

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

Coordination between Natural Gas and : Docket No. AD12-12-000
Electricity Markets :

**COMMENTS
SUBMITTED ON BEHALF OF
THE PUBLIC UTILITIES COMMISSION OF OHIO**

March 30, 2012

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INTRODUCTION AND BACKGROUND

Pursuant to the notice issued in this docket on February 15, 2012 by the Federal Energy Regulatory Commission (FERC), the Public Utilities Commission of Ohio (Ohio Commission or PUCO) hereby respectfully submits the following comments regarding coordination between natural gas and electricity markets. These comments address natural gas and electricity interdependencies as outlined in a statement issued by FERC Commissioner Philip Moeller on February 3, 2012.

The request for comments points out the importance of ensuring that outages and reliability problems are not the result of a lack of coordination between the electricity and gas industries. FERC also identifies the trend of increasing utilization of natural gas in electricity generation due to coal generation retirements, renewable energy resources, and lower natural gas prices. In general, FERC is requesting commenters' input on the best approaches to implement national and regional policies regarding coordination between the two industries.

More specifically, FERC asks what role it should have in overseeing enhanced coordination among the two markets and what duties or regional deference, if any, should be delegated to the North American Electric Reliability Corporation (NERC), the North American Energy Standards Board (NAESB), or other entities. Furthermore, FERC asks what impact the expected retirements of coal and oil-fired generation will have on the need for improved coordination between electric and natural gas markets and how FERC should help to harmonize the timing of the gas and electric markets among other things. The Ohio Commission hereby respectfully submits its comments in response to Commissioner Moeller's request.

DISCUSSION

Natural gas is an essential resource. From heating homes to powering industry, natural gas is a valuable commodity, the abundance and importance of which cannot be overlooked. Recently, the extraction of oil and natural gas from shale formations has become increasingly relevant to the Ohio energy environment. Experts in Ohio predict that the Utica shale formation in Ohio has the ability to yield significant economic benefits to Ohio and also help shape Ohio and national energy policies. While the Ohio Commission does not directly have jurisdiction over the siting and drilling of oil and natural gas, it is intimately involved in the energy policy and outcomes that will result from such production. The Ohio Commission is working closely with Governor Kasich and relevant state agencies in order to help establish an appropriate framework for encouraging the development of the shale gas industry in Ohio.

By improving development practices in shale gas extraction with the use of the horizontal hydro-fracking drilling technique, Ohio has the possibility of achieving greater energy independence and ushering in an economic renaissance as a result of offshoot economic development from the natural gas industry. Furthermore, the shale gas industry can play a key role in ensuring reliability standards are met in both the gas and electric markets. With the advent of increasingly economical natural gas, it appears inevitable that this fuel source will play a more significant role in the provision of intermediate and baseload generation services. The accessible reservoirs of readily available, cost-effective, extractable natural gas and natural gas liquids, will provide large tangible and financial benefits. The Ohio Commission believes the further development of the shale gas industry will play an important role in the improvement of coordination between the natural gas and electricity markets in Ohio and throughout the region.

Electricity is also essential, for many of the same reasons. Therefore, it is not surprising that the two industries have become intertwined as the electric industry increasingly relies on natural gas-fired generation. The Ohio Commission applauds Commissioner Moeller and FERC for initiating a process to examine how to effectuate improvements to the systems for coordination between the two industries. Accordingly, the Ohio Commission provides its comments, in subsequent sections, to address Commissioner Moeller's specific inquiries:

A. What will be the impact of the expected retirements of coal and oil-fired generation on the need for gas and electricity coordination?

FERC notes that over the last few years, natural gas has been increasingly utilized in electricity generation. FERC also observes that this trend appears likely to accelerate as coal-powered generation is retired, renewable energy resources require more backup by natural gas plants, and low natural gas prices encourage more use of gas for baseload generation.

