NAESB Bulletin

2020 Calendar

March

3/3-4 - Joint WGQ BPS, EDM and
    Contracts Meeting (Houston, TX)
3/16 - WEQ CISS Conf. Call
3/17 - Board Critical Infrastructure
    Committee Conf. Call
3/20 - Joint WGQ IR/Technical Conf. Call
3/24 - WEQ OASIS Conf. Call
3/24-25 - Joint WGQ BPS, EDM and
    Contracts Conf. Call
3/24-25 - WEQ OASIS Conf. Call

April

4/1 - WGQ BPS Conf. Call
4/3 - Board Revenue Committee Conf. Call
4/3 - Board Strategy Committee Conf. Call
4/7-8 - Joint WGQ BPS, EDM and
    Contracts Conf. Call
4/9 - WEQ SRS Committee Conf. Call
4/10 - Holiday - Good Friday
    (NAESB Closed)
4/14-16 - WEQ OASIS Conf. Call
4/15 - NAESB Update Conf. Call
4/16 - WGQ BPS Conf. Call
4/21 - WEQ CISS Conf. Call
4/22 - NAESB Leadership Conf. Call
4/23 - NAESB Board of Directors Conf.
    Call

May

5/19-21 - WEQ OASIS Meeting
    (Charlotte, NC)
5/25 - Holiday - Memorial Day
    (NAESB Closed)

June

6/17 - NAESB Update Conf. Call
6/23-25 - WEQ OASIS Meeting
    (Carmel, IN)

July

7/2-3 - Holiday - 4th of July
    (NAESB Closed)
7/21-23 - WEQ OASIS Meeting
    (Vancouver, WA)

NAESB Surety Assessment: After working at an accelerated pace under a directive from the Department of Energy (DoE) to expedite standards development, NAESB is pleased to announce that the industry participants in the Retail Markets Quadrant (RMQ), the Wholesale Electric Quadrant (WEQ), and the Wholesale Gas Quadrant (WGQ) have completed initial development efforts to respond to the 2019 Sandia National Laboratories (Sandia) surety assessment. As previously reported, in July of 2019, NAESB received its third DoE sponsored surety assessment that identified areas where the NAESB cybersecurity related standards could be enhanced to mitigate potential vulnerabilities that may exist in industry commercial practices. Through the surety assessment, Sandia reviewed the WEQ-012 Public Key Infrastructure (PKI) Standards and the NAESB Certification Program for Accredited Certification Authorities put into place to support the standards, as well as the WEQ OASIS Suite of Business Practice Standards and the WGQ and RMQ Internet Electronic Transport and Electronic Delivery Mechanism Standards. Additionally, the surety assessment included a high-level dependency analysis between the gas and electric markets to evaluate the different security paradigms the markets employ.

The finalized surety assessment took the form of four reports: (1) Assessment Report of the NAESB Public Key Infrastructure Program; (2) Assessment Report of the NAESB OASIS Standards; (3) Assessment Report of the NAESB Business Operations Practices and Standards; and (4) Addendum Report: Threat-based Examination of NAESB Standards and Business Operations. The reports identified six potential security issues within the standards that NAESB should address through standards modifications or new standards, and twenty-two additional findings that provided generalized recommendations that NAESB and the industry could consider to bolster cybersecurity.

These reports were first evaluated by the Board Critical Infrastructure Committee (CIC) in early-July, and by mid-August, the Board CIC had recommended assignments and provided a suggested scope of work for the various NAESB subcommittees that would undertake the requested standards development. For the WEQ-specific items, standards development activities were assigned individually and jointly to the WEQ Cybersecurity Subcommittee (CSS) and the WEQ OASIS Subcommittee, and all other assignments related to security issues were made jointly to the RMQ Information Requirements and Technical Electronic Implementation Subcommittee (IR/TEIS) and the WGQ Electronic Delivery Mechanism (EDM) Subcommittee.

To address the two potential security issues identified within the Assessment Report of the NAESB Public Key Infrastructure Program, the CSS met six times between August and November to develop recommended modifications to the NAESB Accreditation Requirements for Authorized Certification Authorities. Additionally, the CSS worked jointly with the OASIS Subcommittee and, in the span of three meetings – taking place from September to October – a recommendation was developed to mitigate the two potential security issues identified in the Assessment Report of the NAESB OASIS Standards as well as one additional finding in the Addendum Report: Threat-based Examination of NAESB Standards and Business Operations.

Working as swiftly as the WEQ subcommittees, the RMQ IR/TEIS and WGQ EDM subcommittees began meeting in mid-August to address the jointly assigned standard development efforts to mitigate two potential security issues as well as nine additional findings. In response, recommendations were developed proposing modifications to the WGQ and RMQ EDM and Internet Electronic Transport (IET) Model Business Practices over the span of eight meetings.

