Effective Gas Safety Spending

Revisiting PHMSA's 2011 "Call to Action"

November 11, 2025
Seattle, WA

About the Future of Heat Initiative

- We are a 501c3 that provides research and technical to regulators, policymakers, and intervenors to support effective gas utility regulation.
- Founded in 2024 by Mike Bloomberg and Bruce Biewald

Why?

- It's a highly technical field, undergoing constant change.
- There are no national labs for gas. (Industry assoc. only)
- Gas bills are going up well above inflation.
- Expert witnesses don't have much time for research between cases.

Mike Bloomberg*
Executive Director

Justin Gundlach*
Director of Research &
General Counsel

Dr. Jack Lewnard*
Technical Advisor

Dr. Dorie Seavey*
Senior Economist

Bruce Biewald
Co-founder & Board
Chair

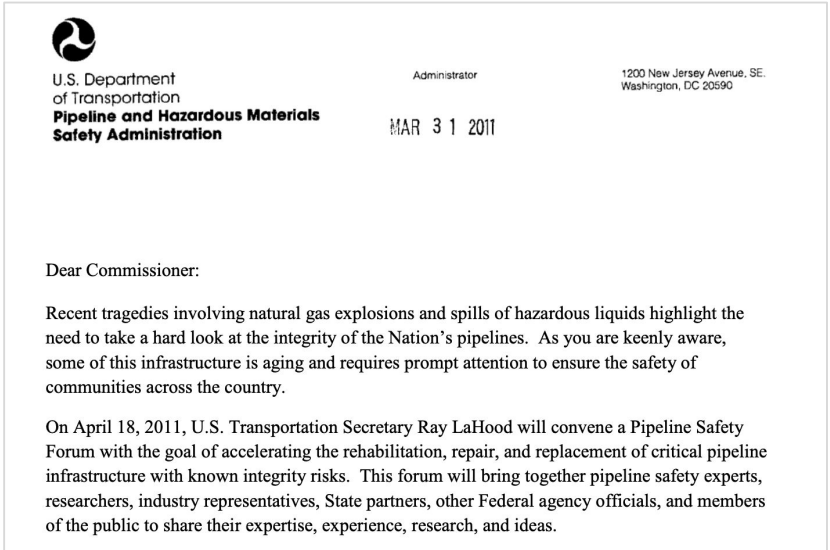
Jamie Van Nostrand
Policy Director

Orli Katz*
Research Associate

Margaret Hylton
Research Associate

*Denotes member of C2A project team

Call to Action (2011) Refresher



U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Administrator

1200 New Jersey Avenue, SE.
Washington, DC 20590

MAR 31 2011

Dear Commissioner:

Recent tragedies involving natural gas explosions and spills of hazardous liquids highlight the need to take a hard look at the integrity of the Nation's pipelines. As you are keenly aware, some of this infrastructure is aging and requires prompt attention to ensure the safety of communities across the country.

On April 18, 2011, U.S. Transportation Secretary Ray LaHood will convene a Pipeline Safety Forum with the goal of accelerating the rehabilitation, repair, and replacement of critical pipeline infrastructure with known integrity risks. This forum will bring together pipeline safety experts, researchers, industry representatives, State partners, other Federal agency officials, and members of the public to share their expertise, experience, research, and ideas.

*"...I urge you to **review your State's current replacement plans** for the highest risk pipelines (for example, bare steel, cast iron pipe, and pipe whose integrity is questionable or not confirmed), and **consider what would be necessary to accelerate these plans.**"*

- Cynthia Quarterman, former PHMSA Director

Call to Action Outcomes

Outcome

As of 2020, 41 states and the District of Columbia had put in place rate mechanisms, such as surcharges or “riders,” to encourage gas companies to replace older or problematic pipes within their distribution systems.

Absolute Safety improvements

Is the system safer?

