



Natural Gas Industry Climate Change Commitments

Industry Progress

Natural gas has led reductions in U.S. CO₂ emissions to three-decade lows, which are projected to continue to decline.

The natural gas industry is and will continue to be a leader in providing cutting edge solutions to our nation's energy needs and urgent environmental goals. The industry's demonstrated commitment to achieving significant emissions reductions through ambitious innovation will achieve the cleaner energy future we all want through actions today, tomorrow and well into the future.

Natural gas efficiency and the growth of renewable energy have led to energy-related carbon dioxide emissions hitting 30-year lows. To help ensure we continue on this path, the American Gas Association unveiled Climate Change Commitments in 2020 aimed at 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. In its [Climate Change Position Statement](#), the industry outlined 10 industry commitments, and we have made significant progress since that time. The areas of focus and the progress made across the natural gas industry are detailed below:

Reducing Methane Emissions

- Investment of **\$95 million** every day in infrastructure upgrades and energy efficiency has driven down emissions from the natural gas distribution system by 69% since 1990.
- EPA's Methane Challenge program, set up to transparently report systematic and comprehensive actions to reduce methane emissions, has natural gas distribution utilities partners that represent more than 80% of all U.S. natural gas customers.
- EPA's Natural Gas STAR program, which encourages natural gas and oil companies to adopt proven, cost-effective technologies and practices that improve operational efficiency and reduce methane emissions, includes 37 natural gas distribution utility partners.



Emissions from the natural gas distribution system have decreased by 69% since 1990.

Encourage and Increase Collaboration with Natural Gas Producers and Pipeline Operators to Help Ensure that Natural Gas Resources are Developed and Transported Sustainably and Responsibly



- Certified/Responsible Natural Gas offerings have expanded rapidly in 2022, including producers that have calculated the methane intensity of their operations and had their superior performance certified by independent auditors. Certified gas is geologic natural gas differentiated by environmental performance criteria across the value chain.



Encourage and Support Energy Efficiency

- The industry invested \$4.3 million daily or over \$1.5 billion annually on advancing energy efficiency in 2019 alone.
- Utilities invest more than 50% of their energy efficiency portfolios into customer incentives such as rebates, loans, and other financial incentives to drive market penetration.
- Energy efficiency investments from 2013 to 2020 saved more than 18 million metric tons of CO2 emissions, which equates to taking more than 4 million cars off the road.
- During the past 20 years, while the number of gas customers has increased, carbon dioxide emissions from the residential, commercial, and industrial natural gas sectors are virtually unchanged as emissions from individual consumers have declined.
- This decline is a direct result of energy efficiency improvements, including tighter building envelopes, more efficient appliances and equipment, behavioral changes in energy consumption, and the effectiveness of natural gas utility efficiency programs.
- Continued improvements in natural gas efficiency have reduced residential emissions per customer by 48% since 1971.
- 50+ Natural Gas utilities across the nation engage in the Gas Energy Efficiency Roundtable Series to fast-track information exchange around innovative and dynamic topics relating to energy efficiency and decarbonization.

Modernizing Natural Gas Pipelines

- America's natural gas utilities invest \$33.2 Billion annually in enhancing the safety of natural gas distribution and transmission systems.
- Forty-one states and D.C. have programs or policies to accelerate pipeline replacement, driving down emissions and continuing to enhance system safety.
- Over the past three years, the industry has added 61,637 additional miles of distribution pipe and has replaced 10,262 miles of cast iron and bare steel mains. These ongoing efforts help ensure the safety of customers and communities while providing environmental benefits in driving down emissions.

\$342 BILLION

invested annually in enhancing the safety of natural gas distribution and transmission systems

Increase Efficiencies in Operating Facilities

- Participation by over 8,300 individuals in industry events to share new tools and processes that increase the efficiency of natural gas pipelines and facilities
- Identifying industry efficiencies through AGA's Enhanced Peer Review Program and R&D collaboration between industry and PHMSA, DOE related to pipeline infrastructure.
- In various forums, presentations from natural gas operators who have adopted technologies and implemented practices to reduce methane emissions.

8,300+

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Encourage and Support Third-Party Damage Prevention Programs

- Formation of the Executive Damage Prevention Task Force to provide industry guidance in two primary areas: I) Strengthening state law to promote a reduction in excavation damages, and II) Strategies and operational practices to have an effective damage prevention program.
- Promotion of 811 "Call before you dig," Common Ground Alliance sponsor, and inclusion of excavation damage prevention in AGA's Enhanced Peer Review Program.



Support Renewable Natural Gas Development and Use and Assess the Potential of Renewable Power to Gas

- U.S. RNG production capacity grew at a compound annual rate of 35% from 2017 to 2021.
- Renewable natural gas production capacity expanded to nearly 100 billion cubic feet per year.
- 508 RNG facilities are operating or planned in North America today: 251 in operation today in the U.S., 119 under construction, and 138 more planned across the United States and Canada.
- 29 states now have taken some form of action on advancing the use of RNG for thermal use in homes/businesses
- In more than 25 states or provinces, utilities are actively engaged in hydrogen research, testing or projects. An increasing number of states and provinces are including hydrogen in climate and clean energy policies.
- Substantial efforts are underway around Sustainable Methane Abatement & Recycling to capture and control methane produced from the 43,000+ aggregated organic waste sites in North America by 2050.
- Released the study, “Net-Zero Emissions Opportunities for Gas Utilities.” Promoted to all AGA members, Capitol Hill staff, regulators, administration officials, non-profit organizations, think tanks, and academia with over 3,000 people briefed.



Utilize Recognized Best Practices to Reduce Methane and Transparently Report Emissions Data

- AGA and the Edison Electric Institute developed and launched the Natural Gas Sustainability Initiative, a comprehensive Methane Intensity reporting protocol to help incentivize and recognize methane emissions from companies in the natural gas supply chain from production through distribution.
- Twenty-five member companies posted their ESG metrics in 2020 using the EEI-AGA ESG template
- Held four virtual event presentations on ESG/NGSI and participated in 19 webinar briefings on NGSI, most of which included companies with upstream operations

Scale Up and Deploy Advanced Natural Gas Applications

- The North American Gas Heat Pump Collaborative, comprised of 14 gas and dual fuel utilities and energy efficiency organizations, represents more than 33% of gas-heated households in North America.
- The North American Gas Heat Pump Collaborative is investing nearly \$1M in gas heat pump development and market readiness in 2022.

\$1 MILLION INVESTMENT

in gas heat pump development & market readiness



Focus on Customers and Communities

- The industry adds one new customer every minute and 24,000 new business customers each year.
- The industry added nearly 900,000 new residential customers in the U.S. between 2019-2020, the most significant increase since 2006.
- More than 4.1 million jobs are connected to the natural gas industry, including more than three million connected to the delivery of natural gas to homes and businesses.
- The affordability of natural gas saves homeowners more than \$1,000 each year, allowing families to have more money for what they need.
- The natural gas delivery system is 91% efficient from production to customer, meaning less energy is wasted in delivering natural gas.
- Shifting to natural gas has been responsible for 62% of cumulative carbon dioxide emissions savings in the power sector since 2005.

Invest in Research, Development, and Deployment of New Emissions Mitigation, Delivery, and End-Use Technologies

- The natural gas industry launched a \$125 million research initiative - The Low Carbon Resources Initiative - to drive innovation and deploy next-generation technologies, including renewable natural gas and hydrogen.

\$125 MILLION INITIATIVE

to drive innovation and deploy next-generation technologies