

Supporting Statement for

**FERC-725I, Mandatory Reliability Standards for the Northeast Power Coordinating Council**

The Federal Energy Regulatory Commission (Commission or FERC) requests that the Office of Management and Budget (OMB) review and approve **FERC-725I, Mandatory Reliability Standards for the Northeast Power Coordinating Council**, for a three year period. There are no changes to the reporting requirements.

**A. Justification**

**1. CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY**

In the Energy Policy Act of 2005 (EPAcT 2005), Congress entrusted the Commission with a major new responsibility to oversee mandatory, enforceable Reliability Standards for the Nation’s Bulk-Power System (excluding Alaska and Hawaii). This authority is in section 215 of the Federal Power Act (FPA). Section 215 requires the Commission to select an Electric Reliability Organization (ERO) that is responsible for proposing, for Commission review and approval, Reliability Standards or modifications to existing Reliability Standards to help protect and improve the reliability of the Nation’s Bulk-Power System. The Commission has certified the North American Electric Reliability Corporation (NERC) as the ERO. The Reliability Standards apply to the users, owners and operators of the Bulk-Power System and become mandatory and enforceable in the United States only after Commission approval. The ERO also is authorized to impose, after notice and opportunity for a hearing, penalties for violations of the Reliability Standards, subject to Commission review and approval. The ERO may delegate certain responsibilities to Regional Entities, subject to Commission approval.

The Commission may approve proposed Reliability Standards or modifications to previously approved standards if it finds them “just, reasonable, not unduly discriminatory or preferential, and in the public interest.”<sup>1</sup> The Commission itself does not have authority to modify proposed standards. Rather, if the Commission disapproves of a proposed standard or modification, section 215 requires the Commission to remand it to the ERO for further consideration. The Commission, upon its own motion or upon complaint, may direct the ERO to submit a proposed standard or modification on a

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<sup>1</sup> 16 U.S.C. 824o(d)(3).

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specific matter but it does not have the authority to modify or author a standard and must depend upon the ERO to do so.

Reliability Standards that the ERO proposes to the Commission may include Reliability Standards that are developed by a Regional Entity.<sup>2</sup> On April 19, 2007, the Commission approved delegation agreements between NERC and eight Regional Entities, including NPCC.<sup>3</sup> In the Delegation Agreement Order, the Commission accepted NPCC as a Regional Entity and accepted NPCC's Standards Development Manual, which sets forth the process for NPCC's development of regional Reliability Standards.<sup>4</sup> The NPCC region is a less than interconnection-wide region, and its standards apply only to that part of the Eastern Interconnection within the NPCC geographical footprint.

In Order No. 672, the Commission urged uniformity of Reliability Standards, but recognized a potential need for regional differences.<sup>5</sup> Accordingly, the Commission stated that:

As a general matter, we will accept the following two types of regional differences, provided they are otherwise just, reasonable, not unduly discriminatory or preferential and in the public interest, as required under the statute: (1) a regional difference that is more stringent than the continent-wide Reliability Standard, including a regional difference that addresses matters that the continent-wide Reliability Standard does not; and (2) a regional Reliability Standard that is necessitated by a physical difference in the Bulk-Power System.<sup>6</sup>

On March 16, 2007, the Commission issued Order No. 693, approving 83 of the 107 Reliability Standards filed by the ERO.<sup>7</sup> In that order, the Commission determined that it would not take action on certain proposed Reliability Standards that required supplemental information from regional reliability organizations. Such Reliability Standards refer to regional criteria or procedures that had not been submitted to the Commission for approval and, as such, are referred to as "fill-in-the-blank" standards. Reliability Standard PRC-002-1 (Define Regional Disturbance Monitoring and

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<sup>2</sup> *Id.* § 824o(e)(4).

<sup>3</sup> See *North American Electric Reliability Corp.*, 119 FERC ¶ 61,060, at P 316-350 (Delegation Agreement Order), *order on reh'g*, 120 FERC ¶ 61,260 (2007).

<sup>4</sup> *Id.* P 302.

<sup>5</sup> *Rules Concerning Certification of the Electric Reliability Organization; Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, at P 290, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006).