- Incident data

Are we bringing down “pre-incident” indicators

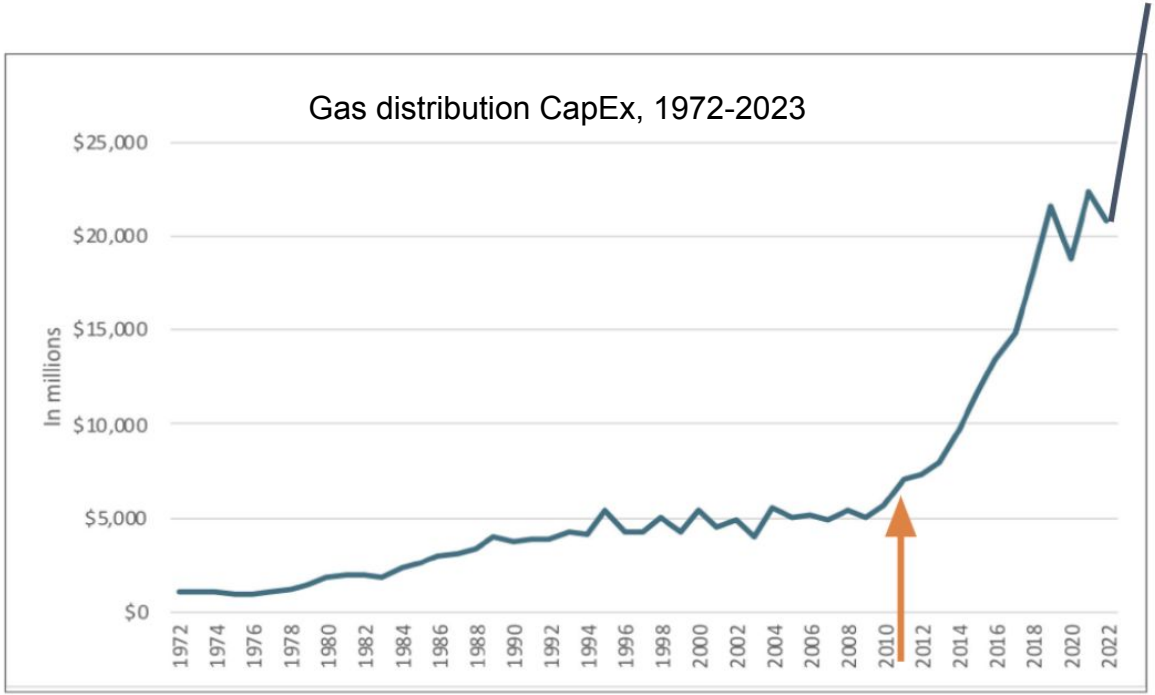
- Leak data

Risk spend efficiency

Is the money being spent on risk reduction going to the most effective risk reduction activities?

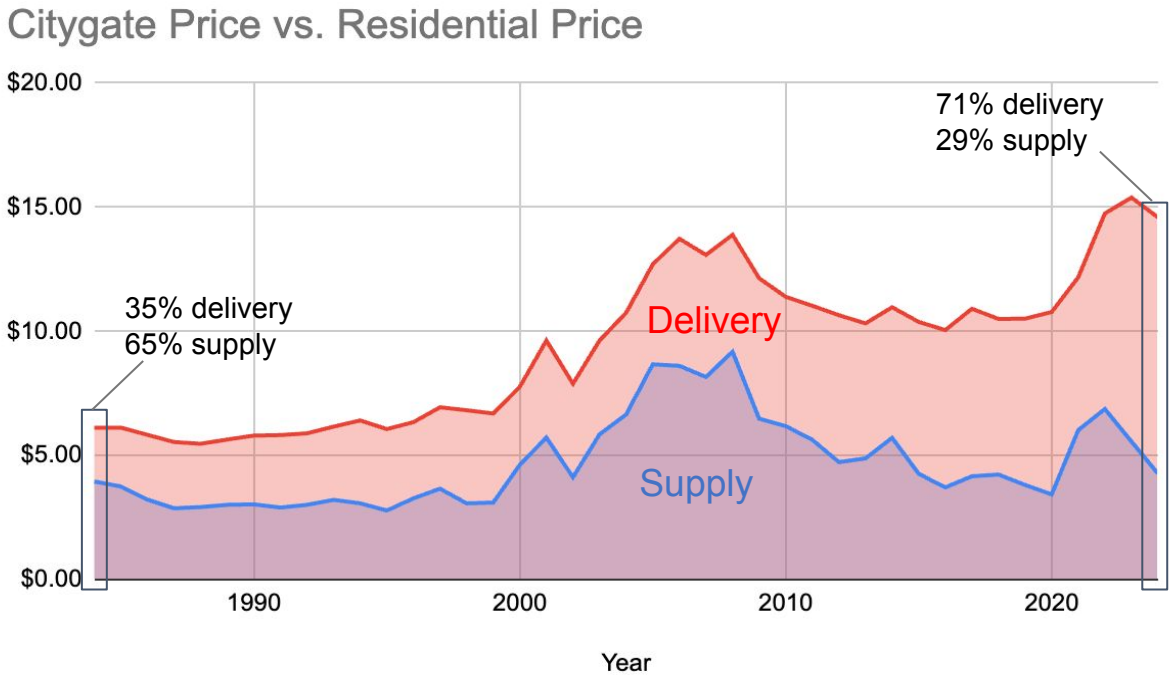
- Utility risk models/capital plans
- Incident causes, compared to what money is being spent on.

