

NEPOOL Counsel Summary of 9/18/14 FERC Meeting re: Natural Gas Transactions

On September 18, 2104 the FERC held a public meeting to discuss issues related to how transactions are conducted on the natural gas system and potential transactional improvements to address the needs of electric generators for natural gas. The meeting included representatives/speakers from various sectors of the natural gas and electric industries (load, suppliers, marketers, exchanges, gas associations, and ISOs) and environmental interests. Representatives from NYISO and PJM were among the speakers on the electric side (ISO-NE was not present). There was a full house in the Commission meeting room.

Commissioner Moeller chaired the discussion (he was the only Commissioner present). He announced at the outset that the FERC was opening a docket for this discussion and any follow-on to it including written comments. The Docket number is AD14-19-000.¹ He also announced the purpose of the meeting saying it was: (i) not about pipeline expansion and not an attempt to discourage any efforts regarding pipeline expansion; (ii) not an advocacy for any particular proposal; (iii) not a prelude to trying to force a pipelines into RTOs or otherwise restructuring pipeline businesses; (iv) an attempt to overcome any real or perceived lack of transparency and flexibility on natural gas transactions. Later in the meeting Commissioner Moeller said he was interested in trying to fix any problems in the industry around the edges voluntarily to avoid getting in a situation later where there might have to be mandatory changes if problems develop.

The meeting consisted of two parts, with the first part being a discussion of the problem and the second part being a discussion of potential solutions and reaction to those proposed solutions. Those who saw a problem with gas transactions were primarily from the electric side; most of the gas industry participants did not see a real problem, but instead said there needs to be work done to clearly identify what problem(s) exists and quantify the problem(s) in terms of dollars. Those speaking more from the electric side (including Don Sipe, Jonathan Peress for Environmental Defense Fund and Michael Kormos for PJM) identified the problem as the natural gas industries lack of transactional transparency, granularity and compatibility with the commercial needs of electric markets and generation. This lack results in economic inefficiencies and potential reliability issues. Those speaking more from the gas side made the point that the pipelines were designed for the LDCs, that if there is a transaction problem it needs to be clearly identified and quantified, and there needs to be an answer to the question about who pays for any desired fix. One gas industry speaker made the points that if electric generators cannot recover higher costs due to firming up gas arrangements, that is not a gas industry problem, and that people need to explore alternative solutions as well to deal with the need for greater system flexibility, such as energy storage. PJM said it would be happy to pay for greater gas system flexibility, so long as it can get the gas it needs when it needs it and not have to burn gas that it does not need to burn for reliable operation.

There were two potential solutions that were discussed at a high level. One was a proposal (see attached PDF) from Don Sipe on behalf of American Forest & Paper Association, for creation of an automated information and trading platform for natural gas. This proposal was also presented back in April at a FERC meeting on winter 2013/14 reliability. The proposal trading platform is

¹ On September 19, 2014 the Commission issued a notice in the docket, stating that any written comments are due by October 1, 2014. The notice is included with this memo.

intended to allow for greater transparency and flexibility of trading natural gas and to allow for better matching of gas resources with electric system needs. The other proposal was from the Environmental Defense Fund (see attached PDF) and is intended to allow for short-notice, non-ratable natural gas delivery service from pipelines. Again, this proposal is intended to allow for better pricing, flexibility and matching of the gas and electric systems.

Reaction ranged from the exchanges saying they are happy to try to adapt their commercial offerings to what the industries want, to some on the electric side suggesting that a gas side change to transactions might need to be mandated, to those on the gas side expressing either no need for a change, a desire to avoid unnecessary costs of such a change or thinking that the proposals are an attempt to involuntarily restructure the gas industry.

Commissioner Moeller made the point that the gas industry should listen to and try to accommodate its growing electric customer base, but that this discussion was intended to find voluntary, incremental solutions. The discussion will continue, including in this docket, where the Commission will post any written comments.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Commissioner Philip D. Moeller's Inquiry into
the Trading of Natural Gas, and the Proposal to Establish
an Electronic Information and Trading Platform

Docket No. AD14-19-000

POST-MEETING NOTICE

(September 19, 2014)

On September 18, 2014, Commissioner Philip D. Moeller convened a meeting to discuss ideas to facilitate and improve the way in which natural gas is traded, and explore the concept of establishing a centralized information and trading platform for natural gas.

As announced at the meeting, the above-captioned docket was created to allow interested parties to file written comments on any issue that was discussed at the meeting. The Commission strongly encourages electronic filings of comments in lieu of paper using the "eFiling" link at www.ferc.gov. Persons unable to file electronically should submit an original and 5 copies of the comment to the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. Additionally, comments are strictly limited to no more than five (5) pages and due by October 1, 2014.

Kimberly D. Bose,
Secretary.

