172 FERC ¶ 61,047

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

18 CFR Parts 37 and 38

[Docket Nos. RM05-5-029, RM05-5-030]

Standards for Business Practices and Communication Protocols for Public Utilities

(Issued July 16, 2020)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Federal Energy Regulatory Commission (Commission) proposes to amend its regulations to incorporate by reference, with certain enumerated exceptions, the latest version (Version 003.3) of the Standards for Business Practices and Communication Protocols for Public Utilities adopted by the Wholesale Electric Quadrant (WEQ) of the North American Energy Standards Board (NAESB). WEQ Version 003.3 includes standards developed in accordance with recommendations of the Department of Energy sponsored cybersecurity surety assessment of the NAESB Business Practice Standards that was conducted in 2019. Additional standards were developed in response to the directives from FERC Order No. 890, such as the standards developed to support Parallel Flow Visualization, intended to improve congestion management procedures for the Eastern Interconnection. The WEQ Version 003.3 Standards also include, in their entirety, the WEQ-023 Modeling Business Practice Standards contained in the WEQ Version 003.1 Standards, which address the technical

issues affecting Available Transfer Capability (ATC) and Available Flowgate Capability (AFC) calculation for wholesale electric transmission services, with the addition of certain revisions and corrections. The revisions made by NAESB in the WEQ Version 003.3 Standards are designed to aid public utilities with the consistent and uniform implementation of requirements promulgated by the Commission as part of the *pro forma* Open Access Transmission Tariff.

DATES: Comments are due **[INSERT DATE 60 days after the date of publication in the FEDERAL REGISTER]**

ADDRESSES: Comments, identified by docket numbers RM05-5-029 and RM05-5-030, may be filed electronically at http://www.ferc.gov in acceptable native applications and print-to-PDF, but not in scanned or picture format. For those unable to file electronically, comments may be filed by mail or hand-delivery to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426. The Comment Procedures Section of this document contains more detailed filing procedures.

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SUPPLEMENTARY INFORMATION:

172 FERC ¶ 61,047
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Standards for Business Practices and Communication Protocols for Public Utilities	Docket Nos.	RM05-5-029 RM05-5-030

NOTICE OF PROPOSED RULEMAKING

(Issued July 16, 2020)

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I. Overview

1. On March 30, 2020, the North American Energy Standards Board (NAESB) filed a report (NAESB WEQ Version 003.3 Report) with the Commission informing the Commission that it had adopted and published the Wholesale Electric Quadrant (WEQ) Version 003.3 Business Practice Standards for Public Utilities (WEQ Version 003.3 Standards).[1] NAESB states that the WEQ Version 003.3 Standards include newly created standards as well as modifications to existing standards developed through the NAESB Business Practice Standards development or minor correction processes. The WEQ Version 003.3 Standards include revisions related to the surety assessment on cybersecurity performed by Sandia National Laboratories (Sandia) designed to strengthen the practices and cybersecurity protections established within the standards. NAESB also revised its OASIS suite of standards,[2] including additions and revisions to support new OASIS functionality that will allow for the posting of third party offers of planning redispatch services as well as providing additional information regarding the curtailment of firm transmission service. In addition, the WEQ Version 003.3 Standards include

[1] *See* Docket No. RM05-5-029, Report of the North American Energy Standards Board on Wholesale Electric Quadrant Business Practice Standards Version 003.3 under RM05-5-000 (Mar. 30, 2020) (NAESB WEQ Version 003.3 Report).

[2] The OASIS suite of standards are the WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

additions and revisions to the NAESB WEQ-023 Modeling Business Practice Standards. We address the changes proposed by NAESB in their entirety herein.

II. Background

A. NAESB and Past Standards

2. NAESB is a non-profit standards development organization established in late 2001 (as the successor to the Gas Industry Standards Board (GISB), which was established in 1994) and serves as an industry forum for the development of business practice standards and communication protocols for the wholesale and retail natural gas and electricity industry sectors. Since 1995, NAESB's predecessor GISB and subsequently NAESB itself have been accredited members of the American National Standards Institute (ANSI), complying with ANSI's requirements that its standards reflect a consensus of the affected industries.[3]

3. NAESB's standards include business practices intended to standardize and streamline the transactional processes of the natural gas and electric industries, as well as communication protocols and related standards designed to improve the efficiency of communication within each industry. NAESB supports all three quadrants of the gas and

[3] Prior to the establishment of NAESB in 2001, the Commission's development of business practice standards for the wholesale electric industry was aided by two *ad hoc* industry working groups established during the rulemaking proceeding that resulted in issuance of Order No. 889 and the creation of the OASIS, while GISB's efforts involved the development of business practice standards for the wholesale natural gas industry. Once formally established, NAESB took over the standards development previously handled by GISB and by the electric working groups.

electric industries – wholesale gas, wholesale electric, and retail markets quadrant.[4] All participants in the gas and electric industries are eligible to join NAESB and participate in standards development.

4. NAESB develops its standards under a consensus process so that the standards draw support from a wide range of industry members. NAESB's procedures are designed to ensure that all persons choosing to participate can have input into the development of a standard, regardless of whether they are members of NAESB, and each standard NAESB adopts must be supported by a consensus of the relevant industry segments. Standards that fail to gain consensus support are not adopted. NAESB's consistent practice has been to submit a report to the Commission after it has revised existing business practice standards or has developed and adopted new business practice standards. NAESB's standards are initially voluntary standards, which become mandatory for public utilities upon incorporation by reference by the Commission.

5. NAESB filed its WEQ Version 003.2 Business Practices Standards (WEQ 003.2 Standards) on December 8, 2017, in Docket No. RM05-5-027.[5] After consideration of the December 8 filing, the Commission issued the WEQ Version 003.2 NOPR on May 16, 2019, wherein the Commission proposed to incorporate the WEQ

[4] The retail gas quadrant and the retail electric quadrant were combined into the retail markets quadrant. NAESB continues to refer to these working groups as "quadrants" even though there are now only three quadrants.

[5] *See* Docket No. RM05-5-027, Report of the North American Energy Standards Board on Wholesale Electric Quadrant Business Practice Standards Version 003.2 under RM05-5 (Dec. 8, 2017).

Version 003.2 Standards, with certain enumerated exceptions.[6] The Commission announced that NAESB's WEQ-023 Modeling Business Practice Standards would be addressed separately, only incorporating by reference the WEQ-023 Modeling Business Practice Standards that were moved from the WEQ-001 OASIS Business Practice Standards by the changes made to the WEQ Version 003.1 Standards.[7]

6. On February 4, 2020, the Commission issued Order No. 676-I,[8] in which it amended its regulations under the Federal Power Act (FPA)[9] to incorporate by reference into its regulations as mandatory enforceable requirements, with certain enumerated exceptions, the latest version (Version 003.2) of the Standards for Business Practices and Communication Protocols for Public Utilities adopted by NAESB. The WEQ Version 003.2 Standards included the changes proposed in WEQ Version 003.1 Standards, which were the subject of an earlier notice of proposed rulemaking.[10]

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[6] *See Standards for Bus. Practices & Commc'n Protocols for Pub. Utils.*, Notice of Proposed Rulemaking, 167 FERC ¶ 61,127 (2019) (WEQ Version 003.2 NOPR).

[7] *See Standards for Bus. Practices & Commc'n Protocols for Pub. Utils.*, Notice of Proposed Rulemaking, 156 FERC ¶ 61,055, at P 42 (2016) (WEQ Version 003.1 NOPR); WEQ Version 003.2 NOPR, 167 FERC ¶ 61,127 at P 2.

[8] *Standards for Bus. Practices & Commc'n Protocols for Pub. Utils.*, Order No. 676-I, 85 FR 10571 (Feb. 25, 2020), 170 FERC ¶ 61,062 (2020).

[9] 16 U.S.C. 791a, *et seq.* (2018).

[10] NAESB filed WEQ Version 003.1 of the Standards for Business Practices and Communication Protocols for Public Utilities as a package on October 26, 2015 (October 2015 Filing). *See*, *e.g.*, WEQ Version 003.1 NOPR 167 FERC ¶ 61, 127.

7. Among the NAESB Business Practice Standards incorporated by reference in Order No. 676-I, the Commission incorporated by reference the WEQ-022 Electric Industry Registry (EIR) Business Practice Standards but did not to incorporate by reference in its entirety the WEQ-023 Modeling Business Practice Standards. The Commission only incorporated by reference the WEQ-023 Modeling Business Practice Standards that were moved from the WEQ-001 OASIS Business Practice Standards by the changes made to the WEQ Version 003.1 Standards.[11] The Commission declined to adopt the remaining WEQ-023 Modeling Business Practice Standards as they were the subject of a separate proceeding.[12]

B. Summary of NAESB WEQ Version 003.3

8. NAESB's WEQ Version 003.3 Report notified the Commission that it had adopted and published the WEQ Version 003.3 Standards for Public Utilities. NAESB reports that the WEQ Version 003.3 Standards include newly created standards as well as modifications to existing standards developed through the NAESB Business Practice Standards development or minor correction processes.[13] The WEQ Version 003.3

[11] The following WEQ-023 Modeling Business Practice Standards were incorporated by reference in Order No. 676-I: WEQ-023-5; WEQ-023-5.1; WEQ-023-5.1.1; WEQ-023-5.1.2; WEQ-023-5.1.2.1; WEQ-023-5.1.2.2; WEQ-023-5.1.2.3; WEQ-023-5.1.3; WEQ-023-5.2; WEQ-023-6; WEQ-023-6.1; WEQ-023-6.1.1; WEQ-023-6.1.2; and WEQ-023-A Appendix A.

[12] *See* Commission proceeding at Docket No. AD15-5-000.

[13] *See* NAESB WEQ Version 003.3 Report, Transmittal at 1-2.

Standards include additions and revisions to the NAESB WEQ-023 Modeling Business Practice Standards, which the Commission proposes will now be addressed herein.

9. NAESB's WEQ Version 003.3 Standards include modifications, reservations, and/or additions to the following set of existing standards:[14]

WEQ	**Business Practice Standards**
000	Abbreviations, Acronyms, and Definition of Terms
001	Open Access Same-Time Information System (OASIS)
002	OASIS Standards and Communication Protocols (S&CP)
003	OASIS S&CP Data Dictionaries
004	Coordinate Interchange
008	Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards
013	OASIS Implementation Guide
023	Modeling

10. The WEQ Version 003.3 Standards also include revisions related to the surety assessment on cybersecurity performed by Sandia. NAESB responded to a U.S. Department of Energy (DOE) request that NAESB act on an expedited basis to ensure the cybersecurity standards developed in response to the surety assessment were included in the WEQ Version 003.3 Standards.[15] NAESB reports that the changes strengthen the practices and cybersecurity protections established within the standards by aligning security requirements with other cybersecurity guidelines, mitigating potential

[14] *Id*. at 3.

[15] *Id*. at 3-4.

vulnerabilities, and incorporating more secure communication and encryption methodologies.

11. To support directives contained in Order No. 890,[16] NAESB also revised the OASIS suite of standards. The WEQ Version 003.3 Standards include additions and revisions to support new OASIS functionality that will allow for the posting of third party offers of planning redispatch services (WEQ-001-13.2) as well as providing additional information regarding the curtailment of firm transmission service (WEQ-001-28) prescribed in the OASIS suite of standards.[17] In response to Order No. 676-I, NAESB also revised the standards as necessary to conform with the Commission's *Dynegy* policy, and stated that any standards from these efforts will be incorporated into future versions of the WEQ Business Practice Standards.

12. The WEQ Version 003.3 Standards also include changes that were made to support consistency with the North American Electric Reliability Corporation (NERC) Reliability Standards, including NERC's retirement of the NERC Interchange Scheduling and Coordination Reliability Standards and retirement of the NERC Modeling, Data, and

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[16] *Preventing Undue Discrimination & Preference in Transmission Serv.*, Order No. 890, 118 FERC ¶ 61,119, *order on reh'g*, Order No. 890-A, 121 FERC ¶ 61,297 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

[17] NAESB WEQ Version 003.3 Report at 4. WEQ-001-13.2 adds new Third Party Offers for Planning Redispatch Services Business Practice Standards to allow for posting of third-party offers of planning redispatch services. WEQ-001-28 adds new Curtailment Posting Requirements Business Practice Standards for the posting of additional information on OASIS regarding firm transmission curtailments.

