Supporting Statement for
FERC-725G, Transmission Relay Loadability Mandatory Reliability Standards For the Bulk-Power System
As Proposed in Docket No. RM08-13-000
(A Notice of Proposed Rulemaking Issued May 21, 2009)

The Federal Energy Regulatory Commission (Commission) (FERC) is submitting a Notice of Proposed Rulemaking Rule (NOPR) that affects the requirements under the following information collection: **FERC-725G, Transmission Relay Loadability Mandatory Reliability Standards for the Bulk Power System**. FERC-725G is a new Commission data collection, (filing requirements), as contained in 18 Code of Federal Regulations, Part 40 for which the Commission seeks OMB review and approval.

Background

On August 8, 2005, The Electricity Modernization Act of 2005, (Title XII of the Energy Policy Act of 2005) (EPAct 2005), was enacted into law.[1] EPAct 2005 added a new section 215 to the Federal Power Act (FPA) and requires a Commission-certified ERO to develop mandatory and enforceable Reliability Standards, which are subject to Commission review and approval. Once approved, the Reliability Standards may be enforced by the ERO, subject to Commission oversight. (A reliability standard defines obligations or requirements of utilities and other entities that operate, plan and use the bulk power system in North America. Meeting these requirements helps to ensure the reliable planning and operation of the bulk power system. Each NERC Reliability Standard details the purpose of the standard, the entities that must comply, and the specific actions that constitute compliance and how the standard will be measured).

RM06-16-000 Final Rule, Order No. 693

On March 16, 2007, the Commission issued Order No. 693, a Final Rule that added part 40, a new part to the Commission's regulations. The Final Rule stated that this part applies to all users, owners and operators of the Bulk-Power System within the United States (other than Alaska or Hawaii). It also requires that each Reliability Standard identify the subset of users, owners and operators to which that particular Reliability Standard applies. Order No. 693 also requires that each Reliability Standard that is approved by the Commission will be maintained on the ERO's Internet website for public inspection. (The bulk power system consists of the power plants, transmission lines and substations, and related equipment and controls, that generate and move electricity in bulk to points from which local electric companies distribute the electricity to customers.)

The Commission approved 83 of 107 proposed Reliability Standards, six of the eight

1 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).

proposed regional differences, and the Glossary of Terms used in Reliability Standards as developed by the North American Electric Reliability Corporation (NERC). NERC was certified by the Commission as the Electric Reliability Organization (ERO) responsible for developing and enforcing mandatory Reliability Standards. Those Reliability Standards meet the requirements of section 215 of the FPA and Part 39 of the Commission's regulations. However, although the Commission believed that it is in the public interest to make these Reliability Standards mandatory and enforceable, the Commission also found that much work remained to be done. Specifically, the Commission believes that many of these Reliability Standards require significant improvement to address, among other things, the recommendations of the Blackout Report. Therefore, pursuant to section 215(d)(5), the Commission required the ERO to submit significant improvements to 56 of the 83 Reliability Standards that are being approved as mandatory and enforceable. The remaining 24 Reliability Standards remain pending at the Commission until further information is provided.

RM08-13-000 NOPR

On May 21, 2009 the Commission issued a NOPR proposing to approve the Reliability Standard PRC-023-1 "Transmission Relay Loadability Reliability Standard". PRC-023-1 was not among the original Reliability Standards approved by the Commission in Order No. 693. This proposed Reliability Standard requires certain transmission owners, generator owners, and distribution providers to set protective relays according to specific criteria in order to ensure that the relays reliably detect and protect the electric network from all fault conditions, but are to not limit transmission loadability or interfere with the system operator's ability to protect system reliability.

Protective relays, also know as primary relays are one type of equipment used to detect, operate and initiate the removal of faults on electric systems. Protective relays read electrical measurements (such as current, voltage and frequency) and remove from service any system element that suffers a fault and threatens to damage equipment or interfere with effective operation of the system. Protective relays are applied to protect specific system elements and are set to recognize certain electrical measurements as indicating a fault.

Impedance relays are the most common type of relays used to protect transmission lines. Impedance relays continuously measure local voltage and current on the protected transmission line and operate when the measured magnitude and phase of the impedance (voltage/current) falls within the settings or reach of the relay.[2] Impedance relays can also provide backup protection and protection against remote circuit breaker failure.

2 The "reach" of the relay refers to the length of the transmission line for which the relay is set to protect and is generally used in reference to impedance relays. Proposed Reliability Standard PRC-023-1 establishes criteria to be used for setting phase impedance, as well as, overcurrent relays dependent on the system configuration where the relay is applied. The system configurations are described in sub-requirements R1.1 through R1.13. Further, as impedance relays, also known as distance relays, detect changes in currents (I*) and voltages (V*) to determine the apparent impedance (Z*) according to the relationship of Z*=V*/I* of the line, impedance are directionally sensitive. They are forward looking into the lines that they are protecting, i.e., they protect against faults in front of and not behind the relay's installed location.

