

FERC-516H (OMB Control No. 1902-0303) and
FERC-725A (OMB Control No. 1902-0244)
Final Rule, Docket No. RM20-16-000
RIN 1902-AF84

**Supporting Statement for
Revisions of FERC-516H (Electric Rate Schedules and Tariff Filings) and
FERC-725A (Mandatory Reliability Standards for the Bulk-Power System)
in Final Rule in Docket No. RM20-16-000**

The Federal Energy Regulatory Commission (Commission or FERC) requests that the Office of Management and Budget (OMB) review and approve revisions of FERC-516H and FERC-725A, as revised in the final rule in Docket No. RM20-16-000. Please note: The final rule lists the incorrect OMB control number for FERC-516H. The correct OMB control number for FERC-516H is 1902-0303.

1. CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY

This information collection request pertains to a final rule¹ that, pursuant to section 206 of the Federal Power Act (FPA),² requires respondents that are subject to 18 CFR 35.28 to submit compliance filings within 120 days of the effective date of the final rule that add a new Attachment M to their *pro forma* Open Access Transmission Tariffs (OATTs). The effective date of the final rule is March 14, 2022. The OATT compliance filing is due July 12, 2022.

FERC 516H: The regulation at 18 CFR 35.28, which pertains to non-discriminatory open access transmission tariffs, applies to:

- Commission-jurisdictional public utilities that own, control, or operate facilities used for the transmission of electric energy in interstate commerce; and
- Non-jurisdictional utilities that seek voluntary compliance with jurisdictional transmission tariff reciprocity conditions.

With some exceptions,³ the final rule requires transmission providers to use “ambient-adjusted ratings” (AARs) as the relevant transmission line ratings when performing any of several functions enumerated in Attachment M.

¹ 87 FR 2244 (January 13, 2022).

² 16 U.S.C. 824e.

³ For example, a transmission provider may reasonably determine, consistent with good utility practice, that the use of a temporary alternate rating is necessary to ensure the safety and reliability of the transmission system.

FERC-516H (OMB Control No. 1902-0303) and
FERC-725A (OMB Control No. 1902-0244)
Final Rule, Docket No. RM20-16-000
RIN 1902-AF84

In addition, the final rule amends 18 CFR 35.28(c)(5) to require any public utility that owns transmission facilities that are not under the public utility's control to, consistent with the *pro forma* OATT required by 18 CFR 35.28(c)(1), share with the public utility that controls such facilities (and its Market Monitoring Unit(s), if applicable):

- (i) Transmission line ratings for each period for which transmission line ratings are calculated for such facilities (with updated ratings shared each time ratings are calculated); and
- (ii) Written transmission line rating methodologies used to calculate the transmission line ratings for such facilities provided under subparagraph (i), above.

Section 35.28(g)(13) of the final rule requires each regional transmission organization (RTO) and independent system operator (ISO) to establish and maintain systems and procedures necessary to allow any public utility whose transmission facilities are under the independent control of the ISO or RTO to electronically update transmission line ratings for such facilities (for each period for which transmission line ratings are calculated) at least hourly, with such data submitted by those public utility transmission owners directly into the ISO's or RTO's Energy Management System through Supervisory Control and Data Acquisition or related systems.

FERC-725A: The portions of the final rule that pertain to FERC-725A affect the estimated burdens — but not the Requirements themselves — for Requirements 2, 3, and 6 of Reliability Standard FAC-008-05 (Facility Ratings) developed by the North American Electric Reliability Corporation (NERC), and most recently revised by Letter Order issued on April 7, 2021 in Docket No. RD21-4-000.

Requirements 2, 3, and 6 of Reliability Standard FAC-008-5, as approved and revised previously under OMB control number 1902-0244, include the following information collection activities:

Requirements

R2. Each Generator Owner shall have a documented methodology for determining Facility Ratings (Facility Ratings methodology) of its solely and jointly owned equipment connected between the location specified in R1 and the point of interconnection with the Transmission Owner that contains all the following.

2.1. The methodology used to establish the Ratings of the equipment that

comprises the Facility or Facilities shall be consistent with at least one of the following:

- Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating.
- One or more industry standards developed through an open process such as Institute of Electrical and Electronic Engineers (IEEE) or International Council on Large Electric Systems (CIGRE).
- A practice that has been verified by testing, performance history or engineering analysis.