In total, fifteen WEQ standards were modified and seven new acronyms were introduced for the wholesale electric market, in addition to the modifications to the NAESB Accreditation Requirements for Authorized Certification Authorities, and, eight new standards were added and twenty-one standards were modified, along with extensive modifications to the appendices of each book and the language in the introductory paragraphs to support the wholesale gas and retail markets.

Ultimately, the proposed standards align security requirements with industry cybersecurity best practices, remove legacy functionality that could potentially provide a vehicle for cyber-attacks, and incorporate more secure communication and encryption methodologies. These standards development efforts within the subcommittees took place within a four-month timeframe – from the CIC assignments in mid-August to the subcommittees approving the recommendations. Such a considerable and expeditious effort in response to the surety assessment would not have been possible without the NAESB committees and subcommittees. NAESB would like to thank the Chairs and CoChairs for their organization and leadership on this substantial project.

In late February, the Board Critical Infrastructure Committee (Board CIC) met to begin drafting a report detailing the NAESB response to the Sandia surety assessment that will be considered during the April Board of Directors meeting. The Board CIC will meet in mid-March to finalize the report.

For more information, please go to 2020 WEQ Annual Plan, 2020 WGQ Annual Plan, 2020 RMQ Annual Plan, Recommendation for 2019 RMQ Annual Plan Item 6, Recommendation for 2019 WGQ Annual Plan Item 6, Recommendation for 2019 WEQ Annual Plan Item 6.a, 6.bii, and 6.cii, Recommendation for 2019 WEQ Annual Plan Item 6.b.i, Board CIC Members Roster, Board Digital Committee Members Roster, Addendum Report - Threat-based Examination of NAESB Standards and Business Operations, Assessment Report of the NAESB Business Operations Practices and Standards, Assessment Report of the NAESB OASIS Standards, Assessment Report of the NAESB PKI Program, January 2019 Surety Assessment Cover Letter, January 2019 Public Key Infrastructure Report, January 2019 OASIS Report, January 2019 Addendum Report, and February 6, 2019 Draft Board CIC Comments on Draft Sandia Report.

***Board Digital Committee Update*:** During its February meeting, the Board Digital Committee held a conference call to review its updated draft report, NAESB Board Digital Committee Inaugural Report. The purpose of the report is to provide guidance to the NAESB board concerning the digital transformation occurring within the energy industries. It describes the cursory findings and recommendations developed through a series of conference calls and surveys of the NAESB Board Digital Committee and is intended to aid NAESB as it considers new standards activities to support digital technologies. To date, the Board Digital Committee has held six conference calls focusing on eleven digital technologies or areas related to digital technology that should be explored by the committee and that could ultimately lead to recommendations for consideration by the Board of Directors. Three surveys were developed and issued to garner more targeted input from the committee members, the NAESB Board of Directors, and the NAESB Advisory Council. The first survey solicited information from members concerning how their individual companies view the areas and technologies identified by the committee, the costs and benefits of their adoption and implementation, any specific use cases that could benefit from standards development, and the identification of any relevant activities or standards development by other organizations. The next survey concerned the relevancy of the areas and technologies to the processes and transactions that the NAESB standards currently address, or may address in the future, and the urgency of developing NAESB standards to support the areas and technologies. Lastly, the third survey posed the same questions as the second survey, but was distributed to all NAESB Board and Advisory Council members to receive input from a wider audience. The information captured through the surveys and meetings form the basis for the draft report and the recommendations that will ultimately be presented to the Board of Directors.

For more information, please go to [2020 WEQ Annual Plan](#), [2020 RMQ Annual Plan](#), [2020 WGQ Annual Plan](#), [February 24 Board Digital Committee Agenda](#), [Draft Board Digital Committee Report](#), [Board Digital Committee – Named Board Members](#), and [Board Digital Committee Mission Statement](#).

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***Wholesale Gas Quadrant (WGQ) Distributed Ledger Technology Standards Development*:** This year, the WGQ has hit the ground running in its efforts to develop an electronic version of the NAESB Base Contract for Sale and Purchase of Natural Gas that may be utilized on distributed ledger technology. To date, five multi-day joint meetings of the three WGQ subcommittees supporting the standards development have resulted in the creation of proposed standards and definitions for Transaction Confirmation and Sale and Purchase Invoice datasets. The three subcommittees – WGQ Business Practices Subcommittee, WGQ Electronic Delivery Mechanisms (EDM) Subcommittee, and the WGQ Contracts Subcommittee – anticipate that this effort (Part B of the recommendation for Standards Request R18007) will result in fully staffed Data Dictionaries and associated code values. During the March conference call, the subcommittees will focus on completing the new Data Dictionaries and the Technical Implementation in the Business Process (TIBP) books for the 6.4.3 Sale and Purchase, the 6.4.4 Transaction Confirmation, and the 6.4.5 the Invoice Response, among other documents – such as a paper sample of Exhibit A of the NAESB Base Contract.

