

Supporting Statement

**FERC-725X, Mandatory Reliability Standards: Voltage and Reactive (VAR) Standards  
and FERC-725A, Mandatory Reliability Standards for the Bulk-Power System**

As modified by the Letter Order in Docket No. RD14-11

In Docket No. RD14-11 the Commission approved Reliability Standards VAR-001-4 and VAR-002-3<sup>1</sup>. The North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization (ERO), submitted the proposed Reliability Standards for Commission approval. The Reliability Standards are designed to prevent voltage instability and voltage collapse on the Bulk-Power System.

Commission staff analyzed the proposed and currently enforced VAR (Voltage and Reactive) standards and has concluded that while information collection requirements have been deleted, added, and/or changed, the overall paperwork burden and applicable respondent universe remains unchanged. However, to better account for current and future changes to VAR standards, the Commission is submitting a request for approval to remove burden hours from FERC-725A<sup>2</sup>, where the information collection requirement for the VAR standards currently reside and to add the same amount of burden hours to a new collection, FERC-725X, where the Commission intends to eventually account for all the paperwork burden related to current and future VAR standards. FERC-725A will still retain reliability standards that resulted from Order 693<sup>3</sup> that have not yet been moved to other, more specific collections.

**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 (EPAAct 2005), was enacted into law.<sup>4</sup> EPAAct 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.

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

The following is an excerpt from NERC's petition for approval of Reliability Standards VAR-001-4 and VAR-002-3 and describes the purpose and need for this group of standards:

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1 The letter order approving these reliability standards was issued on 8/1/2014  
(<http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13606637>)

2 FERC-725A contains most of the burden hours associated with nationwide Reliability Standards as a result of Order 693 (72 FR 16598, 4/4/2007)

3 72 FR 16598 (4/4/2007)

4 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).

The Voltage and Reactive (“VAR”) group of Reliability Standards, which consists of two continent-wide Reliability Standards, VAR-001-3 and VAR-002-2b, is designed to maintain voltage stability on the Bulk-Power System, protect transmission, generation, distribution, and customer equipment, and support the reliable operation of the Bulk-Power System. Voltage stability is the ability of a power system to maintain acceptable voltage levels throughout the system under normal operating conditions and following a disturbance. Failure to maintain acceptable voltage levels (*i.e.*, voltage levels become too high or too low) may cause violations of System Operating Limits (“SOLs”) and Interconnection Reliability Operating Limits (“IROLs”), result in damage to Bulk-Power System equipment, and thereby threaten the reliable operation of the Bulk-Power System. The primary factor in maintaining voltage stability is having the appropriate amount of Reactive Power on the system.<sup>5</sup> Proposed Reliability Standards VAR-001-4 and VAR-002-3 are intended to replace and improve upon Reliability Standards VAR-001-3 and VAR-002-2b, respectively, to ensure that the Bulk-Power System operates at acceptable voltage levels and that sufficient Reactive Power is available to maintain voltage stability.

Additionally, the following paragraphs describe the information collection requirements contained in this collection. Each Reliability Standard requirement is accompanied by a compliance measure which requires the applicable entity to have evidence that it complied with the requirement. The approved Reliability Standards are included in their entirety as supplemental documents to this information collection request.

**Reliability Standard VAR-001-4** requires each Transmission Operator to:

- Specify a system-wide voltage schedule (which is either a range or a target value with an associated tolerance band) as part of its plan to operate within SOLs and IROLs, and to provide the voltage schedule to its Reliability Coordinator and adjacent Transmission Operators upon request (Requirement R1);
- Schedule sufficient reactive resources to regulate voltage levels (Requirement R2);
- Operate or direct the operation of devices to regulate transmission voltage and reactive flows (Requirement R3);
- Develop a set of criteria to exempt generators from certain requirements under Reliability Standard VAR-002-3 related to voltage or Reactive Power schedules, automatic voltage regulations, and notification (Requirement R4);
- Specify a voltage or Reactive Power schedule (which is either a range or a target value with an associated tolerance band) for generators at either the high or low voltage side of the generator step-up transformer, provide the schedule to the associated Generator Operator, direct the Generator Operator to comply with that schedule in automatic voltage control mode, provide the Generator Operator the notification requirements for deviating from the schedule, and, if