2.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in Requirement R2, Part 2.1 including identification of how each of the following were considered:

- 2.2.1. Equipment Rating standard(s) used in development of this methodology.
- 2.2.2. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications.
- 2.2.3. Ambient conditions (for particular or average conditions or as they vary in real-time).
- 2.2.4. Operating limitations.

2.3. A statement that a Facility Rating shall respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.

2.4. The process by which the Rating of equipment that comprises a Facility is determined.

- 2.4.1. The scope of equipment addressed shall include, but not be limited to conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
- 2.4.2. The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.

R3. Each Transmission Owner shall have a documented methodology for determining Facility Ratings (Facility Ratings methodology) of its solely and jointly owned Facilities (except for those generating unit Facilities addressed in R1 and R2) that contains all the following:

3.1. The methodology used to establish the Ratings of the equipment that comprises the Facility shall be consistent with at least one of the following:

- Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating.
- One or more industry standards developed through an open process such as Institute of Electrical and Electronics Engineers (IEEE) or International Council on Large Electric Systems (CIGRE).
- A practice that has been verified by testing, performance history or engineering analysis.

3.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in Requirement R3, Part 3.1 including identification of how each of the following were considered:

- 3.2.1. Equipment Rating standard(s) used in development of this methodology. Such as temporary de-ratings of impaired equipment in accordance with good utility practice.
- 3.2.2. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications.
- 3.2.3. Ambient conditions (for particular or average conditions or as they vary in real-time).
- 3.2.4. Operating limitations.

3.3. A statement that a Facility Rating shall respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.

3.4. The process by which the Rating of equipment that comprises a Facility is determined.

- 3.4.1. The scope of equipment addressed shall include, but not be limited to, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
- 3.4.2. The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.

R6. Each Transmission Owner and Generator Owner shall have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings methodology or documentation for determining its Facility Ratings.

Measures

M2. Each Generator Owner shall have a documented Facility Ratings methodology that

FERC-516H (OMB Control No. 1902-0303) and
FERC-725A (OMB Control No. 1902-0244)
Final Rule, Docket No. RM20-16-000
RIN 1902-AF84

includes all the items identified in Requirement 2, Parts 2.1 through 2.4.

M3. Each Transmission Owner shall have a documented Facility Ratings methodology that includes all the items identified in Requirement 3, Parts 3.1 through 3.4.

M6. Each Transmission Owner and Generator Owner shall have evidence to show that its Facility Ratings are consistent with the documentation for determining its Facility Ratings as specified in Requirement R1 or consistent with its Facility Ratings methodology as specified in Requirements R2 and R3 (Requirement R6).

Data Retention

The Generator Owner shall keep its current documentation (for R1) and any modifications to the documentation that were in force since last compliance audit period for Measure M1 and Measure M6. The Generator Owner shall keep its current, in force Facility Ratings methodology (for R2) and any modifications to the methodology that were in force since last compliance audit period for Measure M2 and Measure M6. The Transmission Owner shall keep its current, in force Facility Ratings methodology (for R3) and any modifications to the methodology that were in force since the last compliance audit for Measure M3 and Measure M6. The Transmission Owner and Generator Owner shall keep its current, in force Facility Ratings and any changes to those ratings for three calendar years for Measure M6. The Generator Owner and Transmission Owner shall each keep evidence for Measure M4, and Measure M5, for three calendar years. (Retirement approved by FERC effective January 21, 2014.) The Generator Owner shall keep evidence for Measure M7 for three calendar years. The Transmission Owner (and Generator Owner that is subject to Requirement R2) shall keep evidence for Measure M8 for three calendar years. If a Generator Owner or Transmission Owner is found non-compliant, it shall keep information related to the non-compliance until found compliant. The Compliance Enforcement Authority shall keep the last audit and all subsequent compliance records.

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

FERC-516H: The content of the new *pro forma* OATT Attachment M (“Transmission Line Ratings”) is shown at Appendix B of the final rule. The Commission is requiring the addition of Attachment M to public utility transmission provider OATTs in order to improve the accuracy of transmission line ratings. Transmission line ratings directly affect Commission-jurisdictional wholesale rates because they represent the maximum

FERC-516H (OMB Control No. 1902-0303) and
FERC-725A (OMB Control No. 1902-0244)
Final Rule, Docket No. RM20-16-000
RIN 1902-AF84

transfer capability of transmission lines, and supply and demand fundamentals dictate that less transfer capability (i.e., less supply) will result in higher rates, all else being equal.