Analysis Reliability Standards. NAESB coordinated with NERC to make modifications and revisions pertaining to electronic tagging (e-Tagging),[18] and, as well, the calculation of ATC and AFC.[19]

13. The WEQ Version 003.3 Standards also include additions, revisions, and reservations made to the WEQ-008 Transmission Load Relief (TLR) – Eastern Interconnection Business Practice Standards, which NAESB advises completes the standards development effort for the Parallel Flow Visualization (PFV) enhanced congestion management process.[20] The PFV standards are the culmination of a multi-year coordination effort between NAESB, NERC, and EIDSN, Inc.,[21] and the standards are designed to improve upon the congestion management procedures for the Eastern Interconnection through the use of real-time data in calculations for transmission loading relief obligations.

14. Moreover, as part of the standards development process, NAESB made five additional revisions to the OASIS suite of standards that were not made in response

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[18] With respect to e-Tagging, NAESB also modified the WEQ-004 Coordinate Interchange Business Practice Standards' Commercial Timing Tables to clarify commercial timing requirements.

[19] NAESB WEQ Version 003.3 Report at 4.

[20] *Id.*

[21] Comprised of North American Reliability Coordinators, Transmission Operators, Transmission Owners, and Balancing Authorities, EIDSN, Inc. manages the Electric Information Network (EInet), a data-sharing network for its members to promote the reliable and efficient operation of the Eastern and Quebec Interconnections. *See* EIDSN, Inc., *Our Mission*, https://eidsn.org/.

to Commission orders.[22] First, NAESB modified the OASIS suite of standards to improve OASIS query functionalities. Second, NAESB modified the OASIS suite of standards for new OASIS functionality to fully document all encumbrances to unconditional firm transmission service, such as untagged pseudo-ties. Third, NAESB modified the OASIS suite of standards to expand notice functionality and establish requirements for providing dynamic notification to transmission customers of the renewal deadline for rollover rights for point-to-point transmission service. Fourth, NAESB modified WEQ-001 OASIS Business Practice Standards for use of Next Hour Market Service and the 0-NX transmission product codes. Fifth, NAESB modified the OASIS suite of standards to modify Network Integration Transmission Service (NITS) requirements. Finally, NAESB revised the OASIS suite of standards to make three minor corrections.[23]

III. Discussion

15. As discussed below, with certain enumerated exceptions, we propose to incorporate by reference (into the Commission's regulations at 18 CFR 38.1(b)) the NAESB WEQ Version 003.3 Standards.[24] While the Commission only recently

[22] NAESB WEQ Version 003.3 Report at 5.

[23] Minor corrections were made to the WEQ-001 OASIS Business Practice Standards and the WEQ-003 OASIS Data Dictionary Business Practice Standards.

[24] Consistent with our past practice, we do not propose to incorporate by reference into the Commission's regulations the following standards: Standards of Conduct for Electric Transmission Providers (WEQ-009); Contracts Related Standards (WEQ-010); and WEQ/WGQ eTariff Related Standards (WEQ-014). We do not propose to incorporate by reference standard WEQ-009 because it contains no substantive standards

incorporated Version 003.2 in its regulations, we are proposing to move forward on Version 003.3 because this Version of the standards contains a number of major initiatives whose incorporation by reference will improve the security and the efficiency of business transactions. These include enhanced cybersecurity standards resulting from an assessment by Sandia, improved methodologies for resolving transmission loading relief, and standards for determining available transfer capacity.

A. Internet Security

1. Cybersecurity

16. The WEQ Version 003.3 Standards include revisions undertaken by NAESB at the request of the DOE to develop standards that address the cybersecurity-related recommendations made by Sandia contained within its surety assessment.[25] In response to the Sandia surety assessment, NAESB proposed changes to improve cybersecurity in the WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice

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and merely serves as a placeholder for future standards. We do not propose to incorporate by reference standard WEQ-010 because this standard contains an optional NAESB contract regarding funds transfers and the Commission does not require utilities to use such contracts. We are not proposing to incorporate by reference standard WEQ-014, because the Commission has already adopted standards and protocols for electronic tariff filings based on the NAESB Standards.

[25] The Sandia surety assessment also focused on the Wholesale Gas Quadrant (WGQ) and Retail Markets Quadrant (RMQ) Internet Electronic Transport and Electronic Delivery Mechanism Standards; and a high-level dependency analysis between the gas and electric markets to evaluate the different security paradigms employed by the markets.

Standards, the WEQ-001 OASIS Business Practice Standards, and the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards.[26]

17. These proposed changes, which are listed in Appendix I, represent NAESB's response to Sandia's surety assessment on cybersecurity. In recognition of the stand-alone nature of these proposed changes, and that DOE requested that NAESB act on an expedited basis to ensure the cybersecurity standards were included in the WEQ Version 003.3 Standards, the Commission is proposing to incorporate these standards by reference with an implementation timeline different from the rest of the proposed modifications included in the WEQ Version 003.3 Standards. As discussed in more detail below, the Commission proposes that industry filers submit compliance filings for these revised cybersecurity standards, set forth in Appendix I, nine months after the publication of a final rule in this proceeding, with implementation required no sooner than three months after compliance filings are submitted to the Commission, for a total implementation period of at least 12 months.

18. For the revised cybersecurity standards, NAESB modified the OASIS suite of standards, including WEQ-001 OASIS Business Practice Standards and WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards to: (1) align the standards' security requirements with other cybersecurity guidelines and best practices; (2) remove legacy functionality that potentially provides a vehicle for cyber-attacks; and (3) incorporate more secure communication and encryption

[26] *See* Appendix I.

methodologies.[27] Specifically, NAESB revised WEQ-001-13.1.3 to include a reference to 18 CFR 37.7.[28] NAESB revised WEQ-002-5 to require transmission providers or the agent to whom a transmission provider has delegated the responsibility of meeting any requirements associated with OASIS, referred to as a Transmission Services Information Provider (TSIP), to apply industry-recognized best practices in the implementation and maintenance of OASIS nodes and supporting infrastructure. Included in these modifications is a requirement that TSIPs implement guidelines for user passwords and authentication aligned with National Institute of Standards and Technology (NIST) Special Publication (SP) 800-63B. WEQ-002-5 was also modified to require TSIPs to use cryptographic models that conform to the NIST Federal Information Processing Standards (FIPS) Publication 140-3.

19. To protect OASIS nodes, NAESB further revised WEQ-002-5 to require TSIPs to: (1) incorporate firewalls, intrusion detection, and intrusion prevention systems; (2) ensure OASIS applications are secure against common industry recognized vulnerabilities; (3) apply software patches and updates in a timely fashion, ideally within seven days of availability; and (4) perform quarterly vulnerability scans and penetration testing as well as annual business continuity and disaster recovery exercises.[29] Additionally, WEQ-002-5 includes a requirement that, at least on an annual basis, TSIPs review their

[27] NAESB WEQ Version 003.3 Report at 9.

[28] *See* 18 CFR 37.7 (Auditing Transmission Service Information).

[29] NAESB WEQ Version 003.3 Report at 8.

OASIS nodes and make any necessary changes to implementation to conform with updates to the industry recognized best practices.

20. NAESB revised WEQ-002-2.3 to require the use of Transportation Layer Security (TLS) Version 1.2 or higher, consistent with NIST 800-52 which now requires the use of TLS Version 1.2, and the utilization of TLS Version 1.3 by January 1, 2024. WEQ-002-2.3 and WEQ-002-5.1.1 were revised to require the use of a Hypertext Transfer Protocol Secure (HTTPS) connection to access information posted on OASIS, including the use of server-side only HTTPS connections to access information that must be made publicly available. All references within the standards to Hypertext Transfer Protocol (HTTP) were removed or modified to HTTPS.[30] Finally, NAESB revised WEQ-002-2.3 and WEQ-002-2.4 to remove language that required the use of communication protocols and internet tools to support private internet and dial-up internet connections, which were deemed outdated and no longer utilized by the industry.[31]

2. Accreditation Requirements for Authorized Certificate Authorities

21. In response to the Sandia surety assessment, NAESB revised the specification document, titled the NAESB Accreditation Requirements for Authorized Certificate Authorities, which establishes technical requirements for issuing digital certificates under

[30] *Id*. at 7-8.

[31] *Id*. at 8.

the WEQ-012 Public Key Infrastructure (PKI) Business Practice Standards.[32] NAESB reports that the new version of the specification document enables secure electronic commercial transactions via data encryption and entity authentication. NAESB states the revisions will help to ensure that the digital certificates issued by NAESB Authorized Certificate Authorities under the WEQ-012 PKI Business Practice Standards will continue to provide secure communications necessary to carry out commercial transactions, including e-Tagging as well as the accessing OASIS nodes and the NAESB EIR.

22. NAESB's cybersecurity-related changes to the WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards, the WEQ-001 OASIS Business Practice Standards, and the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards appear reasonable and do not appear inconsistent with any Commission directives or findings in other orders. Accordingly, we propose to incorporate by reference, into the Commission's regulations at 18 CFR 38.1(b), NAESB's revised cybersecurity standards in WEQ-000, WEQ-001, and WEQ-002, as set forth in the WEQ Version 003.3 Standards.

[32] The NAESB Accreditation Requirements for Authorized Certificate Authorities is a 33-paged specification document that is not a standard, and, as such, membership ratification is not required per the NAESB process. The specification document became effective for industry use on February 19, 2020. *See* NAESB, *NAESB Accreditation Requirements for Authorized Certification Authorities*, https://www.naesb.org/PKI/AssuranceLevel/.

B. Parallel Flow Visualization

23. NAESB's WEQ Version 003.3 Standards include modifications to the WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards to improve the congestion management process by incorporating PFV.[33] This standards development effort was the result of a multi-year coordination effort beginning in 2006[34] between NAESB, NERC, and EIDSN, Inc. According to NAESB, a recent field trial of the PFV process conducted by EIDSN, Inc. indicated that it provides a more accurate model of the electric system than the current process. NAESB also asserts that the field trial shows that the PFV process provides a better analysis of the impacts on flowgates and assigns transmission loading relief obligations more accurately.

24. The current congestion management procedure for the Eastern Interconnection considers e-Tags, market flows, and the network and native load (NNL) calculations to allocate relief obligations on a pro-rata basis. However, this process can sometimes cause a deviation between the actual, real-time impacts and the calculated NNL impacts used for relief obligation as the NNL calculation uses static data and assumes that all generators in the Eastern Interconnection have firm transmission service. Under the PFV

[33] *See* NAESB WEQ Version 003.3 Report at 12. To support PFV, NAESB also made consistency changes to the WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards, the WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-004 Coordinate Interchange Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

[34] The PFV standards development process was the subject of eight previous status reports filed with the Commission in Docket No. EL14-82-000.

enhanced congestion management process, the market flows and NNL calculation are replaced by the generation-to-load impact, which uses real-time data reported by the balancing authorities to determine the calculated energy flows on a flowgate and assign relief obligations during a transmission loading relief event.

25. The revised WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards require a balancing authority to elect one of two different methodologies for assigning curtailment priorities: Tag Secondary Network Transmission Service Method (TSNTS Method) or Generator Prioritization Method (GP Method). In the TSNTS Method, e-Tags are used to establish curtailment priority and entities using this methodology must tag not only inter-balancing authority transactions but also intra-balancing authority transactions, including pseudo-ties. Under the GP Method, a generator schedule is used, which lists the firm and non-firm transmission priorities of each generator to determine the assignment of curtailments. The revised WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards also allow entities with seams agreements incorporated into their tariffs or other governing documents to submit to the Interchange Distribution Calculator

(IDC) tool[35] overrides to transmission priorities for those flowgates that are documented in the agreements.[36]

26. For entities opting to use the TSNTS Method, relief obligations are assigned through curtailments utilizing the expanded e-Tagging requirements. Together, the expanded, real-time data provided to the IDC tool under both the TSNTS Method and the GP Method results in a more accurate calculation of system impacts and provides reliability coordinators in the Eastern Interconnection an improved view of the current operating state of the bulk electric system through increased visibility of the source and magnitude of parallel interchange flows.

27. In addition, the revised WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards establish a System Data Exchange (SDX) as a central repository administered by an association of reliability coordinators in the Eastern Interconnection that is a data source for the IDC. The SDX supports data submission for dynamic schedules and pseudo-ties for the two new methodologies (i.e., the TSNTS Method and the GP Method) for assigning curtailment priorities.

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[35] The revised WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards define the IDC as "[a] tool used by the [Reliability Coordinators] in the Eastern Interconnection which calculates the distribution of energy flows over specific flowgates and is used for assigning relief obligations and curtailments." The revised standards require the IDC to support the display of all impacts, including generation-to-load impacts, and other interchange transactions and intra-balancing authority transactions. The impacts on a flowgate are to be displayed at the user specified level of granularity, including the amount of impact, amount of transaction or output, and priority of transaction.

[36] NAESB WEQ Version 003.3 Report at 13.

28. The revised WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards specify the process for balancing authorities to make an initial declaration of which of the two methodologies will be used for assigning curtailment priorities, the process for subsequent switching between methodologies (which requires a minimum of 180 calendar days' advance notice to the affected load serving entities), and the process for designating network resources when balancing authority areas are consolidated. Conforming changes are also made to the WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards which describe in detail the steps to be taken when transmission loading relief procedures are invoked, primarily to ensure that generation-to-load impacts, lower priority secondary network transmission service, transactions using non-firm grandfathered transmission service, non-firm point-to-point intra balancing authority transactions not tagged, non-firm pseudo-ties, and transactions for dynamic schedules that use lower priority non-firm transmission service are included in the calculation when assigning curtailment and relief obligations.

29. NAESB's revisions to WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards do not appear inconsistent with any Commission directives or findings in other orders. Accordingly, we propose to incorporate by reference, into the Commission's regulations at 18 CFR 38.1(b), NAESB's revised standards that modify the WEQ-008 Transmission Loading Relief (TLR) – Eastern Interconnection Business Practice Standards, as set forth in the WEQ Version 003.3 Standards.

C. Revisions to WEQ OASIS Business Practice Standards in Light of Commission Policies

1. Overview

30. The NAESB WEQ Version 003.3 Standards contain three modifications to the OASIS suite of standards that NAESB developed to ensure consistency with certain policies articulated by the Commission in Order Nos. 676-I and 890. NAESB addressed the final two directives contained in FERC Order No. 890. First, NAESB modified pertinent standards[37] to support new OASIS functionality that allows for the posting of third party offers of planning redispatch services, as well as provide additional information regarding the curtailment of firm transmission service.[38] NAESB also revised WEQ-001 to strike the preamble language in WEQ-001-9 and WEQ-001-10 consistent with Commission Action in Order No. 676-I.

2. Posting of Third Party Offers of Planning Redispatch Services

31. Order No. 890 required that "transmission providers modify their OASIS to allow for the posting of third party offers to supply planning redispatch,"[39] and the Commission reiterated the directive in Order 890-B.[40] In response, NAESB modified the OASIS suite

[37] NAESB modified the WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards, the WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

[38] NAESB WEQ Version 003.3 Report at 4.

[39] Order No. 890, 118 FERC ¶ 61,119 at P 1139.

[40] Order No. 890-B, 123 FERC ¶ 61,299 at P 131.

of standards to clarify the roles and responsibilities of the third party providing the redispatch service, the transmission customer acquiring the planning redispatch service, and the transmission provider that provides the platform on OASIS for posting the planning redispatch service offer. As part of these OASIS suite of standards modifications, NAESB established two new OASIS templates[41] to support the posting by a transmission provider of third party offers of planning redispatch service. The first new template is dedicated to capturing generator information that may be used in a planning redispatch offer, including the identification of the generating unit(s) and the host balancing authority area. The second new template provides planning redispatch offer parameters, such as the identification of the redispatch generator, the amount of capacity over time, cost, and the flowgate(s) where congestion can be relieved. NAESB reports that the new process increases efficiency for third parties by allowing the third parties to reference a generator as part of a redispatch offer and no longer requires third parties to reproduce the same generator information each time an offer is made. Accordingly, we propose to incorporate by reference, into the Commission's regulations at 18 CFR 38.1(b), NAESB's revised OASIS suite of standards[42] that established two new OASIS templates that support the optional posting by a transmission provider of

[41] *See* WEQ 013-3.9 and WEQ 013-3.10.

[42] NAESB modified the WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards, the WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

third party offers of planning redispatch service, as set forth in NAESB's WEQ Version 003.3 Business Practice Standards.

3. Information for Firm Transmission Service Curtailments

32. Order No. 890 requires transmission providers to post to OASIS "all circumstances and events contributing to the need for a firm service curtailment, specific services and customers curtailed (including the transmission provider's own retail loads), and the duration of the curtailment."[43] In response, NAESB made additional modifications to the OASIS suite of standards, as well as consistency changes to WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards. NAESB's changes to the standards included modifications to existing templates and the creation of two new templates to provide the mechanism for transmission providers to post the required additional information regarding the curtailment of firm transmission service, including the curtailment of non-firm transmission service that preceded any firm transmission curtailments.

33. NAESB states that three issues arose as part of this standards development process. First, NAESB states that the information needed to meet the posting requirements is contained in two separate tools: the Interchange Distribution Calculator (IDC) tool for the Eastern Interconnection, managed by EIDSN, Inc., and the Enhanced Curtailment Calculator (ECC) tool for the Western Interconnection, managed by California Independent System Operator (CAISO). Although both the IDC and ECC

[43] Order No. 890, 118 FERC ¶ 61,119 at P 1627.

tools produce information to be posted to OASIS in accordance with the standards, NAESB states that its members determined that the need for a mechanism to transfer data from the tools to OASIS should be addressed as part of any industry implementation rather than through standards modifications.

34. Second, as part of the Order No. 890 standards development efforts, NAESB and its stakeholders examined FERC Order Nos. 845[44] and 845-A to gauge their potential effect on the NAESB effort.[45] NAESB and its stakeholders concluded, absent specific direction from the Commission to the contrary, that the issues raised in these orders were separate and distinct from the directive in FERC Order 890; NAESB therefore completed the Order No. 890 standards development requirements.

35. Third, NAESB notes that the standards include a requirement that transmission providers post information related to the curtailment of non-firm transmission in order to provide transmission customers with complete transparency regarding all firm transmission curtailments. NAESB states its stakeholders largely concluded that posting information about non-firm curtailments to OASIS fully addresses the directive in FERC

[44] *Reform of Generator Interconnection Procedures & Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018).

[45] As part of FERC Order No. 845, the Commission declined to impose additional requirements on transmission providers to post on OASIS certain, specific information regarding congestion and curtailments. Order No. 845, 163 FERC ¶ 61,043 at P 271. The Commission confirmed this decision in FERC Order No. 845-A, reiterating that transmission providers already publish data related to congestion and curtailments and noting that a significant amount of curtailment data is available through the NERC TLR logs. *Id*. P 92.

Order No. 890 that information be posted regarding *all* circumstances contributing to the need for firm transmission service curtailment.

36. NAESB's revised standards appear consistent with the Commission's directive in Order No. 890. In Order No. 890, the Commission required "transmission providers, working through NAESB, to develop a detailed template for the posting of additional information on OASIS regarding firm transmission curtailments."[46] Moreover, the Commission further stated that "Transmission providers need not implement this new OASIS functionality and any related business practices until NAESB develops appropriate standards."[47] NAESB states that it does not intend to develop standards to facilitate the required posting of this additional information on OASIS, but instead "by consensus it was determined that the issue should be addressed as part of any industry implementation rather than through standards modifications."[48]

37. NAESB states that the information needed to meet the posting requirements is contained in the IDC and ECC tools for Eastern Interconnection and Western Interconnection and that the need for a mechanism to transfer data from the tools to OASIS, should be addressed as part of any industry implementation rather than through NAESB within a standards modification and development process.

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[46] Order No. 890, 118 FERC ¶ 61,119 at P 1627.

[47] *Id.*

[48] NAESB WEQ Version 003.3 Report at 11.

38. NAESB's modifications and consistency changes to address the directive in FERC Order No. 890 appear reasonable and do not appear inconsistent with any Commission directives or findings in other orders. Accordingly, we propose to incorporate by reference, into the Commission's regulations at 18 CFR 38.1(b), NAESB's modifications to the OASIS suite of standards,[49] as well as consistency changes to WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards to support the final FERC Order No. 890 directive, as set forth in the WEQ Version 003.3 Standards.

4. WEQ-001-9 and WEQ-001-10 Preambles

39. In Order No. 676-I, the Commission declined to adopt through its incorporation by reference process the preamble language in WEQ-001-9 and WEQ-001-10. The Commission declined to incorporate by reference the two preambles because they appeared to permit transmission providers the option to implement their own entity-specific procedures, which does not help ensure consistency across the bulk power system.[50] In the WEQ Version 003.3 Standards, NAESB proposes to make the changes to each of these Business Practice Standards to reflect the Commission's Order No. 676-I decision not to incorporate by reference the preamble language. Accordingly, we

[49] NAESB modified the WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

[50] Order No. 676-I, 170 FERC ¶ 61,062 at PP 37-38.

propose to incorporate by reference, into the Commission's regulations at 18 CFR 38.1(b), NAESB's revised WEQ-001-9 and WEQ-001-10, as set forth in the WEQ Version 003.3 Standards.

D. Revised and New Standards Designed to Complement NERC Reliability Standards and Developments

40. The WEQ Version 003.3 Standards include additions and revisions to the WEQ-001 OASIS Business Practice Standards, WEQ-004 Coordinate Interchange Business Practice Standards, and WEQ-023 Modeling Business Practice Standards, which result from NAESB coordination with NERC. NAESB developed these additions and revisions in response to NERC's proposal, initiated via two separate Standards Requests, that NAESB review the retirements proposed by NERC within the NERC Modeling, Data, and Analysis (MOD) Reliability Standards[51] as well as the NERC

[51] In a February 19, 2014 petition, NERC proposed to retire Reliability Standards MOD-001-1a, MOD-004-1, MOD-008-1, MOD-028-2, MOD-029-1a, and MOD-030-2 and requested approval of new Reliability Standard MOD-001-2. Generally, the "MOD A" series of NERC Reliability Standards pertain to transmission system modeling. The Commission issued a notice of proposed rulemaking in Docket No. RM14-7-000 that addressed NERC's proposal. *Modeling, Data, & Analysis Reliability Standards*, Notice of Proposed Rulemaking, 147 FERC ¶ 61,208 (2014) (MOD A NOPR). On June 7, 2019, NERC filed a notice of withdrawal of its petition and, after not receiving any protests, was deemed granted. Simultaneously, NERC proposed to retire the current version of the NERC MOD A standards: MOD-001-1a (Available Transmission System Capability), MOD-004-1 (Capacity Benefit Margin), MOD-008-1 (Transmission Reliability Margin Calculation Methodology), MOD-028-2 (Area Interchange Methodology), MOD-029-2a (Rated System Path Methodology), and MOD-030-3 (Flowgate Methodology).

Interchange Scheduling and Coordination (INT) Reliability Standards[52] in the interest of continued coordination between the organizations.

1. Available Transfer Capacity

a. Introduction

41. Available Transfer Capacity (ATC) is defined to be "[a] measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses."[53] Since Order Nos. 888 and 889 were issued in 1996, ATC has been a key component of the Commission's open access transmission policy. The Commission has emphasized the important role of ATC, stating that "the calculation of ATC is one of the most critical functions under the open access transmission tariff (OATT) because it determines whether transmission customers can access alternative power supplies."[54] The Commission has noted the broad range of

[52] NERC submitted Standards Request R19008, requesting that NAESB review retirements proposed within NERC Reliability Standards INT-004-3.1, INT-006-5, INT-009-3, and INT-010-2.1.