<sup>6</sup> Order No. 672, FERC Stats. & Regs. ¶ 31,204 at P 291.

<sup>7</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242, *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

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Reporting) is one such fill-in-the-blank standard and, therefore, is not enforceable. NERC's continent-wide, fill-in-the-blank standard PRC-002-1 would require regional reliability organizations to establish: (i) installation requirements for sequence of event recording, fault recording, and dynamic disturbance recording, and (ii) reporting requirements for recorded disturbance data. Because PRC-002-1 is an unenforceable and unapproved fill-in-the-blank standard, NPCC's proposed regional Reliability Standard PRC-002-NPCC-01 is intended to fill the reliability gap related to disturbance monitoring and reporting by establishing enforceable disturbance monitoring and reporting requirements for the NPCC region.

The Regional Reliability standard, PRC-006-NPCC-1 — Automatic Underfrequency Load Shedding, will provide regional requirements for Automatic Underfrequency Load Shedding to applicable entities in NPCC. UFLS requirements have been in place at a continent-wide level and within NPCC for many years prior to the implementation of federally mandated reliability standards in 2007. NPCC and its members believe that a region-wide, fully coordinated single set of UFLS requirements is necessary to create an effective and efficient UFLS program, and their experience has supported that belief.

**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 of the Federal Power Act, FERC had acted primarily as an economic regulator of the 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).

The passage of the Energy Policy Act of 2005 added to the Commission's efforts, by giving it the authority to strengthen the reliability of the interstate electric transmission grid through the grant of new authority pursuant to section 215 of the Federal Power Act which provides for a system of mandatory Reliability Standards developed by the ERO, established by FERC, and enforced by the ERO and Regional Entities. As part of FERC's efforts to promote electric transmission grid reliability, the Commission created the Office of Electric Reliability (OER) in 2007. OER oversees the development and review of mandatory Reliability Standards. OER also oversees compliance with the approved mandatory standards by users, owners, and operators of the Bulk Power

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System, and maintains a situational awareness monitoring tool to provide wide area visibility of the Bulk Power System.

On May 31, 2011, NERC submitted a petition for Commission approval of the NPCC's Protection and Control (PRC) regional Reliability Standard PRC-002-NPCC-01 with two associated definitions. The regional Reliability Standard requires transmission owners and generator owners to provide recording capability necessary to monitor the response of the Bulk-Power System to system disturbances, including scheduled and unscheduled outages; requires each reliability coordinator to establish requirements for its area's dynamic disturbance recording needs; and establishes disturbance data reporting requirements.

The Order in RD11-8 approved regional Reliability Standard PRC-002-NPCC-01 which introduced several new mandatory and enforceable requirements for the applicable entities.

The stated purpose of Regional Reliability Standard PRC-002-NPCC-01 is to ensure that adequate disturbance data is available to facilitate Bulk Electric System event analyses. NERC stated standard PRC-002-NPCC-01 addresses the adequacy and security components of reliability by requiring Disturbance Monitoring Equipment ("DME") be available to monitor the BPS (Bulk Power System) response to disturbances. The BPS is subject to Faults or Disturbances, and scheduled and unscheduled outages which can range from transient faults on transmission lines to forced System Element outages. The event analysis data obtained through this standard is used to better design and operate the BPS to withstand System disturbances which may cross state and international boundaries. Investigation of each incident and application of any lessons learned is critical to optimize the performance of Protection Systems with the goal of preventing future incidents from becoming wide-area disturbances. The tools required to perform post-incident analyses include DME which can capture pre-event, event, and post-event conditions with a high degree of accuracy.

In the event that an entity experiences a disturbance to their system, failure to provide recording capability that is planned for, approved, tested, and documented could result in non-compliance with the Reliability Standard, leaving the bulk-power system more prone to cascading outages.

Underfrequency Load Shedding (UFLS) requirements have been in place for years prior to the Commission making UFLS standards mandatory. Regional Reliability Standard PRC-006-NPCC-01 does add some additional information collection work for certain applicable entities. Planning Coordinators have to design and document their automatic

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UFLS program and they have to update their UFLS program database. Generator Owners have to provide documentation and data to the Planning Coordinator and generally maintain records.

