Engaging with Customers about Natural Gas’ Future on the Pathway toward Emissions Reduction

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The American Gas Association (AGA) represents companies delivering natural gas safely, reliably, and in an environmentally responsible way to help improve the quality of life for their customers every day. AGA's mission is to provide clear value to its membership and serve as the indispensable, leading voice and facilitator on its behalf in promoting the safe, reliable, and efficient delivery of natural gas to homes and businesses across the nation.

Committed to utilizing America’s abundant, domestic, affordable and clean natural gas to help meet the nation’s energy and environmental needs.
Climate Change Position Statement

The American Gas Association is committed to reducing greenhouse gas emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient, and affordable energy service choices for consumers.

www.aga.org/climate
Natural Gas Industry Contributions for Achieving U.S. Environmental and Energy Affordability Objectives
Natural gas has led reductions in US CO\textsubscript{2} emissions to 27-year lows, and is projected to continue to decline.

Source: US Energy Information Administration. Projection from EIA Short-Term Energy Outlook January 2020
Natural gas is responsible for 61 percent of cumulative carbon dioxide emissions savings due to changes in the electricity generation fuel mix.

Electricity generation CO2 savings from changes in the fuel mix since 2005
Million Metric Tons CO2

Source: US Energy Information Administration
Residential electricity CO$_2$ emissions declined as the power generation sector moved to natural gas and renewables

Source: US Energy Information Administration
Direct emissions from residential and commercial buildings are a small but still important part of overall annual U.S. greenhouse gas emissions.

Comparison of 2018 U.S. Greenhouse Gas Emissions by Sector

MMT CO₂-Eq

Residential natural gas use accounts for 4% of total US greenhouse gas emissions

- Commercial natural gas use is 3%
- Commercial electric power use accounts for 9%
- Residential and commercial propane and oil use is 3%
Natural gas utility spending on energy efficiency programs has increased steadily.

United States Natural Gas Efficiency Program Investments
Million Dollars

- 2007: $320
- 2008: $565
- 2009: $803
- 2010: $838
- 2011: $958
- 2012: $1,130
- 2013: $1,150
- 2014: $1,270
- 2015: $1,290
- 2016: $1,300
- 2017: $1,262
- 2018: $1,412
Natural gas use in homes has remained flat since 1970 while the number customers served increased by 86%.

Source: US Energy Information Administration
Natural gas utilities and its customers have made significant progress reducing emissions.

Declining Customer CO₂ Emissions

Based on AGA calculations of weather-normalized residential gas consumption per customer.

Reductions of Methane

Abundant natural gas supplies and production efficiencies have led to low and stable prices.
On an energy-equivalent basis, electricity rates are about 4 times higher than natural gas rates.

Residential Price for Natural Gas, Electricity, and Heating Oil
Inflation-adjusted, December 2019 dollars ($/MMBtu)

Source: Energy Information Administration
Natural gas appliances save money and benefit the environment.

**Hot Water at a Lower Cost**
Comparing Residential Water Heater Efficiency

**Tankless Natural Gas**
- Full-Fuel-Cycle Energy Consumption*:
  - 18.6 MMBtu (annually)
- CO₂ Emissions*:
  - 1.1 tons (annually)

**Natural Gas**
- Full-Fuel-Cycle Energy Consumption*:
  - 26.64 MMBtu (annually)
- CO₂ Emissions*:
  - 1.5 tons (annually)

**Electric Resistance**
- Full-Fuel-Cycle Energy Consumption*:
  - 40.3 MMBtu (annually)
- CO₂ Emissions*:
  - 2.5 tons (annually)

Source: American Gas Association
Welcome!

The Energy Planning Analysis Tool can be used to support the US natural gas industry in positioning direct gas use as option for energy efficiency programs, building energy codes, proposed EPA Clean Power Plan, or in other areas of public policy.

The tool calculates source energy consumption and selected air emissions including Greenhouse Gas (GHG) emissions associated with annual site energy consumption by purchased fuel type of electric and natural gas applications defined by user-selectable and default inputs. It shows the potential energy and cost benefits of replacing or buying more energy efficient equipment, typically using natural gas as fuel.

http://epat.gastechnology.org/Default.aspx
Even with a very strong value proposition, the natural gas industry is facing policy challenges.
Local efforts are shaping the current U.S. climate change debate
Local Anti-Natural Gas Policies

- Anti-gas/pro-electrification policy enacted (30)
- Anti-gas/pro-electrification policy considered (27)
Key Findings

- Incremental generation capacity requirements and transmission system upgrade costs
  $155 to $426 billion

- Overall US GHG emissions reduced by 1% to 1.5%

- Total cost of policy-driven residential electrification
  $1,060 to $1,420 per year per converted household increase in energy costs

- Cost of carbon dioxide emissions reductions:
  $572 to $806 per ton

https://www.aga.org/research/reports/implications-of-policy-driven-residential-electrification/
Actions

➢ Continued Commitment to Energy Efficiency

➢ Advance the deployment of next generation technologies

➢ Develop renewable sources of supply
The American Gas Foundation published two studies in December 2019.