[53] NERC defines the components of ATC as "Total Transfer Capability, less Existing Transmission Commitments (including retail customer service), less a Capacity Benefit Margin, less a Transmission Reliability Margin plus postbacks and counterflow." AFC is defined as "A measure of the flow capability remaining on a Flowgate for further commercial activity over and above already committed uses. It is defined as Total Flowgate Capability less Existing Transmission Commitments (ETC), less a Capacity Benefit Margin, less a Transmission Reliability Margin, plus Postbacks, and plus counterflows." *See* NERC "Glossary of Terms Used in NERC Reliability Standard," http://nerc.com/files/glossary_of_terms.pdf . The Commission's regulations contain similar language. *See* 18 CFR 37.6(b)(1).

[54] *Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer*

transmission customers affected by ATC calculations, including loads, power producers, and power marketers.[55]

42. In Order No. 890, the Commission found that transmission owners utilized a variety of ATC calculation methodologies and very few clear rules governed their use.[56] The complexity created by these multiple approaches presented obstacles to calculating ATC consistently and accurately. In Order No. 890, the Commission adopted a number of reforms addressing the potential for remaining undue discrimination in the determination of ATC by requiring consistency in how ATC is evaluated, as well as providing greater transparency about how a transmission provider calculates and allocates ATC.[57] In Order No. 890, the Commission directed industry to develop Reliability Standards, using the NERC Reliability Standards development procedures that provide for consistency and transparency in the methodologies used by transmission owners to calculate ATC.[58] Additionally, the Commission directed public utilities, working through NAESB, to develop workable Business Practice Standards to improve the consistency and transparency of ATC calculations,[59] while reducing the opportunity for transmission

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Capability, & Existing Transmission Commitments & Mandatory Reliability Standards for the Bulk-Power Sys., Order No. 729, 129 FERC ¶ 61,155, at P 2 (2009).

[55] Order No. 890, 118 FERC ¶ 61,119 at P 195.

[56] *Id.* P 62.

[57] *Id.* P 69.

[58] *Id.* P 196.

[59] *Id.*

providers to exercise excessive discretion that could undermine the overarching policy goal of ensuring non-discriminatory, open access.

43. In response, NERC worked with industry to develop Reliability Standards improving consistency and transparency of ATC calculation methodologies, which NERC would audit and enforce. NERC submitted its MOD standards to the Commission in April 2006.[60] The MOD standards related to ATC eventually became known as the MOD A Reliability Standards. The MOD A Reliability Standards helped to standardize the methodologies and system data needed for traditional transmission system operation and expansion planning, reliability assessment and the calculation of available transfer capability, as well as helping to enable nondiscriminatory access to the transmission system.

44. In February 2014, NERC petitioned the Commission to permit it to retire its MOD A ATC Reliability Standards.[61] NERC argued that ATC and AFC values are commercial in nature. NERC also asked that the Commission approve MOD-001-2 which would replace, consolidate and improve upon the MOD A standards in addressing the reliability issues associated with the determination of ATC and AFC. At the same time, NERC requested that NAESB develop business practice standards for the

[60] *Id.* P 9.

[61] *Petition of NERC for Approval of Proposed Reliability Standard MOD-001-2 & Ret. of Reliability Standards MOD-001-1a, MOD-004-1, MOD-008-1, MOD-028-2, MOD-029-1a & MOD-030-2*, Docket No. RM14-7-000 (Feb. 10, 2014).

commercial aspects of ATC and AFC.[62] NAESB first developed the WEQ-023 Modeling Business Practice Standards through its stakeholder process and submitted them to the Commission as part of the WEQ Version 003.1 Standards, filed with the Commission in its October 2015 Filing.[63] The Commission, however, did not incorporate most of those standards by reference, because it was still considering NERC's proposed retirement of MOD A Reliability Standards and had initiated a proceeding to consider proposed changes to the calculation of ATC.[64]

45. In WEQ Version 003.3, NAESB made additional revisions and included new standards to the WEQ-023 Modeling Business Practice Standards: WEQ-023-1 (General Requirements), WEQ-023-2 (ATC Requirements), WEQ-023-3 (CBM Scheduling Requirements), WEQ-023-4 (TRM Requirements), which were all developed as a result of NAESB's review of NERC Reliability Standards MOD-001-1a, MOD-004-1,

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[62] *See, NAESB MOD Effort Status Report under RM05-5, et al*., Docket No. RM14-7 (Dec. 19, 2014). The Commission subsequently held a workshop to discuss actions the Commission could take to ensure that Transmission Providers continue to calculate ATC in a manner that ensures nondiscriminatory access to wholesale electric transmission services. *See Supplemental Notice of Workshop – New Date*, Docket No. AD15-5-000 (Mar. 31, 2015). The Transcript of the April 21, 2015 technical workshop on available transmission capability held in Washington, DC is available in eLibrary under Docket No. AD15-5-000.

[63] *Report of the N. American Energy Standards Bd. on Version 003.1 of the Wholesale Elec. Quadrant Bus. Practice Standards under RM05-5*, Docket No. RM05-5-025 (Oct. 26, 2015).

[64] *See Available Transfer Capability Standards for Wholesale Elec. Transmission* Services, Docket No. AD15-5-000 (Dec. 30, 2014) (noticing a Commission staff workshop to discuss actions the Commission could take to ensure that transmission providers continue to calculate and post ATC in a manner that ensures nondiscriminatory access to wholesale electric transmission services).

MOD-008-1, MOD-028-2, MOD-029-2a, and MOD-030-3, and the proposed NERC Reliability Standard MOD-001-2.

b. NAESB Standards

46. In response to NERC's proposed retirement of the MOD A Reliability Standards NAESB developed the WEQ-023 Modeling Business Practice Standards. They are composed of six subordinate sections and an appendix. WEQ-023-1 includes general requirements and lists the three allowable methodologies for calculating ATC or AFC. WEQ-023-2 describes these three allowable methodologies: area interchange, rated system path, and flowgate. WEQ-023-3 describes the calculation of capacity benefit margin (CBM), for those transmission providers that use CBM. Similarly, WEQ-023-4 describes the calculation of transmission reliability margin (TRM), for those transmission providers that use TRM. WEQ-023-5 describes how postbacks should be used. WEQ-023-6 requires a description and posting of grandfathered agreements. Finally, WEQ-023-A includes a table and examples for the use of postback conditions in calculation of ATC or AFC. As noted above, the latter two requirements and the Appendix were incorporated by reference in Order No. 676-I.

47. NAESB states that these modifications ensure that all commercially relevant requirements needed by the industry to calculate ATC and AFC are included in the WEQ-023 Modeling Business Practice Standards. The WEQ-023 Modeling Business Practice Standards, in part, incorporate forty-five requirements and sub-requirements previously included in NERC Reliability Standard MOD-001-2. The WEQ-023 Modeling Business Practice Standards also include two new requirements not previously

included in the NERC Reliability Standards addressing contract path management. These two requirements, which are contained in WEQ-023-1.4 and WEQ-023-1.4.1, limit the amount of firm transmission service across a path between balancing authorities to the contract path limit for that given path.

48. NAESB also modified WEQ-001-13.1.5 to replace references to the NERC MOD-A Reliability Standards with references to WEQ-023 Modeling Business Practice Standards[65] and made consistency changes to WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards.

c. Commission Proposal

49. The Commission stated in Order No. 729 that calculation of ATC is one of the most critical functions under the OATT, because it determines whether transmission customers can access alternative power supplies. It found that the improved transparency and consistency of ATC calculation methodologies would limit transmission service providers' wide discretion in calculating ATC and ensure that customers are treated fairly in seeking alternative power supplies.[66] Because of the importance of the ATC calculation and as a result of the proposed retirement of NERC's MOD A Reliability Standards, the Commission is proposing to revise its regulations to establish the general

[65] WEQ-001-13.1.5 revisions include new links to the *Available Transfer Capability Implementation Document - ATCID*, as specified in 1a Business Practice Standard WEQ-023-1.3, previously NERC MOD-001-1a; the *CBM Implementation Document – CBMID*, as specified in Business Practice Standard WEQ-023-1.5, which was previously NERC MOD-004-1, and the *TRM Implementation Document - TRMID* as specified in Business Practice Standard WEQ-023-1.6; previously NERC MOD-008-1.

[66] *See* Order No. 729, 129 FERC ¶ 61,155 at P 2.

criteria transmission owners must use in calculating ATC. The Commission also is proposing to adopt the NAESB standards as they appear generally consistent with those criteria. The Commission, however, seeks comment herein on whether the NAESB standards could be improved by providing additional detail to further protect transmission customers. We seek comment on whether the proposed regulatory text included below will provide a clear basis for establishing that transmission provider ATC calculations must be transparent, consistent, and not unduly discriminatory or preferential. We also seek comment on whether we should develop additional new regulations to maintain the current level of detail related to ATC calculations; if so, what level of detail those regulations should have.

i. Proposed Regulation

50. The Commission is proposing to revise its regulations governing the calculation of ATC and TTC in 18 CFR 37.6(b)(2)(i):

> (2) Calculation methods, availability of information, and requests. (i) Information used to calculate any posting of ATC and TTC must be dated and time-stamped and all calculations shall be performed according to consistently applied methodologies referenced in the Transmission Provider's transmission tariff and shall be based on Commission-approved Reliability Standards, business practice and electronic communication standards, and related implementation documents, as well as current industry

> practices, standards and criteria. Transmission Providers shall calculate ATC and TTC in coordination with and consistent with capability and usage on neighboring systems, calculate system capability using factors derived from operations and planning data for the time frame for which data are being posted (including anticipated outages), and update ATC and TTC calculations as inputs change. Such calculations shall be conducted in a manner that is transparent, consistent, and not unduly discriminatory or preferential.[67]

51. This proposed regulation, in conjunction with the WEQ-023 Modeling Business Practice Standards, will help ensure that all transmission customers will be treated fairly when seeking alternative power supplies,[68] and will provide for comparable and not unduly discriminatory or preferential treatment of native load customers and transmission service customers. As the Commission stated in Order No. 729, "the potential for discrimination and decline in reliability level does not lie primarily in the choice of an available transfer capability calculation methodology, but rather in the consistent application of its components, input and exchange data, and modeling assumptions."[69]

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[67] Proposed regulatory text to be added to 18 CFR 37.6(b)(2)(i) is indicated by underlining.

[68] *See* Order No. 729, 129 FERC ¶ 61,155 at P 2.

[69] *Id.* P 11 (citing Order No. 890, 118 FERC ¶ 61,119 at P 1029).

We preliminarily find that this proposed regulation will ensure that transmission owners implement the NAESB standards in a way that helps to ensure non-discriminatory treatment to all transmission customers.

ii. NAESB Standards

52. We propose to incorporate by reference these WEQ-023 Modeling Business Practice Standards into the Commission's regulations at 18 CFR 38.1(b). However, as discussed below, we have concerns that certain of these business practice standards may lack the detail currently provided by the currently enforceable NERC MOD A Reliability Standards. Because the calculation of ATC determines whether transmission customers can access alternative power supplies,[70] these calculations have significant commercial implications. Accordingly, we request parties to submit comments on whether the NAESB Business Practice Standards WEQ-023-1 (General Requirements), WEQ-023-2 (ATC Requirements), WEQ-023-3 (CBM Scheduling Requirements), and WEQ-023-4 (TRM Requirements), as explained in the paragraphs below, provide sufficient details to protect transmission customers. Further, we seek comment on whether the Commission should start its own process to adopt more specific regulations regarding ATC calculations or by modifying the *pro forma* OATT or, alternatively, ask NAESB to consider providing additional details and more specific requirements in further revisions to these standards in a subsequent WEQ Version filing.

[70] *Id*. P 2.

53. The currently effective NERC Reliability Standard MOD-001-1a (General Requirements), which NERC proposes to retire, provides both transparency into and consistency of ATC computations for transmission customers. It includes nine requirements, and the loss or replacement of Requirements R3 through R7 may raise concerns regarding both transparency and consistency. For example, Requirements R3.6, R3.6.1, and R3.6.2 of MOD-001-1a require each Transmission Service Provider[71] to describe in its ATC Implementation Document (ATCID) how it accounts for generation and transmission outages. Although NAESB's proposed revisions in WEQ-023-1.1.1.2 and WEQ-023-1.3.2 require the Transmission Service Provider to describe how it accounts for outages, these requirements provide significantly less detail than MOD-001-1a regarding the means by which the outages should be accounted. This lack of detail raises concerns of consistency in the ATCID, as specified in WEQ-023-1.3. We seek comment as to whether these changes could reduce transparency and consistency in ATC calculations, and if so, how this should be remedied.