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

**Technical Conference on Winter 2013-2014
Operations and Market Performance in Regional
Transmission Organizations and Independent
System Operators**

Docket No. AD14-8-000

**INFORMATION AND TRADING PLATFORM FOR NATURAL GAS
Donald J. Sipe/PretiFlaherty
On Behalf of American Forest & Paper Association**

April 1, 2014

Challenges to be Addressed

- Increasing penetration of distributed, variable, and non-dispatchable resources on the electric system, requiring efficient, real-time swing fuel for balancing.
- Increase penetration of natural gas as fuel of choice in electricity production sector.
- Environmental regulations/aspirations exacerbating the two trends above.
- Limited gas storage capabilities in many regions.
- Increasing proportion of total pipeline deliveries impacted by variability driven by electric generation dispatch.
- Potential for increases in severe weather events.
- Increasing impracticality of ratable flow, 24/7 nomination paradigm to meet unexpected contingencies due to unit outages, line trips and other electric system contingencies.
- Limited ability for shippers/suppliers and customers (due to illiquidity and lack of information) to efficiently reallocate resources based on economics during temporary shortages or dislocations.
- Resulting economic inefficiency in both electric and gas markets from uneconomic allocation of resources.

Goals and Objectives

- 1) Increase visibility into and liquidity of gas commodity and capacity markets in real time in order to;
 - a) Assist Electric system operators to more efficiently and reliably identify potential constraints and reposition and dispatch generation accordingly.
 - b) Permit generation operators to identify potential commodity and capacity trading or reallocation opportunities to respond in a more timely fashion to ISO dispatch requests or unanticipated outages.
 - c) Enable holders of firm or interruptible capacity and commodity to identify potential higher value allocation opportunities for previously scheduled deliveries.
 - d) Allow pipeline operators to more quickly determine the physical feasibility of short term transactions or reallocations of commodity or capacity to respond in real time to electric gas generation demands.
 - e) Eliminate potential price distortions caused by unequal access to, or imperfect information regarding gas commodity and capacity availability and the potential to reallocate through voluntary trade of the same to its highest value use.
 - f) Improve flexibility in the use of existing and new natural gas infrastructure to meet in a more real time fashion changing demands due to gas based electric generation.
 - g) Preserve existing benefits of high utilization of existing capacity under the no-bump rule by permitting more efficient real time voluntary reallocation of gas and capacity to highest value use.

The Platform

- Information and trading platform containing bids and offers for the purchase and sale of commodity and capacity for receipt and delivery points on and across multiple pipeline systems in a defined operability region.
- Bids and offers would consist of locations, amounts, times of flow, and prices for bundled or unbundled capacity and commodity. Supply offers may permit unbundling to allow optimization at seller's choice at distinct strike prices.
 - Offers and bids could be standing, including price contingent, supply or demand offers and bids and consist either of quantities already nominated and flowing (but available to be diverted at a particular price) or quantities to be nominated for flow at particular times.

Platform Administrator

- Platform administrator would match bids and offers and determine simultaneous feasibility, optimizing by matching lowest offers and highest bids where physically possible. Because the platform is voluntary, feasibility must be determined on a basis of respecting all scheduled flows and nomination which have not been voluntarily submitted to the platform for potential reallocation or dispatch based on price. Administrator would have information to coordinate confirmation processes across multiple pipelines including counterparty credit confirmation.

Caveats

1. Not intended to replace expansion of pipeline capacity to meet growing gas demands.
2. Can be implemented in steps through incremental market reform and consolidation of existing information platforms and development of standardized products and services based on initial adoption of current best practices from “best efforts” services of pipelines.
3. Must be grounded in the physical capability of the gas pipeline systems to accommodate transactions.

Suggested Next Steps

1. Investigation of physical capabilities of gas delivery system without respect to current regulatory restrictions on commercial activities to assess potential ability of pipelines to move gas on short notice in real time in response to economic signals.
2. Investigation of current pipeline “best effort” protocols at meeting customers’ request for changes to nominations as embodied in current tariffs.
 - a) Intention would be to determine if some of these protocols represent best practices and could be formalized into non-discriminatory algorithms for short notice alteration of transactions.
3. Create unified information platform for mandatory posting of Commission jurisdictional capacity and nominations sufficient to automate/accelerate cross-pipeline confirmation processes.
4. Investigate further changes in Commission regulations to expand joint scheduling protocols to larger segment of customers including joint agreements *between* designated agents and marketers as well as customers with single marketer.

FERC September 18, 2014 Technical Conference

Presentation by

Greg Lander, Skipping Stone

and

N. Jonathan Peress, Environmental Defense Fund (as of September 29, 2014)

Problem 1 (Gas Market is Less Responsive than Needed):

Particularly in Organized Electric Markets, natural gas services do not reflect the variation in services and pricing seen in the wholesale electric markets. This expresses itself in pipeline requirements for ratable flow even when it would be possible for shippers to vary receipts and deliveries such that they are in balance hourly, but are nonetheless non-ratable. Even in vertically integrated markets, the ratable flow requirement frustrates sub-day scheduling of gas to meet sub-day demand for gas-fired electric generation.

