The Natural Gas Supply Association ("NGSA") appreciates the opportunity to respond to the Federal Energy Regulatory Commission’s ("FERC" or "the Commission") request for comments regarding coordination between the natural gas and electricity markets. We support the Commission’s efforts to undertake a comprehensive examination of issues that may impact the ability of natural gas-fired generators to rely more heavily on clean and abundant natural gas. A clearly stated course of action will be required to keep gas-electric efforts focused and successful and the Commission’s leadership will be critical to effectively manage a coordinated, evaluative process.¹

NGSA is a trade association which represents integrated and independent 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 promotes the benefits of competitive markets to ensure reliable and efficient transportation and delivery of natural gas and to increase the supply of natural gas to U.S. customers.

I. Executive Summary.

As our nation takes steps toward a cleaner energy future, natural gas is an immediately available, abundant, domestic, and clean power alternative with the lowest

¹ Notice Assigning Docket No. and Requesting Comments, Docket No. AD12-12-000 (issued Feb. 15, 2012).
greenhouse gas emissions of any hydrocarbon fuel. Natural gas currently fuels a quarter of the nation’s power generation and demand for natural gas is expected to continue to grow in the power sector due to the retirement of old and inefficient plants and the increased need for power facilities that can back up intermittent forms of energy. Given the significant role natural gas is playing and will play in ensuring that power markets maintain a high degree of reliability, we are fortunate to have abundant supplies of natural gas to meet all forecasted natural gas demand. Moreover, the natural gas industry has a remarkable history of reliable service and the structure of the industry provides for strong market resilience. Since restructuring of the natural gas industry two decades ago, natural gas markets have shown a high degree of adaptability to accommodate significant changes including demand increases and supply shifts by expanding pipeline capacity and increasing domestic production to meet market needs including growing demand for natural gas by the electric power generators.

Over the past several months, NGSA has reached out to power market participants to gain a better understanding of the issues that they may have regarding increased reliance on natural gas and we look forward to continuing our efforts, along with the Commission and other industry participants, to find solutions to better serve gas-fired generation needs. As the Commission takes steps to address gas-electric coordination issues, NGSA asks the Commission to consider the principles outlined below.

- **Undertake a comprehensive evaluation.** A comprehensive evaluation is needed to address gas-electric coordination issues. Changes to operations and services directly influence contracting decisions and impact cost allocation among the various industry participants. Given the interrelated nature of the issues, we expect that finding solutions may entail a long-term effort. However, one area that may be ripe for a shorter-term separate initiative is communication improvements among gas pipelines and power generators and operators. FERC is uniquely situated to balance the array of interests that parties may have given it primary role in regulating interstate transmission and sales of electricity.
• **Create an environment conducive to industry dialogue and negotiation.** In those areas where mutual resolution is possible, FERC should develop a process that leads to healthy industry discussion and a willingness to negotiate solutions among stakeholders while ensuring other market participants are not harmed.

• **Clearly identify actual concerns.** There is a vast array of issues that can be explored under the auspices of gas-electric coordination and given the broad nature of the initiative, it will be essential to parse out perceived problems from real ones. To prioritize concerns, FERC should continue information gathering through outreach efforts and hold technical conferences in advance of formal rulemaking proceedings. Furthermore, sufficient time should be provided for a thorough examination of reliability issues by the North American Electric Reliability Corporation ("NERC") in its current "Phase II" assessment of natural gas and electric power interdependency.²

• **Recognize the need for regional solutions.** There may be instances in which regional distinctions will require regional solutions. Yet, at the outset, FERC must set a strong policy direction and clearly stated objectives, which can then be implemented at regional levels. Also, efforts should be made to avoid competing or overlapping requirements that may arise as federal and regional discussions move forward on a concurrent basis. Any regional discussions should include broad gas industry participation.

• **Determine policy prior to setting standards.** Fundamental policy determinations must be made prior to asking the North American Energy Standards Board ("NAESB") to develop business standards, if any such business standards are ultimately required.