54. Requirements R3.2, R3.2.1, and R3.2.2 of MOD-001-1a require each Transmission Service Provider to describe how counterflows are accounted for in its ATCID. NAESB's proposed revisions in WEQ-023-1 do not require the inclusion of this description in the ATCID, despite the fact counterflows are a key variable in the

[71] NERC defines a Transmission Service Provider as "The entity that administers the transmission tariff and provides Transmission Service to Transmission Customers under applicable Transmission Service agreements." *See* NERC "Glossary of Terms Used in NERC Reliability Standard," http://nerc.com/files/glossary_of_terms.pdf.

determination of ATC. We seek comment on whether additional information on the incorporation of counterflows is necessary for increased transparency in ATC calculations, and if so, how this should be remedied.

55. Requirement R3.5 of MOD-001-1a requires each Transmission Service Provider to describe how it allocates transfer or flowgate capability among multiple lines or sub-paths, among multiple owners or users, or between Transmission Service Providers in its ATCID. NAESB's proposed revisions in WEQ-023-1 do not appear to require a Transmission Service Provider to describe how ATC or AFC will be allocated. We seek comment on whether the potential absence of a description of allocation of ATC may reduce transparency and thereby increase discretion and the potential for discrimination to occur, and if so, how this should be remedied.

56. Requirements R4 and R5 of MOD-001-1a require each Transmission Service Provider to notify certain entities before implementing a new ATCID and to make that document publicly available. NAESB does not appear to have proposed new requirements for sharing changes before implementation in WEQ-023-1.7, which could lead to a potential transparency concern. We seek comment as to whether not sharing changes before implementation will reduce transparency for transmission customers, and if so, how this should be remedied.

57. Of particular note, Requirements R6 and R7 of MOD-001-1a obligate each Transmission Operator to use assumptions no more limiting that those used in its planning of operations calculations. Ensuring that the criteria a Transmission Service Provider uses to plan and operate its system are consistent with the criteria used in

scheduling commercial transactions provides an assurance that transmission customers will have access to transfer capability that is physically available. We seek comment on whether the potential absence of such a requirement in the NAESB WEQ-023-1 Modeling Business Practice Standards raises consistency issues and could create additional discretion and the potential for the consistency of ATC calculations to decline, and if so, how this should be remedied.

58. The currently effective NERC Reliability Standard MOD-004-1 (Capacity Benefit Margin), which NERC also proposes to retire, provides transparency and consistency for transmission customers. This standard includes 12 requirements, and the loss or replacement of several of these existing NERC requirements in the NAESB WEQ-023 Modeling Business Practice Standards raise concerns for the Commission. For example, Requirements R1.1, R1.2, and R1.3 of MOD-004-1 currently obligate a Transmission Service Provider to provide descriptions of how CBM values are determined and allocated. WEQ-023-1.5, simply requires a Transmission Service Provider that maintains CBM to post a CBM Implementation Document (CBMID) that describes the process to schedule CBM. We seek comment as to whether eliminating the description of the development of CBM values and the allocation of CBM risks a reduction of detail and transparency to users of CBM or other transmission customers. Similarly, Requirements R3, R3.1, and R3.2 of MOD-004-1 provide detail on how load-serving entities determine that their CBM needs are set aside. NAESB WEQ-023-1.5 does not appear to address whether load-serving entities retain a role in the CBM determination process. The currently effective Requirements R5, R5.1, and R5.2 of MOD-004-1 require that at least

every 13 months a Transmission Service Provider updates CBM for the future 13-month period, and to provide some details on how it calculates CBM. NAESB WEQ-023-1.5 does not include requirements related to the updating of CBM values or details of its calculation. We seek comment on whether this potential absence will decrease transparency in the ATC calculations, and if so, how this should be remedied.

59. Requirements R7, R8, R9, R9.1, and R9.2 of MOD-004-1 currently require a Transmission Service Provider to notify load-serving entities if they were allocated CBM, and to provide supporting data and documentation. The NAESB WEQ-023 Modeling Business Practice Standards do not appear to include requirements for notification or public posting, but rather in WEQ-023-1.7 provide that information shall be available within 45 days of a request. We seek comment on whether the net effect of these changes may raise concerns regarding the transparency to users of CBM or other transmission customers, and if so, how this should be remedied.

60. The currently effective NERC Reliability Standard MOD-008-1 (Transmission Reliability Margin), again, which NERC proposes to retire, provides detail, transparency and accuracy for transmission customers. This NERC Reliability Standard includes five requirements, and the loss or replacement of several of these existing NERC requirements within the NAESB WEQ-023 Modeling Business Practice Standards raise concerns. Specifically, Requirements R1, R1.1, R1.2, and R1.3 provide detail regarding the information that the Transmission Service Provider must represent in its Transmission Reliability Margin Implementation Document (TRMID), including the components of uncertainty considered in establishing TRM. NAESB WEQ-023-4.1 requires only that a

Transmission Operator that determines TRM maintain a TRMID that specifies the components it includes in TRM, but without specification as to these inputs. We seek comment on whether this potential lack of detail could lead to inconsistency and increased discretion, and if so, how this should be remedied.

61. Requirement R4 of MOD-008-1 requires the Transmission Service Provider to update TRM at least once every 13 months. NAESB WEQ-023-4 does not include specific requirements to update TRM values. We seek comment on whether the potential lack of such requirements could contribute to insufficient transparency and discretion, and if so, how this should be remedied.

62. As discussed above, the NERC MOD A Reliability Standards include the three "ATC methodology" standards, which contain the specific requirements applicable to each entity that selects and implements that ATC methodology. NERC proposes to retire each of the three. The first of these three ATC methodology standards, NERC Reliability Standard MOD-028-2 (Area Interchange Methodology), describes the area interchange methodology for determining available transfer capability. NERC used this standard to increase consistency and reliability in the development and documentation of transfer capability calculation for short-term use performed by entities using the area interchange methodology to support analysis and system operations.[72] The Area Interchange Methodology is described in WEQ-023-2.1. MOD-028-2 consists of eleven requirements. We seek comment on how three of these MOD-028-2

[72] *See, e.g.,* Order No. 729, 129 FERC ¶ 61,155 at P 54.

requirements, Requirements R2.2, R3, and R6, are reflected in NAESB WEQ-023-2.1. MOD-028-2 Requirement R1 provides details regarding the content that a Transmission Service Provider is required to include in its ATCID, specifically with respect to its methodology for determining Total Transfer Capability (TTC). The NAESB standard WEQ-023-2.1 only requires a general description of these factors and appears to provide a lesser degree of detail regarding certain components of the determination such as source/sink and point of delivery (POD)/point of receipt (POR).

63. MOD-028-2 Requirement R2.2 currently requires each Transmission Operator to calculate TTC using a model that meets a scope specified in the requirement and includes rating information specified by the generator owners and transmission owners whose equipment is represented in the model. In addition, MOD-028-2 Requirement R2.2 requirement obligates a transmission provider to use a transmission model that contains the modeling data and topology for immediately adjacent and beyond Reliability Coordination areas when computing TTC. WEQ-023-2.1 does not appear to require the models to use data and topology for either immediately adjacent or beyond Reliability Coordination areas. We seek comment as to whether the potential absence of this requirement in NAESB's Area Interchange Methodology, WEQ-023-2.1 could raise coordination issues for transmission customers when scheduling transactions across areas, and if so, how this should be remedied.

64. MOD-028-2 Requirement R3 details the information that a Transmission Operator must include from adjacent and other Transmission Service Providers in its determination of TTC for the on-peak and off-peak intra-day and next-day time periods, including

expected generation and transmission outages, additions, and retirements, load forecasts, and unit commitment and dispatch order. NAESB WEQ-023-2.1 does not appear to include such a coordination requirement. We seek comment as to whether the removal of such a coordination requirement could potentially constitute a lack of specificity in the NAESB Business Practice Standards that could detract from the usefulness of computed ATC values, and if so, how this should be remedied.

65. MOD-028-2 Requirement R6 provides details on the process by which each Transmission Operator must establish TTC, which it must communicate to the Transmission Service Provider, including the representation of neighboring area system operating limits. The NAESB WEQ-023-2.1 Modeling Business Practice Standards appear to provide no guidance on the process for establishing TTC. We seek comment on whether NAESB WEQ-023-2.1, Area Interchange Methodology, should include additional guidance in the calculation of TTC will increase transparency and consistency in ATC calculations, and if so, how this should be remedied.

66. The second of the three ATC methodology standards, NERC Reliability Standard MOD-029-2a (Rated System Path Methodology) describes the rated system path methodology for determining ATC. This NERC Reliability Standard provides consistency, accuracy and transparency in the development and documentation of transfer capability calculations for short-term use performed by entities used the rated system path methodology supports analysis and system operations.[73] This NERC Reliability Standard

[73] *Id.* P 62.

includes eight requirements, and we seek comment on how two of the requirements, Requirements R1 and R4, are addressed in the NAESB WEQ-023 Modeling Business Practice Standards. The Rated System Path Methodology is described in WEQ-023-2.2.

67. First, under MOD-029-2a Requirement R1, a Transmission Operator must calculate total transfer capability using a model that meets detailed scope and criteria specified in the requirement. However, WEQ-023-2.2.1 only requires that an entity choosing to use the rated system path methodology must use the lesser of the maximum allowable contractual allocation or the Transmission Operator's reliability limit. The NAESB WEQ-023-2.2 Modeling Business Practice Standards do not appear to have standards that account for geographic specifications, time period consistency, remedial action systems, and in-service elements that are not present. Similarly, MOD-029-2a Requirement R2 lists a detailed process by which the Transmission Operator must establish total transfer capability, however, NAESB WEQ-023-2.2 does not appear to describe a similar process in its standards. We seek comment as to whether these potential discrepancies could lead to an inappropriate decrease in modeling consistency or accuracy and, if so, how this should be remedied.

68. MOD-029-2a Requirement R4 requires the Transmission Operator to make available to the Transmission Service Provider the appropriate most recent value for TTC and the TTC study report within seven days of its finalization. The NAESB WEQ-023 Modeling Business Practice Standards includes a standard, WEQ-023-1.7, under which certain specified entities with a reliability need may request clarification of a transmission provider's total transfer capability, or its ATCID, CBMID, or TRMID, and receive the

requested information within 45 days, and under WEQ-023-2.2.2 the Transmission Operator shall provide the Transmission Service Provider with the most current values of TTC within seven calendar days of their establishment. We seek comment as to whether these provisions in the WEQ-023-2.2 are sufficient to maintain the transparency and data availability provided under the current MOD A standards, and if not, how this should be remedied.

69. The third of the three ATC "methodology" standards, NERC Reliability Standard MOD-030-3 (Flowgate Methodology), describes the flowgate methodology for determining available transfer capability and has eleven requirements. The purpose of this NERC Reliability Standard is to provide consistency, accuracy, and reliability in the development and documentation of transfer capability calculations for short-term use performed by entities using the flowgate methodology to support analysis and system operations.[74] The Flowgate Methodology is described in WEQ-023-2.3.

70. MOD-030-3 Requirements R1 and R2 provide detail regarding the information a Transmission Service Provider must include in its ATCID. Requirement R1 includes the criteria used to determine which facilities should be considered potential flowgates, and what information is to be used about adjacent balancing authority areas. Requirement R2 contains a list of minimum characteristics used to identify a particular set of transmission facilities as a flowgate. We seek comment on whether an appropriate degree of transparency and consistency in the identification of flowgates is maintained through

[74] *Id*. P 66.

WEQ-023-1.1.1.3.1 and elsewhere under the NAESB WEQ-023 Modeling Business Practice Standards and if so, how this should be remedied.

