UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

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

COMMENTS OF NRG ENERGY, INC. IN RESPONSE TO THE APRIL 25TH TECHNICAL CONFERENCE ON ELECTRIC-GAS COORDINATION

NRG Energy, Inc. ("NRG") submits the following comments in response to the April 25, 2013 Technical Conference ("Technical Conference") established by the Federal Energy Regulatory Commission ("Commission") to discuss inefficiencies between the natural gas and electric markets.

I. Comments

At the Technical Conference, the Commission addressed potential changes to the natural gas markets that could improve electric-gas coordination. The Technical Conference's focus on natural gas pipeline practices, however, addresses only half of the problem. As Commissioner Moeller noted at the Technical Conference, ***both*** the gas ***and*** electric industries will have to evolve to address the reliability problems that arise as part of the mismatch between the gas and electric trading days.

Along with looking at changes to natural gas pipeline practices, NRG urges the Commission to open a proceeding to investigate what changes each Independent System Operator or Regional Transmission Organization ("ISOs/RTOs") could implement to its energy markets, within the next six months, to minimize the disconnect between the electric and natural gas markets. Several ISO/RTO representatives have suggested that we are near or at crisis

levels[1] – yet the push to adopt new electricity market reforms that would minimize the seams between the electric and gas industries appears stalled. Instead, too many of the Commission's jurisdictional energy markets continue to send inconsistent price signals that do not encourage conservation of natural gas supplies during periods of scarcity and actually financially ***penalize*** generators taking extraordinary action to respond to last-minute dispatches.

As we and others have noted before, successful electric-gas coordination efforts must involve more than just synchronizing the electric and natural gas trading days.[2] NRG strongly urges the Commission to mandate that each ISO and RTO identify market-based procedures that they could implement immediately that would improve electric-gas coordination issues. We note that while the Commission is somewhat limited in its jurisdiction over gas supply, it has plenary jurisdiction over the wholesale electricity markets and need not wait before directing the type of improvements identified below.

We suggest that the Commission utilize its upcoming meeting with representatives from each ISO and RTO to begin the process of identifying market mechanisms to explore market-based mechanisms that would improve the near-term reliability outlook. NRG further recommends that the Commission put the following questions out for public comment, with the ultimate goal of having each ISO or RTO make any improvements to its electricity markets identified as part of this docket on an expedited basis.

[1] *See, e.g., Coordination between Natural Gas and Electricity Markets,* "Comments of ISO New England Inc." Docket No. AD12-12-000, at pp. 1-2 (filed Jan. 7, 2013) (expressing reliability concerns resulting from generators increased reliance on natural-gas).

[2] *See, e.g., Coordination between Natural Gas and Electricity Markets,* "Comments of the NRG Companies on Electric-Gas Industry Coordination" Docket No. AD12-12-000 (filed March 30, 2012).

1. ***What are the steps that would be necessary to allow generators to bid on an hourly basis by the Winter of 2013/2014?***

One of the changes that could most benefit the energy markets would be for each ISO and RTO to allow hourly updates to energy bids in order to reflect up-to-date natural gas prices. As the Commission has seen this winter, natural gas prices can vary dramatically in the intraday market. Currently, generators in most markets are burdened with fuel price risk for which they are not compensated when they are required to secure gas in the intraday market to respond to an ISO dispatch. The inequity arises when the generation owner procures intraday gas at current market prices, but would be compensated from a gas index that was compiled from an earlier trading day that does not include intraday gas transactions. While the intraday gas price may be higher or lower than the lagging gas index, NRG's experience is that in times of higher demand, the generator is often procuring additional supply when demand outweighs available intraday supply and pipeline flexibility. Thus, natural gas is sometimes unavailable regardless of the price and at other times, generators receive a market price signal that they will not be fully compensated for its purchases of intraday gas, while the ISO or RTO is relying on generation resources to use best efforts to procure fuel. While generators take seriously their obligations to procure the fuel necessary to operate – no matter how late or unexpected the dispatch – it is a sign of a serious market dysfunction that "doing the right thing" exposes generators to large uncompensated losses. There is no reason for the Commission not to act immediately to remedy this perverse incentive.

One commonsense, and market-based, solution is to allow generators to update their real-time energy market offers, on an hourly basis, to more accurately reflect the true, real-time price of procuring fuel to produce energy. Intraday bidding would allow generators to reflect the price volatility they are seeing in the same-day gas markets. It also ensures that financial incentives

are properly aligned with the operational priorities and that market outcomes are not discouraging steps needed to ensure system reliability.

Currently, only the NYISO allows generators to provide more contemporaneous updates to its energy offers to reflect real-time variation in natural gas prices. NYISO generators can update their fuel prices used to calculate their real-time reference levels until 75 minutes ahead of a particular hour, which allows generators to reflect their fuel costs more accurately.[3] (Even in New York, these rules should be further modified to better reflect fuel prices. The New York Market Monitor has noted limits on fuel-price adjustments that, among other things, prevent generators from reflecting the full price of gas on days with intraday price volatility and lead to inaccurate reference levels and has proposed improvements.[4])

ISO-NE and PJM are further behind in their development of such a system. Despite repeated requests from stakeholders, ISO-NE resisted this common sense reform for many years, and now states that implementation cannot be accomplished until at least late 2014. The Commission should carefully examine whether this type of implementation time line should be accelerated and should consider other mechanisms that might be warranted in the interim.

