



Course length: One day

Prerequisites: none

CPE credits: 8

A one-day entry-level introduction to the natural gas and electric businesses

The gas and electric industries are unique, complex, and increasingly interrelated. This one-day seminar presents a high-level overview of the business of natural gas and electricity and covers topics including customers, physical systems, operations, regulation, and the marketplace. For those new to the energy industry as well as veterans who aren't quite sure how all the pieces fit together, Gas and Electric Industry Basics – Condensed version will help participants understand the basic principles that drive the gas and electric businesses.



WHO WILL BENEFIT FROM THIS SEMINAR?

- New hires working for a utility, energy marketing company, pipeline, electric generator, electric transmission company, producer, renewables firm, technology vendor, or any company providing services to the industry
- Employees with some industry experience who are moving into management
- Employees working on temporary energy-related projects
- Summer hires/interns
- Virtually any industry employee with limited energy experience

WHAT PARTICIPANTS WILL LEARN

- What natural gas and electricity are and how they work
- Users of gas and electricity and their needs
- Sources of natural gas
- Types of electric generation
- How the physical systems transport and distribute gas and electricity
- How regulation works and how it affects the various market participants
- How gas and electric markets are structured, the roles of market participants, and how participants transact
- What the future will look like for gas and electricity

COURSE AGENDA

Overview of Natural Gas and Electricity

- How the U.S. consumes energy
- What is natural gas and how does it work?
- What is electricity and how does it work?
- Natural gas and electricity in our society
- Gas and electric units

Customers

- Types of gas and electric consumers
- Customer usage profiles and why they are important
- Seasonal gas usage
- Hourly and seasonal electric load shapes
- Customer needs and wants, and services that satisfy them

The Physical System and Market Structure

- How gas is produced and delivered to an end user
- Major North American supply basins and typical gas flows
- How the physical gas system is operated
- Natural gas sectors and participants in the delivery chain
- The natural gas market structure in North America
- How prices change through the value chain
- How electricity is generated and delivered to an end user
- Generation sources and how they are used to meet demand
- How generation is used in the dispatch stack
- The electrical transmission system
- The electrical distribution system
- Operating the electric system
- How electricity is scheduled
- Electric sectors and participants in the delivery chain
- Five market structures found in the U.S. today

Regulation

- What regulation is and how it works
- Why the gas and electric industries are regulated
- Who regulates each function
- Four types of regulatory proceedings





- The regulatory process and how rates are set
- The history of gas deregulation and current status of supply