71. MOD-030-3 Requirements R3.2 and R3.3 require each Transmission Operator to provide a transmission model that meets specified criteria and establish requirements for daily and monthly updates of the modeling values used in AFC calculations, including adjacent areas. We seek comment as to whether a requirement to update available flowgate capability calculations is necessary in NAESB WEQ-023-2.3 or elsewhere in the NAESB WEQ-023 Modeling Business Practice Standards. Similarly, Requirement R4 details how a Transmission Service Provider shall represent the sources and sinks associated with transmission service when conducting AFC calculations. These NERC requirements do not appear to be carried into the NAESB WEQ-023-2.3 Modeling Business Practice Standards. We seek comment on whether these omissions could lead to a reduction of calculation accuracy or an unwarranted increase in discretion and if so, how this should be remedied.

72. As discussed above, we seek comment on the adequacy of the NAESB WEQ-023 Modeling Business Practice Standards to replace the existing NERC MOD A Reliability Standards when their proposed retirement becomes effective, and whether to encourage NAESB to include additional detail or other further modifications in future versions of the Modeling Business Practice Standards. In summary, while we propose to incorporate these standards by reference, we also seek comments on: (i) the overall effectiveness of the standards in NAESB's WEQ-023 Modeling Business Practice Standards; (ii) whether the NAESB Business Practice Standards sufficiently limit transmission provider

discretion over ATC; (iii) whether customer concerns expressed in response to the April 2015 technical workshop regarding inconsistencies between transmission systems in treatment of outages need to be addressed; (iv) whether the posting and sharing of data and information used in determining ATC is sufficiently transparent; (v) whether the specificity of modeling requirements is sufficient to ensure nondiscriminatory access; (vi) whether the ATC calculation components described correspond with operations, modeling, and planning data used by Transmission Providers; (vii) whether the level of detail required in the ATCID is sufficient to ensure nondiscriminatory access; and (viii) whether the Commission should seek to address the concerns raised in response to these comments through a new request to NAESB and its stakeholder process.

2. Standards to Ensure Electronic Tagging (e-Tagging)

73. The WEQ Version 003.3 Standards modify the WEQ-004 Coordinate Interchange Business Practice Standards to ensure e-Tagging transactions will continue to function as needed for commercial purposes. The WEQ-004 Coordinate Interchange Business Practice Standards revisions incorporate commercially relevant requirements proposed for retirement by NERC from the NERC INT Reliability Standards[75] and include a requirement to register pseudo-ties in the NAESB Electric Industry Registry (EIR).[76]

[75] In addition to its proposed retirement of the MOD A Reliability Standards in its RM19-17-000 petition, NERC proposed to retire currently-effective Reliability Standards and requirements in other categories, including INT-004-3.1 and INT-010-2.1 (in their entirety), and INT-006-5, Requirements R3.1, R4 and R5, and INT-009-3, Requirement R2.

[76] The NAESB EIR tool serves as the central repository for information utilized by

74. NAESB's revised WEQ-004 Coordinate Interchange Business Practice Standards to ensure e-Tagging transactions continue to function as needed for commercial purposes do not appear inconsistent with any Commission directives or findings in other orders. Accordingly, we propose to incorporate by reference, into the Commission's regulations at 18 CFR 38.1(b), NAESB's revised standards modify the WEQ-004 Coordinate Interchange standards to ensure e-Tagging transactions will continue to function as needed for commercial purposes, as set forth in NAESB's WEQ Version 003.3 Standards.

3. E-Tagging Commercial Timing

75. The WEQ Version 003.3 Standards also revise the Appendix D – Commercial Timing Tables[77] in the WEQ-004 Coordinate Interchange Business Practice Standards. The Appendix D – Commercial Timing Tables were revised to ensure entities do not receive additional time to conduct market assessments beyond the prescribed timing parameters. The revisions therefore provide additional clarity as to the timing requirements for conducting e-Tagging transactions and correct an unrelated

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the wholesale electric industry in commercial scheduling and transmission management operations. *See* NAESB WEQ Version 003.3 Report, Transmittal at 17-18.

[77] WEQ-004-D includes two tables that establish timing requirements regarding the submittal and commercial assessments of e-Tags for the Eastern Interconnection and Western Interconnection, respectively. These tables are complementary to timing tables regarding reliability assessments of e-Tags for the Eastern Interconnection and Western Interconnection included as part of NERC Reliability Standard INT-006-4.

typographical error in Appendix A – e-Tagging Service Performance Requirements and Failure Procedures.

76. NAESB's revised WEQ-004 Coordinate Interchange Business Practice Standards, Appendix D – Commercial Timing Tables, and corrected Appendix A – e-Tagging Service Performance Requirements and Failure Procedures provide additional clarity regarding the timing requirements for conducting e-Tagging transactions, and do not appear inconsistent with any Commission directives or findings in other orders. Accordingly, we propose to incorporate by reference, into the Commission's regulations at 18 CFR 38.1(b), NAESB's revised standards that modify the Appendix D – Commercial Timing Tables, WEQ-004 Coordinate Interchange Business Practice Standards, as set forth in NAESB's WEQ Version 003.3 Standards.

E. Revisions to WEQ Business Practice Standards Not Requested by Commission or Developed to Comply with a Commission Directive

77. In addition to the standards revisions that NAESB made to comply with various Commission directives and requests, the WEQ Version 003.3 Standards also include revisions undertaken by NAESB to support the Parallel Flow Visualization (PFV) congestion management process (described above), as well as changes to the OASIS suite of standards that support transparency, consistency, and efficiency.

OASIS Transparency, Consistency, and Efficiency Changes

78. The WEQ Version 003.3 Standards include additions, revisions, and reservations intended to increase transparency, consistency, and/or efficiency for the industry in the utilization of OASIS. As a result, the WEQ Version 003.3 Standards include changes to

the OASIS suite of standards. First, the OASIS suite of standards was modified to provide additional query functionality within OASIS by accommodating multiple query variables.[78] These changes allow for multiple transmission service requests and transmission service reservations to be returned in a single query response, reducing the need for a transmission customer or transmission provider to conduct multiple queries.

79. Second, the OASIS suite of standards was modified[79] to establish a mechanism within OASIS to document all encumbrances to unconditional firm transmission service, such as untagged pseudo-ties. NAESB states this new mechanism provides increased visibility regarding encumbrances on OASIS, which will serve to prevent encumbered unconditional firm transmission capacity from being released as non-firm ATC or AFC. Further, NAESB states the new mechanism will result in improved transparency regarding encumbrances which will help to ensure that any encumbered capacity is only used for its intended purpose.

80. Third, the OASIS suite of standards was revised[80] to provide new functionality and improve efficiencies regarding dynamic notifications to transmission customers and

[78] The WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

[79] The WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards, the WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

[80] The WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS

rollover rights renewal. The HTTP format for dynamic notifications was replaced with a generic email format that could be utilized for any status notifications deadline.

81. Fourth, the WEQ-001 OASIS Business Practice Standards were modified to provide clarity regarding the use of Next Hour Market Service and the 0-NX transmission product code.[81] NAESB states the revised standards clarify that the 0-NX transmission product code is the lowest curtailment priority and can be used for purposes outside of the identification of Next Hour Market Service.

82. Fifth, modifications were made to NITS-related standards[82] within the WEQ OASIS suite of standards. NITS allows transmission customers the ability to integrate and economically dispatch network resources to serve network load, making the treatment of these customers comparable to how the transmission provider would utilize its own system to serve its native load customers. NAESB states substantive changes provide increased flexibility in the use of scheduling rights, improve efficiencies to the query functionality, support the use of fractional megawatt values in generator attributes, and create new dynamic notifications.

Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

[81] The WEQ-001 OASIS Business Practice Standards.

[82] The WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and the WEQ-013 OASIS Implementation Guide Business Practice Standards.

83. Accordingly, we propose to incorporate by reference into the Commission's regulations at 18 CFR 38.1(b) NAESB's additions, revisions, and reservations to the OASIS suite of standards, which include the WEQ-001 OASIS Business Practice Standards, the WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards, the WEQ-003 OASIS Data Dictionary Business Practice Standards, and WEQ-013 OASIS Implementation Guide Business Practice Standards, as set forth in NAESB's WEQ Version 003.3 Standards.

IV. Implementation Schedule

84. As discussed briefly above, the Commission proposes to incorporate by reference into its regulations the proposed NAESB Business Practice Standards that address the revisions related to the surety assessment on cybersecurity performed by Sandia on a different timeline than for the remainder of the changes proposed by NAESB in WEQ Version 003.3. The Commission proposes that industry filers submit compliance filings on proposed cybersecurity nine months after the publication of a final rule in this proceeding, with implementation required no sooner than three months after compliance filings are submitted to the Commission, for a total implementation period of at least 12 months.

85. The Commission notes that for the WEQ Version 003.3 Standards that pertain to OASIS, NAESB includes in its Business Practice Standards WEQ 002-6, a 12-month implementation period. WEQ 002-6 provides a nine-month proposed timeline for transmission providers to implement all changes required to support the OASIS-related standards and an additional three months following this implementation period for

transmission customers to complete any necessary actions. WEQ-002-6 also requires OASIS nodes to maintain full support for queries and uploads as formatted under the past version of the OASIS-related standards during the full 12-month proposed implementation timeline.

86. The Commission proposes to implement the WEQ Version 003.3 Standards, other than those related to cybersecurity,[83] under an 18-month implementation timeline. Nonetheless, the Commission acknowledges that based upon when the Commission issues a final rule, industry may be required to incorporate certain changes proposed under WEQ Version 003.3 Standards while also implementing changes required by Order No. 676-I.[84] There is the potential for industry to be required to incorporate the changes made in the WEQ 003.2 Standards as adopted by the Commission in Order No. 676-I either immediately prior to or simultaneously with the changes required in the WEQ Version 003.3 Business Practice Standards based upon when the Commission decides to issue a final rule herein.[85] Given this possibility, the Commission requests comments on how best to proceed with the implementation of the remaining WEQ 003.3 Business

[83] A complete list of the specific cybersecurity business practice standards is included at Appendix I.

[84] The Commission is not proposing an implementation timeline for the ATC-related standards at this time. The implementation of NAESB's ATC-related standards under WEQ-023 will be coordinated with the retirement of the NERC MOD A standards being addressed in Docket Nos. RM19-16-000 and RM19-17-000.

[85] On April 3, 2020, the Commission issued a notice granting an 18-month extension to implement the changes incorporated by reference in Order No. 676-I.

Practice Standards, including the standards related to PFV and OASIS, but not those related to cybersecurity, to be incorporated by reference. Specifically, rather than being implemented on the separate timeline for the cybersecurity, as described herein: should the Commission require the industry to implement WEQ Version 003.2 prior to WEQ Version 003.3. Alternatively, should the Commission cancel the implementation obligation of WEQ Version 003.2 and instead require implementation of all accepted WEQ Version 003.3 standards, including WEQ Version 003.2 changes, within 18 months.[86] Please provide comment as to a preferred approach and timeline for implementation of these various WEQ Standards.

V. Incorporation by Reference

87. The Office of the Federal Register requires agencies incorporating material by reference to discuss, in the preamble of the proposed rule, the ways that the materials it incorporates by reference are reasonably available to interested parties and how interested parties can obtain the materials.[87] The regulations also require agencies to summarize in the preamble of the proposed rule the material it incorporates by reference. The standards we are proposing to incorporate by reference in this NOPR consist of 14 suites of business practice standards applicable to public utilities that own, operate, or control

[86] This would include all WEQ Version 003.3 standards except for the cybersecurity standards which have an earlier implementation timeline, as discussed herein, as well as the implementation of the NAESB ATC-related standards contained in WEQ-023, which will be coordinated with the retirement of the NERC MOD A standards.

[87] 1 CFR 51.5. *See* Incorporation by Reference, 79 FR 66267 (Nov. 7, 2014).

facilities used for the transmission of electric energy in interstate commerce or for the sale of electric energy at wholesale in interstate commerce and any non-public utility that seeks voluntary compliance with jurisdictional transmission tariff reciprocity conditions. These can be summarized as follows.

88. The WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards provide a single location for all abbreviations, acronyms, and defined terms referenced in the WEQ Business Practice Standards. These standards provide common nomenclature for terms within the wholesale electric industry, thereby reducing confusion and opportunities for misinterpretation or misunderstandings among industry participants.