Inaccurate transmission line ratings can result in underutilization (or overutilization) of existing transmission facilities, thereby sending a signal that there is less (or more) transfer capability than is truly available. This signal impacts the wholesale rates charged for providing energy and other ancillary services. For example, if the system operator believes there is less transfer capability than is truly available, it may dispatch more expensive generators to serve load, when less expensive generators (which would have resulted in lower costs) could have been used to reliably serve the same load. Alternatively, inaccurate transmission line ratings can result in oversubscription of existing transmission facilities, thereby sending the opposite signal—that there is more transfer capability than is truly available—which may risk damage to equipment, may fail to accurately price congestion costs, and may fail to signal to the market that more generation and/or transmission investment may be needed in the long term. The Commission therefore finds that transmission line ratings directly affect wholesale rates and, concomitantly, that inaccurate transmission line ratings result in unjust and unreasonable wholesale rates.

In accordance with Attachment M, transmission providers must implement AARs on the transmission lines over which they provide transmission service. In addition, transmission providers must use uniquely determined Emergency Ratings for contingency analysis in the operations horizon and in post-contingency simulations of constraints. Such uniquely determined Emergency Ratings must also include separate AAR calculations for each Emergency Rating duration used.

To enhance transparency, transmission providers must maintain on the password-protected section of its Open Access Same-Time Information System (OASIS) page or on another password-protected website a database of Transmission Line Ratings and Transmission Line Rating methodologies. The database must include a full record of all Transmission Line Ratings, both as used in real-time operations, and as used for all future periods for which Transmission Service is offered. The database must include records of which Transmission Line Ratings and Transmission Line Rating methodologies were in effect at times over at least the previous five years, including records of which temporary alternate Transmission Line Ratings or exceptions were in effect at which times during the previous five years. Each record in the database must indicate which transmission line the record applies to, and the date and time the record was entered into the database. The database must be maintained such that users can view, download, and query data in standard formats, using standard protocols.

The Transmission Provider must share, upon request by any Transmission Provider and in a timely manner, the following information:

- (1) Transmission Line Ratings for each period for which Transmission Line Ratings are calculated, with updated ratings shared each time Transmission Line Ratings are calculated, and
- (2) Written Transmission Line Rating methodologies used to calculate the Transmission Line Ratings in (1) above.

The Commission provides for the following exceptions to the transmission line rating obligations enumerated in Attachment M:

- If the Transmission Provider reasonably determines, consistent with Good Utility Practice, that the temporary use of a Transmission Line Rating different than would otherwise be required by this Attachment is necessary to ensure the safety and reliability of the Transmission System, then the Transmission Provider may use such an alternate rating. The Transmission Provider must document in its database of Transmission Line Ratings and Transmission Line Rating methodologies on OASIS or another password-protected website, as required by this Attachment, the use of an alternate Transmission Line Rating under this paragraph, including the nature of and basis for the alternate rating, the date and time that the alternate rating was initiated, and (if applicable) the date and time that the alternate rating was withdrawn and the standard rating became effective again.
- Where the Transmission Provider determines, consistent with Good Utility Practice, that the Transmission Line Rating of a transmission line is not affected by ambient air temperature or solar heating, the Transmission Provider may use a Transmission Line Rating for that transmission line that is not an AAR or Seasonal Line Rating. Examples of such a transmission line may include (but are not limited to): (1) a transmission line for which the technical transfer capability of the limiting conductors and/or limiting transmission equipment is not dependent on ambient air temperature or solar heating; or (2) a transmission line whose transfer capability is limited by a Transmission System limit (such as a system voltage or stability limit) which is not dependent on ambient air temperature or solar heating. The Transmission Provider must document in its database of Transmission Line Ratings and Transmission Line Rating methodologies on OASIS or another password-protected website. Any

exceptions to the requirements contained in this Attachment initiated under this paragraph, including the nature of and basis for each exception, the date(s) and time(s) that the exception was initiated, and (if applicable) the date(s) and time(s) that each exception was withdrawn and the standard rating became effective again. If the technical basis for an exception under this paragraph changes, then the Transmission Provider must update the relevant Transmission Line Rating(s) in a timely manner. The Transmission Provider must reevaluate any exceptions taken under this paragraph at least every five years.