The sequence in which protective relays operate is important. For example, on a transmission line, coordination of protection through distance settings and time delays ensures that the relay closest to a fault can operate before a relay farther away from the fault.[3] If the more distant relay operates first, it will disconnect both the transmission equipment necessary to remove the fault and "healthy" equipment that should remain in service.

Reliability Standard PRC-023-1 requires certain transmission owners, generator owners, and distribution providers to set certain protective relays according to specific criteria to ensure that they detect only faults for which they must operate and do not operate unnecessarily during non-fault load conditions.

A. Justification

1. CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY

With the passage of the Energy Policy Act of 2005 (EPAct 2005) Congress entrusted the Commission with the authority to approve and enforce rules to assure reliability of the Nation's Bulk Power System. Section 1211 of EPAct 2005 created a new section 215 to the Federal Power Act (FPA), which provides for a system of mandatory and enforceable Reliability Standards. Section 215(d)(1) of the FPA provides that the Electric Reliability Organization (ERO) must file each Reliability Standard or modification to a Reliability Standard that it proposes to be made effective, i.e., mandatory and enforceable, with the Commission. The law mandates that all users, owners, and operators of the Bulk-Power System in the United States will be subject to the Commission-approved Reliability Standards. On April 4, 2006, and as later modified and supplemented, the ERO submitted 107 Reliability Standards for Commission approval pursuant to section 215(d) of the FPA.

Section 215(d)(2) of the FPA provides that the Commission may approve, by rule or order, a proposed Reliability Standard or modification to a proposed Reliability Standard if it meets the statutory standard for approval, giving due weight to the technical expertise of the ERO. Alternatively, the Commission may remand a Reliability Standard pursuant to section 215(d)(4) of the FPA. Further, the Commission may order the ERO to submit to the Commission a proposed Reliability Standard or a modification to a Reliability Standard that addresses a specific matter if the Commission considers such a new or modified Reliability Standard appropriate to "carry out" section 215 of the FPA.[4] The Commission's action in this NOPR is based on its authority pursuant to section 215 of the FPA.

Recent Events

3 "Coordination of protection" is defined by the Institute of Electrical and Electronics Engineers (IEEE) Std. C37.113-1999, "IEEE Guide for Protective Relay Applications to Transmission Lines" as "[t]he process of choosing settings or time delay characteristics of protective devices, such that operation of the devices will occur in a specified order to minimize customer service interruption and power system isolation due to a power system disturbance."

4 See 16 U.S.C. 824o(d)(5) (2006).

On August 14, 2003, a blackout that began in Ohio affected significant portions of the Midwest and Northeast United States, and Ontario, Canada (2003 blackout). This blackout affected an area with an estimated 50 million people and 61,800 megawatts of electric load.[5] The subsequent investigation and report completed by the U.S.-Canada Power System Outage Task Force (Task Force) concluded that a substantial number of lines disconnected when backup distance and phase relays operated under non-fault conditions. The Task Force determined that the unnecessary operation of these relays contributed to cascading outages at the start of the blackout and accelerated the geographic spread of the cascade.[6] Seeking to prevent or minimize the scope of future blackouts, both the Task Force and NERC made recommendations to ensure that protective relays do not contribute to future blackouts.

The Task Force determined that one of the principal reasons why cascading outages spread beyond Ohio was the operation of zone 3/zone 2 relays in response to overloads rather than true faults.[7] The Task Force identified fourteen 345 kV and 138 kV transmission lines that disconnected because of zone 3/zone 2 relays applied as remote circuit breaker failure and backup protection. Among these relays were several zone 2 relays in Michigan that were set to overreach their protected lines by more than 200 percent without any intentional time delay.[8] The Task Force stated that although these and the other relays operated according to their settings, they operated so quickly that they impeded the natural ability of the electric system to hold together and did not allow time for operators to try to stop the cascade.[9] The Task Force described the unnecessary operation of these relays as the "common mode of failure that accelerated the geographic spread of the cascade."[10] The Task Force also indicated that as the cascade progressed beyond Ohio it spread because of dynamic power swings and the resulting instability.[11]

NERC proposes that PRC-023-1 apply to transmission owners, generator owners, and distribution providers with load-responsive phase protection systems as described in Attachment A to PRC-023-1, applied to: (1) all transmission lines and transformers with low-voltage terminals operated or connected at 200 kV and above; and (2) those transmission lines and transformers with low-voltage terminals operated or connected between 100 kV and 200 kV that are designated by planning coordinators as critical to the reliability of the bulk electric system. The proposed Reliability Standard also prescribes the settings that should be used when it is appropriate to use a 0.85 per unit voltage and a power factor angle of 30 degrees. NERC states that PRC-023-1 has a broader application than the recommendations in the NERC and Task

5 U.S.-Canada Power System Outage Task Force, Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations, (April 2004) (Final Blackout Report), available at http://www.ferc.gov/industries/electric/indus-act/blackout.asp.
6 Id. at 80.
7 Id. at 73.
8 Id. at 80.
9 Id.
10 Id.
11 Id. at 81.

