

**UNITED STATES OF AMERICA  
BEFORE THE  
DEPARTMENT OF ENERGY  
OFFICE ENERGY POLICY AND SYSTEMS ANALYSIS AND  
QUADRENNIAL ENERGY REVIEW TASK FORCE**

**Comments of the Natural Gas Supply Association  
on the Second Installment of the Quadrennial Energy Review**

Pursuant to the Department of Energy's ("DOE") request for public comment on its second installment of the Quadrennial Energy Review: An Integrated Study of the U.S. Electric System ("QER")<sup>1</sup>, the Natural Gas Supply Association ("NGSA") respectfully submits the following comments. NGSA appreciates the opportunity to provide input for federal policymakers to address the challenges and opportunities facing the electricity sector, including the growing use of natural gas for power generation.

NGSA is a trade association that 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.

Due to its many benefits, natural gas is, and will continue to be, an integral part of the U.S. generation mix. With ample supply, environmental advantages, high level of reliability and economic competitiveness, natural gas plays an important role in the U.S. generation mix. To provide consumers with access to these benefits, NGSA encourages federal policymakers to support fuel-neutral markets and ensure natural gas is not disadvantaged by any future policy actions.

**I. The U.S. is blessed with an ample supply of natural gas to meet growing demand.**

The U.S. has abundant natural gas resources that enable our industry to satisfy our customers' needs, including the growing demand from natural gas-fired generation. From just 2010 to 2015, natural gas generation rose significantly; growing from 24% to 33%.<sup>2</sup> During this time, the United States was becoming the biggest producer of natural gas in the world. Since 2010, production has increased almost

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<sup>1</sup> Quadrennial Energy Review: Notice of Public Meeting, Federal Register Vol. 81, No. 15, January 25, 2016.

<sup>2</sup> See EIA "Table: Net Generation by Energy Source," Electric Power Monthly, May 25, 2016, available [here](#).

30%, with government forecasts calling for production in the U.S. to reach a near record-setting 75 billion cubic feet per day this year.<sup>3</sup> Long-term forecasts for natural gas production show this trend continuing, with recent forecasts predicting natural gas production at 103 Bcf/day in 2030, and as much as 115 Bcf/day in 2040.<sup>4</sup> Given this outlook for future production, natural gas is a wise investment choice for generators.

## **II. Clean natural gas will help the U.S. meet its environmental goals.**

Natural gas is poised to become an even more important part of states' energy portfolios as they seek cleaner energy alternatives in anticipation of compliance with the Environmental Protection Agency's Clean Power Plan, as well as their own state clean energy objectives. Since 2005, greater use of natural gas has been the driver behind a 17% reduction in U.S. carbon emissions from the power sector because, over its lifecycle, natural gas emits only about half the carbon of other fossil fuels when combusted, whether to make electricity, forge steel or provide heat.<sup>5</sup> Because of these advantages, along with its lack of sulfur dioxide (SO<sub>2</sub>), mercury, very little nitrogen oxide (NO<sub>x</sub>) and no soot or volatile organic compounds, natural gas as part of the generation mix can help the U.S. meet its future environmental goals. Additionally, the natural gas industry has a track record of reducing methane emissions. Government data show that absolute emissions from natural gas have decreased by 15% between 1990 and 2014 and emissions per unit of gas produced have decreased by over 43% over that period.<sup>6</sup> Further, the Natural Gas Council, which includes NGSA, recently completed an effort to have independent consultant ICF develop a report on methane emissions, which will provide an objective, fact-based resource for policymakers and others on over 75 methane studies available.

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<sup>3</sup> See EIA *Short Term Energy Outlook*, March 2016 available [here](#) and EIA Natural Gas Summary | Custom Table Builder, available [here](#).

<sup>4</sup> See EIA "Table: Natural Gas Supply, Disposition and Prices," ANNUAL ENERGY OUTLOOK 2016 EARLY RELEASE, May 17, 2016, available [here](#).

<sup>5</sup> See National Renewable Energy Laboratory, "Harmonization of Initial Estimates of Shale Gas Lifecycle Greenhouse Gas Emissions for Electric Power Generation," Proceedings of National Academy of Sciences, July 2014, available [here](#).