Additionally, NAESB staff continues to engage in discussions with the Department of Energy (DoE) regarding distributed ledger technology-related standard development efforts. As previously indicated, the DoE has expressed an interest in the WGQ efforts to develop the electronic contract. Outside of NAESB, an implementation test, led by Tennessee Valley Authority and supported by the DoE, is being considered by industry participants.

In November, the standards in Part A of this effort were ratified by the NAESB membership after the WGQ Executive Committee approved the recommendation during its October meeting. Part A is comprised of modifications to the WGQ Contracts Standards and Models Manual. The new datasets, definitions, and business practices included in Part A of the recommendation are accompanied by a code values dictionary and a data dictionary.

The standards development effort began in 2018 with Standards Request R18007 submitted by Big Data Energy Services, Adjoint Inc., Pariveda, American Electric Power Service, Tennessee Valley Authority, and JKM Energy & Environmental Consulting. Since that time, the subcommittees have held biweekly calls with their next call scheduled for April 7-8, 2020. Please RSVP if you plan to attend the meetings in person or by telephone and webcast.

For more information, please go to [2020 WGQ Annual Plan](#), [Standards Request R18007](#), [Recommendation for R18007-A as Revised and Approved by the WGQ Executive Committee on October 17, 2019](#), [NAESB Advisory Council Members](#), [Presentation from R18007 Requestors](#), [Presentation from ConocoPhillips on Blockchain](#), and [September 20, 2018 Blockchain Press Release](#).

NAESB Board Committees Update: In response to the spread of the coronavirus disease 2019 (COVID-19), both the April 22 Leadership meeting and the April 23 Board of Directors meeting will be held by conference call and web cast only. During the call, the Board will discuss the yearend accomplishments, financials and membership status as well as current year financials and membership status. Additionally, the board will hear updates on the status of standards development work and the efforts and work products of our board committees. In response to a scope question raised by the WGQ, a vote related to Standards Request R19014 may be taken. The request asks NAESB to add a new Nomination and Scheduling Related Standard to the WGQ Business Practice Standards.

Several Board Committees have held or will hold calls ahead of the board meeting to prepare presentations or updates. As discussed in the Sandia National Laboratories section above, the Board Critical Infrastructure Committee will hold a conference call on March 17 to complete a report informing the DoE and Sandia of the efforts to address the surety assessment. If completed, that report will be presented to the Board of Directors in April.

During its February conference call, the Parliamentary Committee continued the NAESB 2.0 project. In the NAESB 2.0 effort, the Committee will review and modify, where necessary, the NAESB Governance Documents – NAESB Certificate of Incorporation, NAESB Bylaws, and NAESB Operating Practices – to ensure consistency with Delaware Corporate Law, with each other, and with the original intent of the adopted provision and procedures, among other goals. After voting to wrap up its discussion on the NAESB Bylaws, the participants agreed to move onto its review of the NAESB Operating Practices.

On April 3, the Board Strategy Committee will begin to discuss the 2020 NAESB Standards Development Survey. During its last meeting in November, the participants reviewed the recommendations from the Sandia surety assessment and the 2020 Annual Plans as adopted by the Executive Committees to ensure consistency with the NAESB Strategic Plan.

Also, on April 3, the Board Revenue Committee will hold a conference call to hear updates on communication activities, publication schedules, the current revenue report, and other standing agenda items.

In late October, the NAESB Managing Committee held a conference call to discuss board member responsibilities and other standing agenda items. During that call, the Managing Committee agreed to recommend modifications to the language of the governance documents to reflect the expectations and qualifications of board members. In late November, the Parliamentary Committee reviewed the modifications and proposed to incorporate them into the NAESB Operating Practices in Section 7.2.

For more information, please go to [2020 WEQ Annual Plan](#), [2020 RMQ Annual Plan](#), [2020 WGQ Annual Plan](#), [March 17, Board CIC Agenda](#), [Parliamentary Committee Roster](#), [NAESB Certificate of Incorporation](#), [NAESB Bylaws](#), [NAESB Operating Procedures](#), [February 24 NAESB Bylaws 2.0 Work Paper](#), [Board Strategy Committee – Named Members](#), [November 21, 2019 Board Strategy Committee Meeting Notes](#), [Managing Committee Page](#), [Board Revenue Committee – Named Members](#), [WGQ Publication Schedule Version 3.2](#), [WEQ Publication Schedule Version 003.3](#), and [RMQ Publication Schedule Version 3.3](#).

