
**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**COORDINATION BETWEEN NATURAL)
GAS AND ELECTRICITY MARKETS)**

Docket No. AD12-12-000

**COMMENTS OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION**

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January 7, 2013

I. INTRODUCTION

The North American Electric Reliability Corporation (“NERC”) is pleased to provide these comments in response to the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) Notice of Request for Comments and Technical Conference on the Coordination between Natural Gas and Electricity Markets (“Notice”).¹

NERC’s mission, as the FERC-designated Electric Reliability Organization (“ERO”),² is to ensure the reliability of the Bulk Power System in North America, in part, by developing and enforcing mandatory Reliability Standards. NERC’s reliability mandate under Section 215 of the Federal Power Act (“FPA”)³ does not include authority to monitor and enforce market-based issues.⁴ Accordingly, NERC’s comments herein focus on electric and gas industry coordination issues as they relate to electric reliability.

By this filing, NERC provides comments in response to the Commission’s Notice.

¹ *Notice of Request for Comments and Technical Conference, Coordination between Natural Gas and Electricity Markets*, Docket No. AD12-12-000 (December 7, 2012).

² *See North American Electric Reliability Corporation, Order Certifying North American Electric Reliability Corporation as the Electric Reliability Organization and Ordering Compliance Filing*, 116 FERC ¶ 61,062 (2006).

³ 16 U.S.C. § 824o.

⁴ *See Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments and Mandatory Reliability Standards for the Bulk-Power System*, Order No. 729, 129 FERC ¶ 61,155 at P 109 (2009).

II. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:⁵

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III. COMMENTS

FERC's Notice provides that a technical conference will be held on February 13, 2013 at the FERC offices in Washington, DC. In advance of the technical conference, interested parties were asked to submit comments on specific questions included in the Notice related to communications and information sharing. NERC is providing comments related to the issue of coordination between natural gas and electricity markets generally to help provide additional support to the Commission in its planning of the technical conference. Given NERC's responsibility to assess the reliability of the bulk power system, NERC has identified high-level communication and coordination considerations for all entities (directly or indirectly) involved in generating, transmitting, and balancing electricity.

⁵ Persons to be included on FERC's service list are indicated with an asterisk.

In formulating comments, NERC refers to its December 2011 Special Reliability Assessment titled “A Primer of the Natural Gas and Electric Power Interdependency in the United States.”⁶ Phase I recommendations from this assessment include:

- Future natural gas storage facilities will not only have to satisfy the traditional demands for fuel supply reliability, but it will also have to satisfy the significant and expanding swings in demand for gas that can only be accommodated by high performance, multiple cycle natural gas storage facilities.
- Vital information needed for the reliable operation of the Bulk Power System should be shared with system operators from both industries—increased transparency in both markets is needed. Examples of this include the sharing of maintenance issues (*e.g.*, the pipeline and the generators), new facilities perceived impact, load levels, dispatch principles and general patterns or forecasts for both industries.
- Communications between two industries are hampered by the incompatibility between the traditional gas day, traditional electric day, and the market day (in market areas), which increases the difficulty of the gas industry providing the needed services to its largest consumers. Contracting practices also make it difficult to plan the flexibility needed for both industries’ reliable operation. A coordinated approach for engaging the two industries to come together and develop compromising solutions to address communication strategies, operational changes, and tariff changes is critical. The two industries must reconcile the divergent views such as firm contracting needed to build new pipeline capacity and how to secure day-to-day delivery of gas.

⁶See *NERC 2011 Special Reliability Assessment: A Primer of the Natural Gas and Electric Power Interdependency in the United States*, at p. 96 (December 2011), available at: http://www.nerc.com/files/Gas_Electric_Interdependencies_Phase_I.pdf.

- Vulnerabilities should be identified. Mitigating strategies should be incorporated into the planning and operation procedures for both industries. The electric industry should evaluate which generators may be most susceptible to pipeline disruptions (*e.g.*, number of pipelines serving the generator, proximity to gas storage, and location relative to pipeline). The gas pipeline industry should consider electric system generation forecasts during the planning process. For operations, the sharing of real-time system information by both industries increases the ability for each to make informed decisions and reduce overall risk.

NERC also references its on-going Phase II⁷ activities which are highlighted in the *2012 Long-Term Reliability Assessment*⁸ and also cited in the FERC Staff Report on Gas-Electric Coordination Technical Conferences (“FERC Staff Report”).⁹ A key element of focus in NERC’s Phase II activities is the interface between the electric power and natural gas industries and the need for increased coordination between the two industries, particularly at the regional level. While addressing interdependency issues requires a coordinated approach to ensure reliability of the electric and gas systems, Phase II activities focus solely on the electric industry’s dependence on gas, and therefore identify issues and recommendations to ensure bulk power system reliability.

