



June 30, 2014

Ernest Moniz, Secretary
U.S. Department of Energy
1000 Independence Ave. SW
Washington DC 20585

Comments re: Quadrennial Energy Review

Dear Secretary Moniz:

The Northeast Gas Association¹ (NGA) is pleased to provide comments as part of the stakeholder process related to the U.S. Department of Energy's "Quadrennial Energy Review."

NGA commends the Department of Energy (DOE) for undertaking this important policy review at the President's directive.

DOE held two public reviews in April in the New England region – Providence and Hartford – on the important topic of resiliency and infrastructure constraints that provided valuable perspectives on the key challenges facing the regional energy market.

Our comments will focus on the topics highlighted at your New England forums. We at NGA also represent New York and New Jersey and so will broaden the focus of our comments to include these jurisdictions as well. Our central point - for New England and the entire Northeast - is that natural gas pipeline capacity needs to be increased to provide system reliability, continued environmental progress, and economic opportunities for the citizens of the region.

The increase in natural gas production in the U.S. in recent years, including in the nearby Marcellus Shale, has already produced significant benefits for national, regional and state energy markets. Our region, notably New England, has the opportunity to extend these benefits to the high number of citizens who currently do not have access to natural gas for home heating, as well as to businesses and regions of the area that are not able to directly accrue the economic benefits of natural gas service.

NGA has some general comments on different aspects of infrastructure and resiliency which are outlined below for your consideration.

¹ NGA is a regional trade association that focuses on education and training, technology research and development, operations, planning, and increasing public awareness of natural gas in the Northeast U.S. NGA represents natural gas distribution companies, transmission companies, liquefied natural gas importers and associate member companies. Its member companies provide natural gas service to 10 million customers in 8 states (CT, ME, MA, NH, NJ, NY, RI, VT).

Need for Increased Pipeline Capacity in the Region

With rising demand for natural gas in the region (and nation), and the opportunity for access to Marcellus Shale supplies, there is a need for increased pipeline capacity to ensure reliable delivery of the product to Northeast consumers. Additional interstate pipeline capacity will also support system reliability and price stability. As the DOE hearings in New England noted, pipeline constraints as recent as this past winter added substantial costs to energy consumers in the region, most notably in the electric market.

The interstate pipeline companies that serve the Northeast have implemented several infrastructure projects in New York and New Jersey, and have announced several major infrastructure projects for New England as well as the Mid-Atlantic. The region's natural gas utilities (LDCs) are adding new customers every day, and are participating in plans by the natural gas transmission companies to bring additional pipeline infrastructure to the region. The LDCs have been willing and able to contract for firm gas transportation capacity to support system growth and reliability. The power market, which relies on natural gas for essentially half of its capacity, has not, which raises concerns about power market reliability.

The Gas-Electric Relationship

A central challenge for natural gas in New England, as identified by NESCOE's studies and by speakers at the DOE forums, is the relatively low level of firm pipeline capacity held by gas-fired power generators in the region. Even as more than 50% of the electric generation fleet in the region is designed for natural gas, the majority of those plants rely on interruptible, or non-firm, transportation capacity.

As evidenced by the recent winter, and from experiences over the past decade, the power market in New England has remained consistently over-reliant on non-firm pipeline capacity. The generators are constrained by the lack of proper incentives in the power market as currently structured, which supports only short-term investments. This situation leaves the region subject to significant concerns of both reliability and price volatility. Recent pipeline "open seasons" for new transportation capacity have enlisted commitments from natural gas utilities in the region, but none from the power sector. Natural gas supply and transportation capacity can be attained, but the power market needs to act to invest in long-term reliability.

The New England Governors' recent call for action on energy infrastructure provides the opportunity to break this long-standing stalemate that has constrained the regional energy market. The role of federal agency review, especially the FERC, is also critical to this equation.

Renewable Resources and the Inter-Relation with Natural Gas

Renewable resources are playing a growing role in the U.S. and Northeast energy future. To the extent that intermittent generation sources such as wind-power and solar are added to the electric grid, natural gas remains a likely back-up fuel, and one that can help to moderate intermittency and provide needed and reliable system balancing. This will have implications for natural gas supply and infrastructure capability in the nation and our region, by placing greater

demand on natural gas by the electric power sector. It argues for an appropriate supply-side response on the natural gas side as well.

