

# PIPELINE TRANSPORTATION OF CRITICAL ENERGY



## BACKGROUND

The Distribution Contractors Association (DCA) represents contractors, suppliers and manufacturers who provide distribution construction services including installation, replacement and rehabilitation of gas distribution pipelines in communities across the country. As the U.S. continues to transition from a heavy reliance on fossil fuels to increased use of renewable energy sources, DCA encourages policymakers to take advantage of the benefits offered by existing natural gas sources and to recognize the common denominator needed to transport and store them safely and effectively – a robust network of transmission and distribution pipelines.

## NATURAL GAS AND RENEWABLE ENERGY

The natural gas industry has publicly supported the goal of achieving net-zero emissions by 2050, but the concept of having to choose between using natural gas and renewable energy presents a false choice. The fact is, clean-burning natural gas actually enables the use of renewable fuels, while the often-unpredictable nature of renewables such as solar and wind demonstrates that these energy sources alone will not be able to meet current and future demand. The bottom line is that America will simply not be able to achieve its clean energy ambitions without substantial growth of natural gas production and a large expansion of natural gas distribution and transmission pipeline networks.

## HYDROGEN

Hydrogen is now considered a promising alternative to conventional fossil fuels for power generation. Delivering hydrogen to a variety of facilities such as power plants, industrial sites, and fuel distribution hubs will require an extensive hydrogen pipeline system. At the end of 2020, there were some 1,600 miles of hydrogen pipeline operating in this country, mainly along the Gulf Coast. In addition to transporting hydrogen via pipeline, pipeline operators are also moving hydrogen by blending it with methane in natural gas pipelines.

Industry analysts generally agree that 20% hydrogen concentrations by volume is currently the maximum blend before considerable upgrades to the pipeline are required. Converting existing pipelines to transport pure hydrogen may be possible in the future, but the need for a safe and reliable pipeline system will remain.

## CARBON CAPTURE, USE AND STORAGE

Carbon capture, use and storage (CCUS) efforts are also generating considerable media attention and spurring policy discussions about America's energy future. However, infrastructure must be built to transport captured CO<sub>2</sub>, and pipeline transportation continues to be the safest method of transportation. Pipelines are currently the dominant mode of CO<sub>2</sub> transportation, but there are only 5,000 miles of existing CO<sub>2</sub> pipelines in limited regions that were constructed over the past half century.

Because not all areas of the country are appropriate for CO<sub>2</sub> storage, it must be moved to regions that do. This will require building the necessary pipeline infrastructure in a wider range of locations. In addition, larger infrastructure with the capacity to handle greater CO<sub>2</sub> volume from multiple sources will provide for more carbon capture, and distribution pipelines will be needed to deliver it to certain locations for industrial use.

In general, creating a CCUS market will decrease the demand or supply risk, reduce the total cost, and drive technological innovation. However, like hydrogen, capturing CO<sub>2</sub> and transporting it to areas for industrial uses will be possible only by expanding the pipeline infrastructure needed to move it.

