Unofficial Comment Form

Project 2013-03 Geomagnetic Disturbance Mitigation

Please **DO NOT** use this form for submitting comments. Please use the [electronic form](https://www.nerc.net/nercsurvey/Survey.aspx?s=0e70034bf21c48c1a41b06402040cf5e) to submit comments on the Standard. The electronic comment form must be completed by **May 21, 2014**.

If you have questions please contact Mark Olson at mark.olson@nerc.net or by telephone at 404-446-9760.

All documents for this project are available on the [project page](http://www.nerc.com/pa/Stand/Pages/Project-2013-03-Geomagnetic-Disturbance-Mitigation.aspx).

## Background Information

On May 16, 2013 FERC issued [Order No. 779](http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13260635), directing NERC to develop Standards that address risks to reliability caused by geomagnetic disturbances in two stages:

* Stage 1 standard(s) that require applicable entities to develop and implement Operating Procedures were filed in November, 2013.
* Stage 2 standard(s) that require applicable entities to conduct assessments of the potential impact of benchmark GMD events on their systems. If the assessments identify potential impacts, the standard(s) will require the applicable entity to develop and implement a plan to mitigate the risk of instability, uncontrolled separation, or Cascading. Stage 2 standards must be filed by January 2015.

This posting is soliciting informal comments on the draft standard, TPL-007-1 – Transmission System Planned Performance During Geomagnetic Disturbances, being developed to address the stage 2 directives. TPL-007-1 includes requirements for Planning Coordinators, Transmission Planners, Transmission Owners, and Generation Owners with planning areas or transformers connected at 200 kV or higher.

Paragraph numbers in the following questions refer to [Order No. 779](http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13260635).

You do not have to answer all questions. Enter comments in simple text format. Bullets, numbers, and special formatting will not be retained.

## Questions on Draft 1 of TPL-007-1

1. **Applicability**. The draft TPL-007-1 standard applies to Planning Coordinators, Transmission Planners, Transmission Owners, and Generator Owners with a high-side, wye-grounded winding connected at 200 kV or greater. The drafting team believes these are the correct functional entities to meet the directives in Order No. 779 to evaluate the effects of GICs on Bulk-Power System transformers and other equipment (P.67), consider wide-area effects and coordinate across regions (P.67), and develop plans to address potential impacts (P. 79). Justification for the 200 kV voltage threshold may be found in the [whitepaper](http://www.nerc.com/pa/Stand/Project201303GeomagneticDisturbanceMitigation/ApplicableNetwork_clean.pdf) that was developed by the drafting team for the stage 1 standard, EOP-010-1 – Geomagnetic Disturbance Operations. Do you agree that these are the correct functional entities to perform the functions required in the draft standard? If you do not agree, or you agree in general but feel that alternative language would be more appropriate, please provide specific suggestions in your comments.

Yes

No

Comments:

1. **Technical basis**. Directives in Order No. 779 specify that the assessments required by the stage 2 standard should account for several parameters including the use of studies and simulations to evaluate the effects of GIC on the Bulk-Power System transformers (P. 59). The drafting team believes that the studies and analysis required by the standard meet the assessment parameters directed by FERC and are supported by the technical guides referenced in the standard. Do you agree that the requirements in TPL-007-1 address the Order No. 779 directives for GMD Vulnerability Assessment and are supported by the technical guidance? If you do not agree, or you recommend alternative language in these requirements or additional technical material, please provide specific suggestions in your comments.

Yes

No

Comments:

1. **Benchmark GMD Event**. In Order No. 779, FERC directed that NERC specify the benchmark GMD event to be used by entities for assessing potential impact on the Bulk-Power System through the standards development process (P.54). Accordingly, the drafting team has posted the proposed Benchmark GMD Event Description whitepaper on the project page along with the standard for comment during this comment period. The drafting team believes the proposed benchmark GMD event is consistent with existing utility best practices, provides the consistent assessment criteria required by the FERC order, and supports assessment of the parameters specified by the directives.   
     
   Do you agree that the proposed benchmark GMD event is technically justified and provides the necessary basis for conducting the assessments directed in Order No. 779? If you do not agree, please provide specific technically justified alternatives or suggestions for the drafting team to consider.

Yes

No

Comments:

1. **Implementation**. Order No. 779 does not direct a specific Implementation Plan, but sets an expectation for a multi-phased approach and consideration for the availability of tools, models, and data that are necessary for responsible entities to perform the required GMD vulnerability assessments. The drafting team is proposing a phased implementation of TPL-007-1 over a 4-year period. The Implementation Plan provides 1) time for entities to develop the required models; 2) proper sequencing of assessments; and 3) time for development of viable Corrective Action Plans, which may require entities to develop, perform, and validate studies, assessments, and procedures. Do you support the approach taken by the drafting team in the proposed Implementation Plan, and if you are an applicable entity in the proposed standard is the proposed time frame and sequencing realistic?

Yes

No

Comments: