Supporting Statement

**FERC-725G & FERC-725L, Mandatory Reliability Standards for the Bulk-Power System**

**[A Final Rule issued March, 20, 2014]**

The Federal Energy Regulatory Commission (Commission or FERC) requests Office of Management and Budget (OMB) review of **FERC-725G & FERC‑725L, Mandatory Reliability Standards for the Bulk-Power System** as contained in the final rule in Docket No. RM13-16-000 “Generator Verification Reliability Standards”. FERC-725G and FERC-725L are Commission collections, contained in 18 Code of Federal Regulations (CFR), Part 40.

The RM13-16 final rule approves five Reliability Standards: MOD-025-2, MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1. The purpose of the Reliability Standards is to ensure that generators remain in operation during specified voltage and frequency excursions; properly coordinate protective relays and generator voltage regulator controls; and ensure that generator models accurately reflect the generator’s capabilities and equipment performance. Reliability Standards MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1 are new whereas proposed Reliability Standard MOD-025-2 consolidates two existing standards, MOD-024-1 (Verification of Generator Gross and Net Real Power Capability) and MOD-025-1 (Verification of Generator Gross and Net Reactive Power Capability) into one new Reliability Standard. Portions of Reliability Standards MOD-025-2 and PRC-024-1 respond to Commission directives issued in Order No. 693.

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

On August 8, 2005, the Electricity Modernization Act of 2005, which is Title XII,

Subtitle A, of the Energy Policy Act of 2005 (EPAct 2005), was enacted into law.[[1]](#footnote-1) EPAct 2005 adds a new Section 215 to the FPA, 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, EROs would enforce the Reliability Standards either subject to Commission oversight or by the Commission independently.[[2]](#footnote-2)

On February 3, 2006, the Commission issued Order No. 672, implementing section 215 of the FPA.[[3]](#footnote-3) Pursuant to Order No. 672, the Commission certified one organization, NERC, as the ERO.[[4]](#footnote-4) The ERO is required to develop Reliability Standards, which are subject to Commission review and approval.[[5]](#footnote-5) The Reliability Standards applies to users, owners and operators of the Bulk-Power System, as set forth in each Reliability Standard.

Section 215(d)(2) of the FPA and the Commission’s regulations provide that the Commission may approve a proposed Reliability Standard if it determines that the proposal is just, reasonable, not unduly discriminatory or preferential, and in the public interest. The Commission specified in Order No. 672 certain general factors it would consider when assessing whether a particular Reliability Standard is just and reasonable.[[6]](#footnote-6) According to this guidance, a Reliability Standard must provide for the Reliable Operation of Bulk-Power System facilities and may impose a requirement on any user, owner or operator of such facilities. It must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve this goal. The Reliability Standard should be clear and unambiguous regarding what is required and who is required to comply.

This final rule approves five Reliability Standards: MOD-025-2, MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1. The purpose of the Reliability Standards is to ensure that generators remain in operation during specified voltage and frequency excursions; properly coordinate protective relays and generator voltage regulator controls; and ensure that generator models accurately reflect the generator’s capabilities and equipment performance. Reliability Standards MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1 are new whereas proposed Reliability Standard MOD-025-2 consolidates two existing standards, MOD-024-1 (Verification of Generator Gross and Net Real Power Capability) and MOD-025-1 (Verification of Generator Gross and Net Reactive Power Capability) into one new Reliability Standard. Portions of Reliability Standards MOD-025-2 and PRC-024-1 respond to Commission directives issued in Order No. 693.

The Reliability Standards help ensure that verified data is available for power system planning and operational studies by requiring the verification of generator equipment needed to support Bulk-Power System reliability and enhance coordination of important protection system settings.

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

The Reliability Standards associated with the final rule apply to entities registered as Generator Owners and Transmission Planners with NERC. These entities will be required to develop testing procedures, verification processes, and to collect and retain data.

NERC states that the purpose of the project to develop the respective versions of these five standards is to “ensure 1) that generators will not trip off-line during specified voltage and frequency excursions or as a result of improper coordination between generator protective relays and generator voltage regulator controls and limit functions (such coordination will include the generating unit’s capabilities), and 2) that generator models accurately reflect the generator’s capabilities and operating characteristics.”[[7]](#footnote-7) The information collection requirements work to support these purposes.