Two high-level objectives expected as a result of NERC’s assessment are:

⁷ NERC presented a status report at the September 2012 Planning Committee Meeting on Phase II activities: <http://www.nerc.com/docs/pc/Planning%20Committee%20Presentations%20-%20September%2018-19,%202012%20%28St.%20Louis,%20MO%29.pdf> (pg123-139)

⁸ NERC 2012 Long-Term Reliability Assessment: http://www.nerc.com/files/2012_LTRA_FINAL.pdf

⁹ *FERC Staff Report on Gas-Electric Coordination Technical Conferences (Docket No. AD12-12-000)*: <http://www.ferc.gov/legal/staff-reports/11-15-12-coordination.pdf>

1. NERC must ensure that enhancements to planning processes are made to account for any expected uncertainty in gas-fired generation performance as well as potential contingencies on the pipeline network.
2. Operational procedures must include a certain level of formalized coordination and communication with the gas pipeline industry, with specific focus on emergency procedures during extreme events.

While NERC believes that improved sharing of information and improved scheduling of existing pipeline capacity will help both the electric and gas industries harmonize their practices, NERC's primary focus is assessing resource adequacy and ensuring thorough technical analysis and sound assumptions are applied. With respect to coordinated long-term planning, an enhanced framework may be needed for infrastructure development to support a planning approach that takes into account future needs of pipeline customers.

NERC agrees with the FERC Staff Report that resource adequacy issues in wholesale market areas should continue to be addressed in the first instance by market participants, states, and other stakeholders in each area. In light of the unique characteristics of each region, which significantly impacts the dependencies between the two industries, there are significant regulatory, market, and physical differences that are best resolved at a more granular level. Also, each region may develop different approaches for interacting with critical third-parties (*e.g.*, regulatory bodies) on endorsing new procedures and approaches in order to preclude the loss of system reliability during periods of extreme stress. These new procedures and approaches, depending upon the region, might include provisions for procuring pipeline capacity and greater discretion on emission requirements during emergency conditions (*e.g.*, the use of fuel switching to preclude rolling blackouts), among other things.

NERC also notes that a common characteristic of long- and short-term planning, operational planning, and real-time operations is communication. The sharing of vital information needed for the reliable operation of the bulk power system between both gas and electric industries should be a top priority.

Of specific interest in communication and coordination are the information needs of Balancing Authorities, Reliability Coordinators, and Planning Coordinators. In general, it is important for Balancing Authorities and Reliability Coordinators to have information on pipeline availability, scheduled and unscheduled outages, the amount of gas that is available, and the commitments within the operational planning time horizon (*e.g.*, 6 months to 1 day). This level of observability would allow system operators to predict a potential inadequacy of fuel supplies and consider alternative measures (*e.g.*, dispatching dual-fuel capable generation, storage solutions, or liquefied natural gas deliveries).

From a coordinated planning perspective, Planning Coordinators should understand and consider fuel-supply risks in general and not limit to natural gas to support the short-term to long-term planning time horizon (*e.g.*, 1 to 10 years). In order to ascertain the risks of fuel interruption, information on contractual rights to firm pipeline capacity must be shared with Balancing Authorities, Reliability Coordinators, and Planning Coordinators. For planning purposes, this information is vital for resource adequacy analysis and can supplement existing forced outage rate calculations related to loss of fuel.

Formalized communication procedures and expectations may also be needed between bulk power system operating and planning entities (*i.e.*, Balancing Authorities, Reliability Coordinators, and Planning Coordinators) and Generator Owners and Generator Operators. Where operating and planning functions are disconnected from asset ownership (*i.e.*, wholesale

market areas), Generator Owners and Operators should keep planning and operating entities well-informed of both fuel expectations and dual-fuel capabilities. Specifically, sharing of information on fuel schedules and scheduled fuel supply would help inform system operators in advance of any potential interruption issues.

IV. CONCLUSION

NERC looks forward to continued participation in FERC's February 13, 2013 technical conference and supports increased communication and information sharing between the natural gas and electricity markets in the United States.

Respectfully submitted,

/s/ Holly A. Hawkins

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CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 7th day of January, 2013.

/s/ Holly A. Hawkins
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American Electric Reliability Corporation*