The studies focused on specific components of the natural gas pathway to emissions reductions.

https://www.gasfoundation.org/
The Direct-Use study examined the following questions

• How much could U.S. GHG emissions be reduced with next generation residential direct-use gas technologies?

• What is the expected cost ($/Metric Ton) of achieving the emissions reductions?

• What benefits would customers see?

• What type and level of support would utilities and/or regulators need to provide in order to realize the full benefits of these technologies?
RNG Study Objective

To contribute a fact-based analysis and provide current data to the ongoing policy discussions around renewable natural gas including projected estimates on:

- The supply potential of domestic RNG resources
- Greenhouse gas emission reduction potential
- RNG projected pricing
- Estimated cost per ton of emission reductions
Key Findings

1. Highly efficient, emerging direct use technologies could reduce natural gas CO2 emissions in residential sector by 2050 by 40% while reducing consumer energy costs by almost $300 per year.

2. The RNG resource potential is equivalent to 95% of current residential natural gas use with the majority of RNG to cost between $7-$20 per MMBtu.

Deployment of advanced natural gas technologies and renewable natural gas resources provide cost-effective pathways to emissions reduction.
Actions to Educate Targeted Audiences and Address Industry Challenges
What We Know

Situational Awareness

• The environmental NGOs are taking a holistic approach to eliminating the use of natural gas.

• State, cities and localities are capitalizing on the groundwork laid by the large environmental groups in the form of message amplification, organizing support, tactical and legal expertise, and financial resources.
AGA Goal & Strategy

• Goal

Reframe the debate on the value proposition of natural gas and energy infrastructure as an integral part of a clean energy future.

• Strategy

AGA has created an interdepartmental team to leverage existing resources and build new initiatives to address these challenges.
  • Proactive and Responsive
Proactive Actions

• Support Member Driven Campaign Initiatives

• AGA Initiatives
  • Develop materials for influencers and stakeholders
  • Develop new data and analytics
  • National coalition with state and local reach
  • Create a new platform and outreach strategy to recruit and engage supporters of natural gas
  • Monitor any adverse changes to state and local building energy codes and standards
  • Support relevant legislation that recognizes value of natural gas in a clean energy future
Arizonans support a clean energy future with natural gas.

WANTED
83% WANT natural gas in their homes

PREFERRED
92% want the CHOICE of natural gas

AFFORDABLE
80% consider natural gas more AFFORDABLE than other energy sources

CLEAN
67% believe natural gas is a CLEAN energy source

EFFICIENT
68% consider natural gas more EFFICIENT than other energy sources

RELIABLE
65% view natural gas as RELIABLE energy source

VOTE YES ON HB3619
MAKE SURE WE KEEP THE POWER OF ENERGY CHOICE IN OKLAHOMA

NATURAL GAS
EFFICIENT, AFFORDABLE, ABUNDANT.

Some U.S. cities are proposing outright bans on the use of natural gas equipment and connections in new buildings and construction. However, banning natural gas would not only negatively impact local businesses, customers and communities, it also threatens to take away the right of the people to choose their energy.

House Bill 3619 ensures Oklahomans continue to have access to energy choices, including natural gas which offers a clear pathway to the shared goal of reducing emissions while maintaining the affordability, reliability and the quality of life that Americans enjoy.

A PROVEN SOLUTION TO A SUSTAINABLE FUTURE
As the foundation for a safer, cleaner and more competitive energy future, natural gas is a vital part of Oklahoma – reliably powering hospitals, schools, churches, restaurants, manufacturing plants and many other local businesses.

AN ECONOMIC DRIVER
Not only does natural gas play a critical role in helping to reduce emissions, it offers the country a path to energy independence while strengthening the economy and increasing jobs in Oklahoma and nationwide.

VOTE YES!
Natural gas offers a clear pathway to the shared goal of reducing emissions while maintaining affordability, reliability and the quality of life that Americans enjoy.

Oklahomans and Businesses Should Maintain the Right to Choose Their Energy Source
Responsive Actions

- Responding to member company requests
  - Regional coalitions and initiatives

- AGA Resources
  - Fact checking opposition analytics and rebutting where appropriate
  - Executing targeted local media strategies

- Coalition Partners
  - Recruit additional coalition partners where appropriate
Building Resources for Members

AGA Resources

• Materials Available
  • State & Municipality Initiatives Tracking
  • State Specific data
  • Model Legislation
  • AGA Comment Letters
  • Individual Company Activity/Best Practices
  • Analyses and Studies

• Regular calls with member company contacts to develop state specific strategies

• AGA website houses facts and data
Member Company Engagement Options

• Create an interdepartmental team to build a strategic plan

• Build internal analytics including service territory facts

• Ensure government and community affairs teams are monitoring local municipalities actions

• Educate and engage your staff, retirees, customers, and supply chain on the benefits of natural gas

• Build a local and/or state consumer coalition to serve as the spokesperson for the natural gas industry
The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 74 million residential, commercial and industrial natural gas customers in the U.S., of which 95 percent — more than 71 million customers — receive their gas from AGA members. Today, natural gas meets more than one-fourth of the United States' energy needs.

www.ag.org