



**COMMENTS OF
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NATURAL GAS PIPELINE SAFETY

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

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Thank you, Chairman Barrett, Chairman Golden, and members of the Joint Committee for the ability to provide written testimony identifying concerns with S.2514 and to present a number of pipeline safety initiatives currently underway by the Northeast Gas Association (NGA) and our member companies.

The Northeast Gas Association (NGA), a trade association based in Needham, represents natural gas interests in nine Northeast states, focusing on education, training and qualification and research.

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 of the natural gas system in the state, and thereby provide continued benefits to homeowners and businesses.

Massachusetts' natural gas distribution companies serve about 1.6 million customers, have added over 250,000 residential customers since the year 2000, employ more than 4,000 workers directly, pay over \$100 million annually in city and town property taxes, and have reduced their greenhouse gas emissions by two-thirds since 1990.

Natural gas currently fuels over half the Commonwealth's households and over half of its power generation. It is a cost-effective fuel for residences and businesses, and its growth in the state has enabled substantial reductions in emissions. More than half (52%) of all Massachusetts homes now use natural gas as the primary heating source. (This compares to 25% for heating oil and 17% for electricity.) For low-income residents, for people on fixed incomes, for businesses trying to manage and keep the doors open in challenging times, and for everyone else, natural gas is the most affordable option.

For the power generation market, natural gas has been the leading fuel source for many years – and the use of natural gas is actually projected to grow further in coming years. 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 at a time when Pilgrim nuclear and Brayton Point coal plants have retired in-state. New offshore wind facilities are coming, and hydropower from Canada is also in the proposal stage. But these resources are still several years away. And even when they arrive, natural gas will remain essential to power grid reliability, functionality and daily operations. As the Commonwealth continues its progress

in moving towards a low-carbon economy with increasing reliance on renewables and clean energy technologies, natural gas remains a key part of the state's energy portfolio.

Furthermore, the ongoing investments in the replacement of older gas system infrastructure, encouraged by the Legislature, has resulted in a two-thirds reduction in methane emissions in the state. This progress supports the environment, the economy, and system safety.

There is considerable work underway in Massachusetts to enhance natural gas system safety. We will enumerate those actions below.

Concerns with S.2514

S.2514 would prohibit the ability to utilize contractors who are trained and qualified the same as company employees. This would result in a significant reduction to the pipeline safety workforce, and increase costs for our customers.

Also, the legislation would limit the use of professional engineers approving gas distribution projects to only engineers that have gas distribution engineering experience. This provision is not practical and, in fact, unworkable, given that there is no such category as Gas PE. This would further reduce the available number of PEs to review and approve work resulting in a slowdown of gas pipeline safety work. The NGA is currently working on developing a Gas Engineering certification process to encourage additional experience within this field of engineering.

Another provision in the legislation would raise the cap on fines associated with pipeline safety, raising fines from a cap of \$2M to \$5M. This additional provision is unlikely to improve pipeline safety since the fine levels are already at sufficiently high levels and local gas distribution companies are working with the Department of Public Utilities to add pipeline safety measures.

With respect to the bill's provision requiring all dispatch and control centers to be in the utility service territory, that again would prove problematic as the process of operating dispatch and control centers is based on technology and communication, not necessarily based on proximity to operations, therefore not necessarily a relevant factor to improving safety. Some of our member companies have control and dispatch centers within the state or the region, and requiring new location requirements would add cost without improving safety - but creating redundant operations.

As we look at the issue of addressing pipeline safety, Massachusetts is at the forefront of action on an important regulatory and industry-wide safety initiative, and I would like to take the opportunity to present some additional information on those initiatives.

Pipeline Safety Management System (PSMS)

In November 2018, the Baker-Polito Administration announced that Massachusetts's natural gas utilities would adopt a Pipeline Safety Management System (PSMS) as outlined in the American Petroleum Institute (API) Recommended Practice RP 1173, in response to the natural gas incident in the Merrimack Valley on September 13, 2018. The purpose of a Safety

Management System is to help pipeline operators create a framework for developing a comprehensive, process-oriented approach to safety, emphasizing voluntary information sharing, continual assessment and improvement.

The effort, overseen by the Massachusetts Department of Public Utilities (DPU), requested that every natural gas company in the Commonwealth review their safety protocols and consider the implementation of a safety management system.

The Northeast Gas Association began work immediately on a PSMS implementation program to support its MA distribution companies. These companies include: Berkshire Gas, Blackstone Gas, Columbia Gas of MA, Eversource Gas, Holyoke Gas and Electric, Liberty Utilities, Middleborough Gas and Electric, National Grid, Wakefield Gas and Electric, Westfield Gas and Electric, and Unitil.

On November 26, 2018, NGA issued a Request for Proposal regarding the development and implementation of a PSMS, with submissions due in early January, 2019. Over 15 consultants submitted proposals to assist in this effort from across North America. NGA membership carefully considered these proposals and in March 2019 unanimously selected The Blacksmith Group (P-PIC) to assist membership in the development and implementation of PSMS. The Blacksmith Group brings unparalleled knowledge and experience with PSMS and more broadly Safety Management Systems.

