



TEXAS RE

Electric & Natural Gas Coordination

**Jonathan Booe
Executive Vice President & COO**

**North American Energy Standards
Board**

October 9, 2024

Antitrust Admonition

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Notice of this meeting was posted on the Texas RE website and this meeting is being held in public. Participants should keep in mind that the listening audience may include members of the press, representatives from various governmental authorities, and industry stakeholders.



Upcoming Texas RE Events



October 16, 2024

Understanding New
Generator Obligations



October 29, 2024

6 GHz Task Force Update



November 20, 2024

Fall Standards, Security, &
Reliability Workshop



Upcoming ERO Enterprise Events



October 15-17, 2024

System Operator
Conference



October 22-25, 2024

GridSecCon



October 28, 2024

Technical Talk with RF



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Talk with Texas RE: Electric-Gas Coordination

Recent NAESB Gas-Electric Activities

October 9, 2024



**NORTH AMERICAN ENERGY
STANDARDS BOARD**

Quick Facts

1994

GISB
Founded

2001

NAESB
Established

29

Years of Standards
Development

4,000+

Standards

American National
Standards Institute
(ANSI) Accreditation

**Oct.
2001**

Mission & Government Coordination

The North American Energy Standards Board serves as an industry forum for the development and promotion of standards to support the wholesale and retail natural gas and electricity markets

Department of
Energy

Federal Energy
Regulatory
Commission

National
Association of
Regulatory Utility
Commissioners

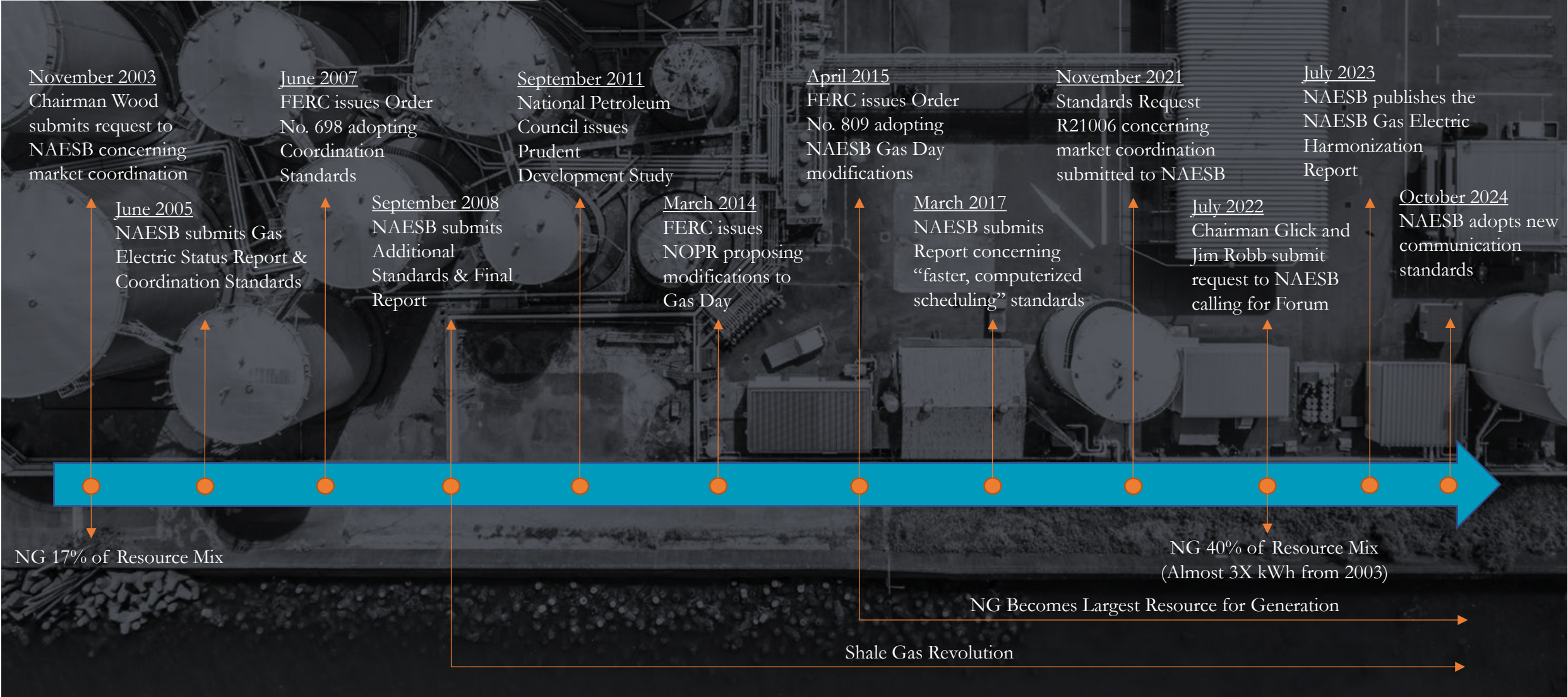
National Institute
of Standards and
Technology