2. ***How could the ISOs change their rules to promote full recovery of any spikes in intraday gas prices necessary to respond to a reliability dispatch by the Winter of 2013/2014?***

As noted above, a generator that procures expensive intraday gas has limited ability to recover its extraordinary gas costs because of the existing prohibition on updating bids on an hourly basis. In markets such as New England, where intraday gas prices have exceeded $50/MMBtu, generators are exposed to unreasonable risk. Recognizing that the winter of

[3] "2012 State of the Market Report For the New York ISO Markets," Prepared by Potomac Economics at pp. 20-21 (April 2013), *available at*: http://www.nyiso.com/public/webdocs/markets_operations/committees/mc/meeting_materials/2013-04-24/4_NYISO%202012%20SOM%20Report.pdf.

[4] *Id.*

2013/2014 is quickly approaching, the Commission should, ***at a minimum***, require each ISO or RTO to identify, on an emergency interim basis, a program that will allow generators to recover the costs associated with this natural gas commodity cost. The NYISO already has such a program in place. Other markets should be required, at a minimum, to implement a comparable right to recover natural gas costs. Specifically, ISOs/RTOs should be required to adopt an administratively-streamlined mechanism for the recovery of fuel costs that are uncompensated through the existing market prices and tariffs. This mechanism would be less desirable than updated offer prices, since it will continue to under-price the actual marginal cost of energy in the market, but would remedy the failure of the current systems and alleviate the financial harm inflicted on generators performing vital reliability functions, often under challenging weather and market circumstances.

3. ***How could the ISO change load scheduling requirements to reduce intraday dispatches by Winter of 2013/2014?***

NRG is very concerned that the existing market structure is encouraging load to bid less than its full load forecast into the day-ahead market, particularly on certain high-demand days. For example, in New England, the percentage of load bid into the day-ahead market appears to *decrease* on the very days where the demand is the highest. It appears that financial incentives are driving this behavior. However, there is little question that reducing the amount of load bid into the market increases the electric-gas coordination problems and potentially reduces system reliability as a result.

The consequences of underbidding of load are clear:

- Fewer generators clear in the day-ahead market when load is underbid. Thus, fewer generators receive day-ahead awards that allow them to schedule and procure gas during the timely cycle of the natural gas trading day.

- The ISO determines that it does not have sufficient units committed to maintain real-time reliability and commits additional generating resources after the close of the day-ahead market.
- The generating units receiving a late dispatch then rush to procure sufficient natural gas to meet the dispatch. Because they are procuring gas outside of the natural gas trading day, there is limited liquidity and significant price volatility.
- Because the ISO commits additional generating resources out-of-merit, those resources receive "out-of-market uplift" and may not be factored into the real-time price. However, these resources still pump un-priced megawatt-hours into the real-time market, driving real-time energy prices down.
- Load realizes an artificially low real-time price, reinforcing the price signal that led them to under-schedule their load in the day-ahead market.

The Commission should mandate that each ISO or RTO put forth a plan to (i) reduce the real-time price suppression that occurs when resources are committed through the reliability commitment period; and (ii) consider whether to require scheduling of a specified minimum level of expected load in the day-ahead market, at least on peak demand days, that will minimize the need for the ISO or RTO to intervene with out of market reliability commitments.

4. ***What changes could each ISO identify to allow dual-fuel generators flexibility to bid in on either oil or natural gas by the Winter of 2013/2014?***

NRG is similarly concerned that existing market rules currently discourage dual-fueled generating units from offering into the energy markets on a fuel other than natural gas. Currently, in some markets, if a dual-fueled generator bids into the day-ahead energy market on natural gas and clears, then it is required to continue offering into the real-time market on the same fuel, regardless of the availability of that fuel in real-time. In markets like ISO-NE and

PJM, where the dual-fuel generator clears the day-ahead market on natural gas, it can switch to oil in the real-time market, but it will be compensated based on natural gas. A major step towards addressing occasional shortages of natural gas would be to allow generators to switch fuel types in real-time, bid into the real-time market on their back-up fuel and thereby compensate generators for burning the more expensive fuel when natural gas is not available. This change would benefit the markets in two ways: (i) generators would be able to respond in a more reliable manner; and (ii) the amount of available natural gas and available pipeline capacity would increase, allowing other units to then burn the gas that would have been consumed by the dual-fuel unit now burning its secondary fuel. Both actions have the potential to significantly improve the reliability of the bulk electric system.

II. CONCLUSION

Whereby, NRG respectfully requests that the Commission consider the comments herein and require the ISOs/RTOs to undertake the actions discussed herein in time for the Winter of 2013/14.

May 10, 2013

Respectfully submitted,

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Certificate Of Service

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

Dated at Princeton, New Jersey this 10th day of May, 2013.

/s/ *Kathryn Wig*

Kathryn Wig