Greenhouse Gas (GHG) Emissions Commitments



Members of the Interstate Natural Gas Association of America (INGAA) commit to reducing their individual GHG emissions from their natural gas transmission and storage operations and to setting and meeting their individual emission reduction goals by continuously improving practices to minimize GHG emissions, including methane emissions, in a prudent and environmentally responsible manner.

To further reduce GHG emissions from natural gas transmission and storage facilities, while maintaining pipeline integrity, safe operations and minimizing adverse customer and community impacts, INGAA member companies commit to the following:

Methane Commitments

Pipelines

- Conducting surveys on transmission pipelines at least once per calendar year to detect leaks and make environmentally beneficial repairs or take proactive measures to mitigate emissions associated with the leaks identified. INGAA members commit to using leak detection methods, technologies or other agency-approved methods during these surveys, including handheld equipment, equipment mounted on mobile platforms, or other technologies as appropriate.
- Maintaining safe and efficient operations while minimizing methane emissions from interstate natural gas pipelines during maintenance, repair or replacement (a practice commonly referred to as a "blowdown") by evaluating and implementing voluntary practices, such as reducing pipeline pressure or utilizing cross-compression prior to conducting planned maintenance and other recommendations found in the U.S. Environmental Protection Agency's (EPA's) Natural Gas STAR Program.

Pneumatic Controllers

• Selecting air-driven, or no-bleed, low-bleed or intermittent pneumatic or electric controllers when installing new controllers, unless a different device is required for safe or reliable operations. For existing high-bleed pneumatic controllers, INGAA members will evaluate the feasibility of replacing them with air-driven, no-bleed, low-bleed, intermittent pneumatic or electric controllers. INGAA members shall repair or replace malfunctioning pneumatic controllers.

Storage & Compressor Stations

- During planned maintenance, when conducting the PHMSA required emergency shutdown system system tests, or through installing and utilizing vent gas recovery (VGR) systems.
- Minimizing methane emissions from rod packing seals on all reciprocating compressors at transmission and storage facilities. Member companies agree to replace rod packing on all transmission and storage reciprocating compressors by utilizing one of the following options: (1) a condition-based replacement approach;
 (2) replacing packing every 26,000 hours of operation; (3) replacing packing 36 months from the date of the most recent rod packing replacement or (4) installation and utilization of rod packing vent gas recovery (VGR).
- Conducting leak surveys at transmission and storage compressor stations. INGAA member companies shall evaluate leaks detected during such surveys and take corrective actions to reduce emissions by repairing or replacing leaking valves and fittings. INGAA member companies will perform leak surveys using optical gas imaging (OGI) cameras or other agency-approved methods at all transmission and storage compressor stations owned and operated by INGAA member companies before January 1, 2023. Subsequent leak surveys shall be conducted at least every two years or more frequently as otherwise required by law.



Natural Gas Storage Wells

- Minimizing methane emissions from natural gas storage wells.
- Inspecting all natural gas storage wells owned and operated by INGAA members for leaks at least annually.

Carbon Dioxide Commitments

- Reducing CO2 emissions from natural gas transmission and storage compressor stations while maintaining safe operations and meeting contractual and reliability commitments through actions which may include:
 - purchasing energy or installing equipment with lower CO2 emissions
 - optimizing compressor operations to preferentially run equipment with lower CO2 emissions
 - using electric-driven compressors
 - improving combustion efficiency, and
 - other technologies

R&D and Information Sharing

Supporting the development of new technology and effective practices and sharing information:

- Several research and development programs are exploring the application for hydrogen blending in existing natural gas systems. Members that are participating in these programs are encouraged by early results which indicate the potential for transporting new lower-carbon fuels through our systems. Additional research into safety and reliability considerations associated with hydrogen blending is ongoing.
- Members are also participating in pilot programs to further reduce combustion emissions from compressor stations and working with vendors and manufacturers to capture and minimize venting emissions.
- INGAA member companies will also continue to collaborate within the membership and with other organizations on research and development to identify effective practices to detect and reduce GHG emissions.
- Member companies are reporting their methane and CO2 emissions transparently to EPA, as appropriate, and reporting emissions or emissions reductions through other voluntary emission reduction and sustainability programs.
- INGAA has issued a <u>climate report</u> and will continue to report progress on our collective efforts to minimize GHG emissions.
- INGAA member companies are analyzing the data reported under EPA's Greenhouse Gas Mandatory Reporting Rule, state-level reporting programs, and corporate emissions inventories to improve their understanding of these emissions and identify additional opportunities for reductions.

