

Supporting Statement
FERC-725S, Mandatory Reliability Standards: EOP-010-1
(Protection System Maintenance Reliability Standard),
Notice of Proposed Rulemaking in RM14-1-000

In Docket RM14-1 the Commission proposes to approve Reliability Standard EOP-010-1. The North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization (ERO), submitted the proposed Reliability Standard for Commission approval in response to a Commission directive in Order No. 779.¹ The proposed Reliability Standard is designed to mitigate the effects of geomagnetic disturbances (GMDs) on the Bulk-Power System by requiring responsible entities to implement Operating Plans and Operating Procedures or Processes.

1. CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY

On August 8, 2005, The Electricity Modernization Act of 2005, which is Title XII of the Energy Policy Act of 2005 (EPAcT 2005), was enacted into law.² EPAcT 2005 added a new section 215 to the Federal Power Act (FPA), which requires a Commission-certified Electric Reliability Organization (ERO) to develop mandatory and enforceable Reliability Standards, which are subject to Commission review and approval. Once approved, the Reliability Standards must be enforced by the ERO, subject to Commission oversight. The Commission implements section 215 in 18 CFR 40.

In Order No. 779, the Commission directed NERC, pursuant to FPA section 215(d)(5), to develop and submit for approval proposed Reliability Standards that address the impact of GMDs on the reliable operation of the Bulk-Power System. The Commission based its directive on the potentially severe, wide-spread impact on the reliable operation of the Bulk-Power System that can be caused by GMD events and the absence of existing Reliability Standards to address GMD events.³

The Commission directed NERC to implement the directive in two stages. In the first stage, the Commission directed NERC to submit, within six months of the effective date of Order No. 779, one or more Reliability Standards (First Stage GMD Reliability Standards) that require owners and operators of the Bulk-Power System to develop and implement operational procedures to mitigate the effects of GMDs consistent with the reliable operation of the Bulk-Power System.⁴

On November 13, 2013, NERC petitioned the Commission to approve proposed Reliability Standard EOP-010-1 and its associated violation risk factors and violation severity levels,

¹ *Reliability Standards for Geomagnetic Disturbances*, Order No. 779, 78 FR 30,747, 143 FERC ¶ 61,147, *reh'g denied*, 144 FERC ¶ 61,113 (2013).

² The Energy Policy Act of 2005, Pub. L. No 109-58, Title XII, Subtitle A, 119 Stat. 594, 941 (2005), codified at 16 U.S.C. 824o (2000).

³ Order No. 779, 143 FERC ¶ 61,147 at P 3.

⁴ *Id.* P 2.

implementation plan, and effective dates. NERC states that the proposed Reliability Standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. Further, NERC maintains that the proposed Reliability Standard satisfies the Commission's directive in Order No. 779 corresponding to the development and submission of the First Stage GMD Reliability Standards.

2. HOW, BY WHOM, AND FOR WHAT PURPOSE THE INFORMATION IS TO BE USED AND THE CONSEQUENCES OF NOT COLLECTING THE INFORMATION

NERC states that, consistent with Order No. 779 and the NERC Functional Model, proposed Reliability Standard EOP-010-1 applies to reliability coordinators and to transmission operators with a "Transmission Operator Area that includes a power transformer with a high side wye-grounded winding with terminal voltage greater than 200 kV."⁵ NERC explains that the proposed Reliability Standard has three requirements: (1) Requirement R1 addresses coordination by reliability coordinators within their areas; (2) Requirement R2 addresses the dissemination of space weather information by reliability coordinators to ensure that entities within a reliability coordinator area have the appropriate information necessary to take action and that the same information is available to all entities; and (3) Requirement R3 requires transmission operators to develop GMD Operating Procedures or Processes.

NERC states that Requirement R1 requires reliability coordinators to develop, maintain, and implement a GMD Operating Plan that coordinates the GMD Operating Procedures or Operating Processes within the reliability coordinator area.⁶ NERC explains that reliability coordinators are required to ensure that GMD Operating Procedures and Operating Processes in a reliability coordinator area are not in conflict, but reliability coordinators will not review the technical aspects of the GMD Operating Procedures and Operating Processes.⁷ Instead, NERC points out that transmission operators will be responsible for the technical aspects of their Operating Procedures and Operating Processes. NERC further states that Requirement R1 requires reliability coordinators to describe the activities that must be undertaken in order to mitigate the effects of a GMD event. NERC explains that, pursuant to Reliability Standard IRO-001-1.1, reliability coordinators have decision-making authority to act and to direct actions to be taken by transmission operators, balancing authorities, generator operators, transmission service providers, load-serving entities, and purchasing-selling entities within their reliability coordinator area to preserve the reliability of the bulk electric system.

⁵ NERC Petition at 8 ("A power transformer with a 'high side wye-grounded winding' refers to a power transformer with windings on the high voltage side that are connected in a wye configuration and have a grounded neutral connection.").