NAESB and NERC Continuing Coordination: Scheduled for publication on March 30, 2020, Version 003.3 of the WEQ Business Practice Standards will include a number of standards developed through close coordination between NAESB and NERC.

Also, included in Version 003.3, are the standards ratified in November in support of two requests for standards development submitted by NERC. The requests were submitted as a result of coordination efforts between NAESB and NERC staff related to the NERC Standards Efficiency Review and the resulting retirements in the NERC Interchange Scheduling and Coordination Reliability Standards and the NERC Modeling, Data, and Analysis (MOD-A) Reliability Standards. On January 23, 2020, the FERC issued a Notice of Proposed Rulemaking (NOPR) concerning the proposal by NERC to retire reliability standards as part of the NERC Standards Efficiency Review, including the standards which were the subject of the two standards requests submitted by NERC to NAESB. As part of the NOPR, the Commission noted that the NERC MOD-A Reliability Standards are expected to be replaced by equivalent business practice standards developed by NAESB and indicated its intention to coordinate the effective dates of the retirement of the reliability standards with the successor business practices. The comm-ent period for the NOPR concludes on April 6, 2020.

Also included in Version 3.3 of the WEQ publication, are the clarifications developed for the timing requirements for conducting electronic tagging (e-Tagging) transactions. As part of WEQ-004 Coordinate Interchange Business Practice Standards, NAESB maintains commercial timing tables that serve as complementary to the timing tables established by NERC as part of INT-006-4 Evaluation of Interchange Transactions Reliability Standards. The revised standards will help ensure industry implementation aligns with the reliability and commercial requirements established by NERC and NAESB, respectively.

Discussions between the NERC and NAESB staff have focused on the WEQ Cybersecurity Subcommittee effort to review the NERC Critical Infrastructure Protection Reliability Standards as well as other NERC or FERC cybersecurity activities to determine whether supporting or complementary changes are needed to the WEQ Business Practice Standards.

For more information, please go to [2020 WEQ Annual Plan](#), [2020 RMQ Annual Plan](#), [2020 WGQ Annual Plan](#), [R19007](#), [R19008](#), [Recommendation for R19007](#), and [Recommendation for R19008](#).

STANDARDS DEVELOPMENT

NAESB ESPI and Green Button: In response to Standards Requests R19010 and R19012, submitted by the Green Button Alliance, modifications to the NAESB REQ.21 Energy Services Provider Interface (ESPI) Model Business Practices were ratified in mid-January. These modifications were incorporated in the latest version of the model business practices, Version 3.3, published on January 30, 2020.To address R19010, additional schema attributes were added to several retail customer resources. Additionally, the Identified Object 'name' attribute was deprecated, and replaced with attribute tags that properly describe the contents of each tag. For R19012, the clarification was added to the standards concerning the usage of Atom Links in the Model Business Practices.

During its October conference call, the ESPI Task Force voted out a recommendation for R19010, in November, the task force approved the recommendation for Standards Request R19012. Following the December 18 RMQ Executive Committee conference call, both recommendations were approved in late-December. As stated above, the standards were ratified by the NAESB membership in January.

As a background, in 2011, the Chief Technology Officer of the United States challenged utilities across the country to provide their customers with easy and secure access to their energy usage data via a "Green Button" on their websites. Launched in 2012, this became known as the Green Button Initiative, a response to that White House call to action that has led to over 150 utilities and service providers committing to providing more than 60 million U.S. households (altogether 100 million people) with access to their own Green Button energy data.

Over the several years, the Green Button Alliance (GBA) and NAESB have continued to harmonize efforts regarding the Green Button Initiative. NAESB and the GBA have a memorandum of understanding (MOU) to define the relationship the two organizations will share concerning ESPI and the GBA certification programs.

For more information, please go to 2020 RMQ Annual Plan, October 30, 2019 ESPI Task Force Meeting Notes, November 12, 2019 ESPI Task Force Meeting Notes, Standards Request R19010, Recommendation for R19010, Attachment 1 REQ.21.4.3 Retail Customer Model, Attachment 2 Retail Customer Schema, Standards Request R19012, Recommendation for R19012, Attachment 1 REQ.21.4.2 Energy Usage Information Model (Redline), Attachment 2 REQ.21.4.3 Retail Customer Model (Redline), and December 18, 2019 RMQ Executive Committee Agenda.