Call to Action - Spending

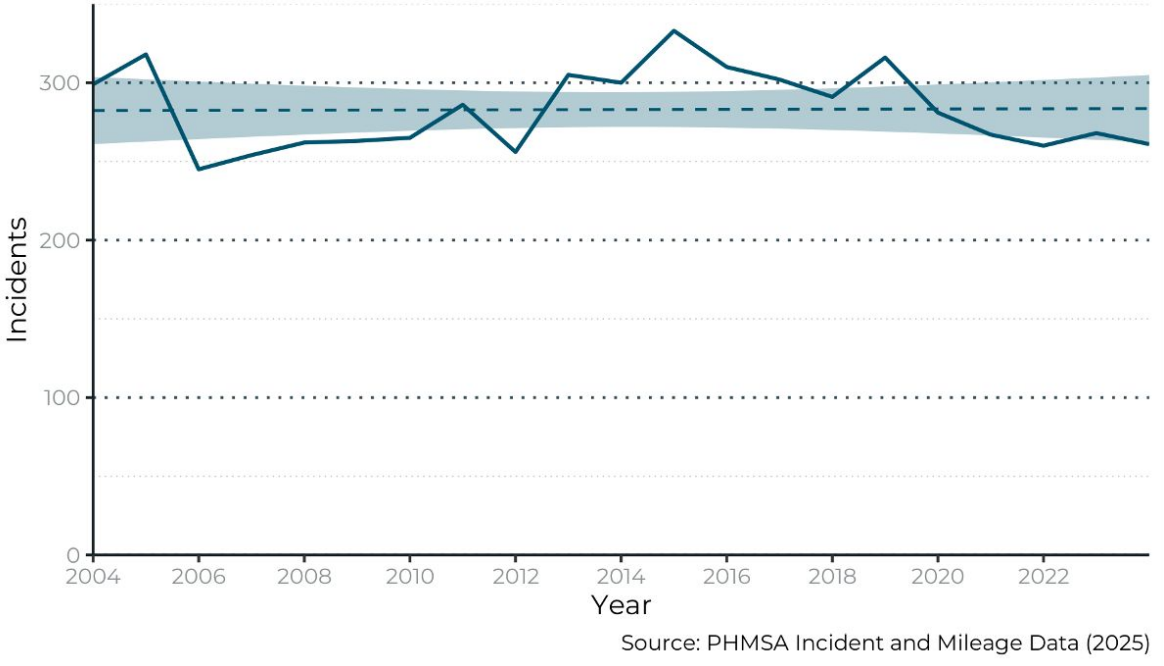


Source: AGA

Implications of spending



Safety Improvements: Annual Incidents



PHMSA Incident Criteria

- Hospitalization
- Fatality
- High monetary damages
- Significant gas release

Pipeline Safety TRUST

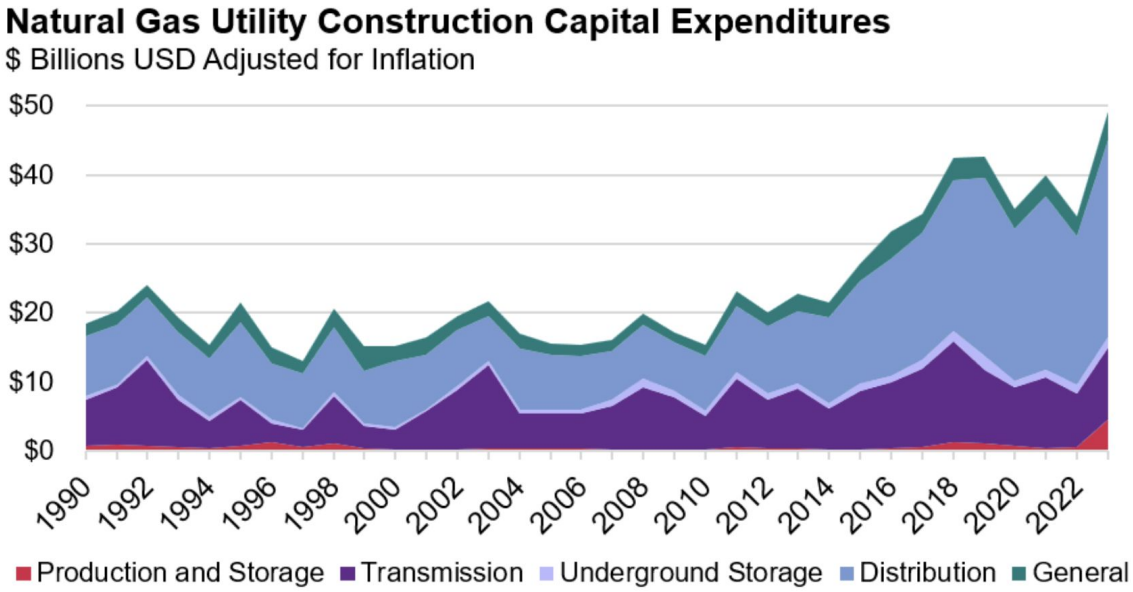
Has the call to action been effective: Leak Rates