⁶ Operating Plan, Operating Procedure, and Operating Process are existing terms defined in the Glossary of Terms Used in NERC Reliability Standards. See Glossary of Terms Used in NERC Reliability Standards (effective November 21, 2013) at 49-50.

⁷ NERC explains that "if Company A submitted an Operating Procedure proposing to take Line X out of service under specified GMD conditions, and Company B submitted an Operating Procedure that relies on Line X remaining in service in the event of a GMD – it is the responsibility of the Reliability Coordinator to *identify* this conflict." NERC Petition at 11-12 (emphasis in original). Beyond identifying a conflict and requiring its resolution by Company A and Company B, NERC states that the review is "not intended to be a review by the Reliability Coordinator of the technical aspects of the GMD Operating Procedures or Processes." *Id.*

NERC states that Requirement R2 requires reliability coordinators to disseminate space weather information to ensure coordination and consistent awareness in its reliability coordinator area. NERC maintains that entrusting this responsibility to reliability coordinators is appropriate given the reliability coordinator's wide-area view. NERC also explains that Requirement R2 replaces existing Requirement R3 of Reliability Standard IRO-005-3.1a, which currently addresses dissemination of information regarding GMD forecasts.⁸

NERC states that Requirement R3 requires transmission operators to develop GMD Operating Procedures or Operating Processes to address GMD events. NERC explains that Requirement R3 is not prescriptive and allows entities to tailor their Operating Procedures or Operating Processes based on the responsible entity's assessment of entity-specific factors, such as geography, geology, and system topology. According to NERC, Requirement R3 requires each transmission operator to specify: (1) steps or tasks that must be conducted to receive space weather information; (2) what actions must be taken under what conditions, and such conditions must be predetermined; and (3) when and under what conditions the Operating Procedure or Operating Process is exited. NERC maintains that proposed Reliability Standard EOP-010-1 does not prescribe specific actions that must be taken by responsible entities because "a 'one-size fits all' approach to crafting GMD Reliability Standards would fail to recognize the important role of locational differences."⁹

3. DESCRIBE ANY CONSIDERATION OF THE USE OF IMPROVED INFORMATION TECHNOLOGY TO REDUCE THE BURDEN AND TECHNICAL OR LEGAL OBSTACLES TO REDUCING BURDEN

The use of current or improved technology is not covered in Reliability Standards, and is therefore left to the discretion of each entity.

4. DESCRIBE EFFORTS TO IDENTIFY DUPLICATION AND SHOW SPECIFICALLY WHY ANY SIMILAR INFORMATION ALREADY AVAILABLE CANNOT BE USED OR MODIFIED FOR USE FOR THE PURPOSE(S) DESCRIBED IN INSTRUCTION NO. 2

The information collection requirements are unique to this reliability standard and to this information collection. The Commission does not know of any duplication in the requirements.

5. METHODS USED TO MINIMIZE THE BURDEN IN COLLECTION OF INFORMATION INVOLVING SMALL ENTITIES

Proposed Reliability Standard EOP-010-1 minimizes or avoids burden on small entities in two specific ways.

⁸ According to NERC, Reliability Standard IRO-005-3.1a will be retired once the Commission approves proposed Reliability Standard IRO-005-4, which is currently pending before the Commission. NERC Petition at 13.

⁹ NERC Petition at 14.

First, the standard only applies to transmission operators and reliability coordinators. Comparison of the NERC compliance registry with data submitted to the Energy Information Administration on Form EIA-861 indicates that there are perhaps as many as 34 small transmission operators and no small reliability coordinators.

Second, the Commission does not expect any material burden change for the 34 small transmission operators because the proposed standard only applies to transmission operators with a Transmission Operator Area that includes a power transformer with a high side, wye-grounded winding with terminal voltage greater than 200 kV. These types of arrangements typically only occur with large entities serving substantial geographical areas with significant energy output.

In general, small entities may reduce their burden by taking part in a joint registration organization or a coordinated functional registration. These options allow an entity to share its compliance burden with other entities.

6. CONSEQUENCE TO FEDERAL PROGRAM IF COLLECTION WERE CONDUCTED LESS FREQUENTLY

GMD events have the potential to cause severe, wide-spread impact on the reliable operation of the Bulk-Power System. Currently there are no Reliability Standards to address GMD events. The new Reliability Standard requires transmission operators and reliability coordinators to develop, maintain, and implement a GMD Operating Procedure or Operating Process. The standard does not indicate how often respondents must review their procedures but respondents are required to have evidence that they reviewed their procedures. Respondents are required to keep evidence for three years. If respondents were to carry out these responsibilities on a less frequent basis there would be increased risk that GMD operating procedures and processes are out of date, leading to increased risk of black-outs due to GMD related events.

7. EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION COLLECTION

There are no special circumstances as described in 5 CFR 1320.5 pertaining to this collection.