NERC stated that it designed the regional Reliability Standard to work in conjunction with and to augment NERC's Commission-approved Reliability Standard PRC-006-1<sup>8</sup> by mitigating the consequences of an underfrequency event while accommodating differences in system transmission and distribution topology among NPCC planning coordinators due to historical design criteria, makeup of load demands, and generation resources.<sup>9</sup> NERC further stated that the regional Reliability Standard also facilitates uniformity, compliance, and clearly delineates applicable entities' requirements within the NPCC Region to achieve a robust, reliable, and effective UFLS program.<sup>10</sup> The regional Reliability Standard ensured a comprehensive UFLS region-wide consistent program within the NPCC Region. The Reliability Standard also provides the regional requirements necessary to achieve and to facilitate the broader program characteristics contained within the requirements of the NERC Reliability Standard PRC-006-1.

Under PRC-006-1, planning coordinators use the information to ensure compliance with requirements associated with underfrequency load shedding plans.<sup>11</sup> Without this information, it would be difficult to enforce compliance with the regional standard. A lack of compliance with this regional standard may lead to uncontrolled failure of the Interconnection.

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

The approved Reliability Standards do not require information to be filed with the Commission. However, they do contain disclosure and recordkeeping requirements, for which using current technology is an option that may reduce burden compared to not using current technology.

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<sup>8</sup> See Automatic Underfrequency Load Shedding and Load Shedding Plans Reliability Standards, Order No. 763, 139 FERC ¶ 61,098 (May 7, 2012), approving Reliability Standards PRC-006-1 (Automatic Underfrequency Load Shedding) and EOP-003-2 (Load Shedding Plans)).

<sup>9</sup> NERC Petition at 29-30

<sup>10</sup> Id

<sup>11</sup> Reference PRC-006-NPCC-1 reliability standard for further information

**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 Commission periodically reviews filing requirements concurrent with OMB review or as the Commission deems necessary to eliminate duplicative filing and to minimize the filing burden.

Reliability Standards are developed by a collaborative process which requires industry participation.

The Commission is unaware of any other source of information similar to the additional requirements.

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

This Reliability Standards do not contain provisions for minimizing the burden of the collection for small entities. All the requirements in the Reliability Standards apply to every applicable entity. However, Small entities generally can reduce their burden by taking part in a joint registration organization or a coordinated function registration. These options allow an entity the ability to share its compliance burden with other similar entities. Detailed information regarding these options is available in NERC's Rules of Procedure at sections 507 and 508.<sup>12</sup>

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

In the event that an entity experiences a disturbance to their system, failure to provide recording capability that is planned for, approved, tested, and documented could result in

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<sup>12</sup> Available at [http://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/NERC\\_ROP\\_Effective\\_20140701\\_updated\\_20140602.pdf](http://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/NERC_ROP_Effective_20140701_updated_20140602.pdf).

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non-compliance with the Reliability Standard, leaving the bulk-power system more prone to cascading outages.

With respect to PRC-006-NPCC-01, failure to comply with the information collection requirements may lead to an uncontrolled failure of the Interconnection. Reducing the reporting/record retention frequency may increase the risk of such an uncontrolled failure.

**7. EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION COLLECTION**

There are no special circumstances as described in 5 CFR 1320.5(d)(2) relating to this information collection.

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

The ERO process to establish Reliability Standards is a collaborative process with the ERO, Regional Entities and others developing and reviewing drafts, and providing comments, and voting, with the final proposed standard submitted to the FERC for review and approval.<sup>13</sup>

In accordance with OMB requirements, the Commission published a 60-day notice<sup>14</sup> on 10/9/2014 and a 30-day notice in the Federal Register (80 FR 6067, 2/4/2015).<sup>15</sup> Within the public notices, the Commission noted that it would be requesting a three-year extension of the public reporting burden. The Commission received no comments on the 60-day notice from the public regarding this information collection.

**9. EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS**

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<sup>13</sup> Details of the ERO standards development process are available on the NERC website at [http://www.nerc.com/docs/standards/sc/Standard Processes Manual Approved May 2010.pdf](http://www.nerc.com/docs/standards/sc/Standard_Processes_Manual_Approved_May_2010.pdf).

