UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Centralized Capacity Markets in Regional Transmission Organizations and Independent System Operators	))))	Docket No. AD13-7-000
Winter 2013-2014 Operations and Market Performance in Regional Transmission Organizations and Independent System Operators	))))	Docket No. AD14-8-000

COMMENTS OF THE NATURAL GAS SUPPLY ASSOCIATION ON RTO AND ISO FUEL ASSURANCE REPORTS

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission[1] ("FERC" or the "Commission"), the Natural Gas Supply Association ("NGSA") hereby comments on the six regional fuel assurance reports directed by the Commission in the captioned proceedings.[2]

NGSA represents integrated and independent energy companies that produce and market domestic natural gas. Established in 1965, NGSA encourages the use of natural gas within a balanced national energy policy and supports the benefits of competitive markets. NGSA promotes increased supply and the reliable, efficient delivery of natural gas to customers. It is important to NGSA and its members that wholesale power markets compensate gas-fired power generators for investments they make to meet their obligations and to support reliability of the grid. Failure to make these investments can lead to adverse repercussions, not only in regional power markets, but also for the natural

[1] 18 C.F.R. §§ 385.212 and 385.214 (2015).

[2] *See Centralized Capacity Mkts. in Reg'l Transmission Orgs. and Indep. Sys. Operators, et al.*, 149 FERC ¶ 61,145 (2014).

gas industry. As such, NGSA has a substantial interest in this proceeding that cannot be adequately served by any other party.

I. COMMUNICATIONS

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II. EXECUTIVE SUMMARY

On November 20, 2014, the Commission directed the Regional Transmission Organizations ("RTOs") and Independent System Operators ("ISOs") to report on current efforts underway in their regions to provide greater fuel assurance.[3] NGSA is encouraged that the Commission is beginning to focus on the fundamental gas-electric coordination problem: ensuring generators can make investments in fuel availability needed to reliably meet their performance obligations. Such investments can be from various sources, such as firm natural gas transportation and supplies, LNG and gas storage, asset management arrangements, and dual fuel capabilities.

NGSA is a strong advocate for the establishment of rules and pricing structures that allow generators an opportunity to recover costs associated with investments in a portfolio of services that ensure electric reliability. Such investments are fundamental prerequisites to ensure adequate natural gas infrastructure is in place and utilized to meet

[3] *Id.*

expected increases in natural gas demand, and to provide the level of service flexibility required to meet the varying load requirements of gas-fired generators.

Based on the reports submitted, it seems that RTOs and ISOs are now beginning to recognize market design flaws that adversely affect fuel assurance and are taking incremental steps to address issues that could adversely impact a generator's ability to procure fuel. These early actions are already beginning to yield some measured improvements. For instance, ISO New England ("ISO-NE") states that, after implementing an earlier day-ahead commitment process, the number of natural gas-fired units unavailable due to gas procurement issues dropped from 12 during the winter of 2012-13 to zero in 2013-14.[4] Moreover, the market signals triggered by the winter of 2013-2014 have begun to alter generator procurement practices and RTO actions. New York ISO ("NYISO") states that "in response to market signals, additional liquid fuel is being procured as a hedge against similar potential weather conditions this winter,"[5] and PJM Interconnection, L.L.C. ("PJM") has filed a myriad of proposals to boost generator performance, which were prompted by information the RTO gleaned during the Polar Vortex. [6]

While we are encouraged by FERC and regional power markets' increased recognition of the importance of fuel assurance, much remains to be done; particularly in

[4] *See* Fuel Assurance Status Report of ISO New England, Inc., Docket Nos. AD13-7-000 and AD14-8-000 at 12-13 (Feb. 18, 2015) ("ISO-NE Report"). NGSA notes that FERC has instituted Section 206 proceedings in each regional organized market to ensure that their commitment processes occur in advance of the 1:00 pm CCT Timely Cycle, which is pending approval in Docket No. RM14-2-000. Given the remarkable improvements in gas procurement by generators cited by ISO-NE, FERC should expeditiously follow through with these Section 206 proceedings so that generator commitments are known in advance of the Timely Cycle deadline.

