NAESB Bulletin

2019 Calendar

November

December

2020 Calendar

Sandia National Laboratories: In July, NAESB received the results of its third Sandia National Laboratories (Sandia) surety assessment. As with the last two surety assessments, the third has spurred the development of recommendations that led to proposed modifications to the NAESB Business Practice Standards. Sponsored by the Department of Energy, the surety assessment is divided into 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. Through these reports, Sandia made twelve recommendations to mitigate security issues and identified twenty-two additional findings or considerations. The recommendations to address the reports involved the participation of several NAESB committees and subcommittees.

The Department of Energy asked that NAESB expedite, where possible, any standards development efforts resulting from the Sandia surety assessment. In response to that request, the Board Critical Infrastructure Committee (Board CIC) held several meetings to review the reports, suggest assignments to the various NAESB subcommittees and committees, and to provide a scope of work to help the subcommittees and committees address the items.

In mid-December, the RMQ Executive Committee will hold a conference call to consider a recommendation developed by the RMQ Information Requirements and Technical Electronic Implementation Subcommittee (IR/TEIS) in response to the surety assessment. If approved and ratified, the model business practices will become available as a final action that will be included in the January publication, scheduled for January 30, 2020.

This February, the WGQ and WEQ Executive Committees will consider recommendations developed in response to the Sandia reports. In the WGQ, the Electronic Delivery Mechanisms (EDM) Subcommittee recommendation updates several of the WGQ Standards Manuals, including the Quadrant Electronic Delivery Mechanisms Manual. If approved and ratified, the final action containing the standards will be included in the WGQ publication, set to be released in the second quarter of 2020. Two Sandia-related recommendations will be considered during the upcoming WEQ Executive Committee meeting. The WEQ publication has been scheduled for March 30, 2020.

For more information, please go to 2019 WEQ Annual Plan, 2020 WEQ Annual Plan, 2019 WGQ Annual Plan, 2020 WGQ Annual Plan, 2019 RMQ 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, Attachment, 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, Initial Draft Sandia Surety Assessment Report, February 2018 Board CIC Feedback to Sandia, May 2018 Draft Sandia Surety Assessment Report, July 2018 Board CIC Draft Feedback to Sandia, 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.

NAESB Electric Industry Registry: In an effort to ensure the NAESB Electric Industry Registry (EIR) continues to meet the needs of the industry, on September 4, an update was implemented in the registry making modifications consistent with EIR Enhancement Request ER18001, submitted by Southwest Power Pool. As a result of this update, NAESB has now expanded the registration renewal period to sixty days through the addition of a thirty-day advanced renewal period. This expanded renewal period provides users with additional flexibility and makes the renewal process more efficient as entities can renew registry subscriptions prior to their current subscription expiration date. As part of the update, entity administrators will receive a notice regarding the start of their advanced renewal period, and during this time, all users will have access to the registry. If the subscription is not renewed before the close of the advanced renewal period, only an entity administrator will be able to access the registry until the subscription is renewed, consistent with the previous registry renewal process.

Additionally, NAESB continues to work hand-in-hand with the registry system administrator to improve upon the efficiency of the NAESB EIR and user experience. To achieve this goal, several improvements to the NAESB EIR have been recently implemented. In October, an update was released to support consistency between parent data objects and dependent data objects. A similar improvement went live in late November when an updated was released to ensure correct data validation functionality between pseudo-tie data objects and the parent data objects. In support of industry needs regarding the retirement of Peak RC as the reliability coordinator for the Western Interconnection, NAESB coordinated with NERC, Peak RC and the entities assuming reliability coordinator functions for the Western Interconnection to ensure proper registration in the NAESB EIR. NAESB also coordinated with Peak RC and the NAESB EIR system administrator to create a transition guide for impacted entities.

Formerly known as the NERC Transmission System Information Network (TSIN), the registry previously supported the scheduling transactions for the bulk electric system in the Eastern Interconnection. Since the tool transitioned to the NAESB EIR in 2012, it has expanded to support transactions in the west – providing the industry with a single registry to support the entire nation.