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<sup>5</sup> Reactive Power is the portion of electricity that establishes and sustains the electric and magnetic fields of Bulk-Power System equipment and supports voltage stability.

requested, provide the Generator Operator the criteria used to develop the schedule (Requirement R5); and

- Communicate step-up transformer tap changes, the time frame for completion, and the justification for these changes to Generator Owners (Requirement R6).

**Reliability Standard VAR-002-3** requires each Generator Operator to:

- Operate each of its generators connected to the interconnected transmission system in automatic voltage control mode or in a different control mode as instructed by the Transmission Operator, unless the Generator Operator (1) is exempted pursuant to the criteria developed under VAR-001-4, Requirement R4, or (2) makes certain notifications to the Transmission Operator specifying the reasons it cannot so operate (Requirement R1);
- Maintain the Transmission Operator's generator voltage or Reactive Power schedule, unless the Generator Operator (1) is exempted pursuant to the criteria developed under VAR-001-4, Requirement R4, or (2) complies with the notification requirements for deviations as established by the Transmission Owner pursuant to VAR-001-4, Requirement R5 (Requirement R2);
- Notify the Transmission Operator of a change in status of its voltage controlling device within 30 minutes, unless the status is restored within that time period (Requirement R3); and
- Notify the Transmission Operator of a change in reactive capability due to factors other than those described in VAR-002-3, Requirement R3 within 30 minutes unless the capability has been restored during that time period (Requirement R4).
- Provide information on its step-up transformers and auxiliary transformers within 30 days of a request from the Transmission Operator or Transmission Planner (Requirement R5); and
- Comply with the Transmission Operator's step-up transformer tap change directives unless compliance would violate safety, an equipment rating, or applicable laws, rules or regulations (Requirement R6).

### **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 reporting entity. We think that nearly all of the respondents are likely to make and keep related records in an electronic format. Each of the eight Regional Entities has a well-established compliance portal for registered entities to electronically submit compliance information and reports. The compliance portals allow documents developed by the registered entities to be attached and uploaded to the Regional Entity's portal. Compliance data can also be submitted by filling out data forms on the portals. These portals are accessible through an internet browser password protected user interface.

**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 these Reliability Standards 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**

The new versions of the VAR standards FERC approved in RD14-11 do not materially change the burden imposed on small entities.

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. Detailed information regarding these options are available in NERC's Rules of Procedure at sections 507 and 508.<sup>6</sup>

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

Maintaining proper voltage levels is necessary to ensure reliability on the Bulk-Power System. The information collection requirements support the objective to maintain proper voltage levels. Relaxing any of the information collection requirements could lead to unstable voltage levels and damage to Bulk-Power System equipment.

**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.<sup>7</sup> The Reliability Standards were approved during the industry vetting process (before they were submitted to FERC). The development process is consistent with the attributes necessary for

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<sup>6</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).

<sup>7</sup> Details of the current ERO Reliability Standard processes are available on the NERC website at [http://www.nerc.com/files/Appendix\\_3A\\_StandardsProcessesManual\\_20120131.pdf](http://www.nerc.com/files/Appendix_3A_StandardsProcessesManual_20120131.pdf)

ANSI accreditation and is both open and balanced. In addition, FERC published two notices in the Federal Register regarding this information collection. The first notice was published on August 11, 2014 (79 FR 46781), and provided 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. FERC did not receive any comments in response to this notice. The second notice was published in the Federal Register on 10/31/2014 (79 FR 64758) and provided opportunity for further comment as well as alerting the public of this submission to OMB.

## **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**

These standards do not require any information or data to be submitted to FERC.<sup>8</sup>

According to the NERC Rule of Procedure Section 1502<sup>9</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.

