**via posting**

**TO:** Interested Industry Parties

**FROM:** Caroline Trum, Director, Wholesale Electric Quadrant

**RE:** Final Minutes from January 31, 2024 – Joint WEQ/WGQ/RMQ BPS Meeting

**DATE:** February 13, 2024

**WHOLESALE ELECTRIC QUADRANT**

**WHOLESALE GAS QUADRANT**

**RETAIL MARKETS QUADRANT**

**Joint WEQ/WGQ/RMQ Business Practices Subcommittees**

**Conference Call**

**January 31, 2024 – 1:00 PM to 4:00 PM Central**

**FINAL MINUTES**

1. **Welcome**

Mr. Schoene welcomed the participants to the meeting. He thanked the participants for joining the call, noting that reaching a consensus on this standards development effort will require a broad and deep level of participation from the industry. Ms. Trum provided the antitrust and meeting policies reminder. Mr. Schoene reviewed the agenda. Mr. Burden moved, seconded by Ms. Hogge, to adopt the agenda. The motion passed a simple majority vote without opposition.

1. **Discuss** **2024 WEQ Annual Plan Item 6 / 2024 WGQ Annual Plan Item 4 / 2024 RMQ Annual Plan Item 3 – Gas-Electric Market Coordination**

Mr. Schoene stated that the NAESB Board of Directors created the annual plan items in response to a recommendation by FERC and NERC in the Inquiry into Bulk-Power System Operations During December 2022 Winter Storm Elliott (Winter Storm Elliott Report). The recommendation asked NAESB to convene natural gas infrastructure entities, electric grid operators, and local distribution companies (LDCs) to identify improvements in communication during extreme cold weather events to enhance situational awareness. Mr. Schoene stated that the effort is a three-part annual plan item assigned to the WEQ, RMQ, and WGQ Business Practices Subcommittees (BPS) for joint development. He explained that the first item, RMQ Annual Plan Item 3.a/WEQ Annual Plan Item 6.a/WGQ Annual Plan Item 4.a, is a catchall to develop standards that support additional communications to enhance situational awareness and the other two sub-items are specific examples of communications identified in the Winter Storm Elliott Report.

Mr. Schoene noted that the NAESB quadrant and segment structure provides everyone a seat at the table and can facilitate cross-market development. He stated that the joint subcommittee meetings are intended to be interactive with open dialogue between participants, progressing from sharing big picture ideas to more substantive discussion. Mr. Schoene suggested that an initial focus on quality discussion to fully flesh out ideas will make crafting standards language easier and asked that individuals take initiative to further develop the suggestions they put forth. He noted that written proposals can better facilitate joint subcommittee discussion and that sharing any work papers before meetings will give participants a prior opportunity to review.

Mr. Schoene stated that a [work paper](https://naesb.org/member_login_check.asp?doc=weq_wgq_rmq_bps013124w1.docx) was posted for the meeting containing the existing NAESB Gas-Electric Business Practice Standards and noted that past coordination discussions in this area have largely centered around the wholesale markets. He explained that participation by RMQ participants will introduce new perspectives that should be considered by the subcommittees. Mr. Schoene stated that the existing business practices can provide guidance as the Joint BPS participants work together to develop coordination standards to address the annual plan assignments that can be incorporated into the applicable WGQ and WEQ Business Practice Standards and adopted as new RMQ Business Practice Standards. He asked for any initial comments from participants.

Mr. Fitzpatrick stated that PJM has developed stronger communication processes with the natural gas pipelines within its footprint. He noted that improvements included consistency in how natural gas pipelines provide notifications and expanding the data included, such as geographic information. Mr. Fitzpatrick explained that geographical information, provided in a common format, provides a better understanding of the potential impact and assists ISOs/RTOs in assessing the risk to generation. He referenced as an example the type of data Enbridge (U.S.) Inc. owned pipelines provided to PJM. Mr. Matto agreed, stating that it can be hard to determine what areas may be impacted from a general notification of an upstream issue, such as a compressor station outage. He explained that ISOs/RTOs typically have the geo-coordinates for generating facilities and that geographic information regarding an upstream issue will enable operators to assess risk in a timelier manner. Mr. Fitzpatrick proposed establishing a common location across all pipelines to house the data that supports gas-electric coordination. Mr. Dibble asked for more information on how Enbridge (U.S.) Inc. filters and provides the data noted by Mr. Fitzpatrick. Mr. Burden stated that specific, targeted information is provided to ISOs/RTOs and intended to be supportive of directives in FERC Order No. 698. He offered to provide examples during the next meeting.