Under this proceeding, NERC states that “five proposed Reliability Standards: MOD-025-2, MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1 address generator verifications needed to support Bulk-Power System reliability and will ensure that accurate data is verified and made available for planning simulations.”[[8]](#footnote-8) NERC explains that Bulk-Power System reliability benefits from “good quality simulation models of power system equipment,” and that “model validation ensures the proper performance of the control systems and validates the computer models used for stability analysis.”[[9]](#footnote-9) NERC further states that the proposed Reliability Standards will enhance reliability because the tests performed to obtain model data may reveal latent defects that could cause “inappropriate unit response during system disturbances.”[[10]](#footnote-10)

1. **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 and the medium are not covered in Reliability Standards, and are therefore left to the discretion of each respondent. 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.

1. **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. Under this proceeding, the Reliability Standards MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1 are new whereas Reliability Standard MOD-025-2 consolidates two existing standards, MOD-024-1 (Verification of Generator Gross and Net Real Power Capability) and MOD-025-1 (Verification of Generator Gross and Net Reactive Power Capability) into one new Reliability Standard. The five Reliability Standards do not duplicate any existing Reliability Standards.

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

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

Small entities should expect to see a small increase in burden due to the revised requirements in the revised Reliability Standards.

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. The applicability thresholds in Reliability Standards MOD-026-1 and MOD-027-1 are higher than for the other three Reliability Standards MOD-025-2, PRC-019-1, and PRC-024-1. This higher threshold would impact fewer small entities than the other three proposed Reliability Standards.

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

The purpose of the proposed Reliability Standards is to ensure that generators remain in operation during specified voltage and frequency excursions; properly coordinate protective relays and generator voltage regulator controls; and ensure that generator models accurately reflect the generator’s capabilities and equipment performance. Collectively, the proposed Reliability Standards improve the accuracy of model verifications needed to support reliability and enhance the coordination of generator protection systems and voltage regulating system controls. Such improvements should help reduce the risk of generator trips and provide more accurate models for transmission planners and planning coordinators to develop system models and simulations. As stated in response to question #2 above, failure to comply with the information collection requirements may lead to inappropriate unit response during system disturbances which can ultimately increase the risk of generator trip and jeopardize system reliability. The August 2003 blackout report findings recommended that the quality of the system modeling data and data exchange should be improved.[[11]](#footnote-11)

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

Entities may be required to retain information for longer than three years. These are the special circumstances necessary to ensure reliability as it applies to the Bulk-Power System.

* **PRC-019-1--Evidence Retention**:

The Generator Owner and Transmission Owner shall retain evidence of compliance with Requirements R1 and R2, Measures M1 and M2 for six years. The Reliability Standard requires that every five calendar years, each Generator Owner and Transmission Owner with applicable Facilities shall coordinate the voltage regulating system controls. The evidence retention of six years allows compliance enforcement authority to review any violation that occurred due to equipment or setting changes.

1. **DESCRIBE EFFORTS TO CONSULT OUTSIDE THE AGENCY: SUMMARIZE PUBLIC COMMENTS AND THE AGENCY’S RESPONSE**

The ERO, Regional Entities, and others work within a collaborative process to establish Reliability Standards by jointly developing/reviewing drafts, providing responses to comments, and submitting to FERC a final proposed standard for review and subsequent approval.

The Commission published this proposed rulemaking within the Federal Register to provide public utilities, state commissions, Federal agencies, and other interested parties an opportunity to submit data, comments, or suggestions[[12]](#footnote-12).

While the Commission approves all five generator verification Reliability Standards, the Commission raised issues regarding certain provisions of Reliability Standards MOD-026-1 and MOD-027-1. In the NOPR, the Commission sought comments on the following issues: (1) whether the higher applicability thresholds for MOD-026-1 and MOD-027-1 could limit their effectiveness, especially in areas with a high concentration of generators falling below the thresholds, or impede transmission planners’ ability to address reliability risk and (2) whether the provision in Reliability Standard MOD-026-1 allowing transmission planners to compel a generator owner below the applicability threshold with a “technically justified” unit to comply with the Reliability Standard’s requirements is “sufficiently clear and workable.” The Commission also sought comment on whether this provision should be included in Reliability Standard MOD-027-1.

In response to the NOPR, the Commission received comments from: NERC, Idaho Power Company (Idaho Power), Electricity Consumers Resource Council (ELCON), ISO New England (ISO-NE), Arizona Public Service Company (APS), International Transmission Company (ITC), Edison Electric Institute (EEI), and G&T Cooperatives.**[[13]](#footnote-13)**

The Commission received comments on specific requirements in the Reliability Standards approved in this final rule. However, the Commission received no comments on the Commission’s need for this information, whether the information will have practical utility, the accuracy of the provided burden estimate, ways to enhance the quality, utility, and clarity of the information to be collected, and any suggested methods for minimizing the respondents’ burden, including the use of automated information techniques.