89. The OASIS suite of business practice standards (WEQ-001 Open Access Same-Time Information Systems (OASIS), WEQ-002 OASIS Standards and Communication Protocols, WEQ-003 OASIS Data Dictionary, and WEQ-013 OASIS Implementation Guide) support the FERC posting and reporting requirements that provide information about each transmission provider's performance of the requirements of its *pro forma* OATT. The OASIS system is used for scheduling transmission on the bulk power system, comprises the computer systems and associated communications facilities that public utilities are required to provide for the purpose of making available to all transmission users comparable interactions, and provides transmission service information and any back-end supporting systems or user procedures that collectively perform the transaction processing functions for handling requests on OASIS. These standards establish business practices and communication protocols that provide for

consistent implementation across OASIS sites as well as consistent methods for posting to OASIS.

90. The WEQ-001 OASIS Business Practice Standards define the general and specific transaction processing requirements and related business processes required for OASIS. The standards detail requirements related to standard terminology for transmission and ancillary services, attribute values defining transmission service class and type, ancillary and other services definitions, OASIS registration procedures, procurement of ancillary and other services, path naming, next hour market service, identical transmission service requests, redirects, resales, transfers, OASIS postings, procedures for addressing ATC or AFC methodology questions, rollover rights, conditional curtailment option reservations, auditing usage of Capacity Benefit Margin, coordination of requests for service across multiple transmission systems, consolidation, preemption and right-of-first refusal process, and NITS requests.

91. The WEQ-002 OASIS Standards and Communication Protocols Business Practice Standards define the technical standards for OASIS. These standards detail network architecture requirements, information access requirements, OASIS and point-to-point interface requirements, implementation, and NITS interface requirements.

92. The WEQ-003 OASIS Data Dictionary Business Practice Standards define the data element specifications for OASIS.

93. The WEQ-004 Coordinate Interchange Business Practice Standards define the commercial processes necessary to facilitate interchange transactions via Request for Interchange (RFI) and specify the arrangements and data to be communicated by the

entity responsible for authorizing the implementation of such transactions (the entities responsible for balancing load and generation).

94. The WEQ-005 Area Control Error (ACE) Equation Special Cases Business Practice Standards define commercial-based requirements regarding the obligations of a balancing authority to manage the difference between scheduled and actual electrical generation within its control area. Each balancing authority manages its ACE in accordance with the NERC Reliability Standards. These standards detail requirements for jointly owned utilities, supplemental regulation service, and load or generation transfer by telemetry.

95. The WEQ-006 Manual Time Error Correction Business Practice Standards define the commercial based procedures to be used for reducing time error to within acceptable limits of true time. These standards have subsequently been marked reserved by NAESB. In Order No. 676-I, the Commission incorporated by reference WEQ Version 003.1 of the Manual Time Error Correction Business Practice Standards, effectively rejecting NAESB's proposal to retire these standards.[88]

96. The WEQ-007 Inadvertent Interchange Payback Business Practice Standards define the methods in which inadvertent energy is paid back, mitigating the potential for financial gain through the misuse of paybacks for inadvertent interchange. Inadvertent interchange is interchange that occurs when a balancing authority cannot fully balance generation and load within its area. The standards allow for the repayment of any

[88] Order No. 676-I, 170 FERC ¶ 61,062 at P 46.

imbalances through bilateral in-kind payback, unilateral in-kind payback, or other methods as agreed to.

97. The WEQ-008 Transmission Loading Relief – Eastern Interconnection Business Practice Standards define the business practices for cutting transmission service during a TLR event. These standards detail requirements for the use of interconnection-wide TLR procedures, interchange transaction priorities for use with interconnection-wide TLR procedures, and the Eastern Interconnection procedure for physical curtailment of interchange transactions.

98. The WEQ-011 Gas/Electric Coordination Business Practice 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.

99. The WEQ-012 Public Key Infrastructure (PKI) Business Practice Standards establish the cybersecurity framework for parties partaking in transactions via a transmission provider's OASIS or e-Tagging system. The NAESB PKI framework secure wholesale electric market electronic commercial communications via encryption of data and the electronic authentication of parties to a transaction using a digital certificate issued by a NAESB certified certificate authority. The standards define the

requirements for parties utilizing the digital certificates issued by the NAESB certificate authorities.

100. The WEQ-013 OASIS Implementation Guide Business Practice Standards detail the implementation of the OASIS Business Practice Standards. The standards detail requirements related to point-to-point OASIS transaction processing, OASIS template implementation, preemption and right-of-first-refusal processing, NITS application and modification of service processing, and secondary network transmission service.

101. The WEQ-015 Measurement and Verification of Wholesale Electricity Demand Response Business Practice Standards define a common framework for transparency, consistency, and accountability applicable to the measurement and verification of wholesale electric market demand response practices. The standards describe performance evaluation methodology and criteria for the use of equipment, technology, and procedures to quantify the demand reduction value – the measurement of reduced electrical usage by a demand resource.

102. The WEQ-021 Measurement and Verification of Energy Efficiency Products Business Practice Standards define a common framework for transparency, consistency, and accountability applicable to the measurement and verification of wholesale electric market energy efficiency practices. The standards establish energy efficiency measurement and verification criteria and define requirements for energy efficiency resource providers for the measurement and verification of energy efficiency products and services offered in the wholesale electric markets.

103. The WEQ-022 EIR Business Practice Standards define the business requirements for entities utilizing the NAESB managed EIR, a wholesale electric industry tool that serves as the central repository for information needed in the scheduling of transmission through electronic transactions. The standards describe the roles within EIR, registration requirements, and cybersecurity.

104. The WEQ-023 Modeling Business Practice Standards provide technical details concerning the calculation of ATC for wholesale electric transmission services. The WEQ-023 standards are intended to address the aspects of certain of the NERC MOD A Reliability Standards relating to modeling, data and analysis that are included in the NERC's proposed retirement of its MOD A Reliability Standards.

105. In addition, NAESB has adopted an additional eight suites of standards that, consistent with our past decisions, we are not proposing to incorporate by reference.[89]

[89] The suites of NAESB business practice standards we are not proposing to incorporate by reference in this NOPR are: (1) the WEQ-009 Standards of Conduct for Electric Transmission Providers, which NAESB has now eliminated as they duplicate the Commission's regulations; (2) the WEQ-010 Contracts Related Business Practice Standards that establish model contracts for the wholesale electric industry, and which the Commission has not incorporated as they are not mandatory; (3) the WEQ-014 WEQ/WGQ eTariff Related Business Practice Standards, which provide an implementation guide describing the various mechanisms, data tables, code values/reference tables, and technical specifications used in the submission of electronic tariff filings to the Commission, which the Commission has not incorporated as these submittals are governed by the Commission's eTariff regulations; and (4) the WEQ-016, WEQ-017, WEQ-018, WEQ-019, and WEQ-020 Business Practice Standards that were developed as part of the Smart Grid implementation and which the Commission adopted as non-mandatory guidance in 18 CFR 2.27. *See Standards for Business Practices and Communication Protocols for Public Utilities*, Order 676-H, 148 FERC ¶ 61,205, at P 90 (2014).

106. Our regulations provide that copies of the standards incorporated by reference may be purchased from the North American Energy Standards Board, 801 Travis Street, Suite 1675, Houston, TX 77002, Phone: (713) 356–0060, Website: http://www.naesb.org/. Copies of the standards may be inspected at the Federal Energy Regulatory Commission, Public Reference and Files Maintenance Branch, 888 First Street, NE, Washington, DC 20426, Phone: (202) 502–8371, Website: http://www.ferc.gov.[90]

107. NAESB is a private consensus standards developer that develops voluntary wholesale and retail standards related to the energy industry. The procedures used by NAESB make its standards reasonably available to those affected by the Commission regulations, which generally is comprised of entities that have the means to acquire the information they need to effectively participate in Commission proceedings.[91] NAESB provides a free electronic read-only version of the standards for a three business day period or, in the case of a regulatory comment period, through the end of the comment period.[92] Participants can join NAESB, for an annual membership cost of $7,500, which

[90] 18 CFR 284.12 (2019).

[91] As a private, consensus standards developer, NAESB needs the funds obtained from its membership fees and sales of its standards to finance the organization. The parties affected by these Commission regulations generally are highly sophisticated and have the means to acquire the information they need to effectively participate in Commission proceedings.

[92] Procedures for non-members to evaluate work products before purchasing are available at https://www.naesb.org/misc/NAESB_Nonmember_Evaluation.pdf. *See* Incorporation by Reference, 79 FR at 66271, n.51 & 53 (citing to NAESB's procedure of

entitles them to full participation in NAESB and enables them to obtain these standards at no additional cost.[93] Non-members may obtain a complete set of Standards Manuals, Booklets, and Contracts from any of the quadrants (WEQ, WGQ, or Retail) on CD for $2,000 and the Individual Standards Manual or Booklets for each standard by email for $250 per manual or booklet.[94] In addition, NAESB considers requests for waivers of the charges on a case by case basis based on need.

VI. Information Collection Statement

108. The following collection of information contained in this proposed rule is subject to review by the Office of Management and Budget (OMB) under section 3507(d) of the Paperwork Reduction Act of 1995, 44 U.S.C. 3507(d).[95] OMB's regulations require approval of certain information collection requirements imposed by agency rules.[96] Upon approval of a collection(s) of information, OMB will assign an OMB control number and an expiration date. Respondents subject to the filing requirements of this rule will not be

providing no-cost, no-print electronic access), NAESB Comment at 1, http://www.regulations.gov/#!documentDetail;D=OFR-2013-0001-0023).

[93] North American Energy Standards Board, *NAESB Membership Application*, https://www.naesb.org/pdf4/naesbapp.pdf.

[94] North American Energy Standards Board, *NAESB Materials Order Form*, https://www.naesb.org//pdf/ordrform.pdf.

[95] 44 U.S.C. 3507(d).

[96] 5 CFR 1320.11.

penalized for failing to respond to these collections of information unless the collections of information display a valid OMB control number.

109. The Commission solicits comments on the Commission's need for this information, whether the information will have practical utility, the accuracy of the provided burden estimates, ways to enhance the quality, utility, and clarity of the information to be collected, and any suggested methods for minimizing respondents' burden, including the use of automated information techniques.

110. The following burden estimate is based on the projected costs for the industry to implement the new and revised business practice standards adopted by NAESB and proposed to be incorporated by reference in this NOPR.[97] The NERC Compliance Registry, as of April 28, 2020, identifies approximately162 in the United States that are subject to this proposed rulemaking.

Docket Nos. RM05-5-029 and RM05-05-030					
	No. of Respondents (1)	**Annual No. of Responses Per Respondent (2)**	**Total No. of Responses (1)*(2)=(3)**	**Average Burden (Hrs.) & Cost ($) Per Response (4)**	**Total Annual Burden Hrs. & Total Annual Cost ($) (3)*(4)=(5)**
FERC-516E	162	1	162	6 hrs.; $498	972 hrs.; $80,676

[97] Commission staff estimates that industry is similarly situated in terms of hourly cost (wages plus benefits). Based on the Commission average cost (wages plus benefits) for 2020, $83.00/hour is used.

FERC-717	162	1	162	30 hrs.; $2,490	4,860 hrs.; $403,380
TOTAL			324	$2,988	5,832 hrs.; $484,056

Costs to Comply with Paperwork Requirements:

The estimated annual costs are as follows:

FERC-516E: 162 entities x 1 response/entity x (6 hours/response x $83.00/hour) =$80,676

FERC-717: 162 entities x 1 response/entity x (30 hours/response x $83.00/hour) = $403,380

Titles: FERC-516E, Electric Rate Schedule and Tariff Filings and FERC-717, Standards for Business Practices and Communication Protocols for Public Utilities.

Action: Proposed amendment to regulations pertaining to the existing collections of information FERC-516E and FERC-717.

OMB Control Nos: 1902-0290 (FERC-516E) and 1902-0173 (FERC-717)

Respondents: Business or other for profit, and not for profit institutions.

Frequency of Responses: On occasion.

