

# PIPELINES 101

## WHAT IS THE MIDSTREAM INDUSTRY?

- The oil and gas industry is made up of three component parts: upstream, midstream and downstream.
- Midstream encompasses gathering, processing, storing and transporting natural gas liquids, produced water and oil.
- Pipelines are part of the midstream system and are how oil and gas products move from the well-head in the field (upstream) to end-users (downstream).

## THE BENEFITS OF PIPELINES IN TEXAS

- Pipelines are the safest, most reliable and efficient way of transporting large quantities of natural gas, crude oil and refined petroleum process across long distances (often several hundred miles).
- Every 50 miles of a 20-inch pipeline can carry the same volume of hydrocarbons as 1,650 tanker trucks. By displacing these trucks, pipelines reduce auto emissions, alleviate traffic and bottlenecks in high-production and densely populated areas and save transportation infrastructure from high levels of wear and tear.
- Texas has the largest pipeline infrastructure network in the nation, with 488,564 miles of pipe – enough miles to travel to the moon and back or circle the earth 17 times.
- According to the *2022 Analysis of the Current and Future Economic Impact of the Texas Oil and Gas Pipeline Industry* study, the Texas pipeline industry contributed over \$60.5 billion in economic output, over \$34 billion in additional gross state product and nearly \$3.6 billion in state and local government revenues, as well as creating more than 234,000 well-paying jobs.

## HOW DO PIPELINES OPERATE?

- Natural gas is compressed to a desired higher pressure to facilitate pushing it through the pipe and enabling it to be gathered and delivered more efficiently. If pressure on a pipeline system dips too low, gas will cease to flow.
- Unlike electricity that travels near the speed of light, natural gas flows anywhere from 17-28 miles per hour.
- Depending on the purpose of the line, pipeline diameters range in size from a few inches (gathering and distribution) to 48 inches (long-haul transport).

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## DID YOU KNOW?

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## PIPELINE REGULATION FOR INTERSTATE AND INTRASTATE LINES

- Interstate pipelines: These pipes operate in “interstate commerce” and, therefore, are subject to regulation by the Federal Energy Regulatory Commission (FERC). They usually either cross state lines or feed into pipelines that cross state lines. These lines typically follow a regulated cost-of-service model when setting rates charged for transport. Construction of new lines is subject to excessive and time-intensive federal oversight.
- Intrastate pipelines: These are pipelines that do not operate in “interstate commerce.” They are located strictly within state lines. As such, they are regulated at the state level by the Railroad Commission of Texas (RRC). These lines operate within a competitive market where economic principles of supply and demand primarily dictate rate of service, inform contract terms and determine the build out of new infrastructure.

## WHAT SERVICES DO TEXAS PIPELINES AND MIDSTREAM OPERATORS OFFER?

- There are two basic types of transportation contracts available to shippers (those wanting to move their product on these pipelines).
  - **Firm transportation service** is the highest quality of service offered as it takes priority over interruptible service. Customers pay a premium for this service in order to receive that priority.
  - **Interruptible service** is the least reliable form of service that can be contracted for. In exchange for paying a lower price for transportation service, these shippers incur the risk of being “bumped” with little notice in order for the pipeline to accommodate higher priority customers. This service is ideal for industrial and commercial end-users, who often have dual-fuel capability and do not serve critical human needs customers. It is for this reason that local distribution companies – those who serve residential customers – are prohibited from contracting for interruptible service.

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TEXAS PIPELINE  
ASSOCIATION

The Texas Pipeline Association (TPA) is the largest state trade association in the country representing solely the interests of the intrastate pipeline network. It is the primary resource for information regarding the Texas pipeline industry, and provides advocacy on issues related to pipeline safety, environmental regulations, taxation and legislation. The TPA consists of forty member companies who, collectively, engage in the gathering, processing, storing, and transmission of natural gas and liquids through pipelines across Texas.