For more information, please go to [2019 WEQ Annual Plan](#), [2020 WEQ Annual Plan](#), [EIR Page](#), [WEQ EIR Enhancement Requests Page](#), [EIR Enhancement Request Process](#), [June 6, 2018 - EIR Enhancement Request ER18001 Announcement](#), [ER18001](#), [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](#).

Board Digital Committee Update: During the December 2018 Board of Directors meeting, a recommendation was made that NAESB consider action to support the digital transformation taking place in the energy industry by focusing its standards development efforts in areas that will enable and hasten the implementation of new advances in digital technology. In response to the request, the Chairman of the Board of Directors, Michael Desselle, informally contacted a number of subject matter experts to solicit their feedback on technology advances and the digitalization of the energy industry. Subsequently, Mr. Desselle established the NAESB Board Digital Committee and announced its formation during the April 2019 Board of Directors meeting.

Comprised of sixteen named members from across the energy markets, the Board Digital Committee is tasked with providing assistance to the Board of Directors by annually surveying the energy markets to identify new digital technologies being deployed by market participants, appraising whether standardization in support of the new digital technologies would be beneficial to the industry, and submitting any recommendations concerning potential standards to NAESB for consideration.

To initiate the development of a draft report, the committee members held five conference calls to identify eleven digital technologies or areas related to digital technology that should be explored by the committee and could ultimately lead to recommendations for consideration by the Board of Directors. In addition to holding conference calls, the committee also developed and issued two surveys to garner more targeted input from committee members. The conference calls and the information captured through the surveys and meetings culminated in the following recommendations in the draft report that will be discussed during the December board meeting: continue standards development efforts in support of cybersecurity and distributed ledger technology; specific to the survey regarding relevancy and urgency of the areas identified in this report, broaden the survey respondent community to include the board members and advisory council members; include the additional survey responses in the report and modify report findings as indicated by the survey responses, and bring the more inclusive report to the board for its approval.

In 2020, the Board Digital Committee will continue to hold conference calls to refine the report. All interested parties are welcome to dial into the conference calls.

For more information, please go to [2019 WEQ Annual Plan](#), [2020 WEQ Annual Plan](#), [2019 RMQ Annual Plan](#), [2020 RMQ Annual Plan](#), [Draft Board Digital Committee Report December 11, 2019](#), [Board Digital Committee – Named Board Members](#), *and* [Board Digital Committee Mission Statement](#).

NAESB Board Committees Update: In mid-December, the NAESB Board of Directors will hold its last scheduled board meeting of 2019. In addition to reviewing the status of ongoing standards development efforts and the efforts completed in 2019, the board will hear updates from the board committees and consider a budget and the quadrant annual plans for 2020. Jay Costan and Branko Terzic will speak during the meeting to provide their outlooks on the future of the energy markets.

During the board meeting, the Board Digital Committee will present a draft report on the status of the digital transformation taking place within the energy industry. A description of the report is included in the Board Digital Committee section of this bulletin.

On November 21, 2019, the Board Strategy Committee met to review the 2020 Annual Plans and found them to be consistent with the 2019-2021 NAESB Strategic Plan. Additionally, the participants also discussed the development of the 2020 NAESB Standards Development Survey. The survey is expected to be distributed in the summer of 2020 and will be developed by the Board Strategy Committee through a series of meetings that will take place in the spring. As with past surveys, the survey will be distributed to members and nonmembers and the responses will be considered by the Board of Directors during its Strategic Session scheduled in September.

As described above, the Board Critical Infrastructure Committee held a meeting on August 14 to discuss the timeline and assignments of proposed standards development activities to the subcommittees. Subsequently, Michael Desselle drafted a letter to the Board Strategy Committee summarizing the recommendations and highlighting those items that would not be assigned to a subcommittee. Those items were presented to the Board of Directors for discussion.

During its October conference call, the Managing Committee discussed the need to clearly communicate the organization's expectations concerning the NAESB Board Member qualifications. It was recommended that the NAESB Parliamentary Committee consider including a provision in the NAESB Bylaws that describes qualifications of NAESB Directors. In November, the Parliamentary Committee held a conference call to incorporate the suggestion from the Managing Committee into the draft modifications that are being proposed to the NAESB Bylaws. Additionally, the Parliamentary Committee continued its review of each of the NAESB Governing Documents: NAESB Certificate of Incorporation, the NAESB Bylaws, and the NAESB Operating Practices. As you may remember, the goal of this analysis is to ensure that each of the documents are consistent with Delaware General Corporation Law, the other NAESB governance documents, and the original intent of the provisions. During the November meeting, the Parliamentary Committee focused on undocumented practices that could be incorporated into the NAESB Bylaws.

