

**SUPPORTING STATEMENT FOR
FERC-549C [(Standards for Business Practices of Interstate Natural Gas Pipelines)]**

The Federal Energy Regulatory Commission (Commission or FERC) requests that the Office of Management and Budget (OMB) review/approve changes to and the extension of the FERC-549C information collection [(Standards for Business Practices of Interstate Natural Gas Pipelines)] OMB# 1902-0174).

1. CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY

Since 1996, the Commission has adopted regulations to standardize the business practices and communication methodologies of interstate natural gas pipelines to create a more integrated and efficient pipeline grid. These regulations have been promulgated in the Order No. 587 series of orders,¹ wherein the Commission has incorporated by reference standards for interstate natural gas pipeline business practices and electronic communications that were developed and adopted by the Wholesale Gas Quadrant (WGQ) of the North American Energy Standards Board (NAESB). Upon incorporation by reference, version 3.2 of the standards (Version 3.2) replaced the currently incorporated version (Version 3.1) of those business practice standards.

On August 17, 2020, NAESB filed a report informing the Commission that it had adopted and ratified WGQ Version 3.2 of its business practice standards applicable to interstate natural gas pipelines. Version 3.2 of the WGQ includes business practice standards developed and modified in response to industry requests and directives from the NAESB Board of Directors. This version also includes the standards developed in response to the recommendations of Sandia National Laboratory (Sandia),² which in 2019 issued a cybersecurity surety assessment of the NAESB standards sponsored by DOE (Sandia Surety Assessment),³ and the standards developed

¹ This series of orders began with the Commission's issuance of *Standards for Bus. Practices of Interstate Nat. Gas Pipelines*, Ord. No. 587, FERC Stats. & Regs. ¶ 31,038 (1996).

² Sandia is a multidisciplinary national laboratory and federally funded research and development center for the U.S. Department of Energy's (DOE) National Nuclear Security Administration that supports numerous federal, state, and local government agencies, companies, and organizations.

³ In April 2017, NAESB announced that Sandia, through funding provided by DOE, would be performing a surety assessment of the NAESB standards. As determined by Sandia and DOE, the purpose of the surety assessment was to analyze cybersecurity elements within the standards, focusing on four areas: (1) the NAESB Certification Program for Accredited Certification Authorities, including the Wholesale Electric Quadrant (WEQ)-012 Public Key Infrastructure Business Practice Standards, the NAESB Accreditation Requirements for Authorized Certificate Authorities, and the Authorized Certification Authority Process; (2) the WEQ Open Access Same-Time Information Systems suite of standards; (3) the WGQ and Retail Markets Quadrant Internet Electronic Transport (IET) and Quadrant Electronic Delivery Mechanism (EDM) Related Standards Manual; and (4) a high-level dependency analysis between the gas and electric markets to evaluate the different security paradigms the markets employ.

to enable the use of distributed ledger technologies when transacting the NAESB Base Contract for Sale and Purchase of Natural Gas. The NAESB report identifies all the changes made to the WGQ Version 3.1 Standards and summarizes the deliberations that led to the changes being made. It also identifies changes to the existing standards that were considered but not adopted due to a lack of consensus or other reasons.

The Final rule issued July 15, 2021 by the Commission, updated the Quadrant EDM Related Standards and IET Related Standards to specifically: (1) require the implementation of fixes or patches for known vulnerabilities as soon as reasonably practicable in coordination with other trading partners; (2) specify notification timelines to provide notice to trading partners of any systems or software that have not been updated and the potential impact of using the vulnerable system; (3) include both specific and broad adoptions of system security measures and specific notification and coordination during outages with affected trading partners; (4) maintain a minimum encryption strength of 128 bits; 5) specify that OpenPGP should be used to create public and private keys for privacy and digital signature applications; (6) specify Hyper-Text Transport Protocol Secure (HTTPS) whenever secure communication is required to protect information in transit and support overall privacy needs; (7) use the largest feasible key length consistent with implementation of current business processes; (8) state that secure web sites should employ individual user credentials; and (9) encourage security assessments and coordination between customers, vendors, and trading partners.

The implementation of these data requirements will provide additional transparency to Informational Postings websites and will improve communication standards. The implementation of these standards and regulations will promote the additional efficiency and reliability of the natural gas industries' operations thereby helping the Commission to carry out its responsibilities under the NGA. In addition, the Commission's Office of Enforcement will use the data for general industry oversight.