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Parallel Flow Visualization-Transmission Loading Relief: This March, NAESB will wrap up the standards development process for the Parallel Flow Visualization (PFV) Business Practice Standards. Essentially, the PFV effort seeks to improve upon the congestion management procedures for the Eastern Interconnection. As you may know, the Interchange Distribution Calculator (IDC) is a tool used by reliability coordinators in the Eastern Interconnection for calculating curtailment and relief obligations on the electric grid. Now, under the PFV enhanced congestion management process, the IDC will utilize real-time data, providing the reliability coordinators an enhanced analysis of the factors that contribute to congestion and resulting in more precise assignments of relief obligations.

As a multi-year effort, the recommendation for the PFV standards proposes modifications to the WEQ-008 Transmission Loading Relief – Eastern Interconnection and adds consistency revisions to WEQ-000 Abbreviations, Acronyms, and Definition of Terms. After approval by the WEQ Business Practices Subcommittee (BPS) in the Fall, the recommendation was approved by the WEQ Executive Committee during its February meeting. If ratified in March, the PFV standards will become a final action that is included in the Version 003.3 publication of the NAESB WEQ Business Practice Standards.

Throughout the standards development process, NAESB staff has been closely coordinating with both EIDSN, Inc. and NERC. To date, this coordination has included reviewing the EIDSN, Inc. reports on the PFV field trial as well as drafting reports to the Commission on the status of the PFV effort. Moving forward, the three organizations will continue to coordinate as NAESB prepares to file the ratified standards with the FERC and also throughout any industry implementation of the PFV enhanced congestion management process.

Looking ahead, the IDC will continue parallel operations for the PFV enhanced congestion management process until industry implementation in order to allow EIDSN, Inc. to continuously collect data. The standards supporting the PFV enhanced congestion management process are now available as a final action and will be included in the March 30, 2020 publication of Version 3.3 of the NAESB WEQ Business Practice Standards.

For more information, please go to 2020 WEQ Annual Plan, Parallel Flow Visualization Recommendation as Approved by the Executive Committee on February 18, 2020, Ratification Ballot, July 23, 2019 PFV Status Report to FERC, EIDSN Inc. Parallel Flow Visualization Metrics Report 2019, July 9, 2019 WEQ BPS Final Minutes, November 4, 2019 WEQ BPS Final Minutes, November 25, 2019 WEQ BPS Draft Minutes, and February 24, 2015 WEQ Executive Committee Meeting Notes.

NAESB Quadrant Membership Analysis:

Wholesale Gas Quadrant	117
Retail Markets Quadrant	40
Wholesale Electric Quadrant	133
Total Membership	**290**

NAESB New Members

Emil Peña Interests, Inc. (EPII)
(RMQ, Retail Electric Service Providers/Suppliers)

Turlock Irrigation District
(WEQ, Marketers/Brokers)

STANDARDS DEVELOPMENT *(continued)*

WEQ Open Access Same-time Information Systems (OASIS) Subcommittee: At the end of last year, the WEQ BPS and the WEQ OASIS Subcommittee wrapped up the last of approximately forty-seven annual plan items to address FERC Order No. 890. Issued by the FERC in 2007, the monumental order sought to strengthen the pro forma open-access transmission tariff, ensure a remedy to and reduce opportunities for undue discrimination, and increase transparency on the transmission system. Paragraph 1627 of the order required "transmission providers, working through NAESB, to develop a detailed template for the posting of additional information on OASIS regarding firm transmission curtailments." The standards development effort to address Paragraph 1627 was jointly assigned to the WEQ BPS and WEQ OASIS Subcommittee and completed over the course of nineteen meetings. The recommendation was adopted by the WEQ Executive Committee in February. If ratified in late March, the standards will be included in the upcoming WEQ Version 3.3 publication.

During the February WEQ Executive Committee meeting, the committee adopted two additional recommendations proposing modifications to the WEQ OASIS Business Practice Standards. The first recommendation revised standards addressing Network Integration Transmission Service (NITS). These modifications incorporated needed changes based on implementation and operational experience since the industry adoption of the NITS-related standards. The second recommendation was developed jointly by the WEQ OASIS Subcommittee and the WEQ Cybersecurity Subcommittee to address recommendations from the Sandia surety assessment. As detailed in the Sandia section, the recommendation modifies WEQ-001 and WEQ-002 within the WEQ OASIS Business Practice Standards and seeks to align security requirements with industry cybersecurity best practices, among other goals. All standards ratified by membership will be incorporated into Version 003.3 of the WEQ Business Practice Standards, scheduled to be published on March 30, 2020. In order to complete the remaining items on the WEQ Annual Plan and address any submitted industry standards requests, the WEQ OASIS Subcommittee will continue to hold monthly meetings. All interested parties are welcome to attend.

For more information, please go to [2020 WEQ Annual Plan](), [FERC Order No. 890](), [February 20, 2020 Executive Committee Agenda](), [Recommendation for WEQ 2020 Annual Plan Item 2.a](), [Recommendation for 2019 Annual Plan Item 3.c](), and [Recommendation for 2019 WEQ Annual Plan item 6.a, 6.b.ii, 6.c.ii]().