<sup>14</sup> 79 FR 61068

<sup>15</sup> An Errata Notice was also issued on 2/11/2015. It is available at <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13769926>, and under Supplementary Documents in reginfo.gov and ROCIS.

No payments or gifts have been made to respondents.

**10. DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS**

According to the NERC Rules of Procedure<sup>16</sup>, "...a Receiving Entity shall keep in confidence and not copy, disclose, or distribute any Confidential Information or any part thereof without the permission of the Submitting Entity, except as otherwise legally required." This serves to protect confidential information submitted to NERC or Regional Entities.

Responding entities do not submit the information collected due to the Reliability Standards to FERC. Rather, they submit the information to NERC, the regional entities, or maintain it internally. Since there are no submissions made to FERC, FERC provides no specific provisions in order to protect confidentiality.

**11. PROVIDE ADDITIONAL JUSTIFICATION FOR ANY QUESTIONS OF A SENSITIVE NATURE, SUCH AS SEXUAL BEHAVIOR AND ATTITUDES, RELIGIOUS BELIEFS, AND OTHER MATTERS THAT ARE COMMONLY CONSIDERED PRIVATE**

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

**12. ESTIMATED BURDEN OF COLLECTION OF INFORMATION**

Prior to implementation of PRC-002-NPCC-01, NPCC had criteria addressing monitoring equipment and published guidance addressing maintenance and testing of such equipment.

Public Reporting Burden: The estimate below regarding the number of respondents is based on the NERC compliance registry as of December 26, 2014. Entities registered for

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<sup>16</sup> Section 1502, Paragraph 2, available at NERCs website

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more than one applicable function type have been accounted for in the figures shown in the tables below.

The burden figures are based on FERC Staff expertise.

<b>Reliability Standard PRC-002-NPCC-01</b>						
<b>Information Collection Requirements</b>	<b>Number of Respondents (1)</b>	<b>Annual Number of Responses per Respondent (2)</b>	<b>Total Number of Responses (1)*(2)=(3)</b>	<b>Average Burden Hours &amp; Cost Per Response<sup>17</sup> (4)</b>	<b>Total Annual Burden Hours &amp; Total Annual Cost (3)*(4)=(5)</b>	<b>Cost per Respondent (\$) (5)÷(1)</b>
R13: GO <sup>18</sup> and TO to have evidence it acquired and installed dynamic disturbance recorders and a mutually agreed upon implementation schedule with the RC (record retention)	1	1	1	10 \$290	10 \$290	\$290
R14.5: GO and TO to have evidence of a maintenance and testing program for stand-alone disturbance monitoring equipment including monthly verification of active analog quantities	169	12	2028	5 \$305	10,140 \$618,540	\$3,660

<sup>17</sup> The estimates for cost per response are derived using the following formula: Average Burden Hours per Response \* \$XX per Hour = Average Cost per Response. The hourly cost figure comes from the Bureau of Labor Statistics ([http://www.bls.gov/oes/current/naics2\\_22.htm](http://www.bls.gov/oes/current/naics2_22.htm) and <http://www.bls.gov/news.release/ecec.nr0.htm>). Record retention is estimated at a wage plus benefits cost of \$29/hour and the remaining costs are based on the wage plus benefits for an electrical engineer at \$61/hour.

<sup>18</sup> For purposes of these charts, generation owner is abbreviated to GO, transmission owner is abbreviated to TO, reliability coordinator is abbreviated to RC, and planning coordinator is abbreviated to PC.