Regulatory Compliance & Voluntary Commitments

INGAA member companies are regulated by various state and federal agencies. Among other requirements, they currently implement risk management programs and conduct monitoring, inspection and maintenance at natural gas pipeline and storage facilities. INGAA member companies also comply with applicable requirements to report GHG emissions as part of the EPA's Greenhouse Gas Mandatory Reporting Rule and applicable state programs.

INGAA member companies have a history of working with these regulators to ensure that natural gas pipelines, compressor stations and storage facilities are designed and built safely and operate in ways that minimize GHG emissions. As regulatory requirements evolve, INGAA member companies are committed to working with regulators to identify appropriate enhancements to reduce the risk of leaks, improve detection methods and enhance standard practices.



INGAA member companies have agreed to these voluntary commitments because it is socially and environmentally responsible and good business for natural gas transmission and storage companies to reduce GHG emissions. By measuring, monitoring and reducing emissions over two decades, INGAA member companies have gained knowledge in the management of potential emissions sources. This experience has enabled the industry to target sources with the greatest potential for emissions improvements and implement cost-effective reduction strategies. As a result, the transmission and storage sector of the natural gas industry reduced its methane emissions by 35 percent from 1990 to 2019¹, according to the EPA, even while total U.S. natural gas production increased by 91 percent² during the same time frame.

Additional Voluntary Methane Reduction Programs

In addition to these commitments, some INGAA member companies participate in voluntary programs intended to reduce methane emissions, such as the EPA's Natural Gas STAR and Methane Challenge Programs, the ONE Future Coalition, or The Environmental Partnership.

The Natural Gas STAR Program is a voluntary partnership between the EPA and the oil and natural gas industry. It is designed to encourage companies to adopt cost-effective technologies and practices to improve operational efficiency and reduce methane emissions. Participating INGAA member companies voluntarily report emissions under the EPA Natural Gas STAR and Methane Challenge Programs.

Members of the ONE Future Coalition are working collectively to achieve a science-based average rate of methane emissions across their facilities equivalent to 1 percent (or less) of total natural gas production.

The Environmental Partnership works to continuously improve the oil and natural gas industry's environmental performance through technically feasible and commercially proven solutions that will result in significant emissions reductions. The partnership provides a forum for members to share information, analyze best practices, and share technological breakthroughs.

INGAA Members

- BHE GT&S
- Boardwalk Pipelines LP
- Cheniere Energy, Inc
- DT Midstream
- Enable Midstream Partners
- Enbridge
- Equitrans Midstream
- Iroquois Pipeline Operating
 Company

- Kinder Morgan
- Millennium Pipeline Company L.L.C.
- National Fuel Gas Company
- National Grid
- NextEra Energy Resources
- ONEOK
- Pacific Gas and Electric
 Company

- Piedmont Natural Gas
- Sempra LNG & Midstream, LLC
- Southern Company Gas
- Southern Star Central Gas Pipeline, Inc.
- The Williams Companies, Inc.
- TC Energy
- UGI Energy Services, LLC
- WBI Energy, Inc.

INGAA is a trade organization that advocates regulatory and legislative positions of importance to the natural gas pipeline industry. INGAA's members represent the majority of the interstate natural gas transmission pipeline companies in the United States, operating approximately 200,000 miles of pipelines and serving as an indispensable link between natural gas producers and consumers.

Released: November 2021

¹ Environmental Protection Agency. (n.d.) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019. <u>https://www.epa.gov/ghgemissions/invento-ry-us-greenhouse-gas-emissions-and-sinks-1990-2019</u>

² U.S. Energy Information Administration. (2021, Sep. 30) U.S. Natural Gas Gross Withdrawals. https://www.eia.gov/dnav/ng/hist/n9010us2A.htm

