

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Coordination between Natural Gas and Electricity
Markets

Docket No. AD12-12-000

SUPPLEMENTAL NOTICE FOR MID-ATLANTIC REGION TECHNICAL
CONFERENCE

(August 22, 2012)

As announced in the Notices issued on July 5, 2012¹ and July 17, 2012,² the Federal Energy Regulatory Commission (Commission) staff will hold a technical conference on Thursday, August 30, 2012, from 9:00 a.m. to approximately 5:30 p.m. local time to discuss gas-electric coordination issues in the Mid-Atlantic region.³ The agenda and list of roundtable participants for this conference are attached. This conference is free of charge and open to the public. Commission members may participate in the conference.

The Mid-Atlantic region technical conference will be held at the following venue:

Commission Headquarters
888 First Street NE
Washington, DC 20426

If you have not already done so, those who plan to attend the Mid-Atlantic region technical conference are strongly encouraged to complete the registration form located at:

¹ Coordination between Natural Gas and Electricity Markets, Docket No. AD12-12-000 (July 5, 2012) (Notice Of Technical Conferences) (<http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13023450>); 77 Fed. Reg. 41184 (July 12, 2012) (<http://www.gpo.gov/fdsys/pkg/FR-2012-07-12/pdf/2012-16997.pdf>).

² Coordination between Natural Gas and Electricity Markets, Docket No. AD12-12-000 (July 17, 2012) (Supplemental Notice Of Technical Conferences) (<http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13029403>).

³ As indicated in the July 5, 2012 notice, for purposes of this technical conference, the Mid-Atlantic region includes New York Independent System Operator Inc., PJM Interconnection, L.L.C. and related areas.

www.ferc.gov/whats-new/registration/nat-gas-elec-mkts-form.asp. There is no deadline to register to attend the conference. The dress code for the conference will be business casual.

The Mid-Atlantic region technical conference will not be transcribed. However, there will be a free webcast of the conference. The webcast will allow persons to listen to the Mid-Atlantic region technical conference, but not participate. Anyone with Internet access who desires to listen to the Mid-Atlantic region conference can do so by navigating to www.ferc.gov's Calendar of Events and locating the Mid-Atlantic region technical conference in the Calendar. The Mid-Atlantic region technical conference will contain a link to its webcast. The Capitol Connection provides technical support for the webcast and offers the option of listening to the meeting via phone-bridge for a fee. If you have any questions, visit www.CapitolConnection.org or call 703-993-3100.⁴

Information on this and the other regional technical conferences will also be posted on the website www.ferc.gov/industries/electric/indus-act/electric-coord.asp, as well as the Calendar of Events on the Commission's website www.ferc.gov. Changes to the agenda or list of roundtable participants for the Mid-Atlantic region technical conference, if any, will be posted on the website www.ferc.gov/industries/electric/indus-act/electric-coord.asp prior to the conference.

Commission conferences are accessible under section 508 of the Rehabilitation Act of 1973. For accessibility accommodations, please send an email to accessibility@ferc.gov or call toll free 1-866-208-3372 (voice) or 202-208-1659 (TTY), or send a FAX to 202-208-2106 with the required accommodations.

For more information about this and the other regional technical conferences, please contact:

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⁴ The webcast will continue to be available on the Calendar of Events on the Commission's website www.ferc.gov for three months after the conference.

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Coordination Between Natural Gas and Electricity Markets

Docket No. AD12-12-000

Mid-Atlantic Region- August 30, 2012

FERC Headquarters, Washington, DC

Agenda

9:00 - 9:15 Welcome and Opening Remarks

9:15 - 9:45 Regional Energy Infrastructure Presentation (FERC staff)

**9:45 – 12:00 First Roundtable Discussion:
Gas-Electric Scheduling and Market Structures/Rules**

The use of natural gas for electric generation is projected to increase significantly in the Mid-Atlantic region. Many expect that a significant portion of the new generating capacity installed in the next ten years will continue to use natural gas as its primary fuel. Several commenters in this region have expressed concerns about gas-fired generators' pipeline contracting practices and fuel dependability in the organized wholesale electric markets administered by the New York Independent System Operator Inc. (NYISO) and PJM Interconnection, L.L.C. (PJM). Some argue for more stringent fuel firmness requirements including further defining the energy, ancillary and capacity service products or development of longer-term capacity markets. Others oppose such requirements, either because electric market bidding and mitigation procedures do not currently permit the recovery of such additional costs or because cheaper alternative arrangements should be explored first.