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R14.7: GO and TO to record efforts to return failed units to service if it takes longer than 90 days <sup>19</sup>	33	1	33	10 \$610	330 \$20,130	\$610
R14.7: GO and TO record retention	33	1	33	10 \$290	330 \$9,570	\$290
R17: RC provide certain disturbance monitoring equipment data to the Regional Entity upon request	5	1	5	5 \$305	25 \$1,525	\$305
R17: RC record retention	5	1	5	10 \$290	50 \$1,450	\$290
<b>TOTAL</b>			<b>2,105</b>		<b>10,885</b> <b>\$651,505</b>	

**Reliability Standard PRC-006-NPCC-01**

<b>Information Collection Requirements</b>	<b>Number of Respondents (1)</b>	<b>Annual Number of Responses per Respondent (2)</b>	<b>Total Number of Responses (1)*(2)=(3)</b>	<b>Average Burden Hours &amp; Cost Per Response (4)</b>	<b>Total Annual Burden Hours &amp; Total Annual Cost (3)*(4)=(5)</b>	<b>Cost per Respondent (\$) (5)÷(1)</b>
PCs Design and document automatic UFLS program	6	1	6	8 \$488	48 \$2,928	\$488
PCs update and maintain UFLS program database	6	1	6	16 \$976	96 \$5,856	\$976

<sup>19</sup> We estimate that an entity will experience a unit failure greater than 90 days once every five years. Therefore, 20 percent of NPCC's 169 generator owners and transmission owners will experience a unit failure of this duration each year.

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GOs provide documentation and data to the planning coordinator	145	1	145	16 \$976	2,320 \$141,520	\$976
GOs: record retention	145	1	145	4 \$116	580 \$16,820	\$116
<b>TOTAL</b>			<b>302</b>		<b>3,044</b> <b>\$167,124</b>	

The total annual number of responses, burden hours and annual cost for the FERC-725I collection are:

- 2,407 responses; 2,105 responses from Reliability Standard PRC-002-NPCC-01 and 302 responses from Reliability Standard PRC-006-NPCC-01..
- 13,929 hours; 10,885 hours from Reliability Standard PRC-002-NPCC-01 and 302 hours from Reliability Standard PRC-006-NPCC-01.
- \$816,629 in annual cost; \$601,505 from Reliability Standard PRC-002-NPCC-01 and \$167,124 from Reliability Standard PRC-006-NPCC-01.

**13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS**

FERC estimates that annually, approximately one entity will have to procure dynamic disturbance recording capability. The total acquisition and installation cost of dynamic disturbance recorders range between \$150,000 and \$750,000. To best reflect potential cost burden without underestimating this burden, FERC will use the high-end of this range to capture these non-labor respondent costs of this collection.

All other costs are related to burden hours and are discussed in Question 12 and Question 15.

**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. (Those burdens are included in FERC-725, OMB Control No. 1902-0225.)

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Any involvement by the Commission is covered under the FERC-725 collection (OMB Control No. 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 \$5,092 as the annual cost for each collection.

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

<b>FERC-725I</b>	<b>Total Request</b>	<b>Previously Approved</b>	<b>Change due to Adjustment in Estimate</b>	<b>Change Due to Agency Discretion</b>
Annual Number of Responses	2,407	2,131	276	0
Annual Time Burden (Hr)	13,929	13,273	656	0
Annual Cost Burden (\$)	\$750,000	\$750,000	0	0

The increase in the number of responses is due to natural changes and fluctuations in the industry. For PRC-002-NPCC-01, the number of respondents in R14.5, GO and TO maintenance and testing program for stand-alone disturbance monitoring equipment includes monthly verification of active analog quantities, was increased by 6, from 163 to 169.

In 2013 FERC requested and OMB approved adding the burden associated with FERC-725L (for Rel. Std. PRC-006-NPCC-01) to the existing burden in FERC 725-I since both collections account for the information collection burden of Reliability Standards in NPCC.

As discussed above, in question 13, Total Estimated Annual Compliance Cost (acquisition and installation of dynamic disturbance recorders) = \$750,000.

**16. TIME SCHEDULE FOR THE PUBLICATION OF DATA**

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There is no data published as a result of this collection.

**17. DISPLAY OF THE EXPIRATION DATE**

The expiration date is displayed in a table posted on ferc.gov at <http://www.ferc.gov/docs-filing/info-collections.asp>.

**18. EXCEPTIONS TO THE CERTIFICATION STATEMENT**

The data collected for this reporting requirement is not used for statistical purposes. Therefore, the Commission does not use as stated in item (i) of the certification to OMB "effective and efficient statistical survey methodology." The information collected is case specific to each Reliability Standard.