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

The business practice standards under FERC-549C are required to carry out the Commission's policies in accordance with the general authority in sections 4, 5, 7, 8, 10, 14, 16, and 20 of the Natural Gas Act (NGA),⁴ and sections 311, 501, and 504 of the Natural Gas Policy Act of 1978 (NGPA).⁵ The Commission adopted these business practice standards in order to update and standardize the natural gas industry's business practices and procedures in addition to improve the efficiency of the gas market and the means by which the gas industry conducts business across the interstate pipeline grid.

In various orders since 1996, the Commission has adopted regulations to standardize the business practices and communication methodologies of interstate natural gas pipelines. These standards

⁴ 15 U.S.C. 717c-717w

⁵ 15 U.S.C. 3301-3432

were proposed by the North American Energy Standards Board (NAESB⁶) in order to create a more integrated and efficient pipeline industry.⁷ Generally, when and if NAESB-proposed standards (e.g. consensus standards developed by the Wholesale Gas Quadrant (WGQ)) are approved by the Commission, the Commission incorporates them by reference into its approval. The process of standardizing business practices in the natural gas industry began with a Commission initiative to standardize electronic communication of capacity release transactions. The outgrowth of the initial Commission standardization efforts produced working groups composed of all segments of the natural gas industry and, ultimately, the Gas Industry Standards Board (GISB), a consensus organization open to all members of the gas industry, was created. GISB was succeeded by NAESB.

NAESB is a voluntary non-profit organization comprised of members from the retail and wholesale natural gas and electric industries. NAESB's mission is to take the lead in developing standards across these industries to simplify and expand electronic communication and to streamline business practices. NAESB's core objective is to facilitate a seamless North American marketplace for natural gas, as recognized by its customers, the business community, industry participants, and regulatory bodies.

NAESB has divided its efforts among four quadrants including two retail quadrants, a wholesale electric quadrant, and the WGQ. The NAESB WGQ standards are a product of this effort. Industry participants seeking additional or amended standards (to include principles, definitions, standards, data elements, process descriptions, and technical implementation instructions) must submit a request to the NAESB office, detailing the change, so that the appropriate process may take place to amend the standards.

Failure to collect the FERC-549C data would prevent the Commission from monitoring and properly evaluating pipeline transactions and/or meeting statutory obligations under both the NGA and NGPA.

The WGQ Additional Business Practice Standards address six areas: Creditworthiness; Storage Information; Gas/Electric Operational Communications; Operational Capacity; Unsubscribed Capacity; and Location Data Download.

- The Creditworthiness related standards describe requirements for the exchange of information, notification, and communication between parties during the creditworthiness evaluation process.
- The Storage Information related standards define the information to be provided to natural gas service requesters related to storage activities and/or balances.

⁶ A standards organization accredited by the American National Standards Institute (ANSI).

⁷ This series of orders began with the Commission's issuance of *Standards for Business Practices of Interstate Natural Gas Pipelines*, Order No. 587, FERC Stats. & Regs. ¶ 31,038 (1996).

- The Gas/Electric Operational Communications related standards define communication protocols intended to improve coordination between the gas and electric industries in daily operational communications between transportation service providers and gas-fired power plants. The standards include requirements for communicating anticipated power generation fuel for the upcoming day as well as any operating problems that might hinder gas-fired power plants from receiving contractual gas quantities.
- The Operational Capacity related standards define requirements of the transportation service provider related to the reporting and requesting of a transportation service provider's operational capacity, total scheduled quantity, and operationally available capacity.
- The Unsubscribed Capacity related standards define requirements of the transportation service provider related to the reporting and requesting of a transportation service provider's available unsubscribed capacity.
- The Location Data Download related standards define requirements for the use of codes assigned by the transportation service provider for locations and common codes for parties communicating electronically.

The implementation of these standards and regulations will promote the additional efficiency and reliability of the natural gas industries' operations thereby helping the Commission to carry out its responsibilities under the NGA. In addition, the Commission's Office of Enforcement will use the data for general industry oversight. These requirements conform to our plan for efficient information collection, communication, and management within the natural gas pipeline industries.

For each standard, the pipeline must specify in the tariff section or tariff sheet(s) listing all the NAESB standards:

1. whether the standard is incorporated by reference;
2. for those standards not incorporated by reference, the tariff provision that complies with the standard; or
3. for those standards with which the pipeline does not comply, an explanatory statement, including an indication of whether the pipeline has been granted a waiver, extension of time, or other variance with respect to compliance with the standard.

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

The Commission implemented the capability and requirement for electronic tariff filings.⁸ Further, the Commission improved the security for submitting electronic tariff filings. In addition, the Commission improved the pipelines' online process of appointing and modifying agents with the authority to make an electronic tariff filing on the pipeline's behalf.

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.