Force final reports, which address only zone 3/zone 2 relays, because other load-responsive relays were found to have contributed to the 2003 blackout.

Under the proposed Reliability Standard, protective relay settings must provide essential facility protection for faults without preventing operation of the Bulk-Power System in accordance with established Facility Ratings.[12] If an essential fault protection imposes a more constraining limit on the system, PRC-023-1 requires that the Facility Rating reflect that limit. Proposed Reliability Standard PRC-023-1 applies to any protective functions that could operate with or without time delay, on load current, including but not limited to: phase distance, out-of-step tripping, switch-on-to-fault, overcurrent relays, and communication-aided protection applications. It also requires evaluation of out-of-step blocking schemes[13] to ensure that they do not operate for faults during specified loading conditions.[14]

Pursuant to section 215(d)(2) of the FPA, the Commission proposes to approve Reliability Standard PRC-023-1 as just, reasonable, not unduly discriminatory or preferential, and in the public interest. The Commission agrees with the ERO that PRC-023-1 is a significant step toward improving the reliability of the Bulk-Power System in North America because it requires that protective relay settings provide essential facility protection for faults, while allowing the Bulk-Power System to be operated in accordance with established Facility Ratings.

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

Prior to enactment of section 215, FERC had acted primarily as an economic regulator of wholesale power markets and the interstate transmission grid. In this regard, the Commission acted to promote a more reliable electric system by promoting regional coordination and planning of the interstate grid through regional independent system operators (ISOs) and regional transmission organizations (RTOs), adopting transmission pricing policies that provide price signals for the most reliable and efficient operation and expansion of the grid, and providing pricing incentives at the wholesale level for investment in grid improvements and assuring recovery of costs in wholesale transmission rates.

The passage of the Electricity Modernization Act of 2005 added to the Commission's efforts identified above, by giving it the authority to strengthen the reliability of the interstate grid through the grant of new authority pursuant to section 215 of the FPA which provides for a system of mandatory Reliability Standards developed by the ERO, established by FERC, and enforced by the ERO and Regional Entities.

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12 As defined in NERC's Glossary of Terms Used in Reliability Standards.

13 "Out-of-step blocking" refers to a protection system that is capable distinguishing between a fault and a power swing. If a power swing is detected, the protection system, "blocks," or prevents the tripping of its associated transmission facilities.

14 See PRC-023-1 Attachment A, Item 1.

As part of FERC's efforts to promote grid reliability, the Commission created a new office, the Office of Electric Reliability. One task of this office has been to participate in North American Reliability Council's (NERC's) Reliability readiness reviews of balancing authorities, transmission operators and reliability coordinators in North America to determine their readiness to maintain safe and reliable operations. FERC's Office of Reliability has also been engaged in studies and other activities to assess the longer-term and strategic needs and issues related to power grid reliability. Specifically, OER performs the following functions:

- Monitor and participate in the standards development process to help improve the quality of reliability standards proposed to the Commission. Review filed standards to make recommendations as to whether the Commission should approve or remand it, or whether the Commission should direct the Electric Reliability Organization (ERO) to create a new standard or revise an existing standard.

- Monitor the compliance of the users, owners, and operators of the bulk power system with the reliability standards.

- Lead or join in periodic and unscheduled reviews and audits of the ERO, Regional Entities, and users, owners, and operators to determine the effectiveness of their reliability programs and their compliance with reliability standards.

- Lead or join in analysis and investigations concerning complaints, blackouts, near-misses, etc., on the bulk power system to determine if reliability standards were violated, changes to the reliability standards are warranted, or if the reliability standards are adequate for their intended purpose.

- Oversee the ERO's resource adequacy assessments to identify and investigate constraints on the bulk power system.

- Engage in the regional planning processes to determine if proposed and approved projects are sufficient to meet the reliability requirements.

- Work with other internal and external groups to evaluate elements that may impact the bulk power system (such as fuel constraints, generation and transmission siting and permitting, congestion, rate recovery for reliability expenditures, etc.) and cost recovery options for potential solutions.

The Commission assists in creating a more reliable electric system by:

- Fostering regional coordination and planning of the interstate grid through independent system operators and regional transmission organizations;

- Adopting transmission policies that provide price signals for the most reliable and efficient operation and expansion of the grid; and
- Providing pricing incentives at the wholesale level for investment in grid improvements and ensuring opportunities for cost recovery in wholesale transmission rates.

Proposed Reliability Standard PRC-023-1 consists of three compliance requirements.[15] Requirement R1 and R2 apply to transmission owners, generator owners, and distribution providers with transmission lines or transformers operated at or with low-voltage terminals connected at 200 kV and above. Requirement R3 applies to planning coordinators.