North American
Electric Reliability
Corporation

National
Petroleum
Council

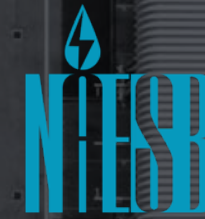
NAESB G-E Coordination

Timeline of Previous Activities



NAESB GEH Forum

Meetings & Participation



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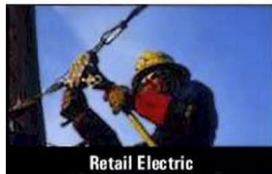
Forum Meetings & Report Development



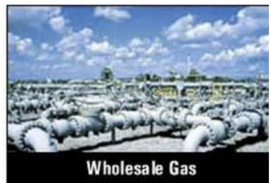
North American Energy Standards Board
Gas Electric Harmonization Forum Report
July 28, 2023



Wholesale Electric



Retail Electric



Wholesale Gas



Retail Gas

- NAESB held 14 meetings open to the public from August 2022 through July 2023
- 741 individuals from 375 companies participated in the meetings
- 145 sets of comments were submitted from 68 different organizations
- 20 recommendations included in final report
- The 20 recommendations were subjected to vote by the GEH Forum participants and 111 votes were submitted on per company basis, consistent with NAESB procedures.
- The votes were tabulated using the NAESB balanced voting process to show support or opposition on a market and market segment basis.
- Final Report delivered to FERC & NERC on July 28. A full record, including the voting results, were described in the report.

Industry Activities

Gas-Electric Coordination

NARUC Task Force Gas-Electric Alignment for Reliability

MEMORANDUM
On the Creation of the
Gas- Electric Alignment for Reliability (GEAR)

On November 21, 2023, the NARUC Executive Committee approved a motion to permit NARUC President Julie Fedorchak, pursuant to Title I, Section 19 of the Policies and Procedures of the National Association of Regulatory Utility Commissioners,^[1] to establish the Gas-Electric Alignment for Reliability (GEAR) working group and approved the Written Mission Statement/Charter outlined below for GEAR.

Charter/Mission Statement: Gas-Electric Alignment for Reliability (GEAR) is chartered for a period of fifteen (15) months, as of this 21st day of November 2023. GEAR is a working group that will bring together state regulators and industry representatives to develop solutions to better align the gas and electric industries to maintain and improve the reliability of the gas and electric energy systems on which our nation depends for power. GEAR intends to gather regulator and industry stakeholder feedback and recommend solutions to better harmonize communication protocols, operations and planning of the gas and electric systems and markets. Findings from the North American Energy Standards Board Gas-Electric Harmonization Forum, the Reliability Alliance Report developed by NGSA, INGAA and EPSA, and the analyses of Storms Uri and Elliott by the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation, will serve as a starting point for the working group.

Background: Over the last two decades, the U.S. electric and gas industries have undergone significant transformation driven by new technologies, replacement of aging infrastructure, environmental regulations and state and federal policy goals. New technologies for renewable electricity generation combined with the significant increase in natural gas production and correlated decrease in gas prices have transformed the electric industry and increased dependence on gas for electricity generation. As a result, the electric industry is more reliant than ever on the gas industry to fuel electricity generation. However, since the gas industry was largely designed and constructed to deliver gas for home heating and industrial processes, gas infrastructure and markets are misaligned from electric markets. The lack of coordination between these two systems poses serious reliability concerns, as demonstrated during winter storms where dependence on gas in both systems is high. In February 2021, Winter Storm Uri caused numerous outages, derates or failures to start at electric generating plants scattered across the region. The Texas grid operator (Electric Reliability Council of Texas or ERCOT) ordered a total of 20,000 MW of rolling blackouts to prevent grid collapse; this represents the largest manually controlled load shedding event in U.S. history. More than 4.5 million people in Texas lost power – some for as long as four days. Not quite two years later, during Winter Storm Elliot, unprecedented electric generation outages coincided with winter peak electricity and gas demands. As a result, several Balancing Authorities in the Eastern U.S. declared Energy Emergencies to maintain electric grid reliability, ordering firm load shed exceeding 5,000 MW during the extreme cold weather event. Future trends and technologies indicate that gas and electric system interdependence will continue to grow. To support this transition while maintaining reliability and affordability for customers, and encouraging investments and growth in both industries, reforms are needed to address the areas of friction, disconnect and failure.