In November, the Board Revenue Committee held a meeting to review revenue generation, the NAESB communications activities, the proposed publication cycle of the NAESB standards, the current financials, and the membership report. Additionally, the committee reviewed the status of the distributed ledger technology projects and the Board of Directors and Executive Committee vacancies, along with the membership prospect list.

For more information, please go to [2019 WEQ Annual Plan](), [2020 WEQ Annual Plan](), [2019 RMQ Annual Plan](), [2020 RMQ Annual Plan](), [2019 WGQ Annual Plan](), [2020 WGQ Annual Plan](), [Board Digital Committee Report](), [Surety Assessment Assignments to the Board Digital Committee](), [Board Digital Committee Page](), [Board Digital Committee – Named Board Members](), [Board Digital Committee Initial Survey and Results](), [Board Revenue Committee Page](), [Board Revenue Committee – Named Members](), [WGQ Publication Schedule Version 3.2](), [WEQ Publication Schedule Version 003.3](), [RMQ Publication Schedule Version 3.3](), [Parliamentary Committee Page](), [Parliamentary Committee Roster](), [NAESB Certificate of Incorporation](), [NAESB Bylaws](), [NAESB Operating Procedures](), [November 21, 2019 NAESB Bylaws 2.0 Work Paper](), [Managing Committee Page](), [Managing Committee Recommendation Work Paper](), [Board CIC Page](), [Board CIC Named Members](), [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](), and [Assessment Report of the NAESB PKI Program]().

STANDARDS DEVELOPMENT

Parallel Flow Visualization-Transmission Loading Relief: In November, the Wholesale Electric Quadrant Business Practices Subcommittee (WEQ BPS) voted out a recommendation for the Parallel Flow Visualization (PFV) business practice standards, a long-awaited step in supporting the PFV-enhanced congestion management process. The recommendation proposes modifications to WEQ-008 Transmission Loading Relief – Eastern Interconnection as well as conforming changes to WEQ-000 Abbreviations, Acronyms, and Definition of Terms. During the upcoming February WGQ Executive Committee meeting, the committee will consider the proposed PFV standards and any submitted comments. If ratified, the standards will be incorporated into Version 003.3 of the WEQ Business Practice Standards and filed with the Federal Energy Regulatory Commission (FERC).

In May of 2019, a PFV field trial completed its evaluation of the proposed PFV standards to support the enhanced congestion management process. Additionally, EIDSN, Inc. assessed the data integrity, measured the ability of the process to account for real-time flow on flowgates, and compared the total impacts calculated by the current IDC tool methodology with those calculated under the proposed process. In its July 2019 Status Report to the FERC, NAESB reported that it has received the *Parallel Flow Visualization Metrics Report 2019* (EIDSN Report). The EIDSN Report concerning the PFV-related modifications to the IDC tool concludes that the PFV enhanced congestion management process represents a considerable improvement over the current IDC tool methodology and that the process is operating as designed and supported by the standards. Consistent with the EIDSN Report, the NERC Operating Reliability Subcommittee reported to the NERC Operating Committee that no modifications were needed to the business practice standards to address any reliability issues. As such, on October 15, 2019, the WEQ Executive Committee directed the WEQ BPS to complete the PFV-related standards development effort.

Looking back to February of 2015, the WEQ Executive Committee voted to approve a recommendation for the proposed PFV business practice standards; however, the Executive Committee agreed that the recommendation should not be immediately posted for ratification, but, instead, held in abeyance pending completion of the field test. The abeyance of the recommendation allowed for full staffing of the standards and for the WEQ BPS to address any needed modifications to the standards prior to, during, or following the field test.