RMQ/WEQ Renewable Energy Certificates Update: This February, the RMQ Business Practices Subcommittee (BPS) and the WEQ BPS held a joint conference call to continue discussion on the development of a standardized contract, along with accompanying business practices, for Renewable Energy Certificates (RECs) in the voluntary REC market. During its call, the subcommittee reviewed example data elements provided by participants and began drafting a data dictionary containing the standardized data elements needed for a voluntary REC contract. The subcommittees anticipate holding conference calls throughout the year to address this item.

This effort began in 2019 when the RMQ and WEQ Executive Committees created the RMQ and WEQ Executive Committee DLT Task Forces to review the current industry REC processes in order to determine whether distributed ledger technology (DLT) business practice standards were needed. Over the course of several joint conference calls, the task forces determined that a model contract and business practices to address data standardization would be beneficial. Rather than focusing on a specific technology, such as distributed ledger technology, the task forces agreed to identify areas in the voluntary REC process and data sets that could benefit from standardization. During their October meetings, the WEQ and RMQ Executive Committees reviewed the work of the task forces and provided direction to the WEQ and RMQ BPS to begin standards development.

For more information, please go to [2020 WEQ Annual Plan](), [2020 RMQ Annual Plan](), [RMQ Executive Committee Page](), [WEQ Executive Committee Page](), [February 26, 2020 WEQ BPS and RMQ BPS Draft Minutes](), [REC Data Element Spreadsheet](), [REC Data Elements Definitions Work Paper](), [TVA RECs Primer](), [Big Data Energy DLT Presentation](), [TVA RECs Fact Sheet](), [RECs Process Work Paper](), [Reliable Energy Analytics Bid Example](), and [Reliable Energy Analytics Offer Example]().

NAESB Electric Industry Registry: Throughout 2019, NAESB continued to ensure that the Electric Industry Registry (EIR) operates in an efficient manner and is meeting the needs of industry. Most recently, an update to the NAESB EIR was released on March 3 to improve upon system efficiencies by optimizing display windows and upload mechanisms. Additionally, the update improves usability by refining the search functionality and expanding data input fields to meet changing industry needs. Looking ahead, an additional update to the NAESB EIR has been scheduled for release on April 28 to improve upon cybersecurity protections for the tool. With this update, registry users will be required to use TLS Version 1.2 to access the system. This year, NAESB is also working with the system administrator to expand internet browser access for the tool. By working closely with the EIR system administrator, NAESB applies these periodic updates to the tool in order to increase system performance, enhance security, and improve upon functionality.

As you may know, the NAESB managed EIR serves as the central repository for information needed to support commercial scheduling and transmission management operations within the wholesale electric industry. Back in 2012, the NAESB EIR replaced the NERC TSIN as the industry registry tool.

For more information, please go to [2020 WEQ Annual Plan](), [March 4, 2020 - Electric Industry Registry (EIR) Publication](), [March 3, 2020 - NAESB Authorized Certification Authority Renewal Notice - OATI](), [February 28, 2020 - Electric Industry Registry (EIR) Update Announcement](), [November 22, 2019 EIR Update Announcement](), [October 25, 2019 EIR Update Announcement](), [September 11, 2019 EIR Update Announcement](), and [September 4, 2019 EIR Update Announcement]().

Cybersecurity: Outside of the response to the Sandia surety assessment discussed above, the WEQ Cybersecurity Subcommittee has two more items to be addressed on the 2020 WEQ Annual Plan and its participants will review and monitor the outcome of two FERC orders regarding topics that may affect the NAESB WEQ Business Practice Standards. First, a review of the WEQ-012 Public Key Infrastructure standards and the accreditation requirements for Authorized Certification Authorities is undertaken each year to determine whether any changes are needed to meet market conditions.

Next, the subcommittee will review the NERC Critical Infrastructure Protection (CIP) reliability standards and any other activities of NERC and FERC related to cybersecurity. Per this annual plan item, the subcommittee evaluates whether modifications to the NAESB WEQ Business Practice Standards are needed to support or complement the cybersecurity efforts within NERC or FERC. As part of these efforts, the WEQ CSS is monitoring NERC Projects 2016-02 Modifications to CIP Standards, 2019-03 Cyber Security Supply Chain Risks, and 2019-02 BES Cyber System Information Access Management.

