Gas Pipeline Advisory Committee Briefing:
Gas Gathering Lines
• What is GPA Midstream Association?

  • Serving the U.S. energy industry since 1921

  • Nearly 100 corporate members engaged in natural gas gathering and processing, commonly referred to as midstream activities

  • Gas processing includes removing impurities from raw gas produced at the wellhead, as well as the extraction of natural gas liquids (NGLs) for sale, manufacture, transportation, or further processing

  • GPA Midstream members account for more than 90% of the NGLs produced in the U.S. from natural gas processing
• What is a gas gathering line?
  
  A pipeline that delivers gas from a production facility to a central collection point for further transportation

• What is a production facility?
  
  Wells, piping, and other equipment used in the process of extracting gas from the ground in preparation for initial transportation

• What is a central collection point?
  
  A treatment facility or certain gas processing plans that create pipeline quality gas, the point where gas from the same or separate production fields is commingled, and/or a compressor station that facilitates deliveries from a production facility or to transmission or distribution line
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PRODUCTION → GAS GATHERING → PROCESSING PLANT → INTERSTATE PIPELINES → CITY GATES

RAW NGL MIX → FRACTIONATOR

ETHANE
PROPANE
NORMAL BUTANE
ISOBUTANE
NATURAL GASOLINE

FINISHED NGLs

PETROCHEMICAL INDUSTRY
REFINERIES
INDUSTRIAL/HEATING
• How are gas gathering lines different from transmission and distribution lines?

  • *Generally transport raw, unprocessed gas that is not fit for end use or consumption*

  • *Wide variability in system configuration and operating characteristics*

  • *Generally not subject to public utility type regulation for economic purposes*
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How has horizontal drilling and hydraulic fracturing affected gas gathering lines?

- Historically, gas gathering lines served conventional wells and were small diameter, low-pressure pipelines.
- Today, most gas gathering lines still have these traditional operating characteristics.
- However, some gas gathering lines that serve unconventional wells can be larger diameter, higher pressure pipelines.
- Steep decline curve for unconventional wells affects gathering line operating characteristics in shale plays.
Conclusion

- Gathering lines deliver gas from a production facility to a central collection point for further transportation

- Gathering lines are different from transmission and distribution lines from an operational and economic perspective

- Gathering lines tend to be low-pressure, small-diameter pipelines

- Larger-diameter, higher-pressure gas gathering lines are present in the nation’s shale plays