



Course length: Two days

Prerequisites: Gas Industry Basics (seminar), Gas Industry Overview (online course), Understanding Today's Natural Gas Business (book), or a fundamental understanding of the natural gas business

CPE credits: 16

An in-depth study of how gas markets work

Natural gas markets are complex, ever-changing, and increasingly important as natural gas displaces coal in electric generation and is exported as LNG. North American Gas Markets: Services, Trading, and Pricing gives attendees an inside look at gas markets, the services sold in them, how services are traded and priced, and strategies used by market participants. The seminar covers supply and demand, the role of new production such as shale gas and its effects on exports of liquefied natural gas (LNG), pricing, and how various market participants structure business arrangements and manage risk given these realities. The seminar also provides hands-on examples of opportunities and risks in natural gas markets and the ways in which they can be leveraged and managed.



WHO WILL BENEFIT FROM THIS SEMINAR?

- Previous participants in Enerdynamics' Gas Industry Basics seminar who are ready to take their knowledge to the next level
- Finance, accounting, legal, sales, and regulatory professionals interacting with traders, procurement groups, gas producers, electric generators, pipelines, gas utilities, and retail marketers
- Utility employees or retail marketers who seek a deeper understanding of wholesale markets
- Employees of production, processing, gas liquids, and storage companies
- Pipeline account representatives, department managers, and gas system operators
- Professionals involved in electricity markets where gas-fired generation is an important factor

WHAT PARTICIPANTS WILL LEARN

- How gas markets are structured and function
- Gas market participants and their roles in the marketplace
- How gas flows and is traded through the value chain
- How natural gas prices are set and what affects price volatility
- How supply, transportation, and storage transactions are typically structured
- Key principles of wholesale trading and retail marketing
- Market strategies used by producers, wholesale traders, retail marketers, and utility procurement groups to manage risk and build portfolio value
- What to expect for the natural gas industry in the future

COURSE AGENDA

Gas Market Overview – Introduction

- Natural gas units
- Sources of supply
- Supply basins
- Liquefied Natural Gas (LNG)

Gas Market Overview – Infrastructure

- The physical delivery system
- Processing infrastructure
- Existing and proposed LNG terminals
- Pipeline and storage infrastructure
- Market hubs
- Typical gas flows
- Consumers and their use of natural gas

Gas Market Overview – Market Structure

- What is a gas market?
- Monopoly vs. competitive markets
- Participants in the natural gas delivery chain
- Market structure – how participants interact
- Gas flows and trading through the delivery chain
- How prices change through the value chain
- The LNG delivery chain
- How prices change through the LNG value chain
- Details on U.S. gas markets by region
- Key factors to consider when analyzing price
- The factors that influence the overall price of natural gas
- The factors that contribute to price volatility

The Current State of the Gas Market – Demand

- Demand history
- Usage by customer class
- Gas demand across the year
- Key factors in gas demand (end users and electric generation)
- The impact of weather
- Forecasts for future demand

The Current State of the Gas Market – Supply and Infrastructures

- Gas production history
- The importance of shale gas and other unconventional production





- The impact of rig counts
- Gas imports/exports by pipeline
- Gas imports/exports by LNG
- The economics of LNG exports to various world markets
- Gas storage and the impact of gas in storage
- Regional supply/demand imbalances due to lack of storage or pipeline capacity
- New pipeline construction
- Key factors in gas supply
- Forecasts for future supply

The Current State of the Gas Market – Services and How They are Traded

- What markets are used for
- Types of markets (bilateral, exchanges, regulated tariff)
- Gas services (supply, transportation, balancing, storage, hub, retail, financial products)
- Which services trade in which markets

Natural Gas Pricing

- Price history and price volatility
- The forward price curve
- Key factors in defining and analyzing price
- Factors influencing overall price levels
- Regional price variations and basis
- Factors impacting price volatility
- The relationship of gas prices to oil prices
- What drives natural gas prices in North America and globally

Wholesale Markets – Introduction

- What is wholesale trading?
- Physical market traders and their roles
- Transaction segments (long-term, monthly, daily)
- Functions of a trader
- Risks associated with wholesale trading

Wholesale Markets – Contracting and Pricing

- Details on how a supply deal is done
- Standard physical transaction contracting
- Building a price
- Calculating index prices

Wholesale Markets – Trading Strategies

- Business models for wholesale trading and examples of how they work
- Structured trading
- Pure trading
- Asset-based trading

Wholesale Markets – Transportation and Storage

- Pipeline service options (various levels of firm, interruptible, capacity release)
- The market value of transportation
- The scheduling process and balancing
- Storage service options
- The market value of storage
- Hub services
- Developing a wholesale trading portfolio

Retail Markets – Introduction

- The uniqueness of consumers and retail markets
- Retail consumer needs
- Services available to satisfy consumer needs
- Bundled vs. unbundled service
- Gas supply choice state by state

Retail Markets – Contracting, Pricing, and Strategies

- Retail supply choices (utility vs. marketer and various pricing choices)
- Value-added services
- Risks associated with retail products
- Business strategies for retail marketing

Value and Risk – Introduction

- Definition of value

- Commodity positions and defining long and short
- Mark-to-market (MTM) and how it is calculated
- How complex assets are valued
- Risk exposures in the gas business
- Measuring risk
- Value-at-risk (VaR) and how it is used to manage risk
- Issues with VaR and stress testing

Value and Risk – Managing Risk

- The risks associated with gas transactions
- Hedging versus speculation
- Physical and financial tools that are used to manage risk
- Examples of hedging risks
- The energy company risk-management organization

The Future of Gas Markets

- Trends to watch this year
- Supply-and-demand evolution over time
- Sources of uncertainty
- Additional sources of natural gas
- Longer-term issues affecting gas markets