[5] *See* Post-Technical Conference Report of the New York Independent System Operators, Inc., Docket Nos. AD13-7-000 and AD14-8-000 at 21 (Feb. 18, 2015) ("NYISO Report").

[6] See PJM Interconnection, L.L.C. Report on Fuel Assurance Activities, Docket Nos. AD13-7-000 and AD14-8-000 at 6 (Feb. 18, 2015) ("PJM Report").

regions that rely heavily on competitive market signals to incent generator performance outside of state utility mandates. Given the extended amount of time it takes for significant power market changes to be developed and to take full effect, it is critical that regional organizations recognize potential issues now and take prompt action. Even issues arising "at the end of the decade"[7] merit prompt action. That deadline is less than five years away, which is a relatively short period to develop and implement fuel assurance solutions.[8]

Given the high degree of regional variation among the RTOs and ISOs, NGSA does not endorse a cookie-cutter approach to fuel assurance efforts. However, considering the importance of fuel assurance issues, NGSA requests that the Commission initiate a comprehensive fuel assurance proceeding and hold technical conferences to gauge regional progress and determine if there are actions that should be taken to foster greater fuel assurance in each region. FERC should consider whether it is appropriate to establish a set of best practices and develop more detailed and consistent reporting data collection systems. In the context of this examination, some of the key questions that should be considered include:

- What factors contribute to making some power market regions more successful than others in assuring fuel reliability and preparedness? Are there ways in which other regional organizations can emulate those actions to achieve similar results?
- Are there market-based pricing structures or principles that are more effective than others that should be adopted more broadly to incent generator investment in fuel assurance?

[7] *See* Midcontinent Independent System Operator, Inc. Fuel Assurance Report, Docket Nos. AD13-7-000 and AD14-8-000 at 3 (Feb. 18, 2015) ("MISO Report").

[8] For example, ISO-NE's capacity performance proposal took a considerable amount of time to develop through the stakeholder processes, and necessitated an extended transition period prior to its full effectiveness.

- Do RTOs and ISOs have the information they need to fully assess fuel availability and the underlying causes of fuel unavailability?
- Does FERC have the information it requires to assess fuel assurance on a comprehensive basis?

Additionally, when assessing fuel assurance efforts, there are four primary areas, in which the Commission should focus its attention, including:

A. Improved awareness of the cause of actual instances of fuel unavailability through improved and uniform data collection methods;
B. More accurate market price signals to generators in real time and day-ahead energy markets;
C. Improved generator performance through capacity market design enhancements; and
D. Increased assurance that generator actions will not adversely impact pipeline operations or services to other pipeline shippers.

Each of these four focus areas are discussed in greater detail below.

A. IMPROVED AWARENESS OF THE CAUSE OF ACTUAL INSTANCES OF FUEL UNAVAILABILITY THROUGH IMPROVED AND UNIFORM DATA COLLECTION METHODS.

As FERC undertakes its review of regional fuel assurance efforts, the most important first step is to develop a clear and fundamental understanding of what fuel assurance problems actually exist, why they exist, and how pervasive those problems are within each regional market. Assessing existing fuel assurance issues requires reliable, comprehensive data. Yet, after reviewing the RTOs' and ISOs' responses to FERC's data requests regarding the impact of the current Gas Day, it is clear that current information collection systems relied upon by the RTOs and ISOs are inadequate and are not capable of providing the level of specificity needed to accurately assess what is truly causing generator fuel issues.[9]

[9] *See* Response of the California Independent System Operator Corp. to Data Request, Docket No. RM14-2-000 at 4, 7-8 (Jan. 14, 2015) ("CAISO Response"); Response of the Midcontinent Independent System Operator, Inc. to the Commission's December 12, 2014 Data Request, Docket No. RM14-2-000 at 5 (Jan. 14, 2015) ("MISO Response"); Southwest Power Pool Submission of Response to Data Request, Docket