Necessity of the Information: This proposed rule, if implemented, will amend its regulations to incorporate by reference, with certain enumerated exceptions, the latest version (Version 003.3) of the Standards for Business Practices and Communication Protocols for Public Utilities adopted by the Wholesale Electric Quadrant (WEQ) of the North American Energy Standards Board (NAESB). WEQ Version 003.3 includes standards developed in accordance with recommendations of the Department of Energy sponsored cybersecurity surety assessment of the NAESB Business Practice Standards that was conducted in 2019. Additional standards were developed in response to the

directives from FERC Order No. 890, such as the standards developed to support Parallel Flow Visualization, intended to improve congestion management procedures for the Eastern Interconnection. The WEQ Version 003.3 Standards also include, in their entirety, the WEQ-023 Modeling Business Practice Standards contained in the WEQ Version 003.1 Standards, which address the technical issues affecting ATC and AFC calculation for wholesale electric transmission services, with the addition of certain revisions and corrections. The revisions made by NAESB in the WEQ Version 003.3 Standards are designed to aid public utilities with the consistent and uniform implementation of requirements promulgated by the Commission as part of the *pro forma* Open Access Transmission Tariff.

Internal review: The Commission has reviewed NAESB's proposal and has made a preliminary determination that the proposed revisions are both necessary and useful. In addition, the Commission has assured itself, by means of its internal review, that there is specific, objective support for the burden estimates associated with the information requirements.

111. Interested persons may obtain information on the reporting requirements by contacting the Federal Energy Regulatory Commission, Office of the Executive Director, 888 First Street, NE, Washington, DC 20426 [Attention: Ellen Brown, e-mail: DataClearance@ferc.gov, phone: (202) 502-8663].

112. Comments concerning the information collections proposed in this NOPR and the associated burden estimates should be sent to the Commission at this docket and be email to the Office of Management and Budget, Office of Information and Regulatory Affairs

[Attention: Desk Officer for the Federal Energy Regulatory Commission]. For security reasons, comments should be sent by e-mail to OMB at the following e-mail address: oira_submission@omb.eop.gov. Please refer to the appropriate docket number of this notice of proposed rulemaking Docket Nos. RM05-5-029 and RM05-5-030 in your and OMB Control Nos. 1902- 0290 (FERC-516E) and 1902-0173 (FERC-717) in your submission.

VII. Environmental Analysis

113. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment.[98] The actions proposed here fall within categorical exclusions in the Commission's regulations for rules that are clarifying, corrective, or procedural, for information gathering, analysis, and dissemination, and for sales, exchange, and transportation of electric power that requires no construction of facilities.[99] Therefore, an environmental assessment is unnecessary and has not been prepared in this NOPR.

[98] *Regulations Implementing the National Environmental Policy Act*, Order No. 486, FERC Stats. & Regs. ¶ 30,783 (1987) (cross-referenced at 41 FERC ¶ 61,284).

[99] *See* 18 CFR 380.4(a)(2)(ii); 380.4(a)(5); 380.4(a)(27).

VIII. Regulatory Flexibility Act Certification

114. The Regulatory Flexibility Act of 1980 (RFA)[100] generally requires a description and analysis of proposed rules that will have significant economic impact on a substantial number of small entities. The RFA does not mandate any particular outcome in a rulemaking. It only requires consideration of alternatives that are less burdensome to small entities and an agency explanation of why alternatives were rejected.

115. The Small Business Administration (SBA) revised its size standards (effective January 22, 2014) for electric utilities from a standard based on megawatt hours to a standard based on the number of employees, including affiliates. Under SBA's standards, some transmission owners will fall under the following category and associated size threshold: electric bulk power transmission and control, at 500 employees.[101] The Commission estimates that 24 of the 162 respondents are small or 14.8% of the respondents affected by this NOPR.

116. The Commission estimates that the impact on these entities is consistent with the paperwork burden of $2,988 per entity used above.[102] The Commission does not consider $2,988 to be a significant economic impact. Based on the above, the Commission certifies that implementation of the proposed Business Practice Standards

[100] 5 U.S.C. 601-612.

[101] 13 CFR 121.201, Sector 22 (Utilities), NAICS code 221121 (Electric Bulk Power Transmission and Control).

[102] 36 hours at $83.00/hour = $2,988.

will not have a significant impact on a substantial number of small entities. Accordingly, no initial regulatory flexibility analysis is required.

IX. Comment Procedures

117. The Commission invites interested persons to submit comments on the matters and issues proposed in this notice to be adopted, including any related matters or alternative proposals that commenters may wish to discuss. Comments are due [**INSERT DATE 60 days after the date of publication in the FEDERAL REGISTER]**]. Comments must refer to Docket Nos. RM05-5-029 and RM05-5-030, and must include the commenter's name, the organization they represent, if applicable, and their address in their comments.

118. The Commission encourages comments to be filed electronically via the eFiling link on the Commission's web site at http://www.ferc.gov. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format. Commenters filing electronically do not need to make a paper filing.

119. Commenters that are not able to file comments electronically must send an original of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426.

120. All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section

below. Commenters on this proposal are not required to serve copies of their comments on other commenters.

X. Document Availability

121. In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page (http://www.ferc.gov). At this time, the Commission has suspended access to the Commission's Public Reference Room due to the President's March 13, 2020 proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19).

122. From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

123. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at (202) 502-6652 (toll free at 1-866-208-3676) or email at ferconlinesupport@ferc.gov, or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. E-mail the Public Reference Room at public.referenceroom@ferc.gov.

List of subjects in 18 CFR Part 37

Information to be posted on the OASIS; calculation methods; availability of information and requests

List of subjects in 18 CFR Part 38
Business practice standards, Electric utilities, Incorporation by reference

By direction of the Commission.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

In consideration of the foregoing, the Commission amends parts 37 and 38, chapter I, title 18, Code of Federal Regulations, as follows:

PART 37—OPEN ACCESS SAME-TIME INFORMATION SYSTEMS

1. The authority citation for Part 37 continues to read as follows:

Authority: _ 16 U.S.C. 791-825r, 2601-2645; 31 U.S.C. 9701; 42 U.S.C. 7101-7352.

2. Amend § 37.6, by revising paragraph (b)(2)(i) to read as follows:

§ 37.6 Information to be posted on the OASIS.

(b)(2)(i) Information used to calculate any posting of ATC and TTC must be dated and time-stamped and all calculations shall be performed according to consistently applied methodologies referenced in the Transmission Provider's transmission tariff and shall be based on Commission-approved Reliability Standards, business practice and electronic communication standards, and related implementation documents, as well as current industry practices, standards and criteria. Transmission Providers shall calculate ATC and TTC in coordination with and consistent with capability and usage on neighboring systems, calculate system capability using factors derived from operations and planning data for the time frame for which data are being posted (including anticipated outages), and update ATC and TTC calculations as inputs change. Such calculations shall be conducted in a manner that is transparent, consistent, and not unduly discriminatory or preferential.

* * * * *

PART 38—STANDARDS FOR PUBLIC UTILITY BUSINESS OPERATIONS AND COMMUNICATIONS

3. The authority citation for part 38 continues to read as follows:

Authority: 16 U.S.C. 791-825r, 2601-2645; 31 U.S.C. 9701; 42 U.S.C. 7101-7352.

4. Revise § 38.1 to read as follows:

§ 38.1 Incorporation by reference of North American Energy Standards Board Wholesale Electric Quadrant standards.

(a) Any public utility that owns, operates, or controls facilities used for the transmission of electric energy in interstate commerce or for the sale of electric energy at wholesale in interstate commerce and any non-public utility that seeks voluntary compliance with jurisdictional transmission tariff reciprocity conditions must comply with the business practice and electronic communication standards promulgated by the North American Energy Standards Board (NAESB) Wholesale Electric Quadrant (WEQ) that are incorporated by reference in paragraph (b) of this section.

(b) The material cited in this paragraph (b) was approved by the Director of the Federal Register for incorporation by reference in this section in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the material may be obtained from North American Energy Standards Board (NAESB), 801 Travis Street, Suite 1675, Houston, TX 77002, Tel: (713) 356-0060. NAESB's Web site is at www.naesb.org. The material may be inspected at the Federal Energy Regulatory Commission, Public Reference and Files Maintenance Branch, 888 First Street NE., Washington, DC 20426, Tel: (202) 502-8371, www.ferc.gov, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email *fedreg.legal@nara.gov*, or go to: *www.archives.gov/federal-register/cfr/ibr-locations.html*. The NAESB WEQ Business Practice Standards; Standards and Models approved for incorporation by reference are:

(1) WEQ–000, Abbreviations, Acronyms, and Definition of Terms ([WEQ] Version 003.1, September 30, 2015) (including only the definitions of Interconnection Time Monitor, Time Error, and Time Error Correction);

(2) WEQ–000, Abbreviations, Acronyms, and Definition of Terms ([WEQ] Version 003.3, Mar. 30, 2020);

(3) WEQ–001, Open Access Same-Time Information Systems (OASIS), [OASIS] Version 2.2 ([WEQ] Version 003.3, Mar. 30, 2020) (with minor corrections applied April 26, 2019 and March 20, 2020);

(4) WEQ–002, Open Access Same-Time Information Systems (OASIS) Business Practice Standards and Communication Protocols (S&CP), [OASIS] Version 2.2 ([WEQ] Version 003.3, Mar. 30, 2020);

(5) WEQ–003, Open Access Same-Time Information Systems (OASIS) Data Dictionary, [OASIS] Version 2.2 ([WEQ] Version 003.3, Mar. 30, 2020) (with minor corrections applied July 3, 2019);

(6) WEQ–004, Coordinate Interchange ([WEQ] Version 003.3, Mar. 30, 2020);

(7) WEQ-005, Area Control Error (ACE) Equation Special Cases ([WEQ] Version 003.3, Mar. 30, 2020);

(8) WEQ-006, Manual Time Error Correction ([WEQ] Version 003.1, Sept. 30, 2015);

(9) WEQ-007, Inadvertent Interchange Payback ([WEQ] Version 003.3, Mar. 30, 2020);

(10) WEQ–008, Transmission Loading Relief (TLR)—Eastern Interconnection ([WEQ] Version 003.3, Mar. 30, 2020);

(11) WEQ-011, Gas/ Electric Coordination ([WEQ] Version 003.3, Mar. 30, 2020);

(12) WEQ–012, Public Key Infrastructure (PKI) ([WEQ] Version 003.3, Mar. 30, 2020);

(13) WEQ–013, Open Access Same-Time Information Systems (OASIS) Implementation Guide, [OASIS] Version 2.2 ([WEQ] Version 003.3, Mar. 30, 2020);

(14) WEQ–015, Measurement and Verification of Wholesale Electricity Demand Response ([WEQ] Version 003.3, Mar. 30, 2020);

(15) WEQ-021, Measurement and Verification of Energy Efficiency Products ([WEQ] Version 003.3, Mar. 30, 2020);

(16) WEQ–022, Electric Industry Registry ([WEQ] Version 003.3, Mar. 30, 2020); and

(17) WEQ-023, Modeling. ([WEQ] Version 003.3, Mar. 30, 2020).

Appendix I

Standards Affected by the Proposed Revisions to Implement Recommendations Following Sandia's Surety Assessment on Cybersecurity

Standard	**Revisions**
WEQ-000-1	
Deleted seven abbreviations/acronyms	DNS – Domain Name Service IPCP – Internet Protocol Control Protocol NTP – Network Time Protocol PPP – Point to Point Protocol SLIP – Serial Line Internet Protocol SNMP – Simple Network Management Protocol SSL – Secure Sockets Layer
Added one abbreviation/acronym	OWASP – Open Web Application Security Project
WEQ-001	
Revised one standard	WEQ-001-13.1.3.3
WEQ-002	
Revised 14 standards	WEQ-002-2.3 WEQ-002-2.4 WEQ-002-4.2.1.1 WEQ-002-4.2.1.2 WEQ-002-4.2.1.3 WEQ-002-4.2.2 WEQ-002-5 WEQ-002-5.1.1 WEQ-002-5.1.2 WEQ-002-5.1.3 WEQ-002-5.6 WEQ-002-101.2.3.1 WEQ-002-101.3.3.2 WEQ-002-101.3.3.3

Document Content(s)