The replacement of coal generation facilities with natural gas is the current reality in Ohio, at least as it concerns the American Transmission Systems Inc., (ATSI) zone. Specifically, on January 26, 2012, FirstEnergy Corp. announced that its generation subsidiaries would retire six coal-fired facilities, four of which are located in Ohio. FirstEnergy maintains that these plants are being retired as a result of the U.S. Environmental Protection Agencies (EPA's) new Mercury Air Toxics Standards (MATS). In total, these plant closures represent 2,689 megawatts (MW) of generation, which will be retired by September 1, 2012. In addition, on February 29, 2012, GenOn Energy announced that it expects to deactivate 3,140 MWs of generating capacity in PJM between June 2012 and May 2015. On February 2, 2012, PJM Interconnection (PJM) issued its 2015/2016 Reliability Pricing Model (RPM) Base Residual Auction (BRA)

Planning Period Parameters declaring the ATSI zone a separate constrained local delivery area (LDA) for the purpose of the 2015/2016 BRA.¹

On March 8, 2012, FirstEnergy announced that it had filed an application for feasibility study with PJM to install and interconnect to the transmission system approximately 800 MW of new combustion turbine (CT) peaking generation at its existing East Lake Ohio location. Furthermore, in December 2011, American Electric Power (AEP), Chesapeake Energy and Spectra Energy Corporation announced plans to expand the Texas Eastern pipeline system in Ohio to take advantage of natural gas from Utica and Marcellus shale. This expanded system, named the Ohio Pipeline Energy Network (OPEN), will connect gas and oil supplies from those shale formations with markets that will use the supplies for natural gas-fired power generation in the Ohio market. The project will involve approximately 70 miles of new pipeline.²

The Ohio Commission maintains that FERC should undertake both short-term and long-term solutions to ameliorate and promote the seemingly inevitable transition from coal fired generation facilities to generation facilities that will be fueled by natural gas. In the short-term, FERC should institute changes to PJM's interconnection queue and plant retirement notification requirements that would result in a more orderly transition in

¹ All of the State of Ohio's electric transmission utilities are PJM member companies.

² Online: <http://www.statejournal.com/story/16380362/aep-chesapeake-spectra-announce-ohio-pipeline-for-utica-gas>.

the generation mix from coal to natural gas generation.³ Specifically, FERC should amend regional transmission operator (RTO) interconnection queue rules to streamline those interconnection requests that are replacing older, less efficient, non-economic generation with new facilities at the same location. As mentioned earlier, FirstEnergy plans to replace its coal-fired generation unit at East Lake Ohio with 800 MW of new natural gas/oil fired combustion turbines. Because FirstEnergy Corp. is evaluating replacement of its generation facility at an existing location and because the company can demonstrate the financial and technical wherewithal to execute this transition on an orderly basis, the Ohio Commission maintains that the company (and all generation providers that are similarly situated) should be afforded expedited and streamlined treatment through the queue and interconnection process to ensure an orderly transition to natural gas fuel generation and to maintain grid reliability. In addition, such streamlining will assist the mitigation of any potential precipitous increases in capacity charges. To ensure against unnecessary delays, any generation company afforded this special interconnection treatment should be required by both FERC and the involved RTO to demonstrate that the new facilities at that location will participate in the next RPM BRA.

FERC should also consider and seek comments on other approaches that could accelerate the development of generation when needed, including giving priority in an RTO interconnection queue to projects that are ready to proceed and permitting the

³ The Ohio Commission does not believe that the recent availability of more economic natural gas will supplant the need for coal fueled baseload generation facilities. Indeed, a balanced fuel mix will assist to hedge against market volatility and unnecessary risk associated with relying predominantly on any one fuel source.

transfer of queue positions and interconnection studies so as to facilitate the development of transferrable site options.

Specifically, to help ensure that new competing generation units are placed on a more equal footing with incumbent providers, FERC and the involved RTO must ensure that all existing capacity injection rights are relinquished and made available to competing generation providers immediately following the one-year period after the deactivation of a generation unit. Upon execution of a new interconnection service agreement, if a competing generation provider can demonstrate that it has the necessary financial resources and technical wherewithal to expeditiously deploy generation at an existing point of interconnection, a streamlined queue generation interconnection process should also be afforded to the new competing provider, particularly if the new replacement generation is located within a constrained LDA.