For a summary of the comments and the Commission’s response please see the final rule document paragraphs 32-38, 41-45, 48-51, and 53-56.

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

There are no payments or gifts to the respondents.

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

According to the NERC Rule of Procedure[[14]](#footnote-14), “…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 regions, or maintain it internally. Since there are no submissions made to FERC, FERC provides no specific provisions in order to protect confidentiality.

1. **PROVIDE ADDITIONAL JUSTIFICATION FOR ANY QUESTIONS OF A SENSITIVE NATURE**

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

1. **ESTIMATED BURDEN OF COLLECTION OF INFORMATION**

The final rule approves five Reliability Standards: MOD-025-2, MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1. Reliability Standard MOD-025-2 would replace currently effective Reliability Standards MOD-024-1 and MOD-025-1.

To estimate the number of generators owned by a generator owner, Commission staff used the U.S. Energy Information Administration’s Form EIA-860 (Annual Electric Generator Report) along with the assumption that each generator owner owns/operates ten generators in order to calculate the total number of respondents (i.e. generator owners). The burden estimates reflect the standards and the number of affected entities (e.g., the generator owner’s one-time burden to develop testing procedures, verification process, and process for collection of data).

The burden and cost estimates below are based on the increase in the reporting and recordkeeping burden imposed by the approved Reliability Standards. Our estimate of the number of respondents affected is based on the NERC Compliance Registry as of July 30, 2013.**[[15]](#footnote-15)** According to the Compliance Registry, NERC has registered 901 generator owners and 187 transmission planners within the United States. Currently, synchronous condensers are not included in the NERC Compliance Registry, and the standard drafting team stated that the number of transmission owners who own synchronous condensers is extremely low.

The burden estimates reflect the standards and the number of affected entities (e.g., the generator owner’s one-time burden to develop testing procedures, verification process, and process for collection of data).

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| **PRC-019-1 (Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection)** |
| **FERC-725G** | **Number of Respondents****[[16]](#footnote-16)(1)** | **Number of Responses per Respondent****(2)** | **Average Burden Hours Per Response****(3)** | **Total Annual Burden Hours****(1)x(2)x(3)** | **Total Annual Cost**[[17]](#footnote-17) |
| Develop coordination and relay settings procedures | 738GO | 1 | 8 |  5,904 one-time | $307,008one-time ($52/hr) |
| Relay Settings | 738GO | 1 | 8 | 5,904 | $413,280 ($70/hr) |
| Evidence Retention13 | 738GO | 1 | 1 | 738 | $20,664 ($28/hr) |
| TOTAL |  | 12,546 | $740,952 |

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| **PRC-024-1 (Generator Frequency and Voltage Protective Relay Settings)** |
| **FERC-725G** | **Number of Respondents14(1)** | **Number of Responses per Respondent****(2)** | **Average Burden Hours Per Response****(3)** | **Total Annual Burden Hours****(1)x(2)x(3)** | **Total Annual Cost13** |
| Develop coordination and relay settings procedures | 738GO | 1 | 8 |  5,904one-time  | $307,008one-time ($52/hr) |
| Relay Settings | 738GO  | 1 | 8 | 5,904 | $413,280 ($70/hr) |
| Evidence Retention**13** | 738GO | 1 | 1 | 738 | $20,664 ($28/hr) |
| TOTAL |  | 12,546 | $740,952 |

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| **MOD-025-2 (Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability)** |
| **FERC-725L** | **Number of Respondents14(1)** | **Number of Responses per Respondent****(2)** | **Average Burden Hours Per Response****(3)** | **Total Annual Burden Hours****(1)x(2)x(3)** | **Total Annual Cost13** |
| Develop testing procedures, verification process, and process for collection of data | 738GO | 1 | 8 |  5,904 one-time | $307,008one-time ($52/hr) |
| Attachment 2 | 738GO | 1 | 6 | 4,428 | $309,960 ($70/hr) |
| Evidence Retention**13** | 738GO | 1 | 1 | 738 | $20,664 ($28/hr) |
| TOTAL |  | 11,070 | $637,632 |

