**via posting**

**TO:** NAESB Gas-Electric Harmonization Forum Participants and Interested Industry Parties

**FROM:** Elizabeth Mallett, NAESB Staff, Director Wholesale Gas Quadrant and Retail Markets Quadrant

**RE:** Staff Notes from theNAESB Gas-Electric Harmonization Forum Meeting – September 23, 2022

**DATE:** September 29, 2022

Dear Gas-Electric Harmonization Forum Participants,

A Gas-Electric Harmonization Forum meeting was held on September 23, 2022 from 9:00 am to 12:00 pm Central. Ms. Tierney, Mr. Gee, and Mr. Wood presided over the meeting. The notes below reflect the NAESB staff summary of the meeting. A recording of the meeting has been posted on the NAESB GEH Forum webpage: <https://naesb.org/recordings/geh092322recording.mp4>.

| **Notes from the September 23, 2022 NAESB Gas-Electric Harmonization Forum Meeting** | |
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| **Administrative** | Mr. Booe welcomed the participants to the meeting and thanked the leadership from the August 30th Gas-Electric Harmonization (GEH) Forum meeting for making remarks, including Mr. Greg White with NARUC, Mr. Jim Rob with NERC, and FERC Chairman Glick. He also thanked the FERC and NERC presenters from the previous meeting – Ms. Polzin, Mr. Huff, and Mr. Lyons – for providing more insight into the areas that FERC and NERC suggested that the GEH Forum address as part of Recommendations 7 and 24 of the FERC, NERC and Regional Entity Staff Report.  Mr. Booe provided the NAESB Antitrust and Other Meeting Policies reminder and noted that the meeting would be recorded.  Mr. Booe stated that he and Ms. McQuade have been working closely with the Chairs of the GEH Forum, Mr. Wood, Ms. Tierney, and Mr. Gee, to develop an effective path forward that is responsive to the FERC and NERC request. He indicated that under the GEH Forum Work Plan that was made available earlier in the month, the Forum will first address the first four items in the third category: 3.a, 3.a.i, 3.b, and 3.c.  Mr. Booe stated that on September 7, 2022, NAESB distributed a preliminary agenda and issued a request for comments on the meeting topics via an industry survey. He indicated that following the close of the survey and review of the received comments, a finalized agenda was distributed on September 19, 2022. Mr. Booe reviewed the posted work papers for the meetings, along with the work plan and meeting schedule that are posted as the first two hyperlinks on top of the GEH Forum page. Mr. Booe noted that the GEH Forum distribution list is also posted and will continue to be updated, as needed. |
| **Opening Remarks** | Mr. Booe invited Mr. Gee, Mr. Wood, Ms. Tierney, Ms. Crockett, and Mr. Desselle, to provide opening remarks. Mr. Wood noted the role subsidies can play in influencing the market, including market price signals. He stated that natural gas specific subsidies could be structured promote additional firm natural gas capacity by providing opportunities to recover fixed costs attributable to firm fuel arrangements, such as procuring firm storage, and firm transportation of natural gas. Mr. Wood asked participants to voice any thoughts on the topic during the meeting. Mr. Gee thanked the participants for attending the GEH Forum and for the survey comments submitted. Ms. Tierney stated that the energy markets are in a state of transition, both physically and from a legal and economic standpoint, but that given the importance of both natural gas and electricity, it is important that the markets evolve to ensure customer needs continue to be met, including during extreme weather events. She expressed appreciation for the details of the comments submitted and those participating. Mr. Booe thanked Mr. Wood, Mr. Gee, and Ms. Tierney for their remarks and for chairing the GEH Forum.  Mr. Desselle stated that he appreciated the comments submitted and, noted the importance of engaging retail regulators in GEH Forum discussions. Mr. Desselle stated that a number of the written comments supported engagement from retail regulators as well. Mr. Booe thanked Mr. Desselle and asked Ms. Polzin, Mr. Huff, and Mr. Lyons, the main drafters of the FERC report, to provide any comments. Mr. Huff thanked the submitters of the comments and indicated that he found to be insightful. Mr. Lyons stated that he echoes the comments from Mr. Huff and looks forward to the discussion. |
| **Discussion Items – Category 3** | Mr. Booe asked the participants to limit their discussion to topic 3.a for this portion of the discussion.  **3.a**: Which entity has authority to require certain natural gas-fired generating units to obtain either firm supply and/or transportation or dual fuel capability, under what circumstances such requirements would be cost-effective, and how such requirements could be structured, including associated compensation mechanisms, whether additional infrastructure buildout would be needed, and the consumer cost impacts of such a buildout  [Six comments](https://www.naesb.org/pdf4/geh092322w3.docx) were submitted in response to topic 3.a.  