NGSA’s responses to specific questions posed by Commissioners Moeller and LaFleur are provided in the sections that follow.

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II. Responses to Commissioner Moeller’s Request for Comments.

1. Specifically, what role should the Federal Energy Regulatory Commission have in overseeing better coordination? What duties, if any, should be delegated to NERC, NAESB, or other entities?

NGSA Response:

Given the significant cost and service implications that may result from changing underlying policy, it is imperative that gas-electric issues are decided in a forum that has wide stakeholder input. FERC, NERC, regional entities, industry participants, and NAESB will likely all play key roles during the course of this broad initiative. However, FERC is the most appropriate lead to oversee gas and electric coordination issues given its authority over electric reliability as well as its jurisdictional authority over interstate natural gas pipelines and wholesale electric power markets. FERC also has a history of ensuring that all gas and power participants have a seat at the table and have their positions fully considered. The Commission must maintain a strong leadership role to ensure that efforts are well coordinated and not redundant.

NERC’s assessments and recommendations in the area of gas-electric coordination can provide essential information for FERC to use as it determines what policies and rules should be adopted to foster electric reliability. Last December, NERC issued an initial report entitled, “2011 Special Reliability Assessment: A Primer of the Natural Gas and Electric Power Interdependency in the United States,” which provides a good overview of the many issues that should be explored. More analysis will be conducted in Phase II of this study, particularly with respect to determining vulnerabilities that can affect bulk power system reliability, which we hope will provide FERC and industry participants with valuable data with which to determine a future course of action.

NAESB, in its standards-setting capacity, will likely play a key role once the Commission makes its policy determinations based on substantial dialogue and

3 See id.
comment with industry and other interested parties. Business standards development should be the last step in this process and only utilized in those instances where business standards are required. In fact, sending isolated issues prematurely to NAESB without the Commission first undergoing a comprehensive evaluation of the issues could be counterproductive as parties work to achieve mutual resolution.

2. **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?**

   **NGSA Response:**

   A combination of both deference and direction will likely be required. Specific needs and impacts related to the increased use of natural gas for power generation can vary greatly between regions. Thus, FERC should provide some deference to regions to address issues in a manner that is appropriate for their individual circumstances. Yet, even in instances in which regional implementation is needed, FERC should first set guiding principles or policies to foster change to reach national regulatory objectives. Without FERC guidance, some regions may continue under the status quo even though changes are needed. Also, the Commission could provide a forum to explore regional best practices for consideration on a more national level. As NERC completes its Phase II interdependency assessment, the Commission will need to solicit broad stakeholder input and take action on NERC’s recommendations to ensure compliance at the regional level.

Regional groups, generally by RTO region, have formed in recent years as an outgrowth of FERC proceedings related to electricity markets. Since regional discussions have only pertained to power market issues, participation in those groups by natural gas participants has been historically limited or non-existent. We are aware of at least two regional organizations that have initiated a process to include natural gas industry participation. However, if these established groups assume a key role in gas-electric coordination discussions, they must actively seek participation from all sectors
of the natural gas industry. Alternatively, FERC should consider implementing a centralized process that allows for broad industry participation without requiring a large resource commitment from each gas sector to participate in each individual regional discussion.

3. **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?**

NGSA Response:

A number of pipelines are experiencing declines in the volume of natural gas that is flowing from traditional supply areas, while volumes are increasing in other areas, primarily due to significant increases in shale production. While this issue is not directly associated with gas-electric coordination issues, these changing dynamics are causing an additional layer of concern on specific pipelines in terms of cost recovery and potential loss of service. For this reason, the Commission should closely assess the impacts on shippers of pipelines’ abandonments and rate increases as individual rate cases, tariff changes and abandonments are filed in response to changing utilization. Also, FERC should encourage pipelines to provide as much advance warning as possible of future abandonments or rate changes to all stakeholders, including upstream participants who may not be shippers but are still impacted by such changes.