## **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**

Commission staff analyzed the proposed and currently enforced standards and has concluded that while information collection requirements have been deleted, added, and/or changed, the overall paperwork burden and applicable respondent universe remains unchanged. To improve accounting of the burden, the Commission recognizes that in the transition from VAR-001-3 to VAR-001-4 requirement R1 there is a decrease in documentation related to policies and procedures. However, the transmission operators are now required to have documentation related to system voltage and reactive power schedules as well as documentation related to coordination

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<sup>8</sup> FERC regulations at 18 CFR 388.112 do allow entities submitting information to FERC to request privileged treatment of such information.

<sup>9</sup> Section 1502, Paragraph 2, available at NERC's website

([http://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/NERC\\_ROP\\_Effective\\_20140701\\_updated\\_20140602%20\(updated\).pdf](http://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/NERC_ROP_Effective_20140701_updated_20140602%20(updated).pdf)).

with adjacent transmission operators and applicable reliability coordinators. The Commission estimates that this transition leads to a decrease of 160 hours as well as an increase of 160 hours, for a net change of zero. For the transition from VAR-002-2b to VAR-002-3 the Commission estimates that changes in requirement R1 lead to an increase of 80 hours for documentation and changes in requirement R2 lead to an increase in 120 hours for documentation. However, the Commission estimates a decrease of the same magnitude (80 hours + 120 hours = 200 hours) related to the changes in requirements R3 and R4. The remaining information collection requirements in the two standards remain essentially unchanged. Based on the above estimates the Commission intends to submit a reduction of 360 hours [retired standards: VAR-001-3 R1 (-160 hours) + VAR-002-2b R3 & R4 (-200 hours)] from FERC-725A and an increase of 360 hours [approved standards: VAR-001-4 R1 (160 hours) + VAR-002-3 R1 (80 hours) + VAR-002-3 R2 (120 hours)] into FERC-725X, a new collection FERC is using to account for burden related to VAR reliability standards. The following table summarizes the burden changes:

<b>Changes</b>	<b>Number of Respondents<sup>10</sup> (1)</b>	<b>Number of Responses per Respondent (2)</b>	<b>Average Burden Hours Per Response (3)</b>	<b>Total Annual Burden Hours (1)x(2)x(3)</b>	<b>Total Annual Cost<sup>11</sup></b>
VAR-001-4 Requirement R1 Increase (FERC-725X)	184 (TOP)	1	160	29,440	\$1,766,400
VAR-001-3 Requirement R1 Decrease (FERC-725A)	184 (TOP)	1	-160	-29,440	-\$1,766,400
VAR-002-3 Requirement R1 Increase (FERC-725X)	874 (GOP)	1	80	69,920	\$4,195,200
VAR-002-3 Requirement R2 Increase (FERC-725X)	874 (GOP)	1	120	104,880	\$6,292,800
VAR-002-2b Requirements R3 and R4 Decrease (FERC-725A)	874 (GOP)	1	-200	-174,800	-\$10,488,000

10 TOP = Transmission Operator, GOP = Generator Operator.

11 The estimate for cost per hour (rounded to the nearest dollar) is derived as follows:

- \$61/hour, the average salary plus benefits (representing 30.1% of the total compensation) per engineer (from Bureau of Labor Statistics at [http://bls.gov/oes/current/naics3\\_221000.htm](http://bls.gov/oes/current/naics3_221000.htm) and <http://www.bls.gov/news.release/ecec.nr0.htm>)

<b>TOTAL NET CHANGE</b>		<b>0</b>	<b>\$0</b>
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### 13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS

The total annual cost burden to respondents is solely related to the burden hours (salaries plus benefits) and is shown in Question #12. There are no capital or start-up type costs.

### 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 (OMB Control No. 1902-0225) and is not part of this request or package.