National Gas Supply Association Comments  Ms. Jagtiani of National Gas Supply Association presented an overview of her comments concerning topic 3.a. The comments noted that with the transition to renewable resources, natural gas generators will be increasingly relied upon to balance variability in electricity generation, which, in turn, will create additional pressures on the natural gas system to provide more flexibility and highlights the need for the availability of natural gas capacity and sufficient infrastructure. Ms. Jagtiani explained that there one hurdle to overcome in ensuring the needed flexibility of the natural gas system is uncertainty by power generation customers regarding fuel needs and pricing, which can make it difficult for these customers to make advanced contractual commitments regarding natural gas. She indicated that the lack of contractual commitments make it difficult to support new gas investments that that may be needed to help ensure natural gas system flexibility. Ms. Jagtiani stated that the disconnect between ensuring sufficient natural gas infrastructure required for flexibility and the difficulties in putting together reliable portfolios, is a fundamental issue that the GEH Forum can address to help eliminate existing areas of risk while also increasing reliability, decreasing cost exposure and supporting a smoother clean energy transition that can be prepared for any kind of unexpected setbacks. She expressed a preference to rely on competitive market solutions over natural gas subsidies. Ms. Jagtiani explained that these could include market enhancements to better value reliability as well as signals to help move away from just in time procurement practices. She also indicated that the GEH Forum should determine if there are any structural enhancements that would allow natural gas-fired generators to make any necessary purchases earlier in the gas day as well as new service options for flexible pipeline firm transportation or storage services or third party services that provide the flexibility generators require  Mr. Booe thanked Ms. Jagtiani for her comments. Mr. Desselle asked Ms. Jagtiani if there was an opportunity to develop additional standards regarding gas scheduling. Ms. Jagtiani responded that while changes to natural gas scheduling may result in improvements, these improvements will only be marginal if there is not sufficient natural gas capacity. She stated that the primary concern in providing the flexibility needed by customers is the availability of capacity  Ms. Tierney thanked Ms. Jagtiani for her comments and asked if she could expand upon the suggestion of earlier participation in gas scheduling by power generators during the gas day. Ms. Jagtiani stated that, typically, the daily natural gas market is most liquid earlier in the morning hours, around approximately 9:00 AM Central but that the award times for gas-fired power generators mean that most are entering the market later in the day when most of the available natural gas has been sold for the day. Mr. Gee asked Ms. Jagtiani how that the lack of synchronization between available natural gas supply and critical peak periods for power generation, particularly during weekend periods, could be addressed. Ms. Jagtiani stated that the GEH Forum should explore this issue. She explained that natural gas can be purchased on the weekends, usually at a premium due to liquidity of the market, but that there are options in which to build aa supply portfolio, such as a no notice service or pipeline storage. Mr. Gee stated that, at a later time, he would welcome additional conversation within the GEH Forum regarding the operation of weekend markets, particularly leading up to winter storm events. Mr. Wood noted that some of the submitted comments attribute tight natural gas market conditions to the lack in availability of firm natural gas pipeline capacity between the locations in which natural gas is produced and consumed. Ms. Jagtiani stated that there are certain areas along natural gas pipelines, especially long-line pipelines, where capacity is more constrained than it has been in previous years, creating less flexibility. She indicated that INGAA and the natural gas pipelines may be able to better expand on this issue. Mr. Desselle suggested that in instances where an extreme weather event is predicted, it could be beneficial to a switch to continual, 24/7 market operations. Ms. Tierney agreed and asked Ms. Jagtiani whether National Gas Supply Association and its members have discussed the possibility of a daily market triggered by anticipated extreme conditions. Ms. Jagtiani stated that the question is one of liquidity and noted the importance for power market customers to build a reliable supply portfolio to help mitigate risk. Mr. Gee commented that there may be in place existing institutional and operational barriers that would have to be overcome to enable the operation of a continual marketplace as described by Mr. Desselle. Ms. Tierney noted that further discussion on a daily weekend natural gas market may be a helpful future topic for the forum.  