While pipeline changes in flows are not directly associated with gas-electric coordination issues, there are other pipeline operational impacts that should be considered as natural gas utilization increases or usage patterns change as a result of more reliance on natural gas by generators. Pipelines are able to manage fluctuating demand of natural-gas fired baseload and peaking plants today, but their ability to continue to effectively do so may be impacted as natural gas is more heavily utilized by peaking plants or other load following services. Increases in the use of natural gas for baseload generation are likely to be more manageable relative to increased usage by

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4 Changes in pipeline flows may help in some instances to meet additional gas-fired generation demand if the generator happens to be located in an area where volumes are declining.
peaking generators that may not know in advance when their plants will be called upon to operate. Given the different impacts on natural gas systems relative to the types of generation, we believe it would be worthwhile to explore the operational impact expected on pipeline operations by type of generation. Such an examination should also take into consideration the operational and cost impacts on existing pipeline customers associated with non-ratable takes and unexpected draws on pipelines that can impact line pressures due to the highly variable usage patterns of some generators.

4. **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 electricity market, especially over Saturdays, Sundays, and Holidays. How should FERC help to harmonize these markets?

NGSA Response:

There are a several threshold questions that should be asked before any changes are seriously considered to the gas and electric scheduling processes or the existing intra-day nomination cycle:

- How widespread are problems as a result of a lack of harmonization between the gas and electric scheduling processes?
- Is this a generic issue that requires standardized generic changes or are concerns primarily occurring in localized areas?
- Are gas/electric scheduling issues primarily related to operational barriers, contractual problems or costs to individual customers? Is this issue creating reliability concerns?
- Should the electric scheduling process be standardized and coordinated prior to consideration of changes to the gas process?\(^5\)

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\(^5\) For instance, the Massachusetts Municipal Wholesale Electric Company (“MMWEC”) stated:

Better alignment of natural gas and electricity trading days is a basic need in coordinating these two markets. There are even disconnects in electricity trading day deadlines between regions in the Northeast. For example, ISO-New England currently notifies generators of day-ahead selection by 4 p.m. The New York ISO notifies generators in its region of day-ahead selection by 11 a.m., giving New York generators a five-hour
• Are pipelines proposing effective service options that sufficiently assist generators that need to make changes in nominations?

• Is generation in a particular area or region predominantly baseload, peaking, or other load following services?

In Order No. 587-U, FERC reiterated its assertion that a pipeline-by-pipeline approach is the best means to ensure flexible nominations for shippers and that “a simple, one-size fits-all solution does not exist that will solve the complex issue of coordinating between the electric and gas industries, [because] the diversity within the electric industry (e.g., differing timelines, system peaks times, generation mixes, and prevalence of firm gas service), in particular, does not suggest that revising gas scheduling procedures is the most effective means to improve coordination.” The electric and gas industries, as part of the NAESB process leading up to this final rule, held extensive discussions on the issue of pipeline nominations over the course of several years and concluded that there is not a single solution that every pipeline in the nation can implement, that would address the nomination scheduling needs of its shippers.

While NGSA supports the Commission’s determination in Order No. 587-U that unilaterally revising gas scheduling procedures is not the most effective means to improve coordination, we welcome continued discussions in this area to assess whether

head start on procuring gas supplies. Earlier notice of day-ahead selection gives generators more time to procure gas for next-day operations. With more timely purchases, gas could start flowing sooner, thereby helping to maintain gas pressures and line pack. Greater consistency in electricity trading day deadlines - the earlier the better - also would facilitate efforts to coordinate supply with pipeline companies.

Response to Request for Comments of Commissioner Moeller on Coordination between the Natural Gas and Electricity Markets, Docket No. AD12-12-000 at 2 (filed Feb. 28, 2012) (“MMWEC Comments”).


