



**COMMENTS OF
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NATURAL GAS PIPELINE SAFETY & OPERATIONS

**JOINT COMMITTEE ON TELECOMMUNICATIONS,
UTILITIES AND ENERGY**

November 2, 2021

Thank you, Chairman Barrett, Chairman Roy, and members of the Joint Committee for the ability to provide written testimony in today's hearing addressing numerous bills related to natural gas operations and system safety.

The Northeast Gas Association (NGA), a trade association based in Needham, represents natural gas interests in nine Northeast states, including Massachusetts.

The natural gas distribution companies that serve the Commonwealth continue to appreciate the opportunity to work with the Legislature to advance measures to ensure the reliability and safety of the natural gas system in the state, and thereby provide continued benefits to homeowners and businesses.

There are 1.7 million natural gas customers in the Commonwealth – 1.55 million heating customers and 150,000 commercial and industrial customers. The utilities employ thousands of workers directly, contribute to city and town property taxes, and have reduced their greenhouse gas emissions by two-thirds since 1990.

More than half (52%) of all Massachusetts homes use natural gas as the primary heating source. (This compares to 24% for heating oil and 17% for electricity.) For low-income residents, for people on fixed incomes, for businesses trying to manage costs in challenging times, natural gas has long been the most affordable option. In its recent Winter Fuels Outlook, released two weeks ago, the U.S. EIA projects that for the upcoming winter, while natural gas costs are higher this year, natural gas remains the lowest cost heating source nationally and regionally – lower than electricity, heating oil and propane.

Natural gas also represents 50% of the New England power generation market. In 2018-19, Massachusetts gained three new gas power generating units (in Salem, West Medway and Sandwich), totaling over 1,200 megawatts - helping to maintain capacity and reliability at a time when the Pilgrim nuclear and Brayton Point coal plants closed. As the Commonwealth continues its progress to integrate increased renewables such as offshore wind and other clean energy technologies, natural gas remains a key part of the state's energy portfolio.

The Legislature's historic work on energy and climate legislation is well-known around the nation. The Legislature and the Administration have identified pathways toward a low-carbon economy, with mandated targets for 2030 and 2050 for market transformation in such areas as

power, transportation and buildings. We in the natural gas industry are working to assist in this transformation through lower-carbon supply inputs and continued efficiency initiatives.

The legislative proposals before you today are numerous and I now will address several of their suggested components.

Conservation and Efficiency

Massachusetts is rightly proud of its nation-leading investments in energy efficiency as the cornerstone of a responsible energy system. We agree with this Committee's emphasis on efficiency. The nine Northeast states together invest over 40% of all natural gas efficiency investments in the country, according to the most recent data from ACEEE. Massachusetts ranks 2nd in the nation, behind California, in total gas efficiency program spending (MA invested \$280 million in 2019); but in terms of spending per residential customer, Massachusetts ranks #1. Continuing these investments is a priority for the Legislature and for the utilities as well.

Leak Repair and GSEP Advancement

The utilities continue to make progress in accelerated infrastructure replacement, to remove bare steel and cast iron and to ensure a more secure system. This is positive news for addressing potential methane emissions but also for ensuring stable and reliable system operations. According to the U.S. Department of Transportation's PHMSA, over 1,800 miles of older main have been replaced in the Commonwealth in the last eight years. This progress is under the supervision of state regulators and coordinated closely with the cities and towns in which the utilities operate. We are proud of our skilled workforce and believe the progress to date reflects well on the vision of the Legislature in enacting its groundbreaking 2014 legislation to accelerate pipeline modernization.

The MA DEP GHG inventory and the U.S. EPA GHG inventory track the progress in emissions reductions in the Commonwealth and nationally. In its most recent annual inventory for the U.S., released in April 2021, U.S. EPA reported that "An increased use of plastic piping, which has lower emissions than other pipe materials, has reduced both CH₄ and CO₂ emissions from this stage, as have station upgrades at metering and regulating (M&R) stations. Distribution system CH₄ emissions in 2019 were 69 percent lower than 1990 levels and 1 percent lower than 2018 emissions. Distribution system CO₂ emissions in 2019 were 69 percent lower than 1990 levels and 1 percent lower than 2018 emissions." MA DEP data indicates a reduction of two-thirds in "natural gas leakage" in the Commonwealth over this same timeframe which is consistent with EPA data.

Safety Measures Implementation

The natural gas utilities continue to implement safety measures in daily operations in accordance with utility procedures and as updated to reflect the directives of the Legislature and the primary state regulatory agency, the MA Department of Public Utilities.