The Mid-Atlantic region, as defined for purposes of this conference, is situated in the heart of the Marcellus shale gas-producing region and has approximately 35 interstate pipelines and storage providers within its footprint. Nevertheless, the growth in gas-fired generation throughout the Mid-Atlantic region has commenters concerned about both the adequacy of gas infrastructure to meet that growth and the impact of generators' hourly and daily usage variations upon other firm pipeline shippers. Several pipelines in the Mid-Atlantic region offer additional services that provide flexibility beyond traditional firm and interruptible transportation services. Some commenters suggest that these

additional services could be more widely deployed to enable gas-fired generators to access gas supplies in a timely manner in response to electric dispatch orders. Other commenters note that these additional services can have system-wide impacts on a pipeline that affect other shippers' services.

Mid-Atlantic region commenters also point out the challenges associated with the mismatch between gas and electric scheduling days and deadlines. They offer potential reforms that may help align day-ahead and real-time commitment with pipeline nomination opportunities in an effort to minimize supply risk faced by gas-fired generation.

Roundtable participants are encouraged to be prepared to respond to the following:

1. Describe the market rules, policies or practices in the Mid-Atlantic wholesale electric and natural gas markets that you believe negatively or positively impact the procurement of gas transportation and storage capacity purchases by gas-fired generators. What market, regulatory, or other factors deter merchant gas-fired generators from procuring reliable fuel supplies, whether through natural gas transportation service, storage service, delivered bundled purchases, or other means? How might these issues be addressed?
2. Please describe any concerns you have regarding the adequacy of gas infrastructure in your part of the Mid-Atlantic region, in the context of expected growth in the use of gas for electric generation.⁵ Are there ways that regional electric markets might fund gas infrastructure expansion outside of the wholesale market mechanisms? What reforms to the organized wholesale electric markets' rules could NYISO and PJM consider as a possible means to allow a gas-fired generator to recover the costs of contracting for gas infrastructure expansion needed to serve electric markets in the region?
3. Recognizing that some pipelines offer additional nomination opportunities beyond the current standards, to what extent do existing enhanced/tailored services of natural gas transportation and storage providers accommodate the needs of the region's power generators to access gas supplies as needed? What additional operating flexibility would gas-fired generators like to see in pipeline services to better match the day-ahead and real-time wholesale electric market, and what does it take for transportation and storage providers to provide such services? What impact, if any, would this additional operating flexibility have upon other firm transportation and storage customers?
4. How does a gas-fired generator balance real-time electric market dispatch and

⁵ See ISO New England, NYISO and PJM, *2011 Northeast Coordinated System Plan* at 71 (Multi-Regional Gas/Electric Study) (May 2012).

compensation with pipeline scheduling, dispatch and balancing requirements? Is there a need for modifications to either the electric market or pipeline requirements in these areas? For example, commenters in this region suggest the further development and implementation of key electric market designs such as the ability to increase bids in real time to reflect the intraday cost of gas and encourage generators to keep their electric market positions, and the inclusion of a multi-hour bid curve. How would such reforms affect the ability of generation resources to better reflect fuel purchase costs in electric market bids? From the electric industry's perspective, is it expected that such changes will decrease the need for out-of-market commitments, reliability commitments, or reduce market clearing prices due to increased price certainty among competing generators? What effect, if any, would such changes have on the need for generation resources to meet ancillary services requirements?

5. How should electric markets best take into account conditions on the natural gas system? Are there any short-term planning or operational reliability concerns that are the result of commitment timelines? If so, what are those concerns, and how do current commitment timelines provide timely information regarding fuel availability for gas-fired generation that allows for ISO operations to commit longer lead time resources? If not, should there be any modification to the unit commitment processes or timelines. Given comments that the weekend gas market is illiquid but electric commitments are day-to-day even over the weekend, commenters in this region suggest that individual ISOs could consider three-day weekend electric commitments. What would be the benefits and drawbacks of such a change?

6. How can natural gas pipelines accommodate more dynamic electric scheduling? Are there discrete or systemic improvements that might be made to natural gas pipeline scheduling practices which could increase price certainty for gas-fired generators? How might the industries evaluate the relative costs, benefits and time horizons associated with incremental discrete changes in scheduling practices so that impacts across both industries can be evaluated and prioritized?