Process Gas Consumers Group & American Forest Paper Association Comments  Mr. Booe asked Ms. Chambers of Process Gas Consumers Group and American Forest Paper Association to present her comments on Item 3.a. Ms. Chambers explained that Process Gas Consumers Group and the American Forest Paper Association represent entities which require large supplies of natural gas to manufacture their products and provide services which are critical for both a national and global market and that these end users purchase firm natural gas to ensure they receive the needed quantities. She expressed a preference for requirements that would expand obligations for natural gas-fired generators to purchase firm natural gas as part of planning for weather events and that the FERC has the authority to address these issues as it has done in thepast. Ms. Chambers stated that the organizations are also willing to consider selling back any excess gas, if available, in a time of need.  Mr. Gee thanked Ms. Chambers and asked if members of the Process Gas Consumers Group and the American Forest Paper Association are impacted by intrastate market activities in addition to the wholesale marketplace. Ms. Chambers stated that members have been affected by intrastate markets, including curtailments of natural gas delivery to factories, and that the lack of transparency in some intrastate markets can make it difficult to understand procedures and processes during events such as during Winter Storm Uri. Ms. Crockett stated that, while there are contracting options, such as natural pipeline balancing services, ultimately, curtailments may happen based on physical constraints on the natural gas pipeline and the capacity that is available on any given day.  LS Power Comments  Mr. Booe asked Ms. Phillips, from LS Power, to review the submitted comments. Ms. Phillips expressed appreciation for the discussion of the GEH Forum and noted that there appears to be as part of these discussions some agreement that incentivizing fuel procurement by generation owners could provide greater efficiencies within the wholesale electric market. She indicated that during Winter Storm Uri, the PJM Interconnection, due to its successful operation of a capacity market, was able to supply energy to other ISO/RTO footprints. Ms. Phillips explained that capacity markets were designed to protect a one in ten-year loss of load but that the needs for the market have changed. She indicated that if the goal is to prevent any loss of load, the best solutions may need to focus on the development of new, innovative products and market mechanisms as opposed to the consideration of revisions to the timeline for day ahead awards. Ms. Tierney asked whether a backstop has been discussed in any of the RTO markets, such as a call-market option on liquefied natural gas (LNG). Ms. Phillips stated that there have been discussions about out-of-market reserve products.  Interstate Natural Gas Association of America (INGAA) Comments  Mr. Booe asked Mr. Smith to present the comments submitted by INGAA. Mr. Smith stated that one hundred and fifty interstate pipelines deliver reliably to firm transportation customers and that during cold weather and extreme weather events, most if not all natural gas pipeline capacity is spoken for. He explained that as demand continues to rise for natural gas, there are smaller amounts of interruptible capacity available to natural gas-fired generators and other customers. Mr. Smith noted that, as discussed earlier during the meeting, long-term firm natural gas arrangements can be costly and there is not a mechanism for natural gas-fired generators to recover those costs. He stated that the New England Gas Electric Technical Conference, held earlier this month, produced an outline of the issue and potential solutions that should be considered as part of the GEH Forum effort. Mr. Smith stated that natural gas pipelines communicate with customers, just as the firm shippers work with the natural gas-fired but that communication and coordination cannot create additional natural gas pipeline capacity. Ms. Tierney asked if Mr. Smith could characterize the types of communication such as if they occur in real-time and asked whether New England is utilizing mechanisms that could provide lessons learned for other regions. Mr. Smith stated that the communications are both electronic and phone-based in real-time. Mr. Desselle stated that New England seems to have a protocol or communication path between the natural gas purchasers, natural gas generators, and ISO New England. He explained that Southwest Power Pool had previously submitted a request for standards development to NAESB proposing further standardization of communications between the natural gas and electric markets and noted that the New England communication model may have useful aspects to consider. Mr. Gee asked for the record to be supplemented with a brief overview of the New England report. Mr. Smith agreed to prepare the overview.  