

Minimizing Methane Emissions Programs & Initiatives



Minimizing methane emissions remains a top priority for INGAA member companies. Many INGAA members participate in voluntary programs and initiatives focused on minimizing methane emissions, communication and collaboration across the natural gas value chain, and driving new and innovative technologies and processes. Some of these programs include:

EPA's Natural Gas STAR Program

The Natural Gas STAR Program provides a framework for partner companies to implement methane emissions reducing technologies and practices across operations and document voluntary emission reduction activities. Partners are committed to developing a company-specific approach to methane emissions and annually evaluating cost-effective methane emission reduction opportunities. More than 60 companies from all segments of the industry—production, gathering, transmission and storage, and distribution participate in the program



INGAA member participants: Boardwalk Pipelines, Dominion Energy, DTE Energy, Duke Energy, Enable Midstream, Enbridge, Iroquois, Kinder Morgan, National Grid, ONEOK, Inc., PG&E, Sempra LNG, Southern Company Gas, TC Energy, UGI, and Williams.

EPA's Methane Challenge Program

Methane Challenge Program partners are committed to transparently reporting systematic and comprehensive actions to reduce methane emissions through one or both of the program's frameworks: Best Management Practice Commitment and the ONE Future Emissions Intensity Commitment. Both options seek to mitigate methane emissions across the natural gas value chain. Methane Challenge Program partners also engage with members of the Natural Gas STAR Program to share information, technologies and best practices among peers.



INGAA member participants: Dominion Energy, DTE Energy, Duke Energy, Iroquois, Kinder Morgan, National Fuel Gas Supply, National Grid, PG&E, Sempra LNG, Southern Company Gas, TC Energy, and UGI.

ONE Future Coalition

ONE Future Coalition members agreed to segment-specific emissions intensity targets that inform a collective goal of reducing methane emissions associated with the production, processing, transmission and distribution of the U.S. onshore natural gas value chain to 1% or less by 2025. Each industry segment's reduction target is determined by its proportional share of current emissions that can be abated cost-effectively. The 2025 target for transmission and storage is 0.31%.



INGAA member participants: Boardwalk Pipelines, Dominion Energy, Equitrans Midstream, Enbridge, Kinder Morgan, National Grid, Southern Company Gas, TC Energy, and Williams.

The Environmental Partnership

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 member participants: Enbridge, Equitrans Midstream, TC Energy and Williams.

Through ongoing partnership between companies, regulators and policy makers, the natural gas industry will continue to advance its understanding of methane emissions and additional opportunities to minimize and mitigate these emissions across operations. Examples of actions INGAA members are taking under these programs to minimize methane emissions include: reducing blowdown emissions by lowering line pressure before conducting pipeline maintenance; routing compressor blowdown gas into a vent gas recovery system; conducting voluntary leak surveys at compressor stations, natural gas storage wellheads, metering and regulating stations; and identifying and replacing high-bleed pneumatic devices with low- or no- bleed devices.



INGAA Methane Emissions Commitments

Members of INGAA voluntarily agreed in 2018 to a series of methane commitments. These commitments include:

- **Minimizing methane emissions from natural gas pipelines and pneumatic controllers:**

- 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 those found in the U.S. Environmental Protection Agency’s (EPA’s) Natural Gas STAR Program.
- Selecting air-driven, low-bleed or intermittent pneumatic controllers when installing new pneumatic controllers, unless a different device is required for safe operations. For existing high-bleed pneumatic controllers, INGAA members will evaluate the feasibility of replacing them with air-driven, low-bleed or intermittent controllers.

- **Minimizing methane emissions from natural gas storage wells and compressor stations:**

- Minimizing emissions from natural gas transmission and storage compressor stations, where practical, prior to conducting planned maintenance.
- 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; or (3) replacing packing 36 months from the date of the most recent rod packing replacement.
- Conducting leak surveys at transmission and storage compressor stations to reduce emissions by evaluating leaks and taking corrective actions. INGAA member companies will perform leak surveys at all transmission and storage compressor stations owned and operated by INGAA member companies by 2022.
- Conducting leak surveys at all natural gas storage wells owned and operated by INGAA member companies by 2025.

- **Developing effective practices and sharing information**

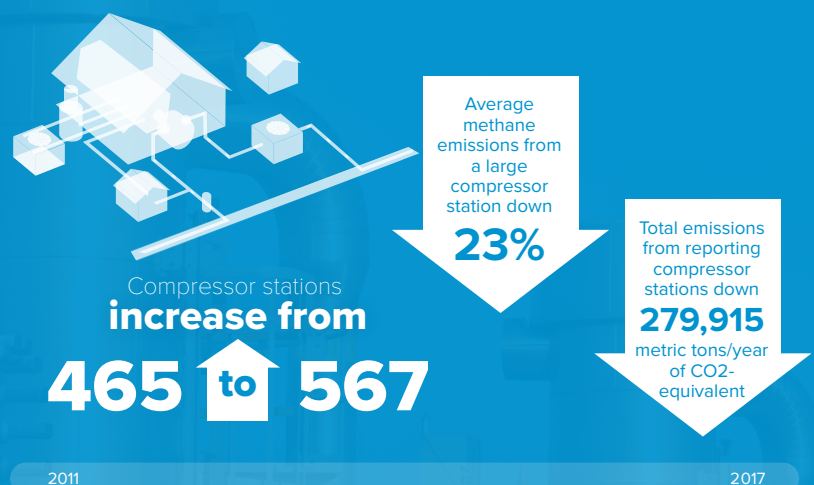
- Reporting their methane emissions transparently. INGAA member companies will also continue to collaborate within the membership and with other organizations on research and development (R&D) to identify effective practices to detect and reduce methane emissions. INGAA member companies are analyzing the data reported under EPA’s Greenhouse Gas Mandatory Reporting Rule to improve this information and identify additional opportunities to reduce methane emissions.

Meaningful and Measurable Progress

Overall emission decrease equivalent to taking 1.1 million passenger vehicles off the road

Data reported to EPA under Subpart W of the mandatory Greenhouse Gas Reporting Rule showed that between 2011 and 2017, the average methane emissions from transmission and storage natural gas compressor stations decreased by 23 percent. During this time, the number of transmission and storage natural gas compressor stations reporting these data to EPA increased from 465 to 567. Yet, the total emissions from these facilities decreased from 4,810,192 metric tons of CO₂-equivalent to 4,530,277 metric tons of CO₂-equivalent.

This reduction in CO₂ emissions from these 567 transmission and storage compressor stations is the equivalent of removing 1.1 million passenger vehicles from the road between 2011 and 2017.*



*Source: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

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