7. Should the natural gas and electric market scheduling timeline be harmonized and aligned, and if so, how? How do the differences in the scheduling timelines between the NYISO and PJM markets affect a gas-fired generator's ability to sell electricity into one or both markets? Does NYISO's earlier scheduling timeline reduce difficulties faced by gas-fired generators in scheduling fuel deliveries? What improvements should be considered in either (or both) region's schedules?

12:00 – 1:30 Break

**1:30 – 3:00 Second Roundtable Discussion:
Communications/Coordination/Information-Sharing**

Many commenters in this proceeding recommend that improving communications and coordination during weather or outage events should be addressed in the near-term.

Areas identified for better communication and coordination between the industries include communications protocols for emergency outages, coordinated maintenance outage scheduling and long-term planning. Commenters suggest that, given the region's proximity to shale natural gas and the expected increase in gas-fired generation in the Mid-Atlantic,⁶ additional improvement is needed to address communication and coordination issues that affect both real time and near-real time operations.

NYISO and PJM have attempted to bridge the gap in communications between the natural gas and electric industries. Gas and electric entities in New York began a process earlier this year to improve communications and understanding between the industries through the regular meetings of the New York Electric-Gas Coordination Working Group.⁷ Similarly, in PJM, there is an initiative underway to discuss operational issues with pipelines to reduce barriers that impede the ability of the industries to work together.⁸

While stating the need for greater coordination, commenters also expressed concern regarding whether certain types of communications between pipelines, RTOs/ISOs, and generators that involve sharing of non-public transmission information would be inconsistent with federal regulations, such as the FERC Standards of Conduct,⁹ or the prohibitions against undue preference in the Federal Power Act¹⁰ and the Natural Gas Act.¹¹

Roundtable participants are encouraged to be prepared to respond to the following:

1. Several entities in the Mid-Atlantic region identified the need for improvements in outage notification and coordination as a priority issue, referring to both emergency and planned outages. What type of information is currently available and being shared between industries? What kind of coordination would be necessary, and what information that currently is not being shared, should be shared, on a routine and emergency basis? Should entities coordinate weather forecasts?

⁶ PJM March 30, 2012 Comments at 4.

⁷ Electric Gas Coordination Working Group, *Meeting Materials*, http://www.nyiso.com/public/markets_operations/committees/meeting_materials/index.jsp?com=bic_egcwg

⁸ PJM March 30, 2012 Comments at 2.

⁹ 18 C.F.R. Part 358 (2012).

¹⁰ 16 U.S.C. 791 *et seq.*

¹¹ 15 U.S.C. 717 *et seq.*

2. What is the impact of electric system outages on the gas system, and vice versa? How could interstate gas pipelines, NYISO and PJM improve their coordination of planned outages on their systems? What kind of coordination would be necessary, and what kind of information would need to be shared and with whom, when constraints or supply or transportation disruptions on the gas system pose deliverability concerns for all gas customers during emergency situations? Will the Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011 impose new requirements upon inter-industry communication and coordination? If so, how are the industries planning for those new requirements?
3. Are there particular communication and coordination challenges associated with managing the expected increase in use of natural gas for electric generation? If so, are improvements needed and who should be responsible for implementing improvements?
4. What has been the impact of FERC Order No. 698,¹² and are the protocols established in 2007 still adequate in today's energy environment? Have NYISO, PJM and the interstate pipelines made any modifications to their communication and coordination protocols other than those required by FERC regulations, and if so, what prompted those modifications?

3:00 - 3:15 Break

**3:15 – 4:45 Third Roundtable Discussion:
Reliability**

The bulk electric system is typically planned, as required by the mandatory reliability standards, to meet projected customer demands and system performance criteria, even under single element contingency conditions. Interstate natural gas pipelines are planned and expanded to meet firm gas delivery contracts between the pipelines and one or more shippers. Many commenters in this proceeding indicated that they expect an increased reliance on gas-fired generation in the coming years, due to economic and national policy factors. These commenters expressed concerns about the future reliability and interdependency of the bulk electric system and the interstate natural gas pipeline system as the amount of gas-fired generation increases.

¹² *Standards for Business Practices for Interstate Natural Gas Pipelines; Standards for Business Practices for Public Utilities*, Order No. 698, 72 Fed. Reg. 38,757 (July 16, 2007) FERC Stats. & Regs. ¶ 31,251 (June 25, 2007). Order No. 698 incorporated certain NAESB gas-electric coordination business practices into the Commission's regulations; these standards, in general, address communication processes between pipelines, power plant operators, and transmission operators.