Problem 2 (Illiquidity of Gas Markets):

In particular, in the natural gas market, for the most part, gas is traded and scheduled Monday through Thursday for ratable daily delivery Tuesday thru Friday and on Friday for ratable delivery Saturday through Monday (or Tuesdays over long weekends). This leads to periods of illiquidity on weekends and especially on long weekend holidays. This is in stark contrast with the electric market in which quantities of fuel needed for generation and the prices of that generated energy vary on an hourly and sub-hourly basis 24/7/365.

Current Negative Implications of Problems 1 & 2:

For the most part, there is no partial-day non-ratable take “market” for gas; therefore there are no price signals to inform exactly what combination of natural gas facilities and services are required to meet the variable demands of natural gas-fired generation – demands that will only increase as the electric grid integrates more renewables and relies more heavily on natural gas generation to meet electricity demand.

Potentially, available part-day pipeline capacity goes unutilized and demand that could be served by renewable and/or lower-carbon generation goes unserved.

Because short-notice, non-ratable natural gas delivery service is largely unavailable at any price, there is no targeted gas market response to provide such service(s) and by which market-based price formation could develop.

Incremental Ways to Address Problems 1 & 2:

- To the extent of available pipeline capacity, require pipelines to schedule non-ratable flows for durations as short as one hour provided that supply and demand agree to match their non-ratable quantities, and providing such flow variance(s) can be verified.
- Permit pipelines to charge “overrun” rates to compensate them for facilitating and providing non-ratable capacity that exceeds a shipper’s ratable contracted capacity. One formula for setting a maximum rate for such service would be to allow the pipeline to set the hourly rate as no greater than the 100% load factor of the highest recourse rate currently in effect on the system. For instance this could be the overrun rate of a recourse rate associated with an incrementally priced expansion.
- Permit sub-day capacity releases to compete with pipeline “overrun” service on non-ratable flows.
- Remove any tariff provisions which would inhibit the projection of No-Notice Service from one pipeline onto another.
- Remove any tariff provision which would inhibit third-party storage or other facility operators from offering No-Notice Service onto a connected facility to the extent of available capacity and flow rate verification by means of electronic flow measurement.
- Require pipelines to only accept one-day-at-a-time nominations during periods in which the pipeline has declared an Operational Flow Order (OFO).

Market and Policy Benefits Flowing From Incremental Market Improvements - “Promoting Liquidity through Permitting and Promoting Non-Ratable Services”:

- To the extent transaction durations can better facilitate shorter periods of time, then pricing of such shorter duration transactions will better reflect least cost combination of assets, products and services to meet those demands. Such price signals will not only increase liquidity but will cause the introduction and proliferation of tailored products and services around the provision of just the sort of non-ratable services and products that are needed to meet the challenges associated with firming intermittent generation.
- Pipelines can generate additional revenue with existing facilities.
- Better price transparency will call forth the right mixture of assets, products and services to serve demands within the gas / electric market interface.

- Better price signals coming from shorter duration gas-for-electric-generation services will improve price signals to Renewables, Demand Response and Energy Storage (both Gas and Electric) products.
- Better price signals coming from shorter duration gas-for-electric-generation services will call forth competitive offerings in shorter term capacity release, third-party and pipeline no-notice services, and incremental pipeline expansions (e.g., looping and compression) which will institutionalize such sub-day services.
- Day at a time transacting during OFO periods combined with short duration non-ratable transactions will result in more transactions and thereby increasing liquidity in the gas market during periods otherwise tending to be illiquid.

About Skipping Stone

Skipping Stone is a privately held professional services company focused solely on energy markets. For almost two decades, we have assisted clients achieve their goals by helping navigate energy market changes, capitalize on growth opportunities and solving business problems. We exclusively utilize energy industry veterans on engagements, producing definable results. Skipping Stone serves clients globally through offices in Atlanta, Boston, Los Angeles, Houston and Tokyo. For more information, visit www.SkippingStone.com.



About Environmental Defense Fund

Environmental Defense Fund's mission is to preserve the natural systems on which all life depends. Guided by science and economics, we find practical and lasting solutions to the most serious environmental problems. We work to solve the most critical environmental problems facing the planet. This has drawn us to areas that span the biosphere: climate, oceans, ecosystems and health. Since these topics are intertwined, our solutions take a multidisciplinary approach. We work in concert with other organizations – as well as with business, government and communities – and avoid duplicating work already being done effectively by others. For more information, visit <http://www.edf.org/>.