8. DESCRIBE EFFORTS TO CONSULT OUTSIDE THE AGENCY: SUMMARIZE PUBLIC COMMENTS AND THE AGENCY'S RESPONSE

The ERO process to establish Reliability Standards is a collaborative process with the ERO, Regional Entities and other stakeholders developing and reviewing drafts, and providing comments, with the final proposed standard submitted to the FERC for review and approval.¹⁰ In addition, each FERC rulemaking (both proposed and final rules) is published in the Federal Register, thereby providing public utilities and licensees, state commissions, Federal agencies, and other interested parties an opportunity to submit data, views, comments or suggestions

¹⁰ Details of the current ERO Reliability Standard processes are available on the NERC website at <http://www.nerc.com/pa/Stand/Resources/Documents/Appendix3AStandardsProcessesManual.pdf>

concerning the proposed collection of data. The proposed rule was published in the Federal Register on January 22, 2014 (79 FR 3547).

9. EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS

The Commission does not make payments or provide gifts for respondents related to this collection.

10. DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS

There are no specific assurances of confidentiality mentioned to respondents.

11. PROVIDE ADDITIONAL JUSTIFICATION FOR ANY QUESTIONS OF A SENSITIVE NATURE

This collection does not include any questions of a sensitive nature.

12. ESTIMATED BURDEN OF COLLECTION OF INFORMATION

Proposed Reliability Standard ERO-010-1 includes specific requirements for transmission operators and reliability coordinators to develop, maintain, and implement a GMD Operating Procedure or Operating Process to mitigate the effects of GMD events on the reliable operation of its respective system. Requirement 1 dictates specific details for reliability coordinators and Requirement 3 dictates specific details for transmission operators.

The Commission based the number of applicable entities on the NERC compliance registry as of November 27, 2013. According to the registry, there are 16 reliability coordinators and 183 transmission operators.

The estimates below are an annual average of how many burden hours the new requirements will take to implement in the first year and maintain every year thereafter. Since both requirements have entities “develop and maintain” the documentation there will be a burden cost every year. The average burden hours per response are based on the assumption that the documentation will require two engineers approximately one day (at 10 hours per engineer) to develop (first year) or to review and modify (subsequent years).

Burden Estimate for Implementation of Proposed Reliability Standard EOP-010-1						
Reliability Standard	Type of Respondents	Number of Respondents¹¹	Number of Responses per	Average Burden Hours	Total Annual Burden	Total Annual Cost¹²

¹¹ This number was calculated by adding all the applicable entities while removing double counting caused

¹² The estimated hourly loaded cost (salary plus benefits) for an engineer is assumed to be \$60/hour, based on salaries as reported by the Bureau of Labor Statistics (BLS) (http://bls.gov/oes/current/naics2_22.htm). Loaded

Number		(1)	Respondent (2)	Per Response (3)	Hours (1)x(2)x(3)	
EOP-010-1 (R1)	Reliability Coordinator	16	1	20	320	\$19,200 (\$60/hr)
EOP-010-1 (R3)	Transmission Operator	183	1	20	3,660	\$219,600 (\$60/hr)
TOTAL					3,980	\$238,800

13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS

There is no start-up or other non-labor hour cost associated with this proposed rule.

14. ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT

The Regional Entities and NERC do most of the data processing, monitoring and compliance work for Reliability Standards. Any involvement by the Commission is covered under the FERC-725 collection (1902-0225) and is not part of this request or package.

The Commission does incur the costs associated with obtaining OMB clearance under the Paperwork Reduction Act for this collection. FERC estimates \$2,250 as the annual cost for this effort.¹³

15. REASONS FOR CHANGES IN BURDEN INCLUDING THE NEED FOR ANY INCREASE

The new burden is the result of the requirements to develop and maintain GMD operating procedures and processes. The Commission finds these requirements necessary to ensure that responsible entities have Operating Plans and Operating Procedures or Processes in place to mitigate the effects of geomagnetic disturbances on the Bulk-Power System.

The following table shows burden inventory for the new FERC-725S because of the new information collection requirements.

FERC-725S	Total Request	Previously Approved	Change due to Adjustment in Estimate	Change Due to Agency Discretion

costs are BLS rates divided by 0.703 and rounded to the nearest dollar (<http://www.bls.gov/news.release/ecec.nr0.htm>).

¹³ This is based on an estimate of work done by the Information Clearance team and other FERC staff as well as a small non-labor cost related to publishing material in the Federal Register.

Annual Number of Responses	199	-	-	199
Annual Time Burden (Hr)	3,980	-	-	3,980
Annual Cost Burden (\$)	-	-	-	-

16. TIME SCHEDULE FOR PUBLICATION OF DATA

There are no data publications as part of this collection

17. DISPLAY OF EXPIRATION DATE

It is not appropriate to display the expiration date because the information is not collected on a preformatted form or in any format that would allow for such a display.

18. EXCEPTIONS TO THE CERTIFICATION STATEMENT

The Commission does not use statistical methods for this collection. Therefore, the Commission does not certify that the collection uses statistical methods.