What’s INGAA?

• The Interstate Natural Gas Association of America is a trade organization that advocates regulatory and legislative positions of importance to the interstate natural gas transmission pipeline industry in North America.
Where Does INGAA Fit Into The Natural Gas Supply Chain?

**Production**

- 24.3 Tcf
  - The amount of US natural gas produced

**Processing**

- Purifying the gas
  - During processing, impurities and non-methane hydrocarbons are removed

**Transportation & Storage**

- 300,000 miles
  - A vast, interconnected system of transmission pipes helps move gas from where it’s produced to where it’s used

- 400 underground storage units
  - Natural gas is stored in depleted oil and gas reservoirs, aquifers, and salt caverns for future use

**Distribution**

- Residential
- Commercial
- Industrial
- Power plants
- Exports

More than 200 local gas companies provide gas to over 68 million customers.
What Is Natural Gas Used For?

In addition to fueling your furnace, stove and clothes dryer, natural gas is used to produce...

- Clothing
- Glass
- Steel
- Paper
- Electricity

Products that use raw natural gas...

- Paints
- Plastics
- Film
- Medicines
- Fertilizer

Top natural gas consumers...

- Electric power sector
- Industrial sector
- Residential sector
- Commercial sector

- $840/year² Average household savings thanks to abundant, affordable natural gas.
- $68,850 Average wage for a pipeline worker.³

- Estimated 374,000 U.S. jobs (direct, indirect and induced) related to increased pipeline construction through 2035.⁴
Guiding Principles of Pipeline Safety

- **Our goal is zero incidents** - a perfect record of safety and reliability for the national pipeline system. *We will work every day toward this goal.*

- **We are committed to safety culture** as a critical dimension to continuously improve our industry’s performance.

- **We will be relentless in our pursuit of improving** by learning from the past and anticipating the future.

- **We are committed to applying integrity management principles on a system-wide basis.**

- **We will engage our stakeholders** - from the local community to the national level - so they understand and can participate in reducing risk.
What Does Industry Want?

• Deliver natural gas
  ▪ Safely
  ▪ Cleanly
  ▪ Reliably
  ▪ Affordably

• Understanding future energy markets is critical to achieving these goals
Changing Electric Capacity Profile

Figure 1. Installed capacity by technology type in the Central Scenario. Gas-CT is gas-fired combustion turbine and Gas-CC is gas-fired combined cycle.

Potential for Larger Swings in Natural Gas Usage

Pipeline Safety Considerations for the Future

• Pipeline Assessments
  ▪ More Pipelines → More Assessments
  ▪ Expansion of IM Programs → More Assessments
  ▪ Changing Usage → Shorter Assessment Windows
  ▪ Changing Usage → Lower Tolerance for Deliverability Reductions

• Underground Gas Storage
  ▪ Expansion of IM Programs → More Assessments
  ▪ Expansion of IM Programs → Injection/Withdrawal Impacts
  ▪ Changing Usage → Shorter Assessment Windows
  ▪ Changing Usage → Lower Tolerance for Deliverability Reductions
What Should Our Industry Do?

What Does Industry Want? To deliver natural gas safely, cleanly, reliably and affordably.

- Support development and implementation of modern inline/downhole inspection technologies
  - Technologies can reduce deliverability impacts while improving pipeline safety
  - Examples: ILI using EMAT, advanced downhole logging
- Industry dollars should chase these goals
- Regulations should embrace these goals
  - Pipeline MAOP reconfirmation
  - Underground gas storage integrity management
- A perfect record of safety and reliability – zero incidents – is more important than ever
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