Dominion Energy Comments  Mr. Booe asked Mr. Oberleitner from Dominion Energy to speak to the submitted comments. Mr. Oberleitner stated that issues surrounding the events of Winter Storm Uri included a lack of advanced market signals to procure natural gas ahead of the holiday weekend as well as coordination between the natural gas and electric markets. He indicated that while there were options to obtain natural gas over the weekend prior to Winter Storm Uri, there were high costs associated with procuring firm natural gas and no assurance that those costs could be recovered. Mr. Oberleitner explained that a sufficient price signal could have incentivized natural gas-fired generators to procure natural gas prior to the weekend and ahead of the storm. He noted the uniqueness in supply needs for natural gas-fired generations which varies over time and the constraint faced by natural gas pipelines, particularly along the East Coast. Mr. Oberleitner acknowledged the need to incentivize and build the natural gas infrastructure needed to provide the flexibility required for electricity production. He stated that this issue could also be helped by providing power generators with more intentional load forecast to adhere to or building more flexibility into fueling natural gas.  Mr. Gee reiterated the issue of liquidity in the natural gas market over the weekend and noted that while natural gas can be purchased, it is often done so at a premium. He asked what reforms could support more efficient procurement of natural gas during the time periods leading up to winter storms, including over weekends as was the case proceeding Winter Storm Uri. Mr. Oberleitner stated that there would need to be some assurity that, a customer purchasing natural gas on a Friday will be able to swing or capture incremental supply on Sunday or Monday. He noted that some natural gas pipelines do offer no notice storage but that this also needs to be coupled with firm transportation to access the storage. Mr. Oberleitner stated that the answer may be a series of solutions, such as additional pipeline firm transportation, additional pipeline no notice services, and additional storage and service solutions.  Ms. Tierney asked whether the organized markets have discussed a multi-day electric market to provide visibility going forward beyond twenty-four hours. Mr. Oberleitner stated that Dominion Energy operates in PJMt and is part of an electric gas generator task force that has been meeting to address that question. He noted that currently, the task force is working through a solutions matrix and the effort will take some time to fully address. Mr. Desselle stated that Southwest Power Pool has a multi-day provision that may be helpful.  Mr. Desselle stated that the comments from Dominion Energy seem to illuminate, not to a supply issue, but rather an information limitation issue. Mr. Oberleitner stated that it is both an issue of supply and the limitation of information. He explained that, in Winter Storm Uri, even when there was massive load shed, the natural gas-fired generators were not able operate because of lack of supply but that there were still exports of natural gas and LNG during this time period. Mr. Oberleitner explained that this could be attributed to the fact that these exports had been scheduled well in advance of the load shed event, but that due to a lack of market signal, there was not incentive for natural gas-fired generators to schedule in advance of a load shed event.  Mr. Wood stated as part of the meeting chat, Mr. Kim commented that the bulk of natural gas is sold by 9:00 am but the electric generation commitment is not done until 12:30 pm. Mr Wood asked how entities in the natural gas market prepare for this process. Mr. Oberleitner stated that Dominion Energy has a specialized group that address this issue and that while there is risk, if the result is under procurement, then storage and other options are utilized. He added that the factors considered by Dominion Energy as part of this process include history, weather, information on ICE, forecasted LMPs, and the capacity left on the system.  Mr. Laursen from WEC Energy Group stated that he agreed with the comments provided by Mr. Oberleitner and added that the root of the issue is a lack of natural gas infrastructure, as there is not sufficient capacity left for peak power plants to come online. Ms. Tierney asked for more details regarding the physical supply constraint. Mr. Laursen stated that WEC Energy Group agrees that the megawatt hours from gas-fired generation will decline over time, but that natural gas will remain increasingly important when intermittent generation is down. He stated that his company has recognized the need to firm up its fuel supply, through LNG, and other approaches. Ms. Tierney asked whether the WEC Energy Group is making these as an organization or if the decision making has been guided by state policies. Mr. Laursen stated that it is a combination, noting that Wisconsin is proactive regarding the need for utilities to firm up supply and that WEC Energy Group also looks to price rates to ensure they do not price themselves out of the market.  Texas Competitive Power Advocates Comments  Mr. Booe asked Ms. Richmond to review the comments from Texas Competitive Power Advocates. Ms. Richmond stated that the members of Texas Competitive Power Advocates have dispatchable generation, the bulk of which is natural gas plants, and are not FERC jurisdictional. She indicated that the Public Utility Commission of Texas and the Texas legislature are the entities with jurisdiction over requirements for these generators. Ms. Richmond stated that the Public Utility Commission of Texas adopted a firm fuel product that is capped at fifty-four million dollars and that this is the only mechanism within that jurisdiction for recovering costs. She indicated that during Winter Storm Uri, natural gas generators within the ERCOT footprint received force majeure notices from five to seven days prior to the start of the weather conditions and that is something that should be addressed. She described the unique position that power generators face regarding fuel procurement given that a majority of natural gas pipelines that operate in Texas are intrastate.  