FERC Reliability Spotlight: Cold Weather Preparedness Website

HOME > RELIABILITY SPOTLIGHT: COLD WEATHER PREPAREDNESS

Reliability Spotlight: Cold Weather Preparedness

FERC and the North American Electric Reliability Corporation (NERC) have taken unprecedented measures to review and analyze, and seek improvements to, cold weather operations of energy delivery systems in the wake of Winter Storm Uri in 2021 and Winter Storm Elliott in 2022. We also enlisted the help of the North American Energy Standards Board (NAESB) in finding ways the electric and natural gas industries can work more closely together, particularly when freezing weather hits. This page tracks and provides updates to the status of recommendations that have come from the FERC-NERC winter storm analyses.



Legend

● Completed | ● Progressing as Expected | ● More Progress Needed

Recommendation Category	Recommendation Topics Summary	Status
Freeze Protection	Cold Weather Reliability Standards, Rules for:	
	Electric Generation	●
	Natural Gas Facilities	●
Gas-Electric Coordination	Identify Actions: Forums, Work Groups	●
	Develop and Implement Actions	●
Grid Operations	Bi-directional Power Transfer Studies	●
	Load Shed Coordination and Training	●
	Load Forecasting and Operational Planning	●

Contact Information

News Media
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MediaDL@ferc.gov

Quick Links

- Chairman's Reliability Report | A Year in Review
- 2023 Reliability Report
- 2021 Winter Storm Uri Report
- 2022 Winter Storm Elliott Report
- January 2024 Arctic Storms Gerri and Heather Review



Gas Electric Reliability for America

GAS ELECTRIC RELIABILITY FOR AMERICA

Sen. Mary Landrieu
Robert W. Gee
Susan Tierney
Pat Wood III
Steve Gaw
Rob Gramlich
Richard Meza
Michelle Richmond
Ted Thomas
Carla Tully
Susan Waller

Power Grid/Natural Gas Network Vulnerability Could Lead to Severe Power Outages This Winter, Experts Warn
Coalition Urges Increased Coordination to Bolster Grid Resilience

September 4, 2024 — With winter weather looming on the horizon, energy industry veterans are sounding the alarm that electric and gas network vulnerabilities could once again leave millions of Americans out in the cold.

"The electric grid and natural gas industries are intertwined. Disruptions in one system can have devastating consequences for the other, as seen during Winter Storm Uri and Winter Storm Elliott," said Robert Gee, Co-founder of **Gas Electric Reliability for America (GERA)**, a coalition of leading energy and former utility public officials. "The power outages caused by these storms tragically led to hundreds of deaths and billions of dollars in economic damages and could have been avoided."

Interruptions in gas supply can lead to power outages, as natural gas is the leading fuel source for electric generation. Electric power also plays a significant role in the transportation of natural gas, as pipelines increasingly rely on electric compressor stations to maintain a steady flow rate.

To keep the power on during severe winter weather, GERA is calling for increased coordination and information sharing between market players in the electricity and natural gas industries.

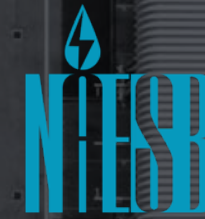
"We can't keep blaming Mother Nature. It's time to stop making excuses and start taking responsibility," said fellow GERA Co-founder Dr. Sue Tierney. "We know what we need to do, but we fear that little action has been taken to date even though these issues have led to power outages for decades."

This month marks the one-year anniversary of the cross-industry North American Energy Standards Board (NAESB) report that recommended 20 practical steps to improve coordination between the heavily interdependent electric and gas industries. That report was requested by the Federal Energy Regulatory Commission (FERC) chairman and North American Electric Reliability Council (NERC) President and CEO in 2022 and was developed following broad industry consultation.