Requirement R1 states that each transmission owner, generator owner, and distribution provider subject to the proposed Reliability Standard shall use one of the criteria prescribed in sub-Requirements R1.1 through R1.13 for any specific circuit terminal to prevent its phase protective relay settings from limiting transmission system loadability while maintaining reliable protection of the bulk electric system for all fault conditions.[16]

Requirement R2 states that transmission owners, generator owners, and distribution providers that use a circuit with the protective relay settings determined by the practical limitations described in sub-Requirements R1.6 through R1.9, R1.12, or R1.13 must use the calculated circuit capability as the circuit's Facility Rating and must obtain the agreement of the planning coordinator, transmission operator, and reliability coordinator with the calculated circuit capability.

Requirement R3 requires planning coordinators to designate which transmission lines and transformers with low-voltage terminals operated or connected between 100 kV and 200 kV are critical to the reliability of the bulk electric system in order to prevent a cascade and therefore will be subject to Requirement R1.[17] Sub-Requirements R3.1 and R3.1.1 specify that planning coordinators must determine these facilities through a process that considers input from adjoining planning coordinators and affected reliability coordinators. Sub-Requirements R3.2 and R3.3 require planning coordinators to maintain a list of designated facilities and provide it to reliability coordinators, transmission owners, generator owners, and distribution providers within 30 days of its initial establishment, and within 30 days of any subsequent change.

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15 NERC has also filed a document entitled: "PRC-023 Reference – Determination and Application of Practical Relaying Loadability Ratings." NERC states that this document explains the rationale behind the requirements in the proposed Reliability Standard and provides the calculation methodology to help entities comply. NERC states that the reference document is presented for information only and does not request that the Commission take action on it.

16 Requirement R1 also requires each transmission owner, generator owner, and distribution provider to evaluate relay loadability at 0.85 per unit voltage and a power factor angle of 30 degrees.

17 The Commission notes that "planning coordinator" is an undefined entity in the NERC Glossary of Terms Used in Reliability Standards. The Commission understands that the ERO has proposed to implement the term "planning coordinator" in its glossary in a separate proceeding currently before the Commission.

NERC proposes that PRC-023-1 be made effective consistent with the implementation plan specified in proposed Reliability Standard.[18] That plan proposes that Requirements R1 and R2 be made effective on the beginning of the first calendar quarter following applicable regulatory approvals. For smaller facilities deemed critical to system reliability that are subject to Requirements R1 and R2, NERC proposes an effective date of the beginning of the first calendar quarter 39 months after applicable regulatory approvals. NERC also proposes that, upon being notified that a facility has been added to the Critical Facilities list, the facility owner will have 24 months to comply with R1 and its sub-Requirements. For Requirement R3, NERC proposes an effective date of 18 months following applicable regulatory approvals. NERC states that the technical requirements of the proposed Reliability Standard have been voluntarily implemented by most applicable entities starting in January 2005.

NERC also proposes to include a footnote to the "Effective Dates" section that states that entities that have received temporary exceptions approved by the NERC Planning Committee (via the NERC System and Protection and Control Task Force) before approval of the proposed Reliability Standard shall not be found in non-compliance with the Reliability Standard or receive sanctions if: (1) the approved requests for temporary exceptions include a mitigation plan (including schedule) to come into full compliance and (2) the non-conforming relay settings are mitigated according to the approved mitigation plan.

The Commission emphasizes, however, that compliance with PRC-023-1 does not guarantee compliance with the requirements of other Reliability Standards or guarantee that applicable entities have achieved their reliability goals. Reliability Standards are intended to provide coordinated and complementary requirements that ensure reliable operation of the Bulk-Power System. Consequently, they cannot be implemented in a vacuum and must be implemented with regard to the requirements of other Reliability Standards. For example, because Protection System settings and coordination of protection are determined as an output of and in concert with the Transmission Planning Reliability Standards (TPL Reliability Standards)[19] and other Protection and Control Reliability Standards, entities that are subject to PRC-023-1 must implement its Requirements with other applicable Reliability Standards in view. Thus, protective relay settings determined and applied in accordance with the requirements of PRC-023-1 must be included in determining system performance, System Operating Limits, and Interconnection Reliability Operating Limits, and must be coordinated with other protective relay settings as required by the applicable Reliability Coordination (IRO), Transmission Operations (TOP), and TPL Reliability Standards.[20]

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18 On February 2, 2009, NERC filed an erratum to its petition to address an inadvertent reference to the requested effective date. NERC requests that the Reliability Standard be made effective consistent with the implementation plan accompanying the Reliability Standard.

19 For example, the critical clearing time needed to achieve the criteria identified in Table 1 of the TPL Reliability Standards would be an input to the coordination of Protection Systems in Reliability Standard PRC-001-1.