These data request responses submitted by the RTOs and ISOs reveal that generators currently use a variety of vague "cause codes" that generally fall under the category of "lack of fuel," "curtailment," or "fuel shortage."[10] In its data request submission, MISO describes recent efforts it has taken to improve its reporting system to create codes related to fuel. However, in its example, MISO states that the newly improved code is "lack of fuel," which does not provide the specificity required to assess how to address such issues.[11] In fact, these types of vague descriptions fail to distinguish among the physical, contractual, and economic factors that may have contributed to a generator's inability to procure natural gas to meet its performance obligations. These descriptions do not reveal whether a generator made an economic choice not to purchase fuel, whether the generator relied upon firm or interruptible transportation, whether the generator made advance arrangements with marketers or producers to secure delivered gas, or whether the regional operator gave unexpected dispatch orders. Nor does general reporting provide the details needed to determine whether the problem was associated with deliveries from the interstate market or behind the city gate. Such vague terms can

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No. RM14-2-000 at 2-3 (Jan. 22, 2015) ("SPP Response"); Responses of PJM Interconnection, L.L.C. to Federal Energy Regulatory Commission Data Request, Docket No. RM14-2-000 (Jan. 22, 2015) ("PJM Response"); Response of ISO New England Inc. to Data Requests, Docket No. RM14-2-000 (Jan. 22, 2015) ("ISO-NE Response").

[10] *See, e.g.*, NYISO Response at Appendix B.

[11] "While MISO is able to identify fuel-related outages, the GADS data does not contain the level of detail and specificity to reflect if the fuel-related outages were specifically due to the generators having exhausted their daily nomination of natural gas transportation service prior to the end of the gas day." MISO Response to Question 2. MISO later explains that it "worked through [its] stakeholder process in 2014 to create additional generator outage cause codes related to fuel in [its] outage scheduling tool. These new cause codes are used by generators when submitting outages to MISO and provide greater operational awareness to MISO operators regarding fuel. During the recent cold weather, MISO utilized these new cause codes to see what units would be unavailable due to gas-related issues. As an example, on January 7, 2015, [MISO] identified 2,439 MW that would be unavailable due to **Lack of Fuel**." (emphasis added). *See* Response of the Midcontinent Independent System Operator, Inc. to the Commission's December 12, 2014 Data Request, Docket No. RM14-2-000 at 5 (Jan. 14, 2015) ("MISO Response").

be interpreted (or misinterpreted) in any number of ways and simply cannot provide the credible data required to assess the underlying fuel issues.

In the natural gas industry, a physical gas interruption occurs when there is a diminished physical ability to flow gas, which would then be referred to as a "gas curtailment" only if ***firm*** capacity holders' contractual requirements cannot be met -- yet such a situation in which a pipeline is unable to serve a firm shipper's contractual levels is a very rare event. For instance, even during the extremely cold winter of 2013-2014, FERC found that, "[d]uring each of these cold events, customers who had firm transportation capacity on natural gas pipelines generally managed to secure natural gas deliveries."[12] Since there were few actual instances of firm pipeline curtailments, we would surmise that some generators are currently providing cause codes that state "curtailment" even in situations in which natural gas was not delivered because of reliance on ***interruptible*** transportation.[13] That does not constitute a curtailment.

We understand that individual RTOs and ISOs have their own data gathering systems, in addition to NERC's existing Generating Availability Data System (GADS). However, the current systems, including GADS, appear to be inadequate for purposes of comprehensively assessing the current state of fuel assurance in each region. Additionally, it is important to identify whether problems occurred in the interstate market or behind the city gate, because behind the city gate problems present an entirely different set of issues that must, and can only, be sorted out at the state level.

[12] Staff Report, *Winter 2013-2014 Operations and Market Performance in RTOs and ISOs*, Docket No. AD14-8-000 at 4 (April 1, 2014), available at: http://www.ferc.gov/legal/staff-reports/2014/04-01-14.pdf.

[13] Holding an interruptible transportation contract or being unwilling or refusing to pay the spot market price of natural gas due to "just in time" procurement practices does not constitute a gas interruption or curtailment. In fact, gas customers should ***only*** rely on interruptible transportation as a market option if they can: (1) accommodate occasional interruptions of their natural gas supply; (2) significantly reduce their consumption and operations when notified; or (3) rely on on-site back up fuel.