*"Despite the introduction of (Distribution Integrity Management Programs) DIMP, and over a decade of implementation, **the overall rate of leaks eliminated has remained constant over time**. This is concerning given the "continuous improvement" aspect of IM programs."*

- 2024 PHMSA NPRM (withdrawn in 2025)

Why aren't we seeing

i



AGA's inflation adjusted capex chart

- Large capital investments
- Flat incident data
- Flat leak rates

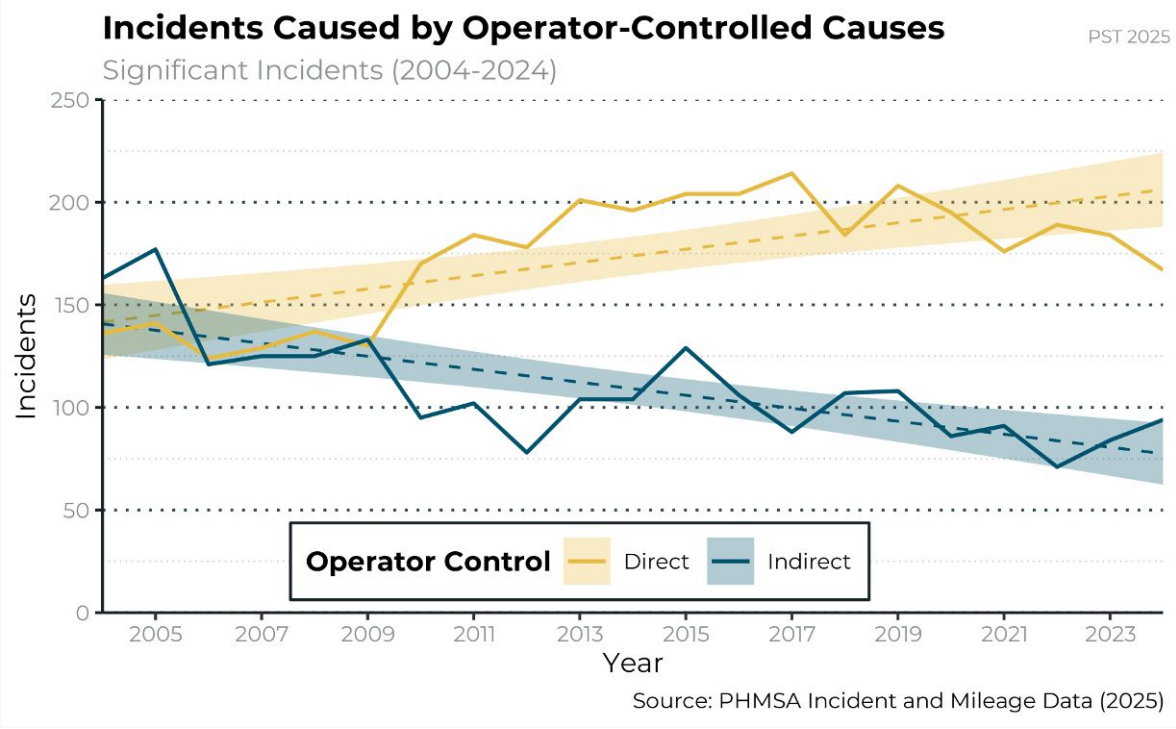
Gas Incident Data (Mains only)

2010-2024

CAUSE	number of incidents	% of all incidents
EXCAVATION DAMAGE	405	57.6%
OTHER OUTSIDE FORCE DAMAGE	81	11.5%
PIPE, WELD, OR JOINT FAILURE	64	9.1%
INCORRECT OPERATION	49	7.0%
NATURAL FORCE DAMAGE	42	6.0%
OTHER INCIDENT CAUSE	28	4.0%
CORROSION FAILURE	21	3.0%
EQUIPMENT FAILURE	13	1.8%

Source: PHMSA

- Gas pipe material is not a key driver of incidents.
- There is only positive correlation for a handful of incident causes.
- We're not focus on the drivers of risk!