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| **MOD-026-1 (Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions)** |
| **FERC-725L** | **Number of Respondents14(1)** | **Number of Responses per Respondent****(2)** | **Average Burden Hours Per Response****(3)** | **Total Annual Burden Hours****(1)x(2)x(3)** | **Total Annual Cost15** |
| Develop testing procedures, verification process, and process for collection of data | 356GO | 1 | 8 |  2,848 one-time | $148,096one-time ($52/hr) |
| Instructions for obtaining excitation control system or plant voltage/variance control function model  | 187TP | 1 | 8 | 1,496 | $104,720 ($70/hr) |
| Documentation on generator verification | 356GO | 1 | 8 | 2,848 | $199,360 ($70/hr) |
| Evidence Retention**13** | 543GO and TP | 1 | 1 | 543 | $15,204 ($28/hr) |
| TOTAL |  | 7,735 | $467,380 |

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| **MOD-027-1 (Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions)** |
| **FERC-725L** | **Number of Respondents12(1)** | **Number of Responses per Respondent****(2)** | **Average Burden Hours Per Response****(3)** | **Total Annual Burden Hours****(1)x(2)x(3)** | **Total Annual Cost15** |
| Develop testing procedures, verification process, and process for collection of data | 356GO | 1 | 8 |  2,848 one-time | $148,096one-time ($52/hr) |
| Instructions for obtaining turbine/governor and load control or active power/frequency control model  | 187TP | 1 | 8 | 1,496 | $104,720 ($70/hr) |
| Documentation on generator verification | 356GO | 1 | 8 | 2,848 | $199,360 ($70/hr) |
| Evidence Retention**13** | 543GO and TP | 1 | 1 | 543 | $15,204 ($28/hr) |
| TOTAL |  | 7,735 | $467,380 |

Based on the above tables, the total burden hours added to each collection is:

* FERC-725G: 25,092 hours
	+ 11,808 hours are associated with one-time tasks and will be removed after implementation
* FERC-725L: 26,540 hours
	+ 11,600 hours are associated with one-time tasks and will be removed after implementation

Based on the above burden hours, the total cost added per collection is:

* FERC-725G: $1,572,392
* FERC-725L: $1,481,904
1. **ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS**

There are no start-up or other non-labor hour costs associated with the information collection in the rulemaking.

Total Capital and Start-up cost: $0

Total Operation, Maintenance, and Purchase of Services: $0

1. **ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT**

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| --- | --- | --- |
| **FERC-725G** | **Number of Employees (FTEs) or Number of Hours** | **Estimated Annual Federal Cost** |
| Analysis and Processing of filings | 0 | $0 |
| Paperwork Reduction Act Administrative Cost[[18]](#footnote-18) |  | $5,092 |
| **FERC Total** | $5,092 |

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| --- | --- | --- |
| **FERC-725L** | **Number of Employees (FTEs) or Number of Hours** | **Estimated Annual Federal Cost** |
| Analysis and Processing of filings | 0 | $0 |
| Paperwork Reduction Act Administrative Cost |  | $5,092 |
| **FERC Total** | $5,092 |

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

This final rule approves five Reliability Standards: MOD-025-2, MOD-026-1, MOD-027-1, PRC-019-1 and PRC-024-1. The purpose of the Reliability Standards is to ensure that generators remain in operation during specified voltage and frequency excursions; properly coordinate protective relays and generator voltage regulator controls; and ensure that generator models accurately reflect the generator’s capabilities and equipment performance.

The additional burden for the FERC-725G is due entirely to the final rule and is detailed in #12 of this supporting statement.

The burden addition in FERC-725L is due to the final rule and is detailed in #12 of this supporting statement. The burden reduction in FERC-725L is an administrative change. In a previous submittal (unrelated to the final rule in RM13-16) we had added the existing FERC-725L burden hours to the FERC-725I, in order to capture the burden for the NPCC Regional Standards in only one collection. The hours removed here represent the hours we have already included in FERC-725I.

The following tables show the estimated annual burden inventory for these collections:

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| --- | --- | --- | --- | --- |
| **FERC-725G** | **Total Request** | **Previously Approved** | **Change due to Adjustment in Estimate** | **Change Due to Agency Discretion** |
| Annual Number of Responses | 3,693 | 741 | 0 | 2,952 |
| Annual Time Burden (Hr) | 424,641 | 399,549 | 0 | 25,092 |
| Annual Cost Burden ($) | $0 | $0 | $0 | $0 |

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| **FERC-725L** | **Total Request** | **Previously Approved** | **Change due to Adjustment in Estimate** | **Change Due to Agency Discretion** |
| Annual Number of Responses | 3,274 | 137 | -137 | 3,274 |
| Annual Time Burden (Hr) | 26,540 | 2,748 | -2,748 | 26,540 |
| Annual Cost Burden ($) | $0 | $0 | $0 | $0 |

The format, label, and definitions of the table above follow the Office of Management and Budget’s online submittal system for information collection requests.