Commission filings 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. No duplication of the information collection requirements has been found.

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

The Small Business Administration's (SBA) Office of Size Standards develops the numerical definition of a small business as matched to North American Industry Classification System Codes (NAICS). The SBA (in 13 CFR 121.201) has established a size standard for pipelines transporting natural gas, currently stating that a firm is a small entity if its total annual receipts (in combination with its affiliates) are \$30 million or less.⁹

The FERC-549C filing are requirements related to pipeline rate filing obligations for the transportation and storage of natural gas. The filings collect data from both large and small respondent companies. The data required were designed to impose the least possible burden for companies, while collecting the information required for processing the filings. Use of the Internet to file documents electronically is the primary method the Commission uses to minimize the filing burden.

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

⁸ More information is available on FERC's eTariff page at <https://ferconline.ferc.gov/Login.aspx>.

⁹ U.S. Small Business Administration, Table of Small Business Size Standards for Pipeline Transportation of Natural Gas, NAICS Code 486210, Subsector 486-Pipeline Transportation; North American Industry Classification System code 486210; Pipeline Transportation of Natural Gas (2020) available at https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards_Effective%20Aug%2019%2C%202019_Rev.pdf.

., Subsector 486.

Matched to North American Industry Classification System Codes, Natural Gas Pipeline Transportation, NAICS Code 486210, page 27.

The FERC-549C is a one-time compliance filing. Failure to collect the information would prohibit the Commission from properly monitoring and evaluating pipeline transactions and meeting statutory obligations under the Natural Gas Policy Act and Natural Gas Act.

7. EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION COLLECTION

The 549C presents no special circumstances.

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

The 60-day notice published on November 15, 2021 (86 FR 63010). No comments were filed raising any objections to the burden estimate. The 30-day notice was published on January 26, 2022 (87 FR 4012).

9. EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS

There are no payments or gifts made or given to respondents associated with FERC-549C.

10. DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS

FERC-549C data. NAESB added language to existing Standards 4.3.60, 4.3.61, 10.2.33, and 10.3.25 to clarify the Transport Layer Security protocol,¹⁰ which encrypts data to hide information from electronic observers on the internet. NAESB also deleted all references to the Secure Sockets Layer protocol in the standards. Concerning identification key lengths, the Sandia Surety Assessment recommended that Rivest-Shamir-Adelman keys¹¹ must be no shorter than 2048 bits, Elliptic Curve Digital Signature Algorithm keys¹² must be no shorter than 224 bits, Hash¹³ algorithms should be from the Secure Hash Algorithm (SHA)-2¹⁴ or SHA-3 families, and acceptable Advanced Encryption Standard key lengths range from 128, to 192, to 256. The Sandia Surety Assessment recommended that, in general, implementors use the largest feasible

¹⁰ The National Institute of Standards and Technology Special Pub. 800-52 requires government Transport Layer Security servers and clients to support Transport Layer Security Version 1.2 and recommends support for Transport Layer Security Version 1.3 by the year 2024.

¹¹ Rivest-Shamir-Adelman is a public key infrastructure algorithm composed of a public component and a private component that is typically installed on a recognized Certificate Authority.

¹² Elliptic Curve Digital Signature Algorithm public keys generate an encrypted signature to validate data.

¹³ A Hash is a cryptology technique used for digital signatures in which a series of numbers that may represent, for example, a password, an image, a document, or an executable file is used to generate a cryptographic hash (i.e., a large number).

¹⁴ SHA-2 is a set of cryptographic hash functions.

key length consistent with implementation of current business processes. In response, NAESB deleted Standard 4.3.83 to remove legacy support references and maintain a minimum encryption strength of 128 bits. Further, NAESB revised existing Standards 10.2.34 and 10.3.15 to delete a proprietary Pretty Good Privacy (PGP)¹⁵ related hyperlink and to accommodate license-free OpenPGP, respectively. NAESB also adopted a new Standard 10.2.39 to specify that OpenPGP should be used to create public and private keys for privacy and digital signature applications. In general, for submittals to the Commission, filers may submit specific requests for confidential treatment to the extent permitted by law; details are available in 18 C.F.R. Section 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 in the reporting requirements.

12. ESTIMATED BURDEN OF COLLECTION OF INFORMATION

*Estimate of Annual Burden.*¹⁶ The Commission estimates the total annual burden and cost¹⁷ for this information collection as follows:

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¹⁵ PGP is a proprietary (i.e., an organization must pay to use it) encryption program developed to enhance the confidentiality and integrity of data.

¹⁶ “Burden” is 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, refer to Title 5 Code of Federal Regulations 1320.3.

