



# ***Industry Partner:***

## ***APGA & APGA Research Foundation***

### ***Steve Squibb***

*Director of Natural Gas Operations, City Utilities of Springfield, MO  
APGA Research Foundation Board Member*

November 30, 2021

# ABOUT APGA

## About APGA

*Over 700 member utilities in 38 States*

APGA is the only not-for-profit trade organization representing America's publicly owned natural gas local distribution companies.



### APGA members stats:

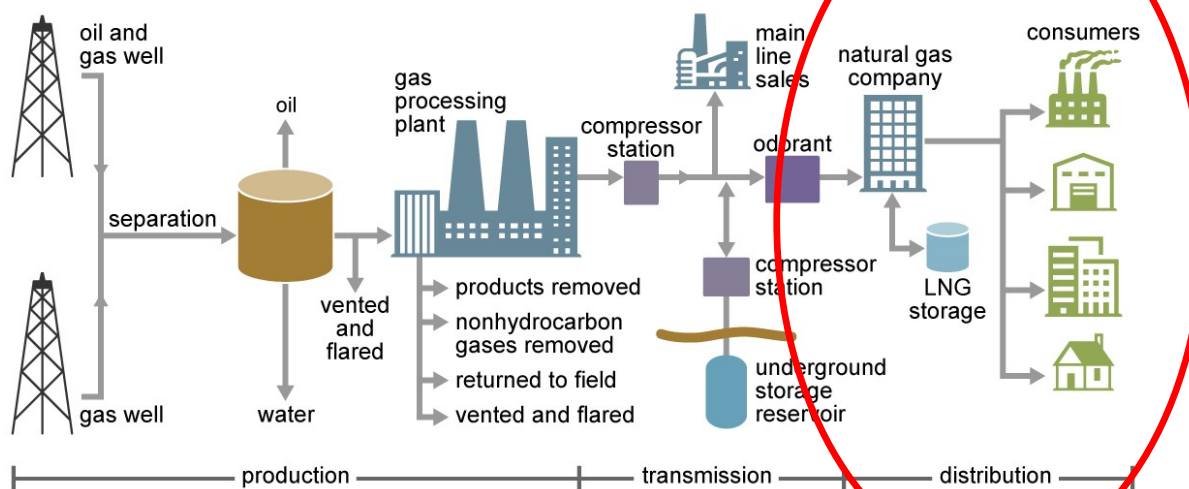
- Serves approx. 5 Million Customers
- Members have approx. 21,000 Employees
- Members operate 120,000 Miles of Main
- Sizes range from 38 to 500,000+ meters



# APGA Mission

To be an advocate for **publicly owned natural gas distribution systems**, and educate and communicate APGA members to promote safety, awareness, performance and competitiveness.

## Natural gas production and delivery



Source: U.S. Energy Information Administration



# Environmental Stewardship

*APGA members are committed to continuously improving practices and maintaining their infrastructure to minimize greenhouse gas emissions from natural gas distribution systems, as well as **plan for the use of new fuels**, such as RNG and hydrogen.*

APGA and its members commit to:

- Evaluating and incorporating **low or no-carbon energy sources**, such as RNG and hydrogen, in supply portfolios when available and feasible.
- Investing in research, development, and deployment of emission mitigation, natural gas delivery, efficient end-use technologies, and the **use of new fuels** when effective.



# Education

*APGA strives to educate its members on current industry trends through conferences, meetings, and webinars. APGA members collaborate to share best practices to continually improve the safety and performance of the industry.*

## Opportunities to utilize emerging fuels:

- Several APGA members operate in rural areas where RNG may be available from farming operations.
- APGA members have potential to partner with municipal wastewater and landfill systems in their communities to utilize RNG.



# APGA Research Foundation

*Invests in new and improved products, processes, practices, and knowledge to increase the **operational safety of natural gas distribution infrastructure** and to increase the utilization of safe and efficient natural gas end-use technologies.*

## APGA Research Foundation stats:



- 155 utility members
- \$500,000 annual funding to Operations Technology Development
- \$350,000 annual funding to Utilization Technology Development

## Examples of R&D Projects:

- Hydrogen Blending Impact on Plastic Pipes
- Effect of Hydrogen Blended Natural Gas on Gas Meters and Regulators
- Impact of RNG on End Use Applications



# Emerging Fuels R&D Gaps

- Development of safety protocols regarding large explosive range of hydrogen
- Impact on accuracy of gas leak detection equipment
- Compatibility with natural gas odorant
- Development of instrumentation to monitor RNG and hydrogen
- Impacts on various infrastructure materials (steel, plastics, elastomers)
- Impact on gas system capacity due to lower energy content of RNG
- Integrated systems approach with RNG and hydrogen



# Questions?



*Thank you for your time today!*