The information collection activities listed below, that will be added to FERC-516H, are all one-time burdens in Year 1. In addition, information collection activity # 7, on the list below, will be ongoing.

- 1) For point-to-point transmission service requests within ten days, use AARs in determining available transfer capability (ATC) and total transfer capability (TTC).
- 2) Where network transmission service is provided, use hourly AARs to determine curtailment or redispatch of network transmission service.
- 3) Transmission Providers to implement uniquely determined emergency ratings.
- 4) Implement software and systems to communicate the required transmission line ratings with relevant parties.
- 5) RTOs/ISOs implement software with the ability to accommodate AARs in both the day-ahead and real-time markets on an hourly basis.
- 6) RTOs/ISOs establish the systems and procedures necessary to allow transmission owners to update line ratings on an hourly basis directly into an energy management system (EMS).
- 7) Transmission owners update forecasts and ratings, and share transmission line ratings and facility ratings methodologies with transmission providers and, if applicable, RTOs/ISOs and market monitors.
- 8) Compliance filings.

FERC-725A: Reliability Standard FAC-008-5 sets forth requirements to ensure that transmission line ratings used in operations are determined on a technically sound basis. The final rule clarifies that transmission owners, not transmission providers, are responsible for calculating transmission line ratings. This responsibility is codified in the NERC Reliability Standards, as well as in foundational documents for RTOs and ISOs.⁴ Nothing in the final rule changes that responsibility.

⁴ See, e.g., Reliability Standards FAC-008-5, Requirement R3 and FAC-008-5, Requirement R6.

FERC-516H (OMB Control No. 1902-0303) and
FERC-725A (OMB Control No. 1902-0244)
Final Rule, Docket No. RM20-16-000
RIN 1902-AF84

The final rule will result in increased, one-time information collection burdens by requiring: (1) review and update of facility ratings methodology under Requirements 2 and 3 of Reliability Standard FAC-008-5; and (2) determination of facility ratings consistent with the updated methodology in accordance with Requirement 6 of Reliability Standard FAC-008-5.

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

FERC implements its eTariff system for the electronic filing of tariffs. More information on eTariff is posted at <https://www.ferc.gov/ferc-online/etariff>.

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

FERC rules and data requirements are periodically reviewed in conjunction with OMB clearance expiration dates. This includes a review of the Commission's regulations and data requirements to identify duplication. The information to be submitted, generated, retained, or posted, pursuant to the final rule is not available from other sources.

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

Under the Small Business Administration's classification,⁵ the six RTOs/ISOs would be considered electric bulk power transmission and control, for which the small business size threshold is 500 or fewer employees. Because each RTO/ISO has more than 500 employees, none are considered small entities. The Commission estimated that 337 transmission owners and six planning authorities are also affected by this final rule and that approximately 68% of those entities are small entities affected by the final rule.

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

The Commission requires this information in order to perform its mandated oversight and review responsibilities with respect to electric market-based rates being just and reasonable. Without this information, the Commission would be unable to meet its

⁵ 13 CFR 121.201 (2020) (Sector 22, Utilities).

statutory responsibility under Section 206 of the FPA to ensure that electric utility rates and tariffs are not unjust, unreasonable, or unduly discriminatory or preferential. Failing to meet this responsibility could result in public utilities charging rates that are not just and reasonable.

7. EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION

There are no special circumstances 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 Commission published a proposed rule in the Federal Register on January 21, 2021.⁶ In the proposed rule, the Commission solicited comments on the matters and issues proposed in the proposal, including any related matters or alternative proposals that commenters may wish to discuss. Moreover, the Commission specifically sought comments on:

- Whether to apply requirements for RTOs/ISOs to establish and implement the systems and procedures necessary to allow transmission owners to electronically update transmission line ratings at least hourly to transmission providers located outside of RTO/ISO markets;
- Any additional costs needed for RTOs/ISOs to establish and implement the systems and procedures necessary to allow transmission owners to electronically update transmission line ratings at least hourly;
- Whether to require RTOs/ISOs to conduct a one-time study of the cost effectiveness of DLR implementation, and if so, what details/format any such study should include;
- Whether to require transmission providers to implement unique emergency ratings that would be used during post-contingency operations and on the costs and benefits of such a requirement;
- The degree to which other transmission providers use or are provided with unique emergency ratings and the emergency rating durations that are commonly used;
- Whether transmission line ratings and transmission line rating methodologies should be shared with other transmission providers, upon request;

⁶ 86 FR 6420.