20 See Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, FERC Stats. & Regs. ¶ 31,242, at P 1435, order on reh'g, Order No. 693-A, 120 FERC ¶ 61,053 (2007) ("Protection systems on Bulk-Power System elements are an integral part of reliable operations . . . . In deriving [System Operating Limits] and [Interconnection Reliability Operating Limits], moreover, the

Moreover, nothing in PRC-023-1 diminishes the obligation of entities subject to it to choose Protection Systems that satisfy the reliability performance requirements of the TPL Reliability Standards. Once an entity subject to PRC-023-1 chooses an appropriate Protection System that has protective relays subject to PRC-023-1, the relay settings of that system must be set in accordance with PRC-023-1. Only in this way can the entity satisfy its obligations under other Reliability Standards and comply with the requirement in PRC-023-1 to set protective relays while "maintaining reliable protection of the bulk electric system for all fault conditions."[21]

The Transmission Relay Loadability Reliability Standard, if adopted, would implement the Congressional mandate of the Energy Policy Act of 2005 to develop mandatory and enforceable Reliability Standards to better ensure the reliability of the nation's Bulk-Power System. Specifically, the proposed Reliability Standard would ensure that protective relays are set according to specific criteria to ensure that relays reliably detect and protect the electric network from all fault conditions, but do not limit transmission loadability or interfere with system operator's ability to protect system reliability.

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

The Commission has developed the capability for electronic filing of all major submissions to the Commission. In Order No. 619, the Commission established an electronic filing initiative that permits over 40 qualified types of documents to be filed over the Internet to its website. This includes the ability to submit standard forms using software that is readily available and easy to use. Electronic filing, combined with electronic posting and service over the web site, permits staff and the public to obtain filings in a faster and more efficient manner. The Commission is working to expand the qualified types of documents that can be filed over the Internet.

On November 15, 2007, the Commission issued a Final Rule, RM07-16-000, Order No. 703, "Filing via the Internet" 73 Fed. Reg. 65659 (November 23, 2007) revising its regulations for implementing the next version of its system for filing documents via the Internet, eFiling 7.0. The Final Rule allows the option of filing all documents in Commission proceedings through the eFiling interface except for specified exceptions, and of utilizing online forms to allow "documentless" interventions in all filings and quick comments in P (Hydropower Project), PF (Pre-Filing NEPA activities for proposed gas pipelines), and CP (Certificates for Interstate Natural Gas Pipelines) proceedings.

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functions, settings, and limitations of protection systems are recognized and integrated.").

21 PRC-023-1, Requirement R1.

In order that the Commission is able to perform its oversight function with regard to Reliability Standards that are proposed by the ERO and established by the Commission, it is essential that the Commission receive timely information regarding all or potential violations of Reliability Standards. While section 215 of the FPA contemplates the filing of the record of an ERO or Regional Entity enforcement action, FERC needs information regarding violations and potential violations at or near the time of occurrence. Therefore, it is working with the ERO and regional reliability organizations to use electronic filing of information so the Commission receives timely information.

Proposed Reliability Standard PRC-023-1 does not require responsible entities to file information with the Commission. However, the Reliability Standard requires applicable entities
to develop and maintain certain information subject to audit by a Regional Entity. In particular, transmission owners, generator operators and distribution operators must "have evidence" to show that each of the relays are set to one of the criteria in the Reliability Standard, transmission owners, generator operators and distribution providers must have evidence that a facility rating was agreed to by the relevant planning authority, transmission operator and reliability coordinator. In addition, the regulations established by Order No. 693 require that each Reliability Standard that is approved by the Commission will be maintained on the ERO's Internet website for public inspection.

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

Filing requirements are periodically reviewed as OMB review dates arise or as the Commission may deem necessary in carrying out its responsibilities under the FPA in order to eliminate duplication and ensure that filing burden is minimized. There are no similar sources of information available that can be used or modified for these reporting purposes. The filing requirements contained in FERC-725G will incorporate NERC's requirements. However, all reliability requirements will be subject to FERC approval along with the requirements developed by Regional Entities and Regional Advisory Bodies and the ERO.

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

FERC-725G is a filing requirement concerning the implementation of a Reliability Standard by the Electric Reliability Organization and its responsibilities as well as those of Regional Entities and Regional Advisory Bodies in the development of Reliability Standards. The Electricity Modernization Act specifies that the ERO and Regional Entities are not departments, agencies or instrumentalities of the United States government and will not be like most other businesses, profit or not-for–profit. Congress created the concept of the ERO and

Regional Entities as select, special purpose entities that will transition the oversight of the Bulk-Power System reliability from voluntary, industry organizations to independent organizations subject to Commission jurisdiction.