Without greater detail and clarification, NGSA is concerned that RTOs and ISOs as well as the Commission and other policy makers could easily formulate inaccurate conclusions and subsequently undertake the wrong measures to bolster fuel assurance. Therefore, NGSA proposes that the Commission direct RTOs and ISOs to work with the North American Electric Reliability Corporation ("NERC") and power market stakeholders to develop a more detailed uniform collection system that provides, in each instance, more specificity about the underlying reasons in which a generator is unable to secure its fuel, and whether the issue is associated with an inability to secure sufficient coal, fuel oil or natural gas. Gas industry representatives could also participate in this dialogue to help design the type of data that would be required to make it more useful for purposes of assessing the major causes inhibiting fuel assurance. Such a system would greatly assist FERC in maintaining comprehensive real-time assessments and could also provide valuable information for RTOs and other market participants.

To significantly improve the usefulness of reporting of instances in which a generator was unable or unwilling to secure fuel,[14] RTOs and ISOs should consider requiring more specificity such as:

[14] We note that NGSA's comments herein only pertain to generator procurement of natural gas. However, given that the regional reports also document issues experienced with coal deliveries and fuel oil limitations, stakeholders should include questions designed to provide greater specificity on the reasons associated with other fuel sources as well.

- City gate service
- Interstate pipeline service

- No-notice
- Firm Transportation (FT)
- Interruptible Transportation (IT)
- Capacity release
    - Recallable

- Normal pipeline operations
- Pipeline OFO in effect

- Pipeline ratable takes:
    - Permitted by pipeline
    - Not permitted by pipeline

- Authorized pipeline imbalance
- Unauthorized pipeline imbalance

- RTO emergency dispatch
- Dispatch confirmation received:
    - Before pipeline timely cycle nomination
    - After pipeline timely cycle nomination

- Other reasons for inability to procure fuel:
    - Economic reasons (e.g. spot market price of gas)
    - Firm curtailment of pipeline services (e.g. force majeure event)
    - Other (please specify):

B. MORE ACCURATE MARKET PRICE SIGNALS TO GENERATORS IN REAL-TIME AND DAY-AHEAD ENERGY MARKETS.

In response to the Commission's request for comments in its price formation proceeding, NGSA, along with the Electric Power Supply Association, Edison Electric Institute, the Nuclear Energy Institute and America's Natural Gas Alliance, proposed a set of high-level principles aimed at achieving more accurate price signals in regional energy markets.[15] To increase fuel assurance, prices in regional energy markets should give generators an opportunity to recover costs incurred to ensure they can run when

[15] *See* Letter to Commissioners, Docket No. AD14-14-000 (March 9, 2015).

dispatched by the RTOs. Reducing non-market mechanisms and minimizing market operator actions that mask the true market price will improve market signals and provide greater opportunities for generators to be compensated for investments made to meet their commitments, including on a real-time basis, which in turn provides greater incentive for generators to commit and schedule fuel requirements in advance. Also, greater transparency in Real Time and Day Ahead markets can give generators more certainty about their dispatch commitments; ultimately providing them with more confidence to undertake advance firm fuel arrangements on a longer-term basis.

Day-Ahead and Real-Time price reforms can also help to break the vicious cycle between regional operators and generators that results from a mutual lack of confidence. If generators have confidence that they will receive adequate compensation in energy markets, they will be less hesitant to invest in more reliable fuel procurement practices. Likewise, if RTOs and ISOs become more confident that generators will run when called upon, they will be less likely to commit additional units out of market, a practice that can undermine a generator's opportunity to receive competitive market prices.[16]

C. IMPROVED GENERATOR PERFORMANCE THROUGH CAPACITY MARKET DESIGN ENHANCEMENTS.

In addition to energy market design improvements to bolster fuel assurance, NGSA supports capacity market performance improvements that motivate suppliers to take actions to improve their physical performance. ISO-NE and PJM have developed mechanisms in which the capacity rate is designed to encourage generators to more reliably perform, through higher payments for high levels of performance and greater

[16] When an RTO lacks confidence in performance, they will at times over-commit resources, creating out-of-merit situations that can in turn inflate energy clearing prices relative to otherwise competitive market levels.