7 Indeed, effective coordination between the industries requires broader measures than simply synchronizing scheduling deadlines. Individual pipeline services can be specifically tailored, depending on a pipeline’s capability, as needed to accommodate electric generator requirements if no-notice, parking, and loan and storage services do not provide the flexibility required.
FERC should set parameters that would serve as the guiding principles for any specific changes to current gas and electric scheduling processes. However, these continued discussions must take place in a FERC-initiated process in which all industry segments can discuss comprehensive policy approaches beyond just pipeline scheduling and nomination timelines and can consider the impact on other pipeline shippers. As stated earlier, unless the Commission makes a change in its current policy and determines that a generic change is required, NAESB should not initiate business standards development activities related to these issues.8

Changes to the existing, Commission approved, NAESB nominations cycles, and to the IT no bump rule would have wide-ranging impacts on both gas and electricity markets both in terms of costs and operations. Changes in this area will significantly impact how services are valued and the quality of services currently offered to pipeline customers; thereby impacting the value of holding firm and interruptible pipeline contracts. To the extent that pipelines offer services tailored specifically to address operational requirements of the power sector, issues related to the synchronization of

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8 For instance, the statement below indicates industry recognition that coordinated efforts will be required, with each group doing their designated part to work toward better gas-electric in a manner consistent with their individual authority and scope:

The Federal Energy Regulatory Commission, the North American Electric Reliability Corporation, the North American Energy Standards Board, the National Association of Regulatory Utility Commissioners, and each formal wholesale market operated by the Regional Transmission Organizations should, with robust participation from market participants, undertake to: -- Develop policies, regulations, and standardized business practices that improve the coordinated operations of the two industries and reduce barriers that hamper the operation of a well-functioning market -- Increase the transparency of wholesale electric power and natural gas markets -- Address the issue of what natural gas services generators should hold, including firm transport and storage, and what services pipeline and storage operators should provide to meet the requirements of electricity generators as well as compensation for such services for pipeline and storage.

gas and electric scheduling will likely be raised, and given the interrelated nature of these issues, it is best to take an integrated approach to this review.

Consideration should also be given to any operational and physical characteristics of the natural gas industry that may necessarily impact the ability to respond to pipeline nomination changes. Natural gas production is designed to optimize reservoir production and cannot simply be adjusted to meet demand fluctuations. To the extent that physical deliveries can be adjusted to respond to nomination changes, these can require manual actions. Any changes to the gas scheduling process must not compromise operational and safety integrity. Lack of coordination among the interconnected parties could result in pipeline or production facilities exceeding safe operating conditions. Finally, adequate time for planning and finalizing nominations must also be allowed to tie physical supplies with nominations in order to maintain the high degree of system reliability that exists today in the natural gas industry.

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

**NGSA Response:**

There is a need to comprehensively examine the current practices and services in both industries to ensure a smoother transition to increased development and use of gas-fired generation. The retirement of existing coal and oil fired generation is expected to result in an increased use of gas-fired generation, and thus, increases in the use of natural gas transportation systems. However, to the extent that a majority of the new gas-fired generation will replace existing baseload coal and oil generation, and not peaking or other load following services, any impacts on gas-electric coordination could be relatively modest, since baseload generators will not have the magnitude of unexpected takes on a system and may be more likely to secure firm transportation to assure reliability.
Natural gas is a stable and reliable fuel for U.S. power generation given our diverse supplies, well-established infrastructure, as well as the ability to respond quickly to meet customers’ needs. The U.S. has abundant supplies of natural gas from geographically diverse locations as well as gas storage capacity in nearly all major supply and market regions, and LNG import infrastructure. Couple that with a well-maintained network of pipeline and gas gathering systems, and it adds up to the most flexible and resilient gas market in the world. Diverse onshore geographic locations of new shale gas production greatly reduce exposure to disruptive impacts that Gulf of Mexico hurricanes have historically had on both gas supplies and related spot market commodity prices. Moreover, natural gas generation is well-suited, both technologically and economically, to quickly respond to the intermittency issues associated with intermittent forms of renewable energy resources.