As noted above, Section 215(b) of the FPA requires all users, owners and operators of the Bulk-Power System to comply with Commission-approved Reliability Standards. Each proposed Reliability Standard submitted for approval by NERC applies to some subset of users, owners and operators. However, the Commission believes that in achieving compliance with the Reliability Standards, the burden could be minimized for smaller entities by having them join a joint action agency or a generation or transmission cooperative or similar organization that would assume responsibility for compliance on behalf of its members. In addition, the Commission is relying on the registry established by NERC that spells out the criteria of who will be subject to the Reliability Standards.

In Order No. 693, the Commission adopted policies to minimize the burden on small entities, including approving the ERO compliance registry process to identify those entities responsible for complying with mandatory and enforceable Reliability Standards. The ERO registers only those distribution providers or load serving entities that have a peak load of 25 MW or greater and are directly connected to the bulk electric system or are designated as a responsible entity as part of a required under-frequency load shedding program or a required under-voltage load shedding program. Similarly, for generators, the ERO registers only individual units of 20 MVA or greater that are directly connected to the bulk electric system, generating plants with an aggregate rating of 75 MVA or greater, any blackstart unit material to a restoration plan, or any generator that is material to the reliability of the Bulk-Power System. Further, the ERO will not register an entity that meets the above criteria if it has transferred responsibility for compliance with mandatory Reliability Standards to a joint action agency or other organization. The Commission estimated that the Reliability Standards approved in Order No. 693 would apply to approximately 682 small entities (excluding entities in Alaska and Hawaii), but also pointed out that the ERO's Compliance Registry Criteria allow for a joint action agency, generation and transmission (G&T) cooperative or similar organization to accept compliance responsibility on behalf of its members. Once these organizations register with the ERO, the number of small entities registered with the ERO will diminish and, thus, significantly reduce the impact on small entities.[22]

Based on available information regarding NERC's compliance registry, approximately 525 entities will be responsible for compliance with the new Reliability Standard. The Commission has certified in the NOPR that the proposed Reliability Standard will not have a significant adverse impact on a substantial number of small entities. Most of the entities, i.e.,

22 To be included in the compliance registry, the ERO determines whether a specific small entity has a material impact on the Bulk-Power System. If these small entities should have such an impact then their compliance is justifiable as necessary for Bulk-Power System reliability.

transmission owners, generator owners, distribution providers, and "planning coordinators," or alternatively "planning authorities," to which the requirements of this rule would apply do not fall within the definition of small entities.[23]

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

The Electric Reliability Organization (ERO) will conduct periodic assessments of the reliability and adequacy of the Bulk-Power System in North America and report its findings to the Commission, the Secretary of Energy, Regional Entities, and Regional Advisory Bodies annually or more frequently if so ordered by the Commission. The ERO and Regional Entities will report to FERC on their enforcement actions and associated penalties and to the Secretary of Energy, relevant Regional entities and relevant Regional Advisory Bodies annually or quarterly in a manner to be prescribed by the Commission. If the information were conducted less frequently or discontinued, the Commission would be placed at a disadvantage in not having the data necessary for monitoring its mandated obligations.

7. EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION COLLECTION

FERC-725G is a filing requirement necessary to comply with the applicable provisions of the Electricity Modernization Act of 2005 and section 215 of the Federal Power Act.

In accordance with section 39.5 of the Commission's regulations, the ERO must file each Reliability Standard or a modification to a Reliability Standard with the Commission. The filing is to include a concise statement of the basis and purpose of the proposed Reliability Standard, either a summary of the Reliability development proceedings conducted by the ERO or a summary of the Reliability Standard development proceedings conducted by a Regional Entity together with a summary of the Reliability Standard review proceedings of the ERO and a demonstration that the proposed Reliability Standard is "just, reasonable, not unduly discriminatory or preferential, and in the public interest.

The ERO must make each effective Reliability Standard available on its Internet website. Copies of the effective Reliability Standards will be available from the Commission's Public Reference Room.

The Commission requires an original and seven copies of the proposed Reliability Standard or to the modification to a proposed Reliability Standard to be filed. This exceeds the

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23 The RFA definition of "small entity" refers to the definition provided in the Small Business Act (SBA), which defines a "small business concern" as a business that is independently owned and operated and that is not dominant in its field of operation. See 15 U.S.C. 632 (2006). According to the SBA, a small electric utility is defined as one that has a total electric output of less than four million MWh in the preceding year.

OMB guidelines in 5 CFR 1320.5(d) (2) (iii) because of the number of divisions within the Commission that must analyze the standard and corresponding reports in order to carry out the regulatory process. The original is docketed, imaged through e-Library and filed as a permanent record for the Commission. The remaining copies are distributed to the necessary offices of the Commission with one being placed immediately in the Commission's Public Reference Room for public use. Since the time frame for responses to the request is very limited, the multiple hard copies are necessary for the various offices to review, analyze and prepare the final order at the same time. The electronic filing initiative at FERC, may in the near future, allow for relief of the number of copies, but at this time, the program turn around time for docketing, imaging and retrieval does not permit sufficient time to review the filings and to prepare the necessary documents for the processing of these filings.