FERC-516H (OMB Control No. 1902-0303) and
FERC-725A (OMB Control No. 1902-0244)
Final Rule, Docket No. RM20-16-000
RIN 1902-AF84

- Whether to require transmission owners to make their transmission line ratings and rating methodologies available to other interested stakeholders, including posting information on their OASIS pages or other password protected online forum; and
- The Commission's estimates of the proposal's burden estimate and its assumptions..

Public comments on the information collections were focused on burden estimates.

The Commission noted in the proposed rule that the Commission's burden estimates were conservative, i.e., based on the maximum number of entities and burden. The Commission noted that some entities may, for example, already use AARs in their existing operations, in which case the actual burden associated with specific reforms associated with the use of AARs would be lower than the estimate.

A commenter, regarding provisions associated with the use of AARs, provided estimated costs of approximately \$200,000 to implement AARs for current hour transmission service, and costs to implement forecasted AARs in the forward markets and for transmission service, such as in the day-ahead market, between \$500,000 and \$750,000. The Commission revised the table in Item # 12, below, in response. The Commission notes, however, that this is a conservative maximum estimate and that some RTOs/ISOs might have pre-existing plans to upgrade software in the coming years, which may implement many of the same functionalities necessitated by this final rule that are captured in these RTO/ISO cost estimates.

The Commission added that, on the other hand, changing approaches to facility ratings may require extra testing and training for some entities to ensure reliable operations and gain familiarity with the approach. In the proposed rule, the Commission explained that it estimated that the majority of the additional burden would occur in the first year, and that, once established, the ongoing burden would closely approach the existing burden of operating the transmission system.

9. EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS

There are no payments or gifts to respondents of this collection.

10. DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS

The Commission does not consider the information collected in FERC-516H or FERC-

FERC-516H (OMB Control No. 1902-0303) and
FERC-725A (OMB Control No. 1902-0244)
Final Rule, Docket No. RM20-16-000
RIN 1902-AF84

725A filings to be confidential. However, an entity that chooses to seek confidential treatment of the information may submit a request for the Commission to treat this information as confidential and non-public, consistent with 18 CFR 388.112.

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

There are no questions of a sensitive nature associated with the reporting requirements.

12. ESTIMATED BURDEN COLLECTION OF INFORMATION

Our estimates of the numbers of respondents are based on the NERC Compliance Registry as of September 3, 2020, which indicates that 78 transmission service providers,⁷ 797 generator owners,⁸ and 289 transmission owners are registered within the United States and are subject to this rulemaking.⁹ In addition, six RTOs/ISOs in the United States subject to this rulemaking.

The burden and cost estimates below are based on the need for applicable entities to revise documentation, already required by the *pro forma* OATT and the Commission's regulations as well as Reliability Standard FAC-008-5, Facility Ratings.¹⁰ The Commission estimates that the final rule will affect the burden¹¹ and cost of FERC-

⁷ The transmission service provider (TSP) function is a NERC registration function which is similar to the transmission provider that is referenced in the *pro forma* OATT. The TSP function is being used as a proxy to estimate the number of transmission providers that are impacted by this rulemaking.

⁸ Of the 797 generator owners listed in the September 3, 2020 NERC Compliance Registry, the Commission estimates that only 10% of all NERC registered generator owners own facilities between the step-up transformer and the point of interconnection. For this reason, the Commission estimates that only 80 generator owners are affected.

⁹ The number of entities listed from the NERC Compliance Registry reflects the omission of the Texas RE registered entities.

¹⁰ The burden associated with Reliability Standard FAC-008-5, approved by the Commission under section 215 of the FPA, is included in the OMB-approved inventory for FERC-725A. Reliability Standard FAC-008-5 is not being revised in this proceeding; however, the requirements of this final rule under section 206 of the FPA affect the burden for three requirements in Reliability Standard FAC-008-5.