1. **TIME SCHEDULE FOR PUBLICATION OF DATA**

There are no tabulating, statistical or tabulating analysis or publication plans for the collection of information.

1. **DISPLAY OF EXPIRATION DATE**

It is not appropriate to display the expiration date for OMB approval of the information collection. The information is not collected upon a standard form which would facilitate the display of the expiration date for OMB approval.

1. **EXCEPTIONS TO THE CERTIFICATION STATEMENT**

The Commission does not use the data collected for this reporting requirement 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 information collection.

1. Energy Policy Act of 2005, Pub. L. No 109-58, Title XII, Subtitle A, 119 Stat. 594, 941 (2005), to be codified at 16 U.S.C. 824o. [↑](#footnote-ref-1)
2. 16 USC 824o(e)(3) (2012). [↑](#footnote-ref-2)
3. Rules Concerning Certification of the Electric Reliability Organization; Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards, Order No. 672, 71 FR 8662 (February 17, 2006), FERC Stats. & Regs. ¶ 31,204 (2006), order on reh’g, Order No. 672-A, 71 FR 19814 (April 18, 2006), FERC

Stats. & Regs. ¶ 31,212 (2006). [↑](#footnote-ref-3)
4. North American Electric Reliability Corp., 116 FERC ¶ 61,062 (ERO Certification Order), order on reh’g & compliance, 117 FERC ¶ 61,126 (ERO Rehearing Order) (2006), order on compliance, 118 FERC ¶ 61,030 (2007) (January 2007 Compliance Order). [↑](#footnote-ref-4)
5. Section 215(a)(3) of the FPA defines the term Reliability Standard to mean "a requirement, approved by the Commission under this section, to provide for reliable operation of the Bulk-Power System. This term includes requirements for the operation of existing Bulk-Power System facilities, including cybersecurity protection, and the

design of planned additions or modifications to such facilities to the extent necessary to provide for the reliable operation of the Bulk-Power System, but the term does not include any requirement to enlarge such facilities or to construct new transmission capacity or generation capacity.” 16 U.S.C. 824o(a)(3). [↑](#footnote-ref-5)
6. Order No. 672 at P 262, 321-37. [↑](#footnote-ref-6)
7. NERC Petition at 2 [↑](#footnote-ref-7)
8. NERC Petition at 2 [↑](#footnote-ref-8)
9. Id. [↑](#footnote-ref-9)
10. Id. at 2-3. [↑](#footnote-ref-10)
11. U.S.-Canada Power System Outage Task Force (Task Force), Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations (April 2004) (Final Blackout Report), Recommendation 24, available at http://www.ferc.gov/industries/electric/indus-act/blackout.asp. [↑](#footnote-ref-11)
12. In accordance with 5 CFR 1320.11 [↑](#footnote-ref-12)
13. G&T Cooperatives consists of Associated Electric Cooperative, Inc., Basin Electric Power Cooperative, and Tri-State Generation and Transmission Association, Inc. [↑](#footnote-ref-13)
14. Section 1502, paragraph 2, available at NERCs website [↑](#footnote-ref-14)
15. NERC Compliance Registry (July 30, 2013), *available at*  <http://www.nerc.com/pa/comp/Registration%20and%20Certification%20DL/NERC_Compliance_Registry_Matrix_Summary20130730.pdf>. [↑](#footnote-ref-15)
16. GO = Generator Owner, TP = Transmission Planner.

Assuming 10 generators per generator owner, using EIA-860 2012 generator data (<http://www.eia.gov/electricity/data/eia860/>) total number of units > 20 MW are 7,379, which results in 738 generator owners. [↑](#footnote-ref-16)
17. The estimates for cost per hour are derived as follows:

	* $52/hour, the average of the salary plus benefits for an engineer, from Bureau of Labor and Statistics at <http://bls.gov/oes/current/naics3_221000.htm>
	* $70/hour, the average of the salary plus benefits for a manager and an engineer, from Bureau of Labor and Statistics at <http://bls.gov/oes/current/naics3_221000.htm>
	* $28/hour, based on a Commission staff study of record retention burden cost. [↑](#footnote-ref-17)
18. The Commission bases the cost of Paperwork Reduction Act administration on staff time, and other costs related to compliance with the Paperwork Reduction Act of 1995. This compliance cost is not associated with this or any specific rulemaking. It is the average annual cost for each collection. [↑](#footnote-ref-18)