In addition, individual reliability standards may have records retention schedules that exceed OMB guidelines in 5 CFR 1320.5(d)(2)(iv) of not retaining records for no longer than three years. The Commission is not prescribing a set data retention period to apply to all Reliability Standards.

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

Each Commission rulemaking (both NOPRs and Final Rules) are published in the Federal Register, thereby affording all public utilities and licensees, state commissions, Federal agencies, and other interested parties an opportunity to submit data, views, comments or suggestions concerning the proposed collection of data. The notice procedures also allow for public conferences to be held as required. Comments are due 60 days after publication in the Federal Register.

As noted above, a Task Force was formed to investigate the August 14, 2003 blackout. NERC conducted its own investigation into the 2003 blackout and developed recommendations to prevent and mitigate future cascades. Recommendation 8A of the NERC Report addresses the need to evaluate zone 3 relays to determine whether they will operate under extreme emergency conditions:

> All transmission owners shall, no later than September 30, 2004, evaluate the zone 3 relay settings on all transmission lines operating at 230 kV and above for the purpose of verifying that each zone 3 relay is not set to trip on load under extreme emergency conditions[]. In each case that a zone 3 relay is set so as to trip on load under extreme conditions, the transmission operator shall reset, upgrade, replace, or otherwise mitigate the overreach of those relays as soon as possible and on a priority basis, but no later than December 31, 2005. Upon completing analysis of its application of zone 3 relays, each transmission owner may no later than December 31, 2004 submit justification to NERC for applying zone 3 relays outside of these recommended parameters. The Planning Committee shall review such exceptions to ensure they do not increase the risk of

> widening a cascading failure of the power system.[24]

In Recommendation No. 21A of the Final Blackout Report, the Task Force recommended that NERC go further than it had proposed in its report:

> NERC [should] broaden the review [described in Recommendation 8A of the NERC final report on the 2003 blackout] to include operationally significant 115 kV and 138 kV lines, e.g., lines that are part of monitored flowgates or interfaces. Transmission owners should also look for zone 2 relays set to operate like zone 3 [relays].[25]

NERC has informed the Commission that PRC-023-1 responds to these recommendations.

9. EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS

No payments or gifts have been made to respondents.

10. DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS

The Commission generally does not consider the data filed to be confidential. However, certain standards may have confidentiality provisions in the standard.

Section 215(e) of the FPA as well as section 39.7(d) of the Commission's regulations regarding enforcement of Reliability Standards provides for public notice and opportunity for a hearing with respect to both the ERO (or Regional Entity) enforcement proceedings and proceedings before the Commission involving review of a proposed penalty for violation of a reliability standard. Section 39.7(b)(4) provides a limited exception to this notice requirement and allow non-public proceedings for enforcement actions that involve a Cybersecurity Incident,[26] unless FERC determines on a case-by-case basis that such protection is not necessary. The Commission has in place procedures to prevent the disclosure of sensitive information, such as the use of protective orders and rules establishing critical energy infrastructure information (CEII). However, the Commission believes that the specific, limited area of Cybersecurity Incidents requires additional protections because it is possible that system security and reliability would be further jeopardized by the public dissemination of information involving incidents that compromised the cybersecurity system of a specific user, owner or operator of the Bulk-Power System. In addition, additional information provided with a filing may be submitted with a specific request for confidential treatment to the extent permitted by law and considered pursuant to 18 C.F.R. 388.112 of FERC's regulations.

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24 August 14, 2003 Blackout: NERC Actions to Prevent and Mitigate the Impacts of Future Cascading Blackouts 13 (2004) (NERC Report).

25 Final Blackout Report at 158.

26 The term "Cybersecurity Incident" is defined as a malicious act or suspicious event that disrupts, or was an attempt to disrupt, the operation of those programmable electronic devices and communications networks including hardware, software and data that are essential to the Reliable Operation of the Bulk-Power System.

11. PROVIDE ADDITIONAL JUSTIFICATION FOR ANY QUESTIONS OF A SENSITIVE NATURE THAT ARE CONSIDERED PRIVATE.

There are no questions of a sensitive nature that are considered private.