FERC should lengthen the 90-day advance notice to PJM of generation plant retirement. The current 90-day notification requirements do not allow adequate time to allow new generation to enter a market and can only work to the benefit of the incumbent generation provider. For example, as a result of FirstEnergy's aforementioned pending plant closures, PJM announced on February 2, 2012 that the FirstEnergy/ATSI zone would be a separate constrained LDA for the purpose of the 2015/2016 RPM BRA, which is to take place in May 2012. The designation of the new ATSI zone constrained LDA will most likely result in higher capacity prices in the ATSI LDA for the 2015/2016 RPM BRA because there was insufficient time for another market participant to react to such an announcement prior to the BRA. This lack of adequate notice does not allow

new competing natural gas fueled generation providers the amount of time necessary to finance, site, and construct new generation in order to participate in the upcoming BRA. Consequently, this lack of adequate notice all but ensures that those generation providers currently constructed or planned in the ATSI zone will have an advantage in the 2015/2016 auction to be held in May 2012.

The situation at hand is unworkable and thus should be corrected as soon as possible. Taking into consideration the amount of time required to allow for adequate planning of needed facilities, FERC should replace the current 90-day plant retirement notification with a 12 to 24-month requirement. Likewise, RTOs should be required to post within 30 days of a plant retirement notification its analysis as to whether the involved LDA is constrained. Such a requirement will allow new entrants additional opportunity to evaluate the prospects that might be realized in that market. These actions would help to place new generation on equal footing with incumbent owned or planned generation.

FERC should initiate an inquiry to determine whether PJM's (or all RTOs for that matter) current RPM is securing the capital necessary to incent the construction of new combustion turbine (CT) and/or combined cycle (CC) generation facilities. This would allow consideration the significant impact the EPA's MATS requirements and the relative economics of gas and coal will have on coal generation retirements and ensure that reliability standards continue to be realized. If it is determined that the current three-year out, one-year capacity market structure is not incenting the deployment of new generation facilities required to ensure reliability, FERC should invite comments and/or hold a technical conference regarding what revised RPM configurations would provide

the incentive. For example, FERC could request comment regarding a new, separate long-term capacity market (seven to ten years) for the deployment of new CT or CC generation facilities. Generally a better signal for new generation would be a multi-year product, as opposed to the current three-year out, one-year market. It is anticipated, therefore, that PJM will soon introduce, in addition to the current one-year product, three, five and seven year products. The Ohio Commission maintains that a seven-year to ten-year market may serve best to attract the necessary capital for new investment.

These recommended long-term and short-term solutions address Commissioner Moeller's concerns regarding the adoption of more comprehensive solutions to ensure reliability.

B. To what extent should FERC defer to various regions of the country in addressing these challenges? Should FERC view organized electricity markets differently from bilateral electricity markets? If regional deference is given, what role should FERC play to assure that regional agreements are adhered to?

FERC should make a clear distinction between gas and electric operations located in RTOs and those not located in these regions. This is because electric operations located in RTOs often are driven by market operations while electric utilities not located in RTOs continue to operate as vertically integrated utilities pursuant to traditional rate of return regulation. These different regulatory environments often will dictate disparate regulatory treatment. For example, concerning the issue of natural gas storage, if an unregulated generation provider operating in an RTO determined it was in its best interest to invest in a storage facility to hedge against volatilities of the marketplace, such a deci-

sion would be subject to the company's fiduciary obligations to its investor and would be considered an unregulated activity by the state regulator. Likewise, in an unregulated environment, the purchase of fuel, whether long or short term (or some combination of the two), is exclusively determined by the generator. Conversely, in a vertically integrated, traditionally regulated setting, the acquisition or construction of a natural gas storage facility would ultimately be reviewed and approved by the state commission and captive ratepayers would be required to compensate the utility for all prudent expenditures involved with the facility. Likewise in a vertically integrated environment, the acquisition of fuel would also be reviewed by the state regulatory body. Consequently, as a result of these divergent approaches to realizing similar outcomes, the Ohio Commission maintains that policies for RTO and non-RTO service areas should be addressed independently from one another to acknowledge disparate regulatory treatments and market/non-market issues.

