



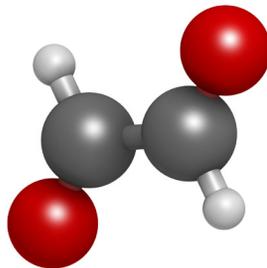
Course length: One day

Prerequisites: None, but Gas Industry Basics (live seminar), Gas Industry Overview (online course), or a basic understanding of the natural gas business is helpful

CPE credits: 8

A detailed look at what natural gas liquids (NGLs) are, how the NGLs industry works, and the key role NGLs play in the economics of natural gas

Natural gas liquids (NGLs) are naturally occurring elements found in natural gas that are valuable as separate products and can often drive the economics of gas resource development. Given NGLs' importance, an understanding of NGLs basics and the NGLs value chain is imperative for many in the gas business. Natural Gas Liquids Industry Basics provides participants with insight into what the various NGLs are, how they are produced and delivered to customers, how they are marketed and priced, and how they impact the economics of North American natural gas supply.



213.88	2.10
61.92	2.78
171.91	2.52
26.60	2.35
18.50	2.53
271.35	2.38
10.92	0.21
43.28	0.44
7.37	0.12
5.81	0.11
179.26	1.8

WHO WILL BENEFIT FROM THIS SEMINAR?

- Gas procurement and supply planning professionals working for utilities, electric generators, marketers, and large consumers who need to understand supply alternatives
- New employees with gas marketing and gas producing companies
- Finance, accounting, legal, sales, and regulatory professionals providing services to gas producers, gas pipelines, utilities, gas marketers, electric generators, large gas end users, and other organizations impacted by gas markets
- Regulatory staff and commissioners
- Professionals such as attorneys, regulatory affairs employees, and public relations specialists involved in the gas business
- Gas industry employees whose companies need an understanding of NGLs to better understand future gas markets and gas infrastructure needs

- How the various NGLs are used
- How the value of NGLs impacts the economics of natural gas resource development

The NGLs Value Chain

- Supply
 - Supply basins in North America and projected resources
 - Potential resources elsewhere in the world
 - Current and projected production
 - Marginal costs associated with supply
 - How much resource is available at what cost
- Processing plants
 - How they work
 - Technological flexibility
 - Current infrastructure
 - Projected new infrastructure
 - Costs associated with processing
- Transport
 - How the various NGLs are transported
 - Current infrastructure from shale basins
 - Projected new infrastructure
 - Costs associated with transport
- Storage
 - How the various NGLs are stored
 - Current infrastructure in shale basins or accessible to NGLs from shale basins
 - Projected new infrastructure
- Customers for NGLs
 - Which industries utilize each NGL
 - Size and locations of demand
 - How NGL markets are evolving

WHAT PARTICIPANTS WILL LEARN

- What the various NGLs are and what they are used for
- Where NGL supply exists and how different gas basins produce different amounts of NGL
- How NGLs are produced, processed, transported, stored, and used by customers
- How NGL markets work and how prices are set
- How NGLs impact the economics of natural gas supply
- The future of NGLs

COURSE AGENDA

Introduction to Natural Gas Liquids

- What they are
- The various NGLs that are produced and marketed (ethane, butane, propane, isobutane, pentanes)
- NGLs from shale gas compared to NGLs from traditional formations

NGL Markets (for each product)

- Market participants





- Market structure and how participants transact
- Forward, spot, and financial markets
- How prices are set
- Spread calculations and price correlations
- Export of NGLs
- Relationship to natural gas and oil markets
- The decision to leave NGLs in gas stream vs. selling as a separate product

The Future of NGLs

- Factors affecting future growth rates
- Infrastructure needs
- Potential growth in North America and in exports
- How NGL markets will impact the future of natural gas and oil