6. To what extent should FERC consider modifying its existing Standards of Conduct with regulated utilities – either on an emergency basis or in a more fundamental manner – to assure greater coordination of these industries?

NGSA Response:

Effective communication among the natural gas and power sectors is essential to the operation of both systems during normal day-to-day operations as well as during emergency situations. Recently, the Commission took steps to implement enhancements to pipeline operational postings through proposed changes in NAESB protocols. Specifically, in Docket No. RM96-1-037, FERC proposes to adopt modified standards intended to provide shippers, including public utilities and gas-fired generators, with increased detail about pipelines system conditions by adding fifteen new notice types to the existing twelve.9 While these postings and notices remain voluntary for pipelines, the expanded categories for pipeline postings improve the current posting standards by providing more clarity to parties regarding significant

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conditions that could impact service, such as intraday bumps, operational flow orders and other critical notices.

In addition to the proposed enhancements to the NAESB standards and the informal steps informally underway by gas and power participants to improve communication, it is likely that there is more FERC can do to facilitate continued communication improvements. We support efforts to examine whether there is a need to make additional regulatory changes to improve gas-electric communication. If parties are unsure about what is permitted under the current Standards of Conduct regarding gas-electric communications; FERC should take steps to provide more clarity.

Open communication, particularly among operators, is important. However, as the Commission considers improvements in this area, it will need to balance communication needs with issues of confidentiality, commercial sensitivity and possible discriminatory sharing of information. Any information shared that could provide a market advantage should be transparent and shared with all market participants. As these discussions progress, FERC should also be mindful that changes in coordination and communication directly impact all parts of the operating chain. Thus, the effective reliable functioning of the gas and electric systems will require broad industry participation and input from all sectors.

7. **Will progress on this issue be faster if policies are addressed in several “baskets,” such as communication, operation, contracting, and planning/contingency analysis? If so, what are the appropriate “baskets?”**

NGSA Response:

While there are a number of issues directly or indirectly associated with gas-electric coordination, there are very few that are discrete issues that can be addressed without a comprehensive examination. Certainly, modifications to existing operations and services, including changes to gas and electric scheduling as well as contracting practices, will need to be examined comprehensively to explore cost recovery structures
and impacts on existing pipeline customers, both in terms of rates and services. Communication improvements, as discussed above, could be considered on a more expedited basis given that these issues do not have the same overlapping impacts as other policy issues.

III. Responses to Commissioner LaFleur’s Request for Comments.

Several of the topics specified in Commissioner LaFleur’s requests have already been addressed in NGSA’s responses provided. Below, NGSA has provided answers on specific issues that were not included in the above responses.

8. I would welcome comments on new pipeline and storage service and pricing structures that might better meet the emerging needs of generators.

NGSA Response:

The natural gas industry has traditionally and successfully relied upon transportation customers to secure reliable service by contracting for a portfolio of firm natural gas transportation and storage services based on their individual needs. To the gas industry, “firm pipeline service” means that the transportation or storage service provider has an obligation to provide the contracted service unless there is a force majeure event. Also, pipeline operators count on firm transportation commitments to support new or expanded capacity or storage services. This approach, consistent with the Commission’s pipeline expansion policy based on incremental rates,\(^\text{10}\) works by allowing the market decide when new capacity is needed while, at the same time, avoiding cost-subsidization among customers.

Many generators in wholesale electric power markets do not subscribe to firm pipeline transportation because the costs associated with contracting cannot be recovered through the existing electric market structures. Moreover, these market structures often do not compensate or appropriately value the retention of firm structures.

\(^{10}\) Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ 61,227 (1999), on clarification, 90 FERC ¶ 61,128, on clarification, 92 FERC ¶ 61,094 (2000).
transportation agreements. Generators simply will not take on fixed costs for which they do not have the opportunity to recover. Thus, electric generators are often commercially forced to rely on interruptible pipeline transportation services.