12. ESTIMATED BURDEN OF COLLECTION OF INFORMATION

This NOPR proposes to approve one new Reliability Standard developed by NERC as the ERO. As stated above, proposed Reliability Standard PRC-23-1 does not require responsible entities to file information with the Commission. The Reliability Standard does require applicable entities to develop and maintain certain information, subject to audit by a regional entity. The Commission's burden estimate below regarding the number of respondents is based on the NERC Compliance Registry (see item no. 5), as of March 3, 2009, NERC has registered 568 distribution providers, 825 generator owners and 324 transmission owners. In addition, NERC has registered 79 planning authorities.[27] However, this Reliability Standard applies to only those transmission owners, generator owners and distribution providers with load-response phase protection systems applied to transmission lines operated at 200kV and above – and other criteria set forth in the Applicability section of the Standard. Further, some entities are registered for multiple functions, so there is some overlap between the entities registered as distribution providers, transmission owners, and generator owners. The Commission estimates that the Public Reporting for the NOPR is as follows:

Data Collection	No. of Respondents	No. of Responses	Hours Per Respondent	Total Annual Hours
FERC-725G				
M1 - TOs, GOs and DPs* must "have evidence" to show that each of its transmission relays are set according to Requirement R1	450	1	Reporting: 0	Reporting: 0
			Recordkeeping: 100	Recordkeeping: 45,000
M2 – Certain TOs, GOs and	166	1	Reporting: 0	Reporting: 0

27 The term "planning authority" is defined as the responsible entity that coordinates and integrates transmission facility and service plans, resource plans, and protection systems (protective relays, associated communication systems, voltage and current sensing devices, station batteries and DC control circuitry).

DPs must have evidence that a facility rating was agreed to by PA, TOP and RC			Recordkeeping: 10	Recordkeeping: 1,660
M3 - PC must document process for determining critical facilities and (2) a current list of such facilities	79	1	175	13,825
Total				60,485

Total Annual hours for Collection: (Reporting + recordkeeping)= 60,485hours.

*TO – Transmission Owners; GO – Generator Owner; DP – Distribution Provider; PA – Planning Authority; PC – Planning Coordinators; RC – Reliability Coordinator; TOP – Transmission Operators.

13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS

Information Collection Costs: The Commission seeks comments on the costs to comply with these requirements. It has projected the average annualized cost for the total hours as follows:

Recordkeeping = 60,485@ $40/hour = $2,419,400.

Labor (file/record clerk @ $17 an hour + supervisory @ $23 an hour)

Total costs = $2,419,400.

14. ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT

The estimate of the cost to the Federal Government is based on salaries for professional and clerical support, as well as direct and indirect overhead costs. Direct costs include all costs directly attributable to providing this information, such as administrative costs and the cost for information technology. Indirect or overhead costs are costs incurred by an organization in support of its mission. These costs apply to activities which benefit the whole organization rather than anyone particular function or activity.

Initial Estimates anticipate that 2.5 FTE's will review this Reliability Standard and its requirements. The Commission's total cost is 2.5 x $128,289 = $320,722.50.[28]

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

This NOPR proposes to approve one new Reliability Standard developed by NERC as the ERO. Section 215 of the FPA authorizes the ERO to develop Reliability Standards to provide for the operation of the Bulk-Power System. Pursuant to the statute, the ERO must submit to the Commission for approval each Reliability Standard that it proposes to be made effective. The Transmission Relay Loadability Reliability Standard, if adopted, would implement the Congressional mandate of the Energy Policy Act of 2005 to develop mandatory and enforceable Reliability Standards to better ensure the reliability of the nation's Bulk-Power System. Specifically, PRC-023-1 will ensure that protective relays are set according to specific criteria to ensure that relays reliably detect and protect the electric network from all fault conditions, but do not limit transmission loadability or interfere with system operator's ability to protect system reliability.

16. TIME SCHEDULE FOR THE PUBLICATION OF DATA

The filed proposed Reliability Standards are available on the Commission's eLibrary document retrieval system (http://elibrary.ferc.gov/idmws/search/fercgensearch.asp) in Docket No. RM08-13-000 and in addition, the Commission requires that all Commission-approved Reliability Standards be available on the ERO's website, with an effective date, (http://www.nerc.com/~filez/nerc_filings_ferc.html) .

Copies of the filings are made available to the public within two days of submission to FERC via the Commission's web site. There are no other publications or tabulations of the information.

17. DISPLAY OF THE EXPIRATION DATE

It is not appropriate to display the expiration date for OMB approval of the information collected. The information will not be collected on a standard, preprinted form which would avail itself to that display. Rather the Electric Reliability Organization must prepare and submit filings that reflect unique or specific circumstances related to the Reliability Standard. In addition, the information contains a mixture of narrative descriptions and empirical support that varies depending on the nature of the transaction.

18. EXCEPTIONS TO THE CERTIFICATION STATEMENT

28 An FTE = Full Time Employee. The $128,298 "cost" consists of approximately $102,491.59 in salaries and benefits and $25,805.74 in overhead. The Cost estimate is based on the estimated annual allocated cost per Commission employee for Fiscal Year 2008.

Item No. 19(g) (vi) see Instruction No. 17 above for further elaboration. In addition, the data collected for this reporting requirement is not used for statistical purposes. Therefore, the Commission does not use as stated in item no. 19(i) "effective and efficient statistical survey methodology." The information collected is case specific to each Reliability Standard.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS.

This is not a collection of information employing statistical methods.