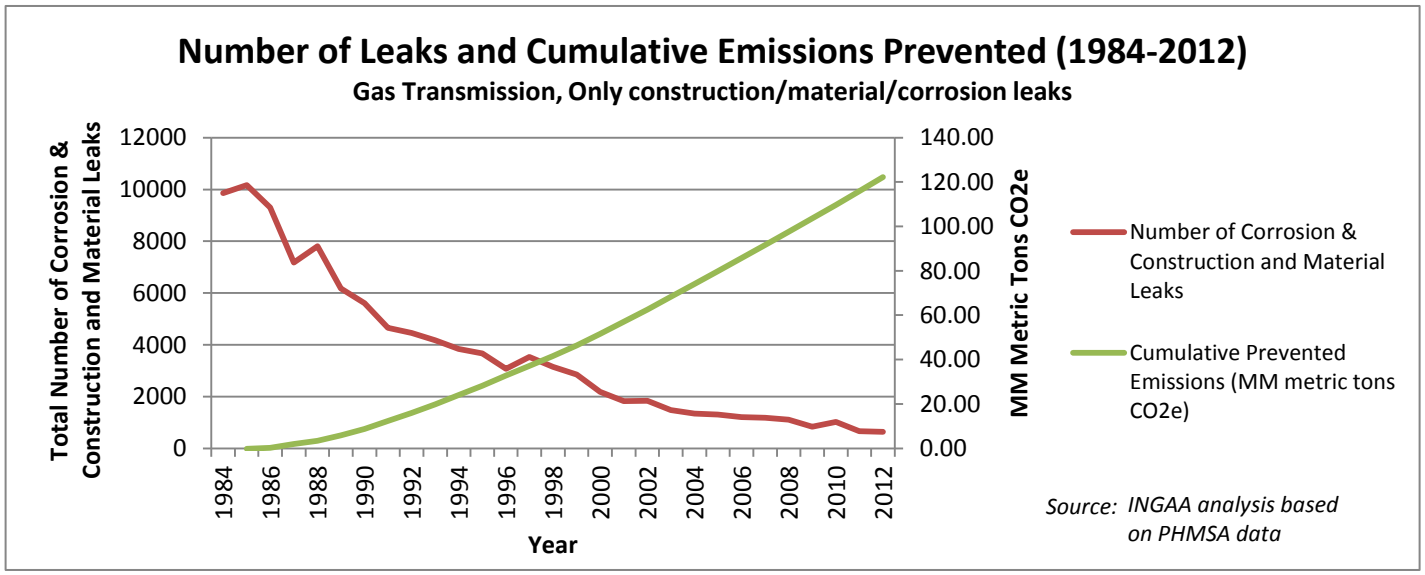
Interstate Natural Gas Association of America
20 F Street, N.W, Suite 450, Washington, D.C. 20001
phone: 202.216.5900 www.ingaa.org

What INGAA members are doing to reduce methane releases

Reducing Pipeline Leaks

The natural gas transmission industry reduced the number of pipeline leaks by 94 percent in the past 30 years, prevented 122 million metric tons of carbon dioxide-equivalent emissions, as a result of pipeline integrity and maintenance programs and continued investment in new pipeline facilities. These prevented emissions are equivalent to removing more than 25 million passenger vehicles from the road for one year.

At this point, widespread pipeline replacement is not the answer for improving pipeline safety or reducing methane emissions from the natural gas transmission sector, which uses, almost exclusively, pipeline-quality high-grade steel. This is different than the natural gas distribution sector, where pipeline replacement is an important component in reducing methane emissions. Pipe replacement in the natural gas transmission sector requires—for safety and operational reasons—venting large quantities of natural gas into the atmosphere. Pipes that are unsafe must be repaired or replaced, no matter what the emissions implications. Still, policymakers should be aware that pipe repair and replacement activities on transmission systems cause significant venting emissions. They should weigh the consequences of such emissions against mandating future activities that do not add demonstrably to safety.



Directed Inspection and Maintenance at Compressor Stations

Methane can leak from compressor station equipment. INGAA's board of directors has committed to establishing guidelines to reduce emissions from compressor stations, with particular focus on equipment with the largest emissions profile. INGAA will develop industry guidelines for Directed Inspection and Maintenance (DI&M) that include routine screening for leaks followed by cost-effective repair or maintenance at natural gas pipeline facilities. INGAA will work with research groups to create a roadmap for developing technological innovations, including better leak-quantification tools and cost-effective mitigation, which have the potential to make DI&M even more effective.

What is DI&M?

DI&M is a well-established and EPA-recognized tool for detecting and mitigating leaks in a cost-effective manner. While most INGAA member pipeline companies use some type of DI&M program, the guidelines will provide consistency and uniformity, which should result in further emissions reductions.

Working collaboratively to measure and estimate emissions

Along with some of its individual member companies, INGAA is working with Colorado State University and Carnegie Mellon University in collaboration with the Environmental Defense Fund to help validate and refine estimates of the remaining sources of GHG emissions.

New pipelines bring the latest and most efficient equipment

As the industry invests in building new pipelines and expanding existing systems to meet growing demand, operators rely upon the latest and most efficient equipment to reduce operational costs and also the amount of natural gas released into the atmosphere. An INGAA Foundation research report released in March 2014 estimated that the U.S. and Canada will require each year through 2035 an average of 850 miles of new natural gas transmission mainlines, 800 miles of new laterals to and from power plants, processing facilities and storage fields and almost 14,000 miles of new gas gathering lines to bring new gas supplies to growing markets.

In addition to creating significant economic benefits, this estimated $14 billion per year investment in midstream natural gas infrastructure will benefit the environment by reducing upstream and downstream greenhouse gas emissions because less gas will be flared and more gas will be used to displace higher emitting fuels. Improvements to the pipeline permitting process would help the nation to realize more rapidly and more fully the benefits of its natural gas abundance.

Natural Gas Capital Expenditures

(Billions of Real Dollars)	2014-2035 (2012$)	Average Annual (2012$)
Gas Transmission Mainline Pipe	$87.2	$4.0
Laterals to/from Power Plants, Gas Storage and Processing Plants	$45.2	$2.1
Gathering Line (pipe only)	$35.6	$1.6
Gas Gathering Line Compression	$23.5	$1.1
Gas Lease Equipment	$26.9	$1.2
Gas Pipeline & Storage Compression	$11.6	$0.5
Gas Storage Fields	$12.0	$0.5
Gas Processing Capacity	$27.4	$1.2
LNG Export Facilities	$43.7	$2.0
Total Capital Expenditures	**$313.1**	**$14.2**

Source: INGAA Foundation. *North America Midstream Infrastructure through 2035: Capitalizing on Our Energy Abundance*

Conclusion

INGAA looks forward to working with the administration to find other opportunities, including research and development, to quantify and encourage even greater emissions reductions from natural gas transmission pipelines.

INGAA Member Companies

- Alliance Pipeline Ltd.
- Boardwalk Pipeline Partners
- Carolina Gas Transmission
- Cheniere Energy, Inc
- Columbia Pipeline Group
- Dominion
- DTE Pipeline Company
- Enable Midstream Partners
- Enbridge Energy Company
- Energy Transfer Partners
- EQT Corporation
- Iroquois Pipeline Operating Company
- Kinder Morgan
- National Fuel Gas Company
- National Grid
- ONEOK Partners
- Pacific Gas & Electric
- Piedmont Natural Gas
- Questar Pipeline Company
- Sempra U.S. Gas & Power
- Southern Star Central Gas Pipeline
- Spectra Energy
- TransCanada Corporation
- WBI Energy Transmission
- Williams Gas Pipeline