¹⁷ Commission staff estimates that the industry’s skill set and cost (for wages and benefits) for FERC-549C are approximately the same as the Commission’s average cost. The FERC 2021 average salary plus benefits for one FERC full-time equivalent (FTE) is \$180,703/year (or \$87.00/hour) posted by the Bureau of Labor Statistics for the Utilities sector (available at https://www.bls.gov/oes/current/naics3_221000.htm)

	Number of Respondents (1)	Average Number of Responses per Respondent (2)	Total Number of Responses (1)*(2) =(3)	Average Burden & Cost Per Response¹⁸ (4)	Total Annual Burden Hours & Total Annual Cost (3)*(4)=(5)	Cost per Respondent (\$) (5)÷(1)
Burden from Final Rule RM96-1-42 (NAESB Version 3.2)	59.33	1	59.33	100 hrs.; \$9,407	5,933.33 hrs.; \$558,148.35	\$9,407
Standards for Business Practices of Interstate Natural Gas Pipelines	165	2.96	490	96 hrs.; \$9,030.72	47,040 hrs.; \$4,425,052.80	\$26,818.50
Total for FERC-549C			549.33		52,973.33 hrs.; \$4,983,201.15	

The Commission's burden estimates for the Final Rule were for one-time implementation of the information collection requirements (including tariff filing which consists of the costs of preparing a tariff section under which every standard incorporated by reference by the Commission is listed and submitting the compliance tariff filing with the Commission for acceptance; the costs of documenting the process and procedures conducted during the

¹⁸ The estimated hourly cost (salary plus benefits) provided in this section is based on the salary figures for May 2021 posted by the Bureau of Labor Statistics for the Utilities sector (available at http://www.bls.gov/oes/current/naics2_22.htm#13-0000) and scaled to reflect benefits using the relative importance of employer costs in employee compensation from June 2021 (available at https://www.bls.gov/oes/current/naics2_22.htm). The hourly estimates for salary plus benefits are:

- Petroleum Engineer (Occupation Code: 17-2171), \$74.20
- Computer Systems Analysts (Occupation Code: 15-1120), \$67.99
- Legal (Occupation Code: 23-0000), \$142.25
- Economist (Occupation Code: 19-3011), \$75.75

The average hourly cost (salary plus benefits) is calculated weighting each of the aforementioned wage categories as follows: \$74.20 (0.3) + \$142.25 (0.3) + \$67.99 (0.15) + \$75.75 (0.25) = \$94.07.

Commission’s review of the tariff changes in the compliance filing; and the costs to pipelines for undertaking the necessary information technology work to comply with the new standards). The burden estimates are primarily related to implementing these standards and regulations and will not result in ongoing costs.

13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS

There are no capital or start-up costs that are not associated with the burden hours. All of the costs are related to burden hours and are detailed in Questions #12 and #15.

14. ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT

	Number of Hours or FTE’s	Estimated Annual Federal Cost (\$) ¹⁹
PRA ²⁰ Administration Cost ²¹	-	\$8,279 ²²
Data Processing and Analysis, Sub-Total ²³	0.25	\$45,175.75
FERC Total for FERC-549C		\$53,454.75

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

Final Rule RM96-1-42 average of one-time burden spread over years 1-3.
NAESB (Version 3.2)

•Correction was made to the number of responses of the originally stated 178 should actually be 59. (178/3=59.333 *rounded)

	Total Request	Previously Approved	Change due to Adjustment in Estimate	Change Due to Agency Discretion
FERC-549C				
Annual Number of Responses	549	668	-119	0

¹⁹ Based on FERC’s Fiscal Year 2021 average cost per FTE (salary plus benefits) of \$180,703 per year (or 2,080 work hours), rounded to \$87.00 per hour.

²⁰ Paperwork Reduction Act of 1995 (PRA)

²¹ The PRA Administration Cost is \$ 8,279, and includes preparing supporting statements, notices, and other activities associated with PRA compliance.

²² This cost will be applied to FERC-549C information collections as related to their respective ICRs.

²³

Annual Time Burden (Hr.)	52,973	52,973	0	0
Annual Cost Burden (\$)	\$0	\$0	\$0	\$0

16. TIME SCHEDULE FOR PUBLICATION OF DATA

Further, despite the fact that FERC-549C data are publicly available, there are no tabulating, statistical or publication plans.

17. DISPLAY OF EXPIRATION DATE

The expiration date is displayed in a table posted on ferc.gov at <https://www.ferc.gov/information-collections>

18. EXCEPTIONS TO THE CERTIFICATION STATEMENT

There are no exceptions.