GERA will report its findings on the energy industry's progress in implementing the NAESB recommendations and identify and recommend best practices to strengthen the electric grid that could be adopted in other regions of the country. One of GERA's first tasks will be to see how communications can be improved between natural gas infrastructure entities, electric grid operators, and local gas distribution utilities during extreme cold weather events to enhance situational awareness and prevent outages. The NAESB Report and FERC both called for improved communication between industry members.

2022 Winter Storm Elliott Report

October 2023



NORTH AMERICAN ENERGY
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C. Natural Gas-Electric Coordination for Cold Weather Reliability

Recommendation 5: The North American Energy Standards Board should convene natural gas infrastructure entities, electric grid operators, and LDCs to identify improvements in communication during extreme cold weather events to enhance situational awareness.

Inquiry into Bulk-Power System Operations During December 2022 Winter Storm Elliott

FERC, NERC and Regional Entity Staff Report
October 2023



NAESB Joint Standards Development

Wholesale Electric / Wholesale Gas / Retail Markets



NORTH AMERICAN ENERGY
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NAESB 2024 Annual Plan Item

Review and modify the Gas / Electric Coordination Business Practice Standards and any corresponding standards to improve communication among the operators of production facilities (producers, gatherers, processors) and pipeline and storage facilities for the timely dissemination of this coordinated communication from the these facilities to and from relevant natural gas infrastructure entities, BAs, shippers, and end-use customers (i.e., Local Distribution Companies) as needed to enhance situational awareness during extreme cold weather events without endangering sensitive commercial information

NAESB Business Practice Subcommittees

- 10 Joint Meetings – January to July 2024
- Robust Participation
- Cross Market Collaboration
- Chairs' Scenario Based Communication Gap Analysis
- Recommendation Voted Out on July 29, 2024, Without Opposition
- Two Changes to the NAESB WGQ Business Practice Standards
- To be Reviewed by NAESB WGQ Executive Committee on October 24th (2 Comments Submitted)

NAESB WGQ Standards

Recommended Changes



NORTH AMERICAN ENERGY
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NAESB WGQ Standard No. 4.3.23

New Category: Gas Electric Coordination (when applicable)

NAESB WGQ Standard No. 0.3.z1

New Requirement for Scheduled Quantity Information for Directly Connected Power Plants

- Examples of information that could be included

NAESB WGQ Standard No. 5.3.z1

New Information in Critical Notices to include geographic information of impacted areas, locations, or pipeline facilities

Chairs' Work Paper

Concepts Only Presented to
Solicit Discussion



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Ad hoc Work Paper on Gas-Electric Communication Submitted by BPS Chairs

1. There may be limited understanding of pipeline-initiated confirmation and/or nominations reductions that are not captured in OFOs and/or underperformance notices as this is hard to discern from operationally available data.
2. There is a lack of communication during extreme weather events of upstream supply issues, including invocations of force majeure, by parties with direct knowledge to critical stakeholders who are not part of the transactional and operational chain (e.g., Pipeline Operators, RTO/ISO). Consistent and ongoing communication primarily only occurs between parties with operational and/or contractual connections; therefore, only directly affected parties understand their real-time positions and situation, except in instances where such information is part of pipeline Critical Notices.
3. Because many end users purchase their gas from various parties rather than directly from producers and such gas can be transacted multiple times (i.e. “daisy-chain”), certain transactional communications, even ones as critical as force majeure, may take significant time (e.g., days) for information to flow through to all stakeholders.
4. Certain interstate pipeline Informational Postings lack specific location information to help parties better understand the area covered by the posting. (This is currently being discussed by the joint subcommittees.)
5. There may be limited stakeholder distribution and/or unclear and/or no communication of recovery timelines and expectations when supply is lost due to weather and/or operational disruptions. For example, interstate natural gas pipelines may observe a difference between shipper nominations and actual gas flows or system pressure changes. While the difference might indicate supply disruptions upstream, the difference does not indicate what is occurring or the anticipated length of the event.
6. There may be limited and/or delayed communication from end-users to pipeline operators of non-ratable or other consumption patterns that deviates from contractual commitments.

NAESB GE Coordination Activities

What's Next?



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STANDARDS BOARD

Current Focus

- Industry Consideration and Approval of Proposed Standards Modifications
- Submission of New Standards at FERC's Direction
- Information Provided Upon Request

Possible Next Steps

- Direction from FERC, NERC or Other Regulators in Response to Standards Development or Industry Activities
- NAESB Annual Planning Process Underway

NAESB Contact Information

- GEH Forum Website:
https://naesb.org//naesb_geh_forum.asp
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- Email – naesb@naesb.org



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