C. Specifically, what role should FERC have in overseeing better coordination? What duties, if any, should be delegated to the North American Electric Reliability Corporation (NERC), the North American Standards Board (NAESB), or other entities?

The Ohio Commission believes that FERC, with state commissions' input, among others, should oversee the coordination of wholesale gas and electric markets to drive the resolution of both short and long-term issues regarding electric and gas interdependencies. FERC would be in the best position to coordinate and administer these efforts due to its jurisdiction over both interstate natural gas pipelines and wholesale electric

markets. Additionally, FERC can utilize its authority stemming from the Natural Gas Act (NGA) and the Federal Power Act (FPA).

Given that resource development is more appropriately addressed through state planning proceedings and any substantive standards for resource development would be outside the scope of FERC's statutory authority under Section 215 of the FPA, it would be premature at this time to delegate a specific role to NERC.⁴ However, as an industry forum for the development and promotion of business standards for wholesale and retail natural gas and electricity, NAESB could develop standards, also based on FERC policy, to ensure consistency, compliance, and coordination between both the gas and electric industry including harmonization of energy and gas market schedules as further discussed in these comments.

The Ohio Commission recommends that FERC convene a technical conference(s) in the near future to further explore these issues on both a national and a regional level.

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Under Section 215(a)(3) of the FPA, "reliability standard means a requirement, approved by the Commission under this section, to provide for the reliable operation of the bulk-power system." And, "reliable operation" is defined Section 215(a)(4) as, "... operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cyber security incident, or unanticipated failure of system elements." Any lack of adequate resources can be addressed through planned load shedding or scarcity pricing and need not lead to "instability, uncontrolled separation, or cascading failures" in the bulk power system or to a "sudden disturbance" or "unanticipated failure." Thus, development of generation resources is not part of the reliability mandate under which NERC derives its authority.

D. The expanded use of natural gas for electricity generation is likely to change flows on the natural gas pipeline system. Does FERC need to address this issue?

Additional information is needed with regards to these perceived natural gas pipeline system flow changes in order to sufficiently address this question. It remains to be seen whether pipeline flows indeed would change, if so, how they would change, and to what degree. At least initially, some natural gas pipeline system owners have advised the Ohio Commission of their intention to modify the flow of existing lines as well as substantially expand pipeline and pipeline capacity in eastern Ohio based on the Utica and Marcellus shale development in the region. The answer to these questions will vary on a regional level. This issue may be a matter to be addressed in an on-going fashion as perceived problems become more likely to occur. FERC may also consider directing RTOs/ISOs, to the extent they have yet to engage in such analysis, to provide long-term studies as to the effect of pipeline flow changes and the adequacy of pipeline capacity that could impact the reliability of the electric grid in their respective regions.⁵

E. Within each day, electricity trading differs significantly from gas trading. Similarly, on a day-to-day basis, the various gas markets may not be open on the same days as the corresponding electric market, especially over Saturdays, Sundays, and Holidays. How should FERC help harmonize these markets?

The Ohio Commission agrees that the expanded use of natural gas for electricity generation creates capacity priority issues on the natural gas pipeline system. For

⁵ See, for example, Gas and Electric Infrastructure Interdependency Analysis, Prepared for: The Midwest Independent System Operator (February 22, 2012).

instance, much of the natural gas for electric generation purposes appears to be obtained via interruptible transportation service (ITS) or released capacity contracts. These contracts are less costly than primary firm transportation service (FTS) contracts for natural gas. However, ITS contracts may provide less than desired priority gas service flows to electric generators and may be among the first volumes of flowing gas cut during periods when gas service is critical to electric generators' operations. If natural gas supplies are interrupted for electric generation, spinning reserves may not be sufficient to cover the loss of this gas-fired electric generation and, therefore, electric service may face reliability risks.

