

**UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION**

**[Docket No. IC24-25-000]**

**COMMISSION INFORMATION COLLECTION ACTIVITIES (FERC-725X);  
COMMENT REQUEST; EXTENSION**

**(August 13, 2024)**

**AGENCY:** Federal Energy Regulatory Commission.

**ACTION:** Notice of information collection and request for comments.

**SUMMARY:** In compliance with the requirements of the Paperwork Reduction Act of 1995, the Federal Energy Regulatory Commission (Commission or FERC) is soliciting public comment on the currently approved information collection, FERC 725X, Mandatory Reliability Standards: Voltage and Reactive (VAR) Standards. There were no changes made to the reporting requirements for this information collection.

**DATES:** Comments on the collection of information are due **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may submit copies of your comments (identified by Docket No. IC24-25-000) by one of the following methods:

Electronic filing through <https://www.ferc.gov>, is preferred.

- Electronic Filing: Documents must be filed in acceptable native applications and print-to-PDF, not in scanned or picture format.
- For those unable to file electronically, comments may be filed by USPS mail or by other delivery methods:

- o Mail via U.S. Postal Service Only: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, N.E., Washington, DC 20426.
- o All other delivery services: Federal Energy Regulatory Commission, Office of the Secretary, 12225 Wilkins Avenue, Rockville, MD 20852.

*Instructions:* All submissions must be formatted and filed in accordance with submission guidelines at: <https://www.ferc.gov>. For user assistance, contact FERC Online Support by e-mail at [ferconlinesupport@ferc.gov](mailto:ferconlinesupport@ferc.gov), or by phone at (866) 208-3676 (toll-free).

*Docket:* Users interested in receiving automatic notification of activity in this docket or in viewing/downloading comments and issuances in this docket may do so at

<https://www.ferc.gov>.

**FOR FURTHER INFORMATION:** Doug Reimel may be reached by e-mail at [DataClearance@FERC.gov](mailto:DataClearance@FERC.gov), telephone at (202) 502-6461.

**SUPPLEMENTARY INFORMATION:**

*Title:* FERC 725X, Mandatory Reliability Standards: Voltage and Reactive (VAR) Standards

*OMB Control No.:* 1902-0278

*Type of Request:* Three-year extension of the FERC-725X information collection requirements with no changes to the current reporting requirements.

*Abstract:* Pursuant to Section 215 of the Federal Power Act (FPA)<sup>1</sup>, North American Electric Reliability Corporation (NERC) established the Voltage and Reactive (“VAR”)

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<sup>1</sup> 16 U.S.C. § 824o (2012).

group of Reliability Standards, which consists of two continent-wide Reliability Standards, VAR-001-5 and VAR-002-4.1. NERC conducts periodic reviews of Reliability Standards in accordance with Section 317 of the NERC Rules of Procedure and Section 13 of the NERC Standard Processes Manual. In accordance with these authorities and the NERC *Reliability Standards Development Plan: 2017-2019*, NERC recently completed Project 2016-EPR-02 Enhanced Periodic Review of Voltage and Reactive Reliability Standards. This project conducted a periodic review of mandatory and enforceable Reliability Standards VAR-001-4.1 (Voltage and Reactive Control)<sup>2</sup> and VAR-002-4 (Generator Operation for Maintaining Network Schedules).<sup>3</sup> These two standards were 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

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<sup>2</sup> The Commission approved Reliability Standard VAR-001-4 (Voltage and Reactive Control) on August 1, 2014. See *North American Electric Reliability Corp.*, Docket No. RD14-11-000 (Aug. 1, 2014) (delegated letter order). The Commission approved errata version VAR-001-4.1 on November 13, 2015. See *North American Electric Reliability Corp.*, Docket No. RD15-6-000 (Nov. 13, 2015) (delegated letter order).

<sup>3</sup> The Commission approved Reliability Standard VAR-002-4, which clarified the applicability of the VAR-002 standard to dispersed generation resources, on May 29, 2015. See *North American Electric Reliability Corp.*, 151 FERC ¶ 61,186 (May 29, 2015).

operation of the Bulk-Power System. The number of manhours for VAR-001-5 and VAR-002-4.1 will remain the same, but the type of job responsibilities to follow the requirements will be split between an engineer and record-keeper, instead of just an engineer. This results in a decrease of the cost of compliance and record-keeping for these two standards.

### **Reliability Standard VAR-001-5**

This Reliability Standard requires Transmission Operators 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-002-4.1 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 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-002-4.1**

This Reliability Standard includes an information collection activity for “Requirement R1” and a separate information collection activity for “Requirements R2 through R6.”

This Reliability Standard requires Generator Operators 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-001-5, 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-001-5, Requirement R4, or (2) complies with the notification requirements for deviations as established by the Transmission Owner pursuant to VAR-001-5, 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-002-4.1, 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).

*Type of Respondents:* Generator owners and transmission operators.

*Estimate of Annual Burden:*<sup>4</sup> The Commission estimates the annual public reporting burden for the information collection as:

**FERC-725X, Mandatory Reliability Standards: Voltage and Reactive (VAR) Standards**

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<sup>4</sup> The Commission defines burden as the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, reference 5 Code of Federal Regulations 1320.3.

	<b>Number of Respondents<sup>5</sup></b> <b>(1)</b>	<b>Annual Number of Responses per Respondent</b> <b>(2)</b>	<b>Total Number of Responses</b> <b>(1)*(2)=(3)</b>	<b>Average Burden &amp; Cost Per Response<sup>6</sup></b> <b>(4)</b>	<b>Total Annual Burden Hours &amp; Total Annual Cost</b> <b>(3)*(4)=(5)</b>	<b>Cost per Respondent (\$)</b> <b>(5)÷(1)</b>
VAR-001-5 Compliance and record-keeping	165 (TOP)	1	165	160 hrs. \$11,307.20	26,400 hrs. \$1,865,688	\$11,307.20
VAR-002-4.1 Compliance and record-keeping	1,028 (GOP)	1	1,028	200 hrs. \$14,134	205,600 hrs. \$14,529,752	\$14,134
<b>TOTAL</b>			<b>1,193</b>		<b>232,000 hrs.</b> <b>\$16,395,440</b>	

*Comments:* Comments are invited on: (1) whether the collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (2) the accuracy of the agency's

<sup>5</sup> TOP = transmission operator; GOP = generator operators. These values were derived from the NERC Compliance data of April 16, 2024, using only unique United States registered entities.

<sup>6</sup> The estimated hourly cost (salary plus benefits) is a combination based on the Bureau of Labor Statistics (BLS), as of 2024, for 75% of the average of an Electrical Engineer (17-2071) \$79.31/hr.,  $79.31 \times .75 = 59.4825$  (\$59.48-rounded) (\$59.48/hour) and 25% of an Information and Record Clerk (43-4199) \$44.74/hr.,  $44.74 \times .25 = 11.185$  (\$11.19 rounded) (\$11.19/hour), for a total ( $59.48 + 11.19 = 70.67$ /hour).

estimate of the burden and cost of the collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility and clarity of the information collection; and (4) ways to minimize the burden of the collection of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

Debbie-Anne A. Reese,  
Acting Secretary.