¹¹ "Burden" is the total time, effort, or financial resources expended by persons to

FERC-516H (OMB Control No. 1902-0303) and
 FERC-725A (OMB Control No. 1902-0244)
 Final Rule, Docket No. RM20-16-000
 RIN 1902-AF84

516H and FERC-725A as follows:

| A. Area of Modification | B. Number of Respondents | C. Annual Estimated Number of Responses per Responde nt | D. Annual Estimated Number of Responses (Column B X Column C) | E. Average Burden Hours & Cost¹² per Response | F. Total Estimated Burden Hours & Total Estimated Cost (Column D x Column E) |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| FERC-516H, Pro Forma Open Access Transmission Tariff (Control No. 1902-0303) | | | | | |
| For point-to-point transmission service requests within ten days, use AARs in determining ATC and TTC. (One-Time Burden in Year 1) | 129 (TOs ¹³ not in RTOs/ISOs ¹⁴) | 1 | 129 | 1,440 hrs; \$120,485 | 185,760 hrs; \$15,542,539 |

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, refer to 5 CFR 1320.3.

¹² The hourly cost (for salary plus benefits) uses the figures from the Bureau of Labor Statistics (BLS) for three positions involved in the reporting and recordkeeping requirements. These figures include salary (based on BLS data for May 2019, http://bls.gov/oes/current/naics2_22.htm) and benefits (based on BLS data for December 2019; issued March 19, 2020, <http://www.bls.gov/news.release/ecec.nr0.htm>) and are Manager (Code 11-0000 \$97.15/hour), Electrical Engineer (Code 17-2071 \$70.19/hour), and File Clerk (Code 43-4071 \$34.79/hour). The hourly cost for the reporting requirements (\$83.67) is an average of the cost of a manager and engineer. The hourly cost for recordkeeping requirements uses the cost of a file clerk.

¹³ Transmission Owners. While the AAR reforms in the final rule apply to transmission providers, the Commission computes an implementation burden based on the number of

FERC-516H (OMB Control No. 1902-0303) and
 FERC-725A (OMB Control No. 1902-0244)
 Final Rule, Docket No. RM20-16-000
 RIN 1902-AF84

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| Where network transmission service is provided, use hourly AARs to determine curtailment or redispatch of network transmission service. (One-Time Burden in Year 1) | 160 (to account for those TOs in RTOs/ ISOs that are not included in the line above) | 1 | 160 | 1,440 hrs; \$120,485 | 230,400 hrs; \$19,277,568 |
| Transmission Providers to implement uniquely determined emergency ratings (One-Time Burden in Year 1) | 160 (to account for those TOs in RTOs/ ISOs that are not included in the line above) | 1 | 160 | 360 hrs; \$30,121 | 57,600 hrs; \$4,819,392 |
| Implement software and systems to communicate the required transmission line ratings with relevant parties. (One-Time Burden in Year 1) | 78 (TSPs ¹⁵) | 1 | 78 | 352 hrs; \$29,452 | 27,456 hrs; \$2,297,243 |

transmission owners because transmission owners typically calculate transmission line ratings and are therefore likely to be the entities that update computations to determine the effect of changing ambient air temperatures on transmission line ratings.

¹⁴ Regional Transmission Organizations/Independent System Operators.

¹⁵ Transmission Service Providers

FERC-516H (OMB Control No. 1902-0303) and
 FERC-725A (OMB Control No. 1902-0244)
 Final Rule, Docket No. RM20-16-000
 RIN 1902-AF84

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| <p>RTOs/ISOs implement software with the ability to accommodate AARs in both the day-ahead and real-time markets on an hourly basis. (One-Time Burden in Year 1)</p> | <p>6 (RTOs/ISOs)</p> | <p>1</p> | <p>6</p> | <p>9,000 hrs; \$753,030</p> | <p>54,000 hrs; \$4,518,180</p> |
| <p>RTOs / ISOs establish the systems and procedures necessary to allow transmission owners to update line ratings on an hourly basis directly into an EMS. (One-Time Burden in Year 1)</p> | <p>6 (RTOs/ISOs)</p> | <p>1</p> | <p>6</p> | <p>1,056 hrs; \$88,356</p> | <p>6,336 hrs; \$530,133</p> |