Additionally, the WEQ Cybersecurity Subcommittee has two FERC Orders on its agenda. First, the final rule approving CIP 012-1 – Cyber Security Communications between Control Centers was issued on January 23, 2020. Next, on February 20, 2020, the Commission issued an order directing NERC to submit informational filings on two of its CIP standards drafting projects that are related to virtualization and cloud computing services. Both projects, 2016-02 and 2019-02, are currently being monitored by the WEQ CSS, as described above. Although a date has not been set for the next conference call, please note that all WEQ Cybersecurity Subcommittee conference calls and meetings are open to all interested industry participants.

Later this year, the wholesale gas quadrant will hold calls to close out the remaining additional findings from the Sandia surety assessment. As part of that discussion, the participants will consider security topics such as relay and amplification attacks, whitelisting, and other concerns that reach beyond the traditional issues addressed in the WGQ publications. Since the drafting of the first wholesale gas standards, cybersecurity has continued to occupy an increasingly higher position on the list of industry priorities. These potential modifications to the WGQ Business Practice Standards will continue to reflect the enhanced importance that cybersecurity occupies today.

Additionally, the WGQ EDM Subcommittee voted out a recommendation that resulted from its annual review of the Minimum Technical Characteristics in Appendices B, C, and D of the WGQ Quadrant Electronic Delivery Mechanisms (QEDM). As approved by the WGQ Executive Committee in February, the recommendation addresses several security items. For example, "Secure Sockets Layer" (SSL) was replaced with "Transport Security Layer" (TSL) where the term appears in the QEDM, and clarification was added to ensure that the latest generally available version is utilized. Also, the participants updated the browser recommendations and increased the minimum physical memory for the user workstation, among other technical changes. If ratified by the NAESB membership in March, the model business practices will be included in the second quarter publication of the NAESB WGQ Business Practice Standards.

For more information, please go to 2020 WEQ Annual Plan, 2020 WGQ Annual Plan, Board Certification Committee Authorized Certification Authority Process, NAESB Accreditation Requirements for Authorized Certification Authorities, WEQ-012 Public Key Infrastructure Business Practice Standards, and Recommendation for 2019 WGQ Annual Plan Item 2.

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Filings and Publication Schedule: On February 4, 2020, FERC issued Order No. 676-I, *Standards for Business Practices and Communication Protocols for Public Utilities*. Published in the Federal Register on February 25, 2020, the order incorporates by reference, with certain exceptions, Version 003.2 of the NAESB WEQ Business Practice Standards. The standards build upon NAESB WEQ Version 003.1, which was the subject of an earlier NOPR, but was not incorporated by reference in a final order.

In FERC Order No. 676-I, the Commission declined to adopt the proposal to remove the incorporation by reference of the WEQ-006 Manual Time Error Correction Business Practice Standards. The removal of the standards was proposed to correspond with the retirement of the NERC Time Error Correction requirements, approved by the Commission in 2017. Recent correspondence from Michael Desselle, NAESB Chairman and CEO, to the WEQ members, outlined FERC Order No. 676-I and thanked the numerous contributors to the major industry effort.

On February 10, 2020, NAESB filed the *NAESB Status Report to the Commission Concerning Standards for Business Practices and Communication Protocols for Public Utilities*. The status report informed the Commission of modified and additional WEQ standards developed as a result of ongoing coordination efforts with NERC. Specifically, Standards Requests R19007 and R19008, submitted by NERC, proposed that NAESB review the retirements within the NERC Modeling, Data, and Analysis (MOD) and Interchange Scheduling and Coordination (INT) reliability standards to evaluate whether modifications were needed to the NAESB WEQ Business Practice Standards. In response to the Standards Requests, modifications were applied to WEQ-000 Abbreviations, Acronyms, and Definition of Terms Business Practice Standards, WEQ-001 Open Access Same-Time Information System (OASIS) Business Practice Standards, WEQ-004 Coordinate Interchange Business Practice Standards, and WEQ-023 Modeling Business Practice Standards. The standard modifications described in the status report will be incorporated into Version 003.3 of the NAESB WEQ Business Practice Standards.

On April 3, the Board Revenue Committee has scheduled a meeting to discuss standing agenda items, along with a review of the proposed publication cycles of the NAESB Business Practice Standards. As you may know, the RMQ published Version 3.3 of the NAESB Model Business Practices on January 30, 2020. As discussed during the December Leadership and Board of Directors meetings, the WEQ Version 003.3 publication is scheduled for March 30, 2020 and the WGQ Business Practice Standards are scheduled to be published within the second quarter. The publication schedules will be an item of discussion during the April 22, 2020 Leadership meeting and the April 23, 2020 Board of Directors meeting.

For more information, please go to 2020 WEQ Annual Plan, 2020 RMQ Annual Plan, 2020 WGQ Annual Plan, FERC Order No. 676-I, May 16, 2019 Notice of Proposed Rulemaking, Correspondence from Michael Desselle, February 10, 2020 NAESB Status Report to FERC, R19007, and R19008.