Mr. Booe noted that no requests were made to provide comments in response to items 3.a.i and 3.b and asked whether anyone who submitted on 3.a.i or 3.b. would be interested in talking about them today, in lieu of moving on to 3.c. No responses were received. Mr. Wood recommended that the discussion move to Item 3.c, with Mr. Gee noting that the chairs reserve the ability to return to discussion on 3.a, 3.a.i and 3.b as needed.  **3.c**: Which entity has authority, and under what circumstances, to take emergency actions to give critical electric generating units pipeline transportation priority second only to residential heating load, during cold weather events in which natural gas supply and transportation is limited but demand is high  [Six comments](https://www.naesb.org/pdf4/geh092322w6.docx) were submitted in response to Item 3.c.  American Gas Association Comments  Mr. Booe asked Mr. Agen to review the comments provided by the American Gas Association (AGA). Mr. Agen AGA has concerns regarding any alterations to the FERC prioritization process as these solutions that may reduce the reliability of natural gas to local distribution companies (LDCs). He noted the need for increased natural gas infrastructure. Ms. Tierney noted that it may be helpful to GEH Forum discussions if information could be made available regarding the identification of policies and delivery priorities with regard to natural gas emergencies for each state.  Ms. Crockett commented that eliminating the no bump rule could help to increase the availability of firm natural gas service. She also suggested that it may be helpful to review the issuance of weather-related critical notices as well as the possibility of the availability of 24-hour scheduling during emergency periods for reliability purposes.  Southern California Gas Comments  Mr. Booe asked Mr. Peress to speak to the comments provided Southern California Gas. Mr. Peress explained that LDCs are given are the exclusive provider for their service territory and are provided a reasonable opportunity to get regulated returns as an inducement to providing the essential service of natural gas delivery. He noted that LDCs are increasingly delivering to electric generators during periods of peak demand but that the infrastructure costs were born by the core customer base of LDCs and not the electric generator customers Mr. Peress suggested that there may need to be updates to the regulatory compact with the LDCs, and as well as a rethinking of foundational aspects such as planning standards, service priorities, cost allocation and rate design.  Mr. Wood stated that the task assigned to the GEH Forum will require proactive solutions from the participants. Ms. Tierney agreed, explaining that it is imperative to consider the changing nature of the energy market as well as climate and how our systems will need to change. Mr. Gee stated that both the natural gas and electric industries will have a recurring and persistent role in these discussions and encouraged participation from state commission staff as well. Mr. Huff stated that there can be a lot gained by considering problems during different times of the year in order to more readily developed solutions for cold weather and other times of the year. |
| **Next Steps & Other Business** | Mr. Booe stated that the next meeting is scheduled for October 21, 2022. The preliminary agenda will be posted and distributed and additional comments will be solicited. During that meeting, the discussion will continue with Item 3.c and may return to Items 3.a, 3.a.i and 3.b. He indicated that the priority of the GEH Forum should be to respond to the request made by FERC and NERC staff.  Mr. Booe stated that meeting materials, including a recording of the meeting and written notes provided by staff, will be made available on the NAESB website. |
| **Adjourn:** | The meeting adjourned at 12:00 PM Central. |
| **Work Papers Provided for the Meeting:** | **Meeting Related Documents:**   * Announcement & Agenda: <https://naesb.org/pdf4/geh092322a.docx>. * Antitrust Guidance and Other Meeting Policies: <http://www.naesb.org/misc/antitrust_guidance.doc>.   **Meeting Materials**   * Comments Related to Topic 3.a: <https://www.naesb.org/pdf4/geh092322w3.docx> * Comments Related to Topic 3.a.i: <https://www.naesb.org/pdf4/geh092322w4.docx> * Comments Related to Topic 3.b: <https://www.naesb.org/pdf4/geh092322w5.docx> * Comments Related to Topic 3.c: <https://www.naesb.org/pdf4/geh092322w6.docx> * General Comments: <https://www.naesb.org/pdf4/geh092322w7.docx> * FERC NERC Presentation: <https://naesb.org/pdf4/geh083022a1.pdf>. |
| **Attendees:** | Please see the posted participant attendance record: <https://www.naesb.org/pdf4/geh092322a1.docx>. |