FERC-516H (OMB Control No. 1902-0303) and
 FERC-725A (OMB Control No. 1902-0244)
 Final Rule, Docket No. RM20-16-000
 RIN 1902-AF84

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| Transmission owners update forecasts and ratings, and share transmission line ratings and facility ratings methodologies w/ transmission providers and, if applicable, RTOs/ ISOs & market monitors (Year 1 and Ongoing) | 289 (TOs) | 1 | 289 | 176 hrs; \$14,726 | 50,864 hrs; \$4,255,791 |
| Compliance Filings (One-Time Burden in Year 1) | 295 (TOs and RTOs/ISOs) | 1 | 295 | 160 hrs; \$13,387 | 47,200 hrs; \$3,949,224 |
| Net Subtotal for FERC-516H (Year 1)¹⁶ | 373 (unique respondents) | | 1,123 ¹⁷ | 13,984 hrs; \$1,170,041 | 659,616 hrs; \$55,190,071 |
| Net Subtotal for FERC-516H (Ongoing)¹⁸ | 289 (unique respondents) | | 289 | 176 hrs; \$14,726 | 50,864 hrs; \$4,255,791 |
| FERC-725A, Mandatory Reliability Standards for the Bulk-Power System - Reliability Standard FAC-008-5 | | | | | |

¹⁶ The figures in this row include corrections to the table in the Final Rule in Docket No. RM20-16-000.

¹⁷ In year 1 there are 1,123 additional responses. In the years subsequent, the ongoing responses are +289 rather than +1,123.

¹⁸ The figures in this row include clarifications to the table in the Final Rule in Docket No. RM20-16-000.

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|--------------------------------------------------------------------------------------------------------|-------------------------------|---|-----|--------------------|----------------------------|
| Review and update facility ratings methodology, Requirements R2 and R3. (One-Time Burden in Year 1) | 369 (TOs & GOs) ¹⁹ | 1 | 369 | 40 hrs; \$3,347 | 14,760 hrs; \$1,234,969 |
| Determine facility ratings consistent with methodology, Requirement R6. (Burden in Year 1 and Ongoing) | 369 (TOs & GOs) | 1 | 369 | 8 hrs; \$669 | 2,952 hrs; \$246,994 |
| Net Subtotal for FERC-725A (Year 1) | | | 369 | 48 hrs; \$4,016 | 17,712 hrs; \$1,481,963 |
| Net Subtotal for FERC-725A (Ongoing) | | | 369 | 8 hrs; \$669 | 2,952 hrs; \$246,994 |

13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS

There are no non-labor or PRA-related costs. All costs are related to burden hours and are addressed in Questions #12 and #15.

14. ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT

The Commission estimates the total annual federal burden and cost is similar to other interconnection orders (e.g. Order 845) and is reflected for FERC-516H in the following table:

Table 12-1 — Estimated Annual Federal Costs to FERC-516H Due to RM20-16-000

¹⁹ This number reflects 289 transmission owners and 10% of the 797 generator owners (GOs) estimated to own facilities between the step-up transformer and the point of interconnection.

| | Number of Employees (Full-Time Equivalents) | Estimated Annual Federal Cost |
|--------------------------------------------------|--------------------------------------------------------|------------------------------------------|
| Analysis and Processing of Filings ²⁰ | | \$596,319.90 |
| PRA ²¹ Administrative Cost | | \$8,279.00 |
| Total Federal Cost | | \$604,598.90 |

FERC bases its estimate of the “Analysis and Processing of Filings” cost to the Federal Government on salaries and benefits for professional and clerical support. This estimated cost represents staff analysis, decision-making, and review of any actual filings submitted in response to the information collection.

The “PRA Administrative Cost” is associated with preparing, issuing, and submitting materials necessary to comply with the Paperwork Reduction Act 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 orders, other changes to the collection, and publication of related notices in the Federal Register.

For FERC-725A, information collection and record retention requirements related to Reliability Standards are not submitted to, or retained for audit by, FERC. Rather they are submitted to, or retained for audit by, NERC or the Compliance Enforcement Authority, as specified in each individual Reliability Standard. Thus, the only federal estimated cost involved in FERC-725A is the \$8,279 for PRA administration.