Roundtable participants are encouraged to be prepared to respond to the following:

1. Is there a need for a minimum level of dependability in the fuel supply for gas-fired generators? How would it be defined, who would define it, and what would be the mechanism for accomplishing this? Should this be addressed through ISO/RTO rules, NERC standards, or other mechanisms?
2. Are coordinated studies of the natural gas and electric systems needed to analyze forecasted resource mix and/or interdependency risks from curtailments or contingencies? Can this be addressed through existing transmission planning processes or is a different process needed?
3. A number of commenters in other regions referred to recent functional exercises that allowed participants from the natural gas and electric industries, as well as state regulators, to assess emergency response plans and provided a forum to discuss and implement improvements.¹³ Are sufficient emergency coordination procedures in place in the Mid-Atlantic? Are these procedures routinely tested through functional exercises or simulations? Should all regions routinely conduct similar functional exercises?
4. Commenters in this region agree that greater coordination of outage information between the natural gas and electric industries would be advantageous.¹⁴ Is there a need for greater coordination of operating procedures as well? How can this coordination be facilitated? Are there legal, commercial, grid security, or technical impediments to this coordination?
5. Is the timing needed to get gas infrastructure built an issue? If so, how can this be addressed, both at the state as well as federal levels, especially in areas facing more immediate pipeline capacity concerns?

4:45 – 5:15 Closing

¹³ See, e.g., Texas Pipeline Association March 30, 2012 Comments at 2.

¹⁴ See, e.g., New York Transmission Owners March 30, 2012 Comments at 3-4; PJM March 30, 2012 Comments at 12.

Roundtable Participants:

- Camilo Amezquita, Director, Gas Management and Control, Williams
- Scott Butler, Project Manager, Consolidated Edison Company of New York, Inc.
- Ian Butterfield, Consultant, The Livingston Group
- Stanley Chapman, Senior Vice President, Marketing & Customer Service, NiSource Gas Transmission & Storage
- Amanda Chi, Sr. Commercial Analyst, Eastern Shore Natural Gas Company
- Ron Christian, Executive Vice President of Chief Legal and External Affairs, Vectren Corporation
- Tyrone Christy, Consultant, EQT Corporation
- David Ciarlone, Manager, Global Energy Services, Alcoa (Chairman Process Gas Consumers)
- Tom Gwilliam, Senior Business Analyst, Iroquois Gas Transmission System, L.P
- Robert Hayes, Vice President, Physical Gas Trading and Operations, Calpine Corporation.
- Laura Heckman, Director, Business Development, Kinder Morgan
- Skip Horvath, President, Natural Gas Supply Association
- Michael Kormos, Senior Vice President, Operations and Planning, PJM Interconnection, L.L.C.
- John Leary, Gas Superintendent, Borough of Chambersburg (On behalf of American Public Gas Association)
- Sergej Mahnovski, Director of Energy Policy, NYC Office of the Mayor (On behalf of the City of New York)
- Marquerite Mills, Vice President of Fuel Procurement, American Electric Power
- Jim Moore, Vice President, Commercial Operations WGP-East, Williams
- John Moura, Associate Director, Reliability Assessment, NERC

- Stuart Nachmais, Vice President Energy Policy and Regulatory Affairs, Consolidated Edison Company of New York, Inc.
- John Scarlata Vice President, Gas Supply, PSEG Energy Resources & Trade LLC
- Christine Schwab, Vice President, Regulatory Compliance and CRO, Dominion Resources
- Richard Smead, Director, Navigant Consulting Inc. (On behalf of Americas Natural Gas Alliance)
- James A. Stanzione, Director, Federal Gas Regulatory Policy, National Grid
- Gary Sypolt, Executive Vice President and CEO, Dominion Energy (On behalf of Dominion Energy and as chairman of the INGAA board task force on gas-electric reliability)
- Kevin Telford, Lead Trader, Exelon Corporation
- Robert Weisharr, Attorney, McNess Wallace & Nurick LLC (On behalf of PJM Industrial Customer Coalition)
- Bill Whaley, Vice President, Gas Control and Customer Service, Spectra Energy Corporation
- Wes Yeomans, VP, Operations, NYISO
- William Zipf, Vice President, Eastern Shore Natural Gas Company