The modifications in the PFV effort seek to improve the Reliability Coordinator's wide-area view of the Eastern Interconnection, allowing for a better understanding of the current operating state of the bulk electric system. With PFV, Reliability Coordinators are expected to have a real time representation of the congestion and, therefore, will be better equipped to assign relief obligations during periods of congestion. Although the PFV field trial has concluded, the IDC-PFV parallel operations will continue through industry implementation of the enhanced congestion management process in order to allow EIDSN, Inc., who oversees management of the IDC tool, to continuously collect data.

For more information, please go to [2019 WEQ Annual Plan](#), [2020 WEQ Annual Plan](#), [Parallel Flow Visualization Recommendation](#), [July 23, 2019 PFV Status Report to FERC](#), [EIDSN Inc. Parallel Flow Visualization Metrics Report 2019](#), [Recommendation approved by the NAESB WEQ Executive Committee on February 24, 2015 to Initiate the Full Staffing Process (Redline)](#), *and* [February 24, 2015 WEQ Executive Committee Meeting Notes](#).

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Wholesale Gas Quadrant (WGQ) Distributed Ledger Technology Standards Development: This November, the NAESB WGQ membership ratified the first of two recommendations in its effort to support the conversion of the NAESB Base Contract for Sale and Purchase of Natural Gas (Base Contract) into a digitalized format, such as a smart contract. Shortly after its October 2018 kick off meeting, the WGQ Business Practices Subcommittee (BPS), the WGQ Contracts Subcommittee, and the WGQ Electronic Delivery Mechanisms (EDM) Subcommittee (Joint WGQ Subcommittees) co-chairs determined that the joint standards development effort would be split into two recommendations. After garnering approval from the WGQ Executive Committee in October, the first recommendation was ratified in November and incorporates revisions to the WGQ Contracts Standards and Models Manual that includes a description of the new business process, new datasets, new definitions, and new business practice standards. Additionally, the recommendation includes supportive updates to the NAESB WGQ Technical Implementation of Business Process, data dictionary, code values dictionary, and a paper sample.

In the upcoming meetings, the participants will focus on the second and final recommendation, incorporating a transaction confirmation and invoice datasets into the business practice standards.

Outside of NAESB, the Tennessee Valley Authority (TVA) is working with the Department of Energy on an implementation test utilizing the ratified standards contained within the first recommendation. During the implementation test, it is anticipated that TVA will run its normal operations in parallel with the use of a distributed ledger and analyze the results.

Looking ahead, the Joint WGQ Subcommittees have scheduled meetings on January 8-9, 2020 and January 22-23, 2020 to work towards the completion of the second recommendation during the second quarter of 2020. As with all NAESB subcommittee conference calls and meetings, all interested parties are encouraged to participate.

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

STANDARDS DEVELOPMENT *(continued)*

NAESB ESPI and Green Button: NAESB continued its efforts in the fourth quarter to make modifications to the NAESB RMQ Energy Services Provider Interface (ESPI) Model Business Practices to support the industry implementation of the Green Button. As a critical component of the Green Button, the NAESB ESPI Model Business Practices provide an interface enabling retail customer authorization for the exchange of energy usage information from data custodians to third parties. In mid-December, the RMQ Executive Committee will hold a conference call to consider two recommendations developed by the ESPI Task Force.

Spurred by the requests submitted by the Green Button Alliance, the ESPI Task Force drafted the first recommendation to add numerous schema attributes to the Retail Customer Schema. Next, the task force turned its efforts to a recommendation clarifying the Atom Link usage in the Energy Usage Information Model and the Retail Customer Model sections. If ratified, the recommendations will become available as final actions that will be included in the January RMQ publication.

The Green Button Initiative, an industry-led effort to provide utility customers with easy and secure access to their energy usage information, has led to over 150 utilities and service providers committing to provide more than 60 million U.S. households, altogether 100 million people, with access to their Green Button energy data.

For more information, please go to _2019 RMQ Annual Plan_, _2020 RMQ Annual Plan_, _RMQ Publication Schedule_, _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_.