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

Program decrease in FERC-516H, related to Final Rule in Docket No. RM18-9. The Final Rule in Docket No. RM18-9 added burdens to FERC-516H. The related ICs in reginfo.gov and ROCIS are:

- “One-Time Tariff Filing Due to RM18-9-000 Final Rule,” with 6 responses and 9,174 burden hours
- “Software Update Due to Final Rule in RM18-9,” with 6 responses and 9,000 burden hours.

The corresponding totals are 12 responses and 18,174 burden hours.

²⁰ Based upon FERC’s 2021 average annual salary plus benefits, i.e., \$180,703.

²¹ “PRA” refers to the Paperwork Reduction Act of 1995.

FERC-516H (OMB Control No. 1902-0303) and
 FERC-725A (OMB Control No. 1902-0244)
 Final Rule, Docket No. RM20-16-000
 RIN 1902-AF84

Per the Final Rule in Docket No. RM18-9, “[t]his rule is effective December 21, 2020. Each RTO/ISO must file the tariff changes needed to implement the requirements of this final rule by September 17, 2021.” Because the one-time work has been completed, the associated burden of 18,174 hours and 12 responses are being removed here.

Program increases in FERC-516H and FERC-725A, related to Final Rule in Docket No. RM20-16.

The final rule results in increased burdens (program change) for FERC-516H due to comments provided by Midcontinent Independent System Operator (MISO).²² MISO estimated costs of approximately \$200,000 to implement AARs for current hour transmission service, and costs to implement forecasted AARs in the forward markets and for transmission service, such as in the day-ahead market, between \$500,000 and \$750,000. MISO’s cost estimates exceeded the Commission’s estimate made in the proposal. In the final rule, the Commission found MISO’s estimates persuasive and increased the FERC-725A burden estimate (program change). The Commission conservatively applied MISO’s higher estimate to all of the RTOs/ISOs. The Commission noted, however, that this is a conservative maximum estimate and that some RTOs/ISOs might have pre-existing plans to upgrade software in the coming years, which may implement many of the same functionalities necessitated by this final rule that are captured in these RTO/ISO cost estimates. The changes in burden are summarized in the following table:

Table 15
Changes in Burden Due to RM20-16-000

| A. Type of Response RM20-16-000 | B. Previously Approved | C. Change due to Agency Discretion²³ | D. Total Request |
|----------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------------------|-----------------------------|
| FERC-516H: Addition of Attachment M to <i>pro forma</i> OATT ²⁴ | | | |
| Annual Number of | 12 | +1,111 ²⁵ | 1,123 |

²² The MISO comment was submitted in response to the NOPR RM20-16-000 on 4/15/21 and was included in P360 of the final rule.

²³ Net from increase RM20-16-000 and decrease from completion of RM18-9-000

²⁴ The figures in this table reflect year 1 and estimates for ongoing years are reduced as detailed in question 12.

²⁵ In year 1 (RM20-6-000) there are 1,123 additional responses. In the years subsequent, the ongoing responses are +289 rather than +1,123.

FERC-516H (OMB Control No. 1902-0303) and
 FERC-725A (OMB Control No. 1902-0244)
 Final Rule, Docket No. RM20-16-000
 RIN 1902-AF84

| | | | |
|--------------------------------------------------------------|----------------|----------------|----------------|
| Responses | | | |
| Annual Burden Hours (hrs.) | 18,174 hrs. | + 641,442 hrs. | 659,616 hrs. |
| Annual Cost Burden (\$) | \$0 | \$0 | \$0 |
| FERC-725A: Revision of Reliability Standard FAC-008-5 | | | |
| Annual Number of Responses | 3,420 | +369 | 3,789 |
| Annual Burden Hours (hrs.) | 1,456,686 hrs. | + 17,712 hrs. | 1,474,398 hrs. |
| Annual Cost Burden (\$) | \$156,953 | \$0 | \$156,953 |

16. TIME SCHEDULE FOR PUBLICATION OF DATA

There are no tabulating or statistical analysis or publication plans for the collection of information. The data are used for regulatory purposes only.

17. DISPLAY OF EXPIRATION DATE

The expiration date is displayed at <https://www.reginfo.gov/public/do/PRAMain>.

18. EXCEPTIONS TO THE CERTIFICATION STATEMENT

There are no exceptions.