NGA also established a new committee, the NGA PSMS Committee, to manage this important work, beginning in Massachusetts and expanding to other interested members throughout the NGA footprint. It is important to note that in the spirit of complete transparency, this Committee welcomed members of DPU Staff to participate as well as other Pipeline Safety Program Managers from neighboring States. Their perspectives and contributions have provided focused collaborative value to safety enhancements through the process to date.

NGA's approach. The NGA membership collaborative approach to implementing Pipeline Safety Management System principles is now fully underway. The five Tasks include:

Task 1 – *Includes interviews with key company personnel from all participating members to review implementation expectations with company leadership, affirm leadership commitment and understand where each company is with implementing API RP 1173. Preparation of gap analysis. Address MA DPU Study of Policies and Practices.*

Task 2 – *Work with each participating member to conduct formal PSMS Gap Analysis in companies where gap analysis is already complete, and to review the gap analysis for completeness and conformance. Develop summary of gaps and similarities, risk rank and look for synergistic solution opportunities.*

Task 3 – *Develop company specific risk-based RP 1173 implementation strategy roadmaps. Produce a draft for company review based on risk ranking of gaps and / or compliance related issues discovered as a result of gap analysis. Review road map with top management and*

personnel in functional areas to define gap closure. Task 3 will work with the data gathered in Tasks 1&2.

Task 4 – Includes a series of interactive practical implementation exercises of “operationalization of strategy” focused on gas mains and services construction practices, pressure regulation, control and odorization and gas control. Enable personnel at all levels to help identify risk and actively seek their input on mitigation. This Task also includes development of PSMS Engagement Tools for managers and supervisors including industry leading Field Operations PSMS Tactical Guides.

Task 5 – includes development of an NGA collaborative and individual company implementation sustainability plan, development and implementation of operationally focused PSMS maturity metrics and continuous improvement strategy. This Task also includes development of a PSMS Resource Center collaboration framework to facilitate inter-company sharing of key pipeline safety information in the spirit of continuous learning from each other (leading practices, incidents and near-misses, etc.). The Resource Center would include an information management tool providing basic analytical functions to help spot pipeline safety related leading indicators.

The implementation collaborative is one of the largest, most comprehensive efforts attempted in the industry with a unique focus on *operationalization of strategy*, a top down / bottom up approach that recognizes the importance of adopting *plan-do-check-act* operational behaviors at the boots-on-the-ground level. It is our expectation that the majority of work in establishing the PSMS framework by the utilities in Massachusetts will be completed this year.

NGA is holding a series of webinars on the PSMS collaborative later this month, and we would be pleased to welcome attendance by members of your Committee or staff if interested.

NGA Membership Gas System Engineering Design Review (EDR) Guideline

NGA membership recently 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.

The EDR essentially follows a “defense in depth” strategy. By assuring more than adequate levels of protection in the review process, member organizations adopting the practice bring in sufficient, broad technical perspectives to identify potential risks or weak links. The EDR ensures that members integrate this risk-based thinking from design through construction and inspection of construction. The defense in depth is also exemplified through “levels of protection” that are built through the selection of subject matter experts and reviewers who can bring a very robust set of multi-disciplinary skills, knowledge and experience to the process.

The selection of reviewers includes all affected by the design, construction, start-up, and operation of the system and those who have an added contribution to make through their technical knowledge and experience. Further, this process raises the visibility of the accountability of all involved and makes accountability a continual process. Accountability is intended to be transparent - which is an important factor in growing the safety culture in member organizations employing this review process.

NGA Membership Safety Culture Survey Proposal Taking Shape

In a related task, NGA is working with The Blacksmith Group in exploring a membership-wide Safety Culture Survey. Blacksmith recently provided an overview of the safety culture survey that was utilized successfully by members of the Interstate Natural Gas Association of America (INGAA), and could be leveraged in development of the NGA member survey. The survey was developed in conjunction with leading experts in assessing culture and was conducted by INGAA in 2013, 2016 and 2019 in conjunction with Culture IQ and the University of Houston. Assessing safety culture is a requirement of safety assurance requirements under API RP 1173. The Canadian Energy Pipeline Association and API/ AOPL will participate in the safety culture survey in 2020. Service providers and contractors of the INGAA Foundation will also be participating in the survey in 2020.

In addition, we would like to note a number of other activities currently underway in the Commonwealth regarding natural gas system safety:

- The MA DPU is developing its own Action Plan and has asked Gas Companies to develop their Action Plans to address recommendations contained in the Dynamic Risk assessment.
- The MA DPU is anticipated to be issuing final rules on three key issues:
 - Damage Prevention/DigSafe
 - Professional Engineer requirements
 - Lost and Unaccounted for Gas;
- The Gas Companies continue their efforts to comply with requirements to fix Grade 3 leaks with significant environmental impact;
- The Gas Companies also continue the major work of GSEP (“gas system enhancement plans”) – made more challenging this year by the scheduling limitations raised by the COVID-19 pandemic.

In summary, we believe that the actions underway to address natural gas system safety 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.