WEQ Open Access Same-time Information Systems (OASIS) Subcommittee: To address the final directive from FERC Order No. 890 *Preventing Undue Discrimination and Preference in Transmission Service*, the WEQ OASIS Subcommittee has continued to hold joint meetings with the WEQ Business Practices Subcommittee (BPS). In FERC Order No. 890, the Commission directed the industry to post additional information to OASIS nodes concerning the curtailment of firm transmission. This effort requires coordination with entities in the Eastern and Western Interconnections that manage the industry tools. Earlier this year, the standards development effort was placed on a brief hiatus as the management of the Western Interconnection tool transitioned to a new entity and the Eastern Interconnection tool managers focused on the Parallel Flow Visualization efforts. The completion date for this effort is set for 2020.

Prior to reengaging efforts to address the FERC Order No. 890 directive, the WEQ OASIS Subcommittee completed four recommendations. The first recommendation responds to the Sandia National Laboratories (Sandia) surety assessment and is detailed in the Sandia section of this bulletin. Second, the subcommittee voted out a recommendation proposing modifications to the Network Integration Transmission Service (NITS) standards based on implementation and operational experiences. Both recommendations will be forwarded, along with any submitted comments, to the WEQ Executive Committee for consideration during its next meeting. Third, in October, the WEQ Executive Committee adopted a no action recommendation for a proposal that OASIS nodes utilize certain data objects registered in the NAESB Electric Industry Registry (EIR). The subcommittee determined that it would be more efficient for transmission providers to implement their own procedures to utilize the NAESB EIR data on an OASIS node. Finally, based on a request from North Carolina Electric Membership Corporation (NCEMC), the WEQ OASIS Subcommittee evaluated the need for standards that allow documentation for the coordination of partial path reservations in order to demonstrate the complete path associated with long-term firm interchange. During the April WEQ OASIS Subcommittee meeting, NCEMC explained that such a standard may no longer be needed given peripheral developments and expressed support for the development of the no action recommendation. The resulting no action recommendation was approved during the October Executive Committee meeting.

Moving into the new year, the WEQ OASIS Subcommittee will continue to define the eligibility and treatment of Rollover Rights for NITS.

For more information, please go to _2019 WEQ Annual Plan_, _2020 WEQ Annual Plan_, _FERC Order No. 890_, _May 16, 2019 FERC NOPR_, _Recommendation for 2019 WEQ Annual Plan Item 3.c_, _No Action Recommendation for 2019 WEQ Annual Plan Item 3.a_, *and* _No Action Recommendation for 2019 WEQ Annual Plan Item 3.d_.

STANDARDS DEVELOPMENT *(continued)*

Cybersecurity: Every year, the WEQ Cybersecurity Subcommittee (WEQ CSS) holds meetings to evaluate whether modifications to the business practice standards are needed to support the NERC Critical Infrastructure Protection (CIP) reliability standards and to review other NERC and FERC cybersecurity activities. This year, the subcommittee reviewed the FERC Notice of Proposed Rulemaking that proposes to approve Critical Infrastructure Reliability Standard CIP-012-1 - Cyber Security Communications between Control Centers. Additionally, the WEQ CSS examined revisions to the NERC CIP reliability standards. Although the subcommittee determined that no action was needed at this time on either items, the participants identified several ongoing efforts that should be monitored, as modification could result in additional revisions to the NERC CIP Reliability Standards: NERC Project 2016-02 Modifications to CIP Standards, NERC Project 2019-02 BES Cyber System Information Access Management, and NERC Project 2019-03 Cyber Security Supply Chain Risks. NAESB staff regularly communicates with NERC staff regarding the progress of these projects.

In addition to its activities to support the NERC CIP standards, the WEQ CSS voted out a recommendation proposing modifications to the NAESB Accreditation Requirements for Authorized Certification Authorities. The proposed modifications were developed in response to the recommendations offered by Sandia National Laboratories as part of the surety assessment. The recommendation and any submitted comments will be forwarded to the WEQ Executive Committee for consideration during its next meeting. The NAESB Accreditation Requirements for Authorized Certification Authorities, along with the WEQ-012 Public Key Infrastructure Business Practice Standards, supports the NAESB Certification Program for Accredited Certification Authorities by providing the technical requirements a certificate authority must meet.