	<b>Number of Employees (FTEs)</b>	<b>Estimated Annual Federal Cost</b>
Analysis and Processing of filings	0	\$0
Paperwork Reduction Act Administrative Cost <sup>12</sup> for FERC-725X		\$5,092
Paperwork Reduction Act Administrative Cost <sup>13</sup> for FERC-725A		\$5,092

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

The Order in Docket No. RD14-11 does not result in a net burden change. However, we are accounting for the burden reductions in FERC-725A, where the existing information collection requirements for the VAR standards are cleared, and for the burden increases in new collection FERC-725X, where we will eventually include all the burden related to the VAR standards.

More specifically:

- The retirement of VAR-001-3 (R1) results in a decrease of -29,440 hours from FERC-725A (i.e. where the standard was first placed VAR standards as a result of Order 693)
- The retirement of VAR-002-2b (R3 and R4) resulted in a decrease of -174,800 hours from FERC-725A

12 The PRA Administrative Cost is a Federal Cost associated with preparing, issuing, and submitting materials necessary to comply with the Paperwork Reduction Act (PRA) for rulemakings, orders, or any other vehicle used to create, modify, extend, or discontinue an information collection. This average annual cost includes requests for extensions, all associated rulemakings, and other changes to the collection.

13 The PRA Administrative Cost is a Federal Cost associated with preparing, issuing, and submitting materials necessary to comply with the Paperwork Reduction Act (PRA) for rulemakings, orders, or any other vehicle used to create, modify, extend, or discontinue an information collection. This average annual cost includes requests for extensions, all associated rulemakings, and other changes to the collection.

**Total effect on FERC-725A burden:** -204,240 hours [(-29,440 hours) + (-174,800 hours) = -204,240 hours]

- The approval of VAR-001-4 (R1) results in an increase of 29,440 hours into FERC-725X (i.e. the information collection intended specifically to house VAR standards)
- The approval of VAR-002-3 (R1) results in an increase of 69,920 hours into FERC-725X.
- The approval of VAR-002-3 (R2) results in an increase of 104,880 hours into FERC-725X.

**Total effect on FERC-725X burden:** 204,240 hours [29,440 hours + 69,920 hours + 104,880 hours = 204,240 hours]

The following tables show the burden inventory for the FERC-725A and 725X as a result of the Commission Order.

FERC-725A	Total Request	Previously Approved	Change due to Adjustment in Estimate	Change Due to Agency Discretion
Annual Number of Responses	3,770	3,770	-	-
Annual Time Burden (Hr)	1,624,746	1,828,986	-	-204,240
Annual Cost Burden (\$)	126,725	126,725	-	-

FERC-725X	Total Request	Previously Approved	Change due to Adjustment in Estimate	Change Due to Agency Discretion
Annual Number of Responses	1,058	-		1,058
Annual Time Burden (Hr)	204,240	-		204,240
Annual Cost Burden (\$)	-	-		-

Please note that the numbers of entities affected by the aforementioned retirements and approvals in FERC-725A and FERC-725X (3,770 and 1,058 respectively) are not equal.

FERC-725A affects a total of 3,770 entities while the FERC-725X only affects 1,058. This is due to FERC-725A containing much more (i.e. more types of reliability standards) than just VAR reliability standards. Moreover, the FERC-725A table above represents the total inventory of currently approved information collection burden for FERC-725A, not just the burden affected in the RD14-11-000 Order. Conversely, the FERC-725X represents new burden due solely to activity in RD14-11-000.



FERC-725X and FERC-725A (OMB Control Nos.: to be determined and 1902-0244)  
Order in Docket No. RD14-11 (Issued 8/1/2014)  
Updated: 4/21/2015

Since FERC-725X will be a new collection, the entirety of its new burden will be due to RD14-11-000 and, more importantly, the VAR standards the order approves [VAR-001-4 and VAR-002-3 (R1 and R2)]. This is the reason that FERC-725X affects so fewer entities (1,058 vs 3,770) than FERC-725A.

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

There are no data publications as part of this collection.

#### **17. DISPLAY OF 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 Commission does not expect to use statistical methods to analyze the information collected under this control number.