The Ohio Commission notes that electric generators, in order to ameliorate some of the risks to natural gas generation if gas supplies are curtailed, may believe it necessary to continue to take gas supply from the pipeline that may force a generator to pay overrun penalties to the gas pipeline operator. This circumstance creates conflict between electric generators who have paid less for the service, but take gas during critical time periods versus primary FTS gas contract customers who have paid a premium for natural gas delivery. Due to paying this premium, FTS gas customers assert, especially during capacity-constrained events such as extreme cold weather, that they should be "first in line" to receive natural gas from pipeline operators and not electric generators with ITS service.

Further complicating this issue is the difference between the day-to-day trading in the electricity and gas markets. The natural gas trading day begins at 10 am Eastern (9 am Central), with multiple intra-day nomination periods to adjust gas flows. The gas

flow may be presumed to be fairly consistent over the remainder of the gas trading day. In contrast, the electricity trading market day is longer and more dynamic reflecting the constant changes in electricity demand. Further complicating matters, regional electricity markets in the U.S. have differing timelines, depending upon their primary time zone.

The Ohio Commission recommends that FERC consider creating an appropriate incentive to assure that electric generators obtain adequate fuel for committed RPM resources. FERC should not allow electric generators to claim that a lack of adequate fuel supply was the reason the generator failed to meet its RPM commitments. FERC could also impose fees or penalties for non-performance of committed generation resources. Another alternative recently discussed by FERC and industry stakeholders is intermittent gas. Intermittent gas is just one example of a new product which could be developed within pipeline operators' tariffs to provide gas consistent with intermittent electricity generation including renewable resources such as solar and wind. The intermittent gas product could allow electric generators to maintain ITS or released capacity contracts with pipeline operators to pay additional amounts for intermittent gas services as needed.

The Ohio Commission recommends that FERC further explore issues regarding market harmonization, intermittent gas or other natural gas innovative services and rate structures, through further requests for comments and a technical conference(s).

Finally, the Ohio Commission respectfully takes this opportunity to remind FERC that its authority does not apply to the intrastate transportation or sale of natural gas.⁶ As pointed out by the American Gas Association in its December 2010 comments to FERC, “In the past several years, this Commission (FERC) has dramatically increased its regulation of intrastate and Hinshaw pipelines – entities generally outside the scope of the Commission’s jurisdiction under the NGA.”⁷ The Ohio Commission recommends that any future policies regarding electric/gas interdependencies do not disrupt the current and well established authority of the states regarding the transport and siting of natural gas over intrastate pipelines.

CONCLUSION

The Ohio Commission looks forward to working collaboratively with FERC and other interested parties to develop policies that will effectuate the coordination of natural gas and electricity markets to the ultimate benefit of consumers in this state and the country. The Ohio Commission appreciates the opportunity to comment on these important issues regarding the future of both the electricity and natural gas market and respectfully requests that FERC consider its recommendations, including scheduling a technical workshop(s), in the near future, to gather additional information.

⁶ NGA § 1(b), (c), 15 U.S.C § 717(b)(c)

⁷ *Capacity Transfers on Intrastate Natural Gas Pipelines*, Docket No. RM11-1-000. 75 Fed. Reg. 66,046 (October 27, 2010), 133 FERC ¶ 61,065 (2010). Comments of the American Gas Association at 3 (December 27, 2010).

Respectfully submitted,

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On behalf of

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing have been served in accordance with 18 C.F.R. Sec. 385.2010 upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ *Thomas W. McNamee*

Thomas W. McNamee

Dated at Columbus, Ohio this March 30, 2012.

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Summary: Comments submitted on behalf of the Public Utilities Commission of Ohio to the Federal Energy Regulatory Commission on March 30, 2012 by Thomas McNamee to be filed in FERC Docket No. AD12-12-000, In re Coordination between Natural Gas and Electricity Markets. electronically filed by Kimberly L Keeton on behalf of Public Utilities Commission of Ohio