penalty exposure when generators fail to perform consistent with their commitments. NGSA has formally supported both these initiatives and believes they constitute positive steps toward greater fuel assurance in these regions. As the Commission appropriately found when it approved ISO-NE's pay for performance proposal, generator performance must be closely linked to a generator's capacity market obligation.[17]

NGSA supports the concept of capacity performance mechanisms and adoption of these types of proposals on a broader basis if appropriate. Yet the details, such as performance rates, penalty levels, exemptions and the transition time, significantly affect the overall success and effectiveness of these programs. Thus, while we believe that capacity performance proposals can be positive steps toward greater fuel assurance, we continue to question whether such proposals will provide effective measures to encourage improvements in procurement practices in sufficient time to address real-time or emerging fuel assurance issues. With this uncertainty, RTOs must take additional steps beyond capacity performance measures.

D. INCREASE ASSURANCE THAT GENERATOR ACTIONS WILL NOT ADVERSELY IMPACT PIPELINE OPERATIONS.

As the Commission and organized power markets continue to assess ways to ensure the availability of fuel, we cannot ignore the other natural gas customers that currently represent two-thirds of total gas demand.[18] These natural gas customers also critically rely on the availability of delivered natural gas to heat their homes and to run their businesses. In fact, many of these non-power natural gas customers demonstrate how much they value fuel assurance by securing firm pipeline capacity to mitigate any

[17] *See ISO New England and New England Power Pool*, 147 FERC ¶ 61,172 at P 36 (2014).

[18] U.S. Energy Information Administration, Natural Gas Consumption by End Use for 2014, *available at* http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm.

potential interruptions of their services. Certainly, pipelines cannot give an undue preference to one customer class over another without it constituting widespread undue discrimination.[19] For these reasons, NGSA believes that a comprehensive review of fuel assurance should also encompass an assessment of whether power market rules are designed to discourage generator actions that could adversely impact gas pipeline operations and subsequently compromise the pipeline's ability to serve its contractual commitments to **all** firm shippers.

In its report, NYISO comments on how it has taken measures to protect pipeline operations by not allowing generators to recover the costs associated with creating unauthorized balancing on pipelines.[20] NGSA applauds that decision and believes that FERC should require all RTOs and ISOs to review their rules to ensure that generators are not encouraged to resort to pipeline penalties as an economic preference over RTO penalties. If such measures are not in place, as power customer demand grows, generator actions could increasingly impact gas system operations and compromise a pipeline's ability to serve all of its firm contractual commitments.

In its fuel assurance report, PJM appeared to blame the pipelines for requiring generators (and all other customers) to abide by the tariff requirements to take evenly hourly increments of natural gas in accordance with their contracted entitlements, saying "those requirements forced generators to run during the periods when they traditionally would be uneconomic" [to dispatch] and referred to such limitations as "unreasonable

[19] Contractual relationships form the very basis for how interstate pipelines provide open access services in a non-discriminatory manner to their customers. These contractual commitments are reflected in pipeline *scheduling priorities*, which remain in place for purposes of determining which customers receive higher priorities even during force majeure events. It follows that, if generators require a high level of service in order to ensure they are not the first ones cut during emergency situations, they must contract sufficiently for firm pipeline services.

[20] *See* NYISO Report at 14.

parameter limitations."[21] RTOs must recognize that gas pipelines have real physical limitations and are only capable of carrying a finite amount of natural gas. Thus, restrictions, such as ratable takes, protect pipeline system integrity and ensure that all firm shippers can continue to receive their contracted level of service.[22] In some situations, if such restrictions were not imposed and a generator was to take more than what is permitted under the tariff, it could have widespread system impacts. These impacts would be particularly pronounced during periods of peak demand and could, in extreme circumstances, result in no customers, even generators, receiving the services they require.[23]

It is understandable that generators had become accustomed to relying on "just in time" procurement practices and did not see a need to ensure deliveries of natural gas by contracting for firm transportation and making advance arrangements for gas supplies. However, as demand for natural gas has grown, gas pipeline companies are operating their systems at increasingly high utilization rates, which results in constrained pipeline capacity that makes the practice of "just in time" gas procurement increasingly more challenging. Determining the right level of contracts and services for procuring delivered

[21] *See* PJM Report at 6.