For more information, please go to 2019 WEQ Annual Plan, 2020 WEQ Annual Plan, 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, Chairs' Work Paper – PKI Report Revised 8/7/19, Chairs' Work Paper – OASIS Report Revised 8/7/19, Chairs' Work Paper – Business Operations Practices and Standards Report Revised 8/7/19, Chairs' Work Paper – Addendum Report Revised 8/7/19, Board Certification Committee Authorized Certification Authority Process, NAESB Accreditation Requirements for Authorized Certification Authorities, WEQ-012 Public Key Infrastructure Business Practice Standards, and WGQ QEDM Related Standards Manual.

RMQ/WEQ Renewable Energy Certificates Update: In early December, the RMQ Business Practices Subcommittee (BPS) and the WEQ BPS will hold a joint meeting to begin addressing two parallel items to develop a standard contract to improve and automate the current voluntary Renewable Energy Certificate (REC) creation, accounting, and retirement processes. As part of this initial conference call, the participants held a review of the NAESB joint standards development process, listened to an overview of the voluntary REC process, and held discussion on the jointly assigned annual plan items.

These annual plan items were the result of the RMQ and WEQ Executive Committees Distributed Ledger Technology (DLT) Task Forces effort. The task forces were created by the RMQ and WEQ Executive Committees to review current Renewable Energy Certificate (REC) processes for financial and/or sustainability accounting/reporting in order to determine whether business practice standards are needed. The task forces kicked-off their efforts in June of 2019, and over the course of four joint meetings, came to a consensus that, in order to leverage technologies within the voluntary REC process, a model contract and business practices to address data standardization would be beneficial. The task forces focused on identifying areas in the voluntary REC process and data sets that could benefit from standardization. The WEQ and RMQ Executive Committees reviewed this work during their October meetings and provided the direction to the WEQ and RMQ BPS to begin standards development.

For more information, please go to 2019 WEQ Annual Plan, 2020 WEQ Annual Plan, 2019 RMQ Annual Plan, 2020 RMQ Annual Plan, RMQ Executive Committee Page, WEQ Executive Committee Page, 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.

Non-member Access/Participation: For our participants who are non-members, from the NAESB Home Page you can access one of the four quadrant squares – wholesale electric, retail electric, wholesale gas and retail gas, you are directed to the "NAESB Non-member Access: NAESB Committees, Subcommittees and Task Forces" web page.

For more information, please go to NAESB Current Committee Activities or contact Denise Rager (drager@naesb.org) for additional information.

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.

NAESB Quadrant Membership Analysis:

Wholesale Gas Quadrant	119
Retail Markets Quadrant	40
Wholesale Electric Quadrant	133
Total Membership	**292**

NAESB New Members

Argonne National Laboratory (WGQ, End Users)

ConnectGEN Operating LLC (WEQ, Generation)

Illinois Commerce Commission (RMQ, Retail Electric End Users/Public Agencies)

Mercuria Energy America, Inc. (WGQ, Services)

NAESB
Certification Program
For information Click Here

Upcoming NAESB Courses: Moving into 2020, NAESB will offer a variety of in-person and webinar courses to educate interested parties about the NAESB standards and a few of its specific activities. This will include the *Understanding the NAESB WGQ Contracts Webcast Course* that has been offered in years past and provides participants with an overview of the NAESB Base Contract for the Sale and Purchase of Natural Gas (Base Contract), the Mexican Addendum, and the Canadian Addendum for the Base Contract, and other NAESB contracts and agreements.

NAESB will also its annual one-hour *NAESB 101 Webinar* that is offered to members and non-members free of charge for the purpose of explaining how our work supports the wholesale and retail natural gas and electric markets. The webinar provides basic information about the organization and the standards development process and describes the organization's relationship with government agencies and other external bodies. Further, participants will have the opportunity to review the existing body of NAESB standards and discuss how membership or participation within NAESB may be beneficial to their organization.

During the last Board Revenue Committee call, the participants discussed NAESB potentially offering new courses to the industry in 2020. Several topics for the webinar were considered, including Parallel Flow Visualization, cybersecurity, and any NAESB standards that may be adopted by regulators in 2020. The NAESB office will announce the dates of upcoming courses as they are scheduled.

For more information, please go to NAESB Primers and Training Courses Page.

