, 2019	Atlanta, GA	SDT in-person meeting to modify TPL-007-3	
July 8, 2019	-	Submit document for SC Meeting	
July 24, 2019	-	Request authorization from SC to post the modified standard for initial posting.	
July 29 – September 12, 2020	-	Post TPL-007 Standard for initial comment and ballot	45 day comment period
Week of August 5, 2019	Conference Call	Webinar to educate industry on changes	
Week of September 23, 2019	TBD	Second SDT in-person meeting to respond to comments and modify as necessary	
October 21 –December 5, 2019	-	Post for a additional comment and ballot	45 day comment period (second ballot)
Week of December 16, 2019	TBD	Third SDT in-person meeting to respond to comments and modify as necessary	
January 23 – March 9, 2020	-	Post for a additional comment and ballot	45 day comment period (third ballot)
Week of March 23, 2020	TBD	Fourth SDT Meeting to respond to comments and move to a final ballot	If needed
April 20 – 30, 2020	-	Post for Final Ballot	10 day final ballot
May 13 – 14, 2020	-	NERC Board of Trustees Adoption	
July 2020	-	NERC Files Petition with the Applicable Governmental Authorities	Filing deadline is July 1, 2020



# Questions and Answers