One key program is the Safety Management System that all the state's gas utilities have worked to implement as directed by Governor Baker after the Merrimack Valley incident in 2018. NGA

has worked with all the MA gas utilities as well as other utilities from the Northeast and beyond to design a safety management program grounded in best practices. The intent is to develop a comprehensive, process-oriented approach to safety, emphasizing continual assessment and improvement. The NGA membership collaborative approach is viewed as one of the largest coordinated PSMS implementation programs underway in the U.S. The initiative uses a Plan-Do-Check-Act framework. Front-Line Supervisor PSMS engagement tools include exploring consistent approaches to Management of Change (MOC), Pre-Job Briefs (PJB), adoption of Post Construction Assessments (PCA's), and Pre-Startup Safety Reviews (PSSR's) relative to PSMS elements. This enables a practical approach embedding safety management system principles into every decision and every action.

NGA's website has a description of the Collaborative process:
https://www.northeastgas.org/psms_northeast.php

Just last month we launched an online Resource Center which we feel will be a great learning tool for operators in our region, as well as providing important information to the regulatory community and to the general public. That webpage can be found here:
<https://www.ngapsms.com/>

NGA Membership Gas System Engineering Design Review (EDR) Guideline

NGA membership last year completed development of a Gas System Engineering Design Review (EDR) Guideline. The EDR guidance document is intended to provide NGA member pipeline Operators with a process framework for developing, enhancing, and implementing an organization-specific gas system engineering design review protocol. The goal of using a gas system design review process is to ensure that gas transmission and distribution systems are designed and constructed so they can be operated in a safe and reliable manner, increasing the likelihood of reducing incidents to our goal of zero.

Worker Training, and Future Retraining

Our system depends on a skilled and highly-trained workforce. Workforce development remains a pillar of utility operations. NGA helps manage one of the most comprehensive Operator Qualification programs in the country and the MA natural gas utilities are key participants. The skill set needed for specific operator tasks is rigorously defined and overseen by federal and state regulations. The opportunities for employment remain strong and we want to ensure that we reach our young people in all communities of the state to make them aware of the opportunities for good jobs in the gas utility industry. It's a pathway with great opportunity for young women and men to learn great skills and provide for their families.

There is some interest by members of the Legislature in exploring redeploying workers into the emerging clean energy workforce. The Legislature's concern for all workers is well-appreciated. We note that households, businesses, power generation and the economy of this state rely on a reliable and safe energy system, including natural gas. In regards to the emerging energy transition, natural gas utilities are assessing how to balance the impacts on customers and on our valued workforce. We know that we all, including the Legislature, want to ensure responsible planning as the transition unfolds.

Training and Coordination with First Responders

NGA has the honor of working with the Massachusetts Firefighting Academy in Stow on one of the most comprehensive hand-on training programs for LNG and LP in the U.S. Through our partnership, we have been able to train over 2,500 individuals in safety and emergency response, with students coming from all over the world. I had the opportunity to visit one of the training classes in Stow last month and to meet with the State Fire Marshal. Individuals from throughout New England, the U.S., and from other countries regularly participate in this program. It's a great example of safety training. It also underscores the important utility relationship with first responders on safety issues.

Exploring Lower-Carbon Supply Inputs

As we seek to reduce carbon content in the natural gas industry there are some promising opportunities in terms of renewable natural gas (RNG), potential hydrogen blending, and carbon sequestration. Time does not permit today a review of these options, but I do want to note that one of our member utilities, VGS in Vermont, recently helped commercialize an RNG project that sources natural gas from a dairy farm, that in turn provides lower carbon gas supply to Middlebury College. It's a very innovative project. The central company involved in developing the RNG digester system for this project is Vanguard Renewables, based in Wellesley.

The Energy Transition and Overall System Transformation

The utilities are currently among the participants in a process overseen by the DPU to explore "The Future of Gas" in the Commonwealth. As you know, last fall the DPU issued an order opening an investigation into the role of local natural gas distribution companies (LDCs) in the Commonwealth's goal to achieve net zero greenhouse gas emissions by 2050. As part of this effort, LDCs will prepare a report and solicit stakeholder feedback as a means to safeguard customer interests and secure safe, reliable, and affordable energy solutions long into the future. That stakeholder process is underway and the initial report is due in March 2022. The vision of the Legislature and the Administration is comprehensive and profoundly transformational for all aspects of the energy industry.

In conclusion, we believe that the actions underway to address natural gas system safety, reliability and the environment are extensive and comprehensive.

We appreciate the opportunity to present our comments, and would be happy to discuss this further with you at your convenience. Please feel free to contact me for further information.

Thank you.