Consideration should be given to changes in both natural gas and electric markets to implement market-driven mechanisms to resolve the contracting issue. The power sector’s cost structures or price mechanisms should not mask market signals that allow generators to see the value in securing reliable delivery of their fuel sources. Regulators should ensure that market-driven changes in electricity pricing structures provide market signals prompting generators and utilities to secure sufficient transportation to meet their reliability needs.\textsuperscript{11} Also, it may be helpful for FERC to lead a review of electric market structures to assess whether some regions have incorporated mechanisms that more effectively provide market signals for reliable electric services and, if so, whether similar or best practices can be adopted in other regions. Also, NERC, in coordination with its stakeholders in its Phase II assessment, will likely recommend proposals that address reliability concerns regarding pipeline contracting issues. Such recommendations by NERC should be seriously considered in conjunction with effective wholesale market signals which properly value the associated generator services.

\textsuperscript{11} As stated in the MMWEC Comments:

Insufficient pressure and line pack are part of the reason supplies of natural gas to MMWEC’s Stony Brook plant are being curtailed more frequently, raising the potential for significant financial harm to MMWEC. In exploring options to address this issue, we have considered a firm gas transportation contract. However, while a firm contract might result in fewer curtailments, it opens exposure to another potential loss, i.e. the inability to recover firm gas transportation contract costs if Stony Brook is not selected to run or runs infrequently. Greater flexibility in contracting is necessary to ensure, among other things, that a generator that signs a firm transportation contract is able to recover its contract costs, notwithstanding the uncertainty of actual dispatch.

MMWEC Comments at 2.
Likewise, the gas industry must also look for ways to provide tailored pipeline services that can mitigate the costs required to meet a gas generator’s or utility’s needs by better accommodating the usage patterns of generators. Pipelines have already started this trend, yet more can be done. Also, efforts should be made to examine whether rate structures for pipeline transportation and storage services can be better designed to meet the needs of the power sector and whether the current rate mechanisms appropriately reflect the value of reliable natural gas transportation and storage services.

Given the need for increased pipeline capacity, pipelines and generators must find mutually acceptable solutions to allocating risk through various means, such as cost allocation, rate design, or negotiated contract provisions, while not harming or discriminating against other customers. There is no easy answer to resolving this issue but, with FERC’s leadership and industry dialogue, we can begin to find ways to address risk sharing in a fair and reasonable manner.

9. The fourth area is electric reliability standards, and whether there is a need to include standards about fuel supply to support reliability.

NGSA Response:

Given that the industry and regulators are embarking on a new effort to consider gas-electric coordination issues, we suggest that all ideas be explored including the possible development of a transportation reliability standard that would ensure a sufficient level of fuel reliability by the power sector. There may be a variety of ways to address reliability and contracting issues, including changing pipeline services to tailor them more specifically for power generators, ensuring that market structures properly value the security of delivery of supply or providing market incentives for such behaviors. After careful consideration of all of the options, creative ideas that combine some or all of these concepts may emerge.
Finally, I invite comments on how we can improve the Commission’s work on pipeline and storage infrastructure to ensure that the gas infrastructure is in place to support the nation’s growing reliance on gas for generation.

NGSA Response:

The Commission has an effective process for certificating natural gas pipelines and storage. However, ensuring adequate infrastructure is in place will require that infrastructure providers and their customers come to agreement on contractual commitments and mutually beneficial risk sharing mechanisms in a timely manner so that certificate applications can be submitted in the time needed to construct the projects required to serve power generation. Sufficient storage service capabilities, in particular, will go a long way toward providing the level of flexibility and reliability needed by power generators. As contractual issues are examined, the timing of upfront contractual commitments to build new infrastructure will also need to be explored.

IV. Conclusion.

NGSA appreciates the opportunity to comment on gas-electric coordination and looks forward to participating in any future dialogue or proceedings led by the Commission.

Respectfully Submitted,

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