Expanding Heating Market Fuel Option

Natural gas provides about 37% of the home heating fuel market in New England. Increasing the availability of the fuel to homes throughout the region that currently are served by other higher-priced fuels will provide an important energy market choice for numerous households. The commodity cost of natural gas is about one-fourth the cost of oil. Enabling homes currently without natural gas service to access natural gas would result in considerable fuel cost savings. Also, the environmental benefits of natural gas for home heating present advantages over other fossil fuels.

Gas Energy Efficiency

New England, New York and New Jersey continue to be leaders in efficiency program investments, including natural gas. These investments are significant and valuable, and the growing focus on efficient delivery and utilization of efficiency programs is important. Further investments in cost-effective energy conservation and efficiency programs should continue to produce real value for the regional energy market.

Updating and Modernizing Natural Gas Distribution Systems

Updating and modernizing natural gas systems to replace aging infrastructure is a key priority.

The Northeast region has older infrastructure systems compared to the national average, and updating the natural gas distribution system is an appropriate and necessary action item. There is growing interest at both the regulatory and utility levels in implementing accelerated infrastructure replacement programs, to empower the utility with the capability to replace and upgrade older system components on a broader and faster scope. Such investments enhance system safety as well as reduce associated leaks and emissions.

A year ago, in June 2013, President Obama, in announcing his Administration's Climate Action Plan, said that "investments to build and upgrade gas pipelines will not only put more Americans to work, but also reduce emissions and enhance economic productivity." An emphasis on system modernization for natural gas is an appropriate step.

Reducing System Emissions

Reducing natural gas leakage is an important imperative for the region and for its natural gas utilities. A key part of the equation is replacing older, "leak-prone" system components such as cast iron and bare steel.

In April 2014, the U.S. Environmental Protection Agency (EPA) released the inventory of its latest annual data estimates on U.S. anthropogenic greenhouse gas emission trends from 1990 through 2012. It notes that methane emissions related to the natural gas system have decreased by 17% since 1990. The decrease in distribution system emissions over this time period is due, says EPA, "to a decrease in cast iron and unprotected steel pipelines."

While this trend is positive, progress needs to continue on this front. As noted above, utilities are working with state regulatory agencies to develop programs to enable accelerated replacement of older system components. Several states, such as Massachusetts and Rhode Island, have recently enacted legislation to advance this process.

Transportation Sector

Increasing access to natural gas will also increase the optionality of natural gas fueling stations. Natural gas is increasingly seen as a cost-effective and reliable option for fleet and heavy-duty vehicles, from garbage trucks to delivery vans and buses. Further growth in this area is anticipated to diversify the region's alternative fueling options and provide a cost-effective alternative to traditional transportation fuels.

LNG vehicles are also emerging as a viable option for heavy-duty trucks, in Connecticut, Massachusetts and in other areas in the region and the U.S.

Price Opportunities & Minimizing Energy Costs

Improving the energy cost situation for the Northeast, a high-priced energy region, is a key goal, and natural gas can assist in a significant way in multiple sectors.

U.S. production increases in recent years have resulted in a far different price paradigm for natural gas and one more favorable to end-users than competing fuels. The increased availability of natural gas in the region would enable more consumers to switch from alternate fuels to natural gas and thus achieve costs savings (as well as lower emissions).

Significance of R&D

Technology is the bridge to our energy future; investment in natural gas technology research is an avenue to progress. The federal government is encouraged to increase its research and development (R&D) funding in natural gas. Greater federal support for research in technologies in leak reduction, safe operations, and environmental improvements would bring important benefits.

NGA has a significant R&D program operated by NYSEARCH. NYSEARCH has been involved with innovative projects such as pipeline sensing and guided wave technology, and continues to utilize its own testbed facility in Johnson City, NY for advanced demonstrations. Recent success stories include the development, testing and commercialization of the Remote Methane Leak Detector (RMLD), and the EXPLORER II robotics program.

NGA also has a program with the Gas Technology Institute (GTI) that transfers knowledge to natural gas utility partners about new technologies that can enhance operations, safety, efficiency, and analysis.

Increased federal support for gas industry R&D would be a valuable step.

Environmental Benefits

It is clear that environmental and health factors will be major determinants in energy fuel choices and usage patterns. Natural gas has a beneficial role to play in this evolving market discussion as the most environmentally positive of fossil fuels.

In conclusion, we commend the Department for undertaking this important policy review, and pledge our support.

Sincerely,

A handwritten signature in black ink that reads "Thomas M. Kiley". The signature is fluid and cursive, with a large initial 'T' and 'K'.

Thomas M. Kiley
President and CEO

