



April 30, 2019

Senator Lisa Boscola
Chair, Democratic Policy Committee
458 Main Capitol Building
Harrisburg, PA 17120

Dear Senator Boscola:

The Marcellus Shale Coalition (MSC) is a state-wide trade association representing energy producing, midstream, transmission and supply chain members who are fully committed to working with local, county, state and federal government officials to facilitate the safe development of natural gas resources in the Marcellus, Utica and related geologic formations. On behalf of the MSC, I appreciate the opportunity to share written comments regarding the positive role that natural gas development has in improving the region's air quality.

The MSC and its member companies recognize the importance of reduced air emissions. While the MSC does not represent any power generation facilities, our member companies are proud of the role that natural gas has played in developing and delivering the fuel that is cleaning our air and helping Pennsylvania be a world leader through historic carbon emission reductions.

Role of Natural Gas in Reducing Air Emissions

Over the past several decades, air quality in the United States, and in Pennsylvania in particular, has increased exponentially. As you consider the issue, it is helpful to understand where we are in Pennsylvania with respect to air quality¹. Thanks to innovations in technology, tightening environmental performance standards and increased use of natural gas:

- Volatile Organic Compounds emissions, affecting respiratory health, are **down 51%** between 1995 and 2015;
- Sulfur dioxide emissions, which contributes to acid rain, are **down 82%** between 1990 and 2015; and
- Nitrogen oxide emissions, affecting respiratory health, are **down 72%** between 1990 and 2015.

Recently released data² from the U.S. Environmental Protection Agency (U.S. EPA) showed that, in 2017, total greenhouse gas emissions across the United States reached their lowest levels in 25 years. Moreover, total methane emissions are down a staggering 18.8% since 1990 – despite historic levels of natural gas from deep shale formations in the United States.

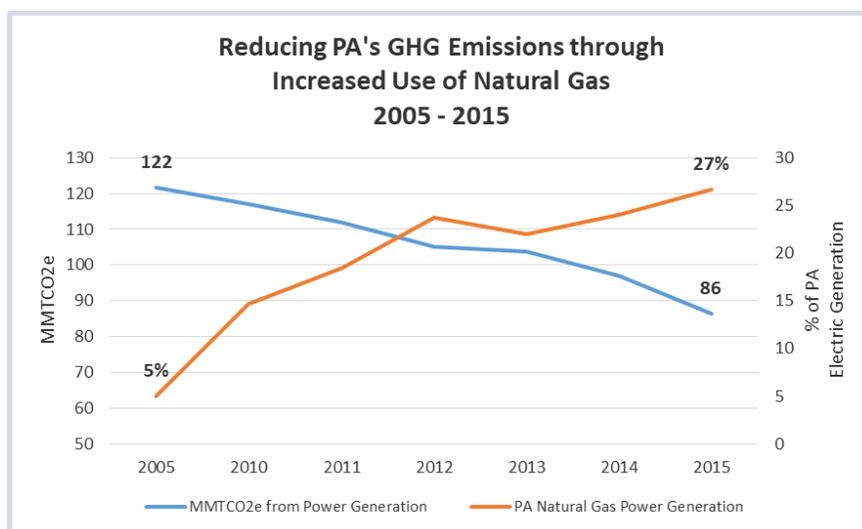
¹ PA Department of Environmental Protection – Stationary Source Emission Inventory 2012-2015

² U.S. EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017

<https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

Pennsylvania's development of Marcellus, Utica and other unconventional formations has led the national surge in natural gas development, with production rising from 250 BCF in 2008 to over 6,000 BCF in 2018³ – a staggering 2,300% increase.

In Pennsylvania, carbon dioxide emissions from the electric power generation sector are **down 30%** since 2005 (through 2015). This overwhelmingly is attributable to the increased use of natural gas.



Source: PA Greenhouse Gas Inventory (Nov. 2018) & PA Draft Energy Assessment Report (April 2018)

Furthermore, a more recent analysis demonstrates that despite the significant production increases in the Appalachian Basin between 2011 and 2017, methane emissions fell from 5.3 MMT to 4.7 MMT, resulting in an emissions intensity reduction of 82 percent.⁴ In short, while production increased, pollutants decreased at a significant rate.

Active Steps Industry is Taking to Reduce Emissions

Since Methane is the very product that our members market and sell, operators have every incentive to minimize losses. As such, the industry continues to identify and implement new technologies and procedures designed to reduce methane emissions. Improvements include the following:

- Eliminating venting and flaring by directing the gas that flows back during well competition activities directly into pipelines;
- Using vapor recovery systems, collecting vapors from dehydrators, water trucks and tanks;

³ PA Department of Environmental Protection, Office of Oil & Gas Management

⁴ [Analysis: Methane Emissions Intensity Declines in Top Shale Basins](#), Energy-In-Depth

- Using air instead of gas for pumps and pneumatic controllers;
- Employing Leak Detection and Repair (LDAR) equipment on a recurring basis to identify and eliminate leaks.

Conclusion

Much of the public discussion and rhetoric surrounding climate change has revolved around whether individual parties believe in climate change, and the extent to which human activity has contributed to it. What is clearly lost in any conversation is the positive impact that natural gas production has had on air quality. Unbiased data clearly demonstrates the overall benefit that the use of natural gas has had on the environment, as emphasized by Secretary McDonnell who recently testified that Pennsylvania already had met the Clean Power Plan goals “because of the shift toward cleaner natural gas.”

Once again, thank you for the opportunity to share this important information with the Committee.

Sincerely,

James D. Welty
Vice President, Government Affairs
Marcellus Shale Coalition