<sup>6</sup> See *Finding the Facts on Methane Emissions: A Guide to the Literature*, Prepared for The Natural Gas Council; Prepared by ICF International, April 2016, available [here](#).

**IV. Natural gas resources play a critical role in maintaining reliability of the electric system.**

Natural gas's role in providing reliability to the electric grid is two-fold: the transportation of natural gas supply is very reliable; and gas-fired generators can ensure grid reliability by using it as a back-up source to intermittent resources. Because of the flexibility and responsiveness of the natural gas transportation market, natural gas is highly capable of providing a reliable source of fuel for electric generators. However, this reliability is contingent upon generators also investing in firm transportation contracts as a means to assure service. Therefore, federal policymakers must find ways to encourage organized power market operators to expeditiously establish rules and pricing structures that allow generators the opportunity to recover their costs and to contract for services in a manner that ensures electric reliability.

Similarly, natural gas storage plays a vital role in maintaining reliability. Generators must invest in storage contracts and other services, such as no-notice service, to ensure that it is available when needed. At the end of this injection season, forecasts estimate near record levels of inventory with current projections of 3,875 Bcf.<sup>7</sup> Having ample storage available enables companies to physically stockpile natural gas supplies, providing the electricity system with a reliable source of energy, especially on peak demand days.

As the U.S. incorporates more renewable energy sources into its generation portfolio, it is imperative to have a fuel source that will support the intermittency of those resources. In addition to serving as baseload and ramping units, natural gas-fired generation provides back-up to intermittent resources that will keep the lights on when the sun does not shine or the wind does not blow.

**V. The economic competitiveness of natural gas benefits consumers.**

Whether it is modernizing the electric grid or implementing clean energy initiatives, natural gas provides federal policymakers with an economical option. Due to the relatively low price of natural gas, U.S. consumers can reap the benefits of more affordable energy prices when electricity is generated by natural gas. Since natural gas prices are expected to stay comparatively stable over the next decade –

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<sup>7</sup> See NGS&A 2016 Summer Outlook: Storage/demand, June 1, 2016, available [here](#).

with estimates at under \$5.00/MMBtu – natural gas is an optimal choice to meet future generators needs and results in considerable savings to consumers.<sup>8</sup> As a testament to the economic benefits to natural gas customers, including power markets and its customers, PJM asserted that its recent capacity auction resulted in \$4 billion in electricity savings over the next three years for consumers due to a wave of new natural gas-fired plants.<sup>9</sup> PJM’s Senior Vice President of Markets stated in its press release, “the results demonstrate investors’ continued high degree of confidence in the competitiveness of natural gas-fired generation... the market enables consumers to benefit from assured reliability at the most competitive, economic cost.”<sup>10</sup>

## **VI. Federal policymakers must support fuel-neutral markets to give consumers access to these benefits.**

NGSA views well-functioning markets and competitive market signals as vital to energy reliability, affordability, and cost-effective investment in energy infrastructure. In order to achieve a sustainable and cost-effective path forward for clean energy, it is imperative that federal policy actions support a competitive market without preferential treatment for any one fuel. Despite the benefits of natural gas described above, some states are proposing mandates for subsidies that will prop up uneconomical fuel sources. An uneven playing field between subsidized and unsubsidized generation participating in energy markets will distort price signals, which could have a ripple effect on other states and markets. If generators supported by out-of-market subsidies are allowed to participate in the market, it will suppress market prices and undermine the goal of competitive markets. Consequently, it may be increasingly difficult for gas-fired or other generators to invest in firm transportation, which increases performance and reliability.

Considering all of the benefits identified above, as DOE develops its findings and recommendations for phase two of the QER, we ask that you keep in mind the vital role natural gas

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<sup>8</sup> See EIA, “*Table: Natural Gas Supply, Disposition and Prices*,” ANNUAL ENERGY OUTLOOK 2016 EARLY RELEASE, May 17, 2016, available [here](#).

<sup>9</sup> EnergyWire, “*PJM Power Costs Fall by \$4B on Efficiency, New Gas Plants*,” May 25, 2016.

<sup>10</sup> See PJM News Release, “*PJM Capacity Auction Continues to Attract New Resources at Competitive Prices*,” May 24, 2016, available [here](#).

currently plays in the generation mix and will play in the future generation mix and ensure any new federal policies do not disadvantage natural gas.

Respectfully submitted,

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