Copyright/NAESB Standards Access: As you are aware, NAESB copyrights its work products – a practice used by most standards organizations. The copyrights are considered a subset of intellectual property law, and NAESB retains the rights to publication, reproduction, display, and distribution. NAESB members may obtain materials free of charge as part of their benefits, but these benefits do not extend to their agents, affiliates or subsidiaries without prior approval and waivers from the NAESB office. Damages for copyright infringement can be significant, including penalties of $100,000+, injunction, impounding of materials, seizure of property, and award of punitive damages. At the same time, NAESB is very liberal in its policies towards sharing information and has granted waivers to regulators and educational institutions depending on the intended use. There is also a process by which anyone can request a three-day waiver to review the work products, as they consider whether they should purchase them. Waivers for longer periods can also be granted depending on use. NAESB's control of copyrighted material provides a small revenue stream which offsets some of its standards development expenses and thus those of its members in the creation of the work products. More importantly, as entities must come to NAESB for its standards material, it assures that they will have access to the most current version.

For more information, please go to [Copyright](#), [NAESB Materials Order Form](#) or contact Denise Rager (drager@naesb.org) for additional information.

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Publication Schedule: This year, NAESB has been diligently working to meet an aggressive publication schedule that was established in the fall of 2009. Following the DoE request that NAESB expedite its response to the Sandia surety assessment, NAESB accelerated standards development and scheduled the publication of new standards for the RMQ on January 30, 2020, the WEQ on March 30, 2020, and the WGQ within the second quarter of 2020. This request was made by the DoE to ensure that the energy industry implements these important cybersecurity enhancements as soon as feasible under the existing constructs.

On March 30, 2020, Version 003.3 of the NAESB WEQ Business Practices is scheduled to be published. This significant publication will incorporate standards resulting from several major projects within the electric industry including: the final standards requested through FERC Order No. 890, the standards to support the Parallel Flow Visualization project, and the cybersecurity modifications in response to the Sandia surety assessment, among other items.

Published on January 30, the NAESB RMQ Version 3.3 publication contains not only the modifications and new model business practices in the RMQ Internet Electronic Transport and Electronic Delivery Mechanism Manuals developed in response to recommendations contained in the Sandia Surety Assessment, but also incorporates significant updates to the Open Field Message Bus (OpenFMB) and Energy Services Provider Interface (ESPI) Model Business Practices.

Within the second quarter, the WGQ will publish Version 3.2 of the NAESB WGQ Business Practice Standards. Aside from the Sandia work which is discussed in the section above, the publication will include two new modifications to the standards that support the NAESB Base Contract for the Purchase and Sale of Natural Gas (Base Contract). First, the Mexican Addendum for the NAESB Base Contract, provides a new addendum, similar to the Canadian Addendum, to be utilized within Mexico. Additionally, the publication will include a change that adds Argus Media as a listed spot price publication on the NAESB Base Contract. Additionally, in response to standards requests submitted by the industry, numerous data elements will be included in the new publication, among other additions and modifications. Looking ahead, NAESB will continue to remain in its 24-month schedule for publication while following the guidance of the Board of Directors and coordinating with the DoE, FERC, and State Commission staff.

For more information, please go to [2020 WEQ Annual Plan](#), [2020 WGQ Annual Plan](#), and [2020 RMQ Annual Plan](#).

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Upcoming NAESB Courses: Later this year, NAESB will offer its *Understanding the NAESB WGQ Contracts Webcourse* and provide participants the opportunity to hear from subject matter experts on the NAESB contracts. During the webinar, participants will review the NAESB Base Contract for the Sale and Purchase of Natural Gas, the Canadian and Mexican Addendums, the Trading Partner Agreement (Electronic Data Interchange (EDI) Overview, Provisions, and Exhibit), and give a brief overview of each of the other six WGQ contracts.

In addition, NAESB will also offer its annual one-hour *NAESB 101* course. Offered to members and non-members free of charge, the course highlights how the work within NAESB supports the wholesale and retail natural gas and electric markets by providing general information about the organization and the standards development process and describing the organization's relationship with government agencies and external entities. Additionally, the participants will hear an overview of the NAESB standards and discuss how membership or participation within NAESB may be beneficial to their organization. The NAESB office will announce the date for the *NAESB 101* course once it is scheduled.

Discussions within the Board Revenue Committee calls have taken place regarding potential additional webinars in the coming year. Classes on specific topics, such as cybersecurity, PFV, and the WEQ Business Practice Standards, were considered. The NAESB office will announce any new courses available to the industry as they are scheduled.

For more information, please go to [NAESB Primers and Training Courses Page](#).