NAESB and NERC Continuing Coordination: Looking ahead to 2020, NAESB will continue to synchronize with external entities on activities that impact the wholesale electric industry, including NERC activities, NAESB EIR, and the Parallel Flow Visualization (PFV) efforts.

In mid-November, the WEQ membership ratified recommendations to address two requests for standards development submitted by NERC to NAESB. The two requests address retirements to the NERC Reliability Standards approved by the NERC Board of Trustees as part of the NERC Standards Efficiency Review. The revisions incorporate requirements retired from the NERC Interchange Scheduling and Coordination Reliability Standards and the NERC Modeling, Data, and Analysis Reliability Standards and impact WEQ-004 Coordinate Interchange and WEQ-023 Modeling, respectively. The ratified standards will be incorporated into Version 003.3 of the WEQ Business Practice Standards.

To ensure proper registration in the NAESB EIR, NAESB staff worked with Peak RC, NERC staff, and the entities that now act as the reliability coordinators for the Western Interconnection. These coordination efforts were spurred by the retirement of Peak RC as the reliability coordinator for the Western Interconnection. NAESB also coordinated with Peak RC to help develop a transition guide for the industry.

As detailed in the PFV section of this bulletin, the recommendation for the PFV Business Practice Standards will be on the February WEQ Executive Committee agenda for consideration.

For more information, please go to *2019 WEQ Annual Plan*, *2020 WEQ Annual Plan*, *R19007*, *Draft Recommendation for R19007*, *R19008*, *Revised R19008 Draft Recommendation*, *and* *R18011*.

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Filings and Publication Schedule: During the December Board of Directors meeting, the board will consider the recommendations of the Board Revenue Committee concerning the publication schedule for 2020. For Version 003.3 of the NAESB WEQ Business Practice Standards, the publication is scheduled for March 30, 2020 and will include fifteen final actions that have been ratified to date. Additionally, five recommendations and two minor corrections that have not yet been considered by the WEQ Executive Committee are anticipated to be included in the publication, including the recommendation for Parallel Flow Visualization, updates to the Network Integration Transmission Service (NITS) Business Practice Standards, and modifications to the NAESB Accreditation Requirements for Authorized Certification Authorities, among others. In 2020, NAESB will file Version 003.3 of the NAESB WEQ Business Practice Standards with the Commission. The previous publication, WEQ Version 003.2 was published on December 8, 2017 and filed with the Federal Energy Regulatory Commission on the same day.

The RMQ is also set to publish in the first quarter. Version 3.3 of the NAESB RMQ Model Business Practices will be published on January 30, 2020. To date, that publication includes seven final actions, along with three recommendations and three minor corrections that are pending ratification. Once published, the RMQ Model Business Practices will be forwarded to the National Association of Regulatory Utility Commissioners (NARUC), and made available to state commissions upon request.

Version 3.2 of the NAESB WGQ Business Practices is scheduled to be published in the second quarter of 2020. To date, twelve final actions are set to be included in the publication, along with twenty-six minor corrections and one recommendation that is pending approval by the WGQ Executive Committee and ratification by the NAESB WGQ membership. As always, the WGQ standards will be filed with the Commission. Version 3.1 of the NAESB WGQ Business Practice Standards was published on September 29, 2017 and filed with the Federal Energy Regulatory Commission on the same day. Those standards were incorporated by reference through FERC Order No. 587-Y, *Standards for Business Practices of Interstate Natural Gas Pipelines,* issued on November 15, 2018 in Docket No. RM96-1-041.

For more information, please go to *2019 WEQ Annual Plan*, *2020 WEQ Annual Plan*, *2019 RMQ Annual Plan*, *2020 RMQ Annual Plan*, *2019 WGQ Annual Plan*, *2020 WGQ Annual Plan*, *WGQ Publication Schedule Version 3.2*, *WEQ Publication Schedule Version 003.3*, *RMQ Publication Schedule Version 3.3*, *Parliamentary Committee Page*, *December 8, 2017 NAESB Report to FERC on NAESB WEQ Business Practice Standards Version 003.2*, *September 29, 2017 NAESB Report to FERC on NAESB WGQ Business Practice Standards Version 3.1*, *and* *FERC Order No. 587-Y*.