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Item No. E-4

FERC Finalizes New Reliability Standard on Geomagnetic Disturbances

The Federal Energy Regulatory Commission (FERC) voted today to support continued reliable operation of the nation's Bulk-Power System by approving a new reliability standard addressing the vulnerability of electric transmission systems to geomagnetic disturbances (GMD).

Today's final GMD rule closely follows the proposal that was issued in May 2015 and discussed in multiple rounds of filings, and a technical conference that took place in March 2016. The final rule addresses the second of a two-stage process under which the North American Electric Reliability Corporation (NERC), the Commission-approved Electric Reliability Organization, developed new GMD standards.

GMDs are caused by solar events that distort, with varying intensities, the Earth's magnetic field. These events are considered to be "high impact, low frequency" events. When they occur, GMD events can have potentially severe, widespread effects on reliable grid operation, including blackouts and damage to critical or vulnerable equipment.

The new rule approves NERC's proposed standard, but also directs NERC to develop changes to the reliability standard consistent with those that were set out in last year's proposed rule. Under the approved standard, certain transmission and generator owners, planning coordinators, and transmission planners must assess the vulnerability of their systems to a "benchmark GMD event," described as a "one-in-100-year" event. If an assessment indicates that a system does not meet the performance requirements, the responsible entity would have to develop a corrective action plan addressing how it will meet the requirements.

The standard will require entities to have system models needed to complete vulnerability assessments, to have criteria for acceptable steady state voltage performance during a benchmark GMD event, and to complete vulnerability assessments once every 60 calendar months.

Given the limited historical geomagnetic data and because scientific understanding of such disturbances is still evolving, FERC directed NERC to conduct further research on specific GMD issues. NERC is to submit a work plan and, subsequently, one or more informational filings that address specific GMD-related research areas.

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