Our Early takeaway:

The lack of risk reduction can largely be attributed to to the risk models used by the utilities which don't align capital spending with risk reduction.

Pipeline Safety TRUST

Addressing “leak-prone pipe”

CAUSE	number of incidents	% of all incidents
EXCAVATION DAMAGE	507	34.0%
OTHER OUTSIDE FORCE DAMAGE	456	30.6%
OTHER INCIDENT CAUSE	116	7.8%
INCORRECT OPERATION	111	7.5%
NATURAL FORCE DAMAGE	105	7.1%
PIPE, WELD, OR JOINT FAILURE	98	6.6%
EQUIPMENT FAILURE	61	4.1%
CORROSION FAILURE	35	2.4%

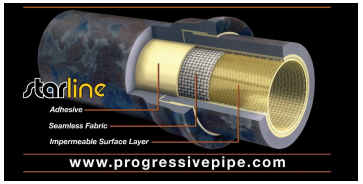
- Let’s assume a focus on “leak-prone pipe risk.”
- Is a blanket replacement program the best way to reduce risk?
- If not, what can we do?

Alternatives to Pipeline Replacement

ARPA-E Investigated this!

Advanced Detection

- Increased leak surveying
- In situ inspection
  - IM rule #1 “Know your system”



Repair

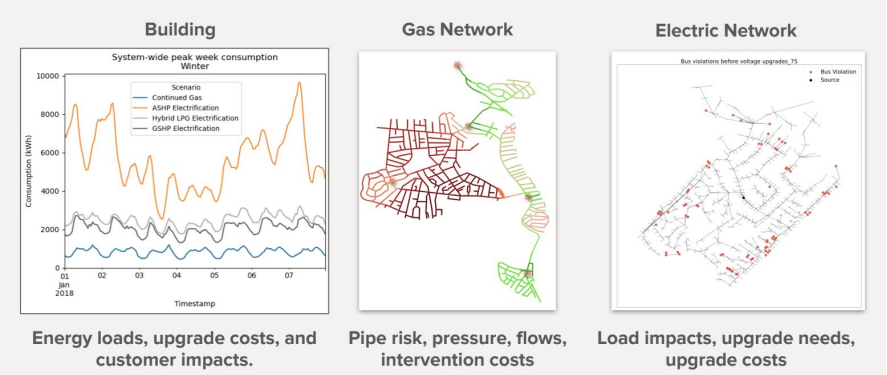
- Joint-sealing, patching pinhole leaks
- Other advanced repair tools need help coming to market!

Relining

- Useful for metal pipe of ≥2”
- Provides “like new” liner
- 33-50% price of replacement, largely due to need for only having to pit every 1000ft

Non-Pipeline Alternatives

- ASHPs, GSHPs, TENs
- Requires a robust cost-benefit model (in development in CA, CO, and MA)



Call to Action 2.0 Study

- LDC **risk assessment** methodologies
  - Best practices
  - LDC Risk parameters on paper
  - LDC Risk parameters in practice (risk scoring)
- **Risk mitigation**/intervention
  - How LDCs do/don't mitigate different types of risk
  - How LDCs address "leak prone pipe"
- Consequences of current risk mgmt practices for ratepayers
- Recommendations to PUCs and others for improving LDC risk management

Late January 2026 publication

What can you all do in the meantime?

- **Investigate risk modeling**
  - IL, MA, CA
- **Investigate & require risk mitigation analysis**
  - MA now requires repair, relining, NPA analysis for each replacement project
- **Investigate your states 811 program**
  - Data collection is key, “near misses” are an excellent indicator of safety risks
- **NASUCA “call to action”?**
  - Ask PHMSA to investigate the impacts of Call to Action and look at total system risk and ways to improve “risk-spend efficiency”

Call or Email us!

Mike Bloomberg
mike@thefutureofheat.com