[22] Pipelines should continue, on a best-efforts basis, to afford customers added flexibility (when operationally feasible) on a non-discriminatory basis, as long as such actions do not harm other customers. However pipeline customers with reliability commitments cannot rely upon added pipeline flexibility that is outside the pipeline's tariff parameters and not provided in the customer's contracted level of service.

[23] As the Natural Gas Council explained, when a generator de-rates during an OFO, (1) it likely over-relied on the pipeline to provide more flexibility for hourly takes than the generator contractually was entitled to take, and that the pipeline contractually was obligated to provide; or (2) it likely relied on interruptible transportation (and sometimes secondary firm transportation) that subsequently was restricted in order for the pipeline to meet its firm contractual obligations. If a generator needs more than the ratable take, it can work with the pipeline to contract for more capacity or to find a service that will better suit its needs, but overly relying on hourly flows that are outside of the tariff-approved takes should not be an acceptable option due to the potential impact on system operations, as well as other pipeline shippers. *See* Comments of the Natural Gas Council in Response to the RTO/ISO Data Request Submissions, Docket No. RM14-2-000 (Feb. 2, 2015) at 6.

fuel is a cost-versus-risk analysis for generators that have the responsibility to secure advance arrangements commensurate with their performance obligations – or to fully understand the financial risks associated with not doing so. In no circumstances should that risk be transferred or shifted to other pipeline shippers.

To meet unexpected power obligations, generators have an array of flexible service options they can rely upon to ensure they receive delivered supplies of natural gas to meet their power market obligations. These options include no-notice service, storage, LNG peaking, non-hourly rate, park-and-loan services, as well as asset management agreements, which can provide flexible capacity and shaped product offerings in which marketers stand ready to serve – even to turn "on and off," as suggested by PJM.[24] Certainly, there is a premium associated with more flexible pipeline services. Yet, securing these services can significantly improve generator performance and overall electric reliability.

In their fuel assurance reports, several RTOs and ISOs mentioned concerns about gas price "volatility" as a contributing vulnerability.[25] The price of natural gas can fluctuate based on supply and demand factors; yet volatility can be mitigated if generators limit their exposure to spot-market pricing and enter into advance gas supply arrangements. As the Commission has recognized in this proceeding, "[f]ailure to address fuel assurance could also result in volatile (and often high) prices to consumers

[24] See PJM Report at 6. To avoid shutting in production, producers must sell all flowing gas. There is no "on/off switch" to accommodate varying demand. Thus, if gas is required without advance contractual commitments or needs fluctuating flows hour-to-hour as suggested by PJM, service will be limited to available regional or local delivery assets managed through the pipelines, asset managers or marketers.

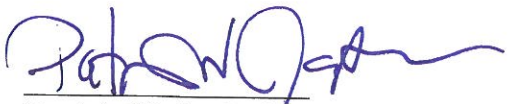
[25] *See, e.g.*, MISO Report at 11.

when generation resources are forced to procure fuel supplies at the last minute."[26] As was the case during the 2013-2014 winter, spot market prices spiked for short periods in some regions, however only a small percentage of gas sold in the market was based on the spot market price. This winter, power market participants seemed to have learned from last year's experiences and have increased their hedging practices. Additionally, as stated above, improvements in energy market pricing in the RTOs can increase generator confidence that they will be compensated and they will subsequently be more willing to invest in gas procurement practices that reduce their spot market exposure.

III. CONCLUSION

For the reasons cited above, NGSA requests that the Commission initiate a comprehensive fuel assurance proceeding and hold technical conferences to gauge regional progress and determine if there are actions that should be taken to foster greater fuel assurance in each region. FERC should consider whether it is appropriate to establish a set of best practices and develop more detailed and consistent reporting data collection systems.

Respectfully submitted,



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[26] *Centralized Capacity Mkts. in Reg'l Transmission Orgs. and Indep. Sys. Operators, et al.*, 149 FERC ¶ 61,145 at P 8 (2014).