Ms. Stabley asked if the availability of hourly/daily delivery forecasts and weather forecasts from LDCs would be helpful to compare against natural gas pipeline information to identify any significant variances in forecasting between the pipeline and the city gate. She stated that during the most recent winter storm, Texas Gas Transmission provided data on underperforming receipt points and explained that underperformance is an advanced indicator that can help entities anticipate potential drops in pressure and the possibility of force majeure events. Mr. Schoene asked for more information on how these notices are provided and a possible example. Ms. Van Pelt stated that the notices from Texas Gas Transmission include a list of underperforming locations and are provided in accordance with the NAESB Business Practice Standards related to critical notice, including the notice type code values found in WGQ Standard No. 5.4.16. Mr. Burden stated that Enbridge (U.S.) Inc. owned pipelines provide similar notices. Mr. Schoene asked how under or over performance is measured. Ms. Van Pelt stated that she can provide more information on the analysis. Ms. Walker stated that during the last winter storm, performance notices from natural gas pipelines provided earlier awareness and more planning time to address the issue than in the past. She noted that this allowed TVA to make modifications during the intraday nomination cycles in preparation for an issue. Mr. Kimball explained that while notice of underperformance for a singular receipt point may not be helpful, notice that a large number of receipt points are underperforming can indicate a major issue. He asked if underperformance notifications are provided in real-time or at specific time intervals. Ms. Van Pelt stated that Boardwalk Pipelines tries to provide these notices as early as possible, typically several hours before the start of gas flow. Mr. Burden stated that in evaluating underperformance, Enbridge (U.S.) Inc. monitors the scheduled volume and actual physical flow. He indicated that if a deviation occurs, Enbridge (U.S.) Inc contacts the operator to provide an opportunity to correct the issue. Mr. Almquist and Mr. McCord stated that Tallgrass Operations, LLC and TC Energy Corporation, respectively, follow the same process.

Mr. Nowak stated that location data for a pipeline issue may not be useful to identify specific generators that will be impacted as decisions by the shipper and the source of natural gas are also relevant. He stated that shippers are in a better position to know the impact of an outage at a particular delivery point. Mr. Schoene stated that there could be a benefit to entities developing their own analytical models for the data.

Mr. Maguire noted the importance of ensuring electric market participants have the right tools and that all pipelines are providing the same information in a consistent format. He stated that user advisory boards created by pipelines have been a constructive way to coordinate and address issues. Mr. MacBride suggested exploring how processes to aggregate and analyze raw data could translate into more targeted notices of performance issues. Mr. Russo stated that as part of the NAESB GEH Forum, Argonne National Laboratories provided a presentation on its NGinsight tool. He noted that the tool may provide that data and analytics being discussed and suggested a presentation to the Joint BPS could be helpful. Mr. Schoene asked how the NGinsight tool collects data from pipelines. Mr. Burden stated that the tool aggregates publicly available information posted to a pipeline’s electronic bulletin board (EBB). Mr. Brooks asked if the tool collects real-time data. Mr. Burden stated that the ability of the tool to gather new data is dependent on how frequently pipelines update postings, such as hourly or by cycle. Mr. Fitzpatrick stated that PJM has developed an in-house tool to analyze pipeline critical notices. He explained that while the tool is helpful, additional locational information would improve PJM’s ability to decipher the expected impact of a critical notice for generators in its footprint.

Ms. Bagot stated that an evaluation of notice types, the timeliness of notices and standardization of the content, frequency, type, and format is important. She suggested joint subcommittee discussions should also be expanded to identify any existing information gaps, especially concerning upstream data. Ms. Van Pelt stated that FERC regulatory requirements identify the information pipelines must communicate, and the NAESB WGQ Business Practice Standards facilitate implementation of these requirements. She noted that while there are business practices addressing aspects of operational notifications, it may be difficult to standardize the content of notices as not all pipeline tariffs require the same information to be posted. Ms. Bagot explained that increased standardization and access to upstream data will allow natural gas end users in the electric markets to make more informed decisions. Ms. Van Pelt stated that interstate pipelines may not have access to all the information discussed and may not be in a position to properly analyze such data. Mr. Phillips responded that in identifying information gaps, the initial focus should be what data is valuable, not who will be providing the data and how. He stated that information exchanges do not need to be limited to current notice and communication paradigms and that the joint subcommittees can develop standards creating new communication frameworks, if needed.

Mr. Fitzpatrick stated that currently, there is not a mechanism to obtain similar information from upstream entities as provided by interstate natural gas pipelines through critical notices and other postings. Mr. Mattox agreed, stating that data from intrastate pipelines would be helpful but is hard to acquire. Mr. Russo asked what level of granularity for upstream information would be beneficial. Mr. Schoene asked electric market participants if more information could be provided to describe the information and advanced notice from upstream entities that would be valuable, keeping in mind the practicality of obtaining the data given the large number of independent producers and intrastate pipelines in the retail market. Ms. Tomalty noted that there are commercially available reports that provide upstream information.

Ms. Simpkins stated that there may be ways to use AI to improve data gathering and analyses processes and asked if anyone in the industry is already using such technology.

1. **Review Industry Submitted Work Papers**

No work papers were submitted for this meeting.

1. **Identify Next Steps and Action Items**

Mr. Booe stated that NAESB staff can reach out to Argonne National Laboratories about participation in a future meeting to discuss the NGinsights tool. He noted that during the presentation to the NAESB GEH Forum, future funding of the tool was an identified need. Mr. Russo suggested exploring the potential for a joint industry funding solution as this could be a critical tool in managing future extreme weather events.

Mr. Schoene asked those who offered suggestions consider providing more detailed information for the next meeting. Mr. Booe stated that work papers could help the Joint BPS continue discussions and noted some topics discussed during the meeting included: greater consistency in current data sharing and the inclusion of additional information; information regarding the locational data Enbridge (U.S.) Inc. makes available; information regarding underperforming receipt point data provided by Texas Gas Transmission; broadening discussions beyond currently available data to other information that could be beneficial, even if new communication pathways would be needed; similarly, identification by electric market participants of the upstream information and notices that could be beneficial; and sharing forecasting information between natural gas pipelines and LDCs. He stated that there may be material from the previous Joint BPS gas-electric related standards development effort that could be beneficial. Ms. Van Pelt offered to review the presentation previously provided by the WGQ Pipeline Segment.

Ms. Bagot asked what the joint subcommittees would need to accomplish to meet the 2nd Quarter, 2024 deadline identified in the annual plan assignments. Ms. Trum explained that for member ratification of any developed standards to be completed by the end of the 2nd Quarter, the Executive Committees would need to hold a meeting to consider any recommendations for proposed standards by May 29, 2024. She stated that, allotting for a thirty-day formal comment period. the joint subcommittees would need to complete recommendations by April 23, 2024. Mr. Booe stated that 2nd Quarter, 2024 was identified by FERC and NERC in the Winter Storm Elliott Report. He stated that NAESB is in communication with FERC staff regarding the effort and if needed, a progress report on standards development could be provided to the FERC. Mr. Schoene stated that the Joint BPS should continue with standards development as long as there are productive discussions moving towards the development of a solution. He indicated that the chairs intend to hold meetings approximately every two weeks, which should be sufficient time to allow the joint subcommittees to determine, by the end of March, if there is support to move forward with standards development on any of the discussed ideas and if additional development time could be needed.

1. **Discuss Future Meetings**

Mr. Schoene stated that the next meeting is scheduled for February 15, 2024. Mr. Booe stated that NAESB would work with the Joint BPS co-chairs to distribute an agenda for the meeting.

1. **Adjourn**

The meeting adjourned at 2:48 PM Central on a motion by Mr. Dibble, seconded by Ms. Van Pelt.

1. **Attendance**

| **First Name** | **Last Name** | **Organization** |
| --- | --- | --- |
| Denise | Adams | ONEOK, Inc. |
| Matthew | Agen | American Gas Association |
| Karl | Almquist | Tallgrass Operations, LLC |
| Nancy | Bagot | Electric Power Supply Association |
| Scott | Barfield-McGinnis | NERC |
| Teresa | Baumann | Chesapeake Energy Marketing, LLC |
| Jonathan | Booe | NAESB |
| Whitney | Brace | ONEOK, Inc. |
| Tanner | Brier | Bonneville Power Administration |
| Dick | Brooks | Reliable Energy Analytics |
| Layne | Brown | Western Electricity Coordinating Council |
| Christopher | Burden | Enbridge (U.S.) Inc. |
| Jim | Busch | BP Energy |
| Joe | Christian | Atmos Energy |
| Jennifer | Coffee | Texas Pipeline Association |
| Pete  | Connor | Rep. American Gas Association |
| Michelle | Coon | Open Access Technology Incorporated |
| Brad | Cox | Tenaska, Inc. |
| Jodi | Culp | Black Hills Corporation |
| Deborah | Currie | Southwest Power Pool |
| Alice | Curtiss | National Fuel Gas Supply Corporation |
| Katie | Davis | Bonneville Power Administration |
| Dustin | DeGroff | Tenaska, Inc. |
| Jay | Dibble | Chevron Natural Gas |
| Justin | Dorr | Avista Corporation |
| Terri | Eaton | Xcel Energy Inc. |
| Yarrow | Etheridge | Entergy Services, Inc. |
| Pedrom | Farsi | Arizona Public Service Company |
| Kathryn | Ferreira | New Jersey Natural Gas |
| Shawn | Fife | Southern California Gas Company |
| Brian | Fitzpatrick | PJM Interconnection, LLC |
| Freddy | Garcia | Electric Reliability Council of Texas, Inc. |
| Heidi | Garrison | Basin Electric Power Cooperative |
| Mark | Gracey | Kinder Morgan, Inc. |
| Shawn | Grant | California ISO |
| Brandon | Guderian | Devon Energy Corporation |
| Tom | Gwilliam | Iroquois Gas Transmission System |
| Adrian | Harris | Bonneville Power Administration |
| Dee | Hastey | Big Data Energy |
| Ronnie | Hensley | Southern Star Central Gas Pipeline  |
| Katherine | Herrera | American Gas Association |
| Rachel | Hogge | Eastern Gas Transmission & Storage, Inc. |
| John | Holcomb | Holcomb Energy, LLC |
| Justin | Holstein | Xcel Energy Inc. |
| Alan | Johnson | NRG Energy, Inc. |
| Jeremy | Jones | Entergy Services, Inc. |
| Ivan | Kimball | Consolidated Edison Company of New York |
| Dmitriy | Kiselev | Consolidated Edison Company of New York |
| Mike | Knowland | ISO-New England |
| Tomas | Lange | Tenaska, Inc. |
| Renee | Lani | American Public Gas Association |
| Annabelle | Lee | Nevermore Security |
| Nichole | Lopez | Kinder Morgan, Inc. |
| Gina | Mabry | Kinder Morgan, Inc. |
| Andrew | MacBride | National Grid |
| James | Maguire | NRG Energy, Inc. |
| Rachel | Marsh | Calpine Corporation |
| Eli | Massey | MISO |
| Michael | Matto | MISO |
| Mike | Mattox | MISO |
| Lief | Mattson | WBI Energy Transmission, Inc. |
| Jim | McClay | Duke Energy |
| Ed | McCluskey | Duke Energy |
| Willis | McCluskey | Salt River Project Agricultural Improvement & Power District |
| Steven | McCord | TC Energy Corporation  |
| Shawn | McGovern | Occidental Energy Marketing, Inc. |
| Jared | Meyer | KCP&L and Westar, Evergy Companies |
| Megan | Miller | Enbridge (U.S.) Inc. |
| Mark | Moyer | EQT Energy LLC |
| Jonathan | Namazi | Rep. EQT Energy, LLC |
| Shawn | Nieuwsma | Montana-Dakota Utilities  |
| Sydney | Novoa | American Public Gas Association |
| Gene | Nowak | Kinder Morgan |
| Sheldon | Perry | Open Access Technology International, Inc. |
| Joshua | Phillips | Southwest Power Pool |
| Ronald | Robinson | Tennessee Valley Authority |
| John | Rowley | Kern River Gas Transmission |
| Chris | Russo | Exxon Mobil Corporation |
| Lisa | Russo | National Fuel Gas Supply |
| Cory | Samm | Hoosier Energy REC |
| Keith | Sappenfield | Cheniere Creole Trail Pipeline |
| Lindsey | Saunders | Quorum Software |
| Ben | Schoene | ConocoPhillips |
| Will | Schwarzenbach | Dominion Energy |
| Lisa | Sieg | LG&E and KU Services Company |
| Paul | Sierer | Winterberry Energy LLC |
| Lisa | Simpkins | Constellation Energy Generation |
| Heather | Sixkiller | Portland General Electric |
| Chris | Smith | Interstate Natural Gas Association of America |
| Danielle | Smith | Sacramento Municipal Utility District |
| Sarah | Stabley | Piedmont Natural Gas |
| Karen | Stampfli | Tennessee Valley Authority |
| Jim | Stevens | Electric Reliability Council of Texas, Inc. |
| John | Stevenson | New York Independent System Operator, Inc. |
| Scott | Stewart | Bonneville Power Administration |
| John | Sturgeon | Duke Energy |
| Jessica | Tarbox | New Jersey Natural Gas |
| Tom | Tiernan | S&P Global |
| Sarah | Tomalty | BP Energy |
| Caroline | Trum | NAESB |
| Kim | Van Pelt | Boardwalk Pipelines |
| Carol | Vogel | Southwest Gas Corporation |
| Mallory | Waldrip | ISO-New England |
| Sandy | Walker | Tennessee Valley Authority |
| Bobbi | Welch | MISO |
| Mark | Wilke | SWN Energy Services Company, LLC |
| Charles | Yeung | Southwest Power Pool |
| Lisa | Yoho | Energy Transfer Equity, L.P. |
| David | Yonce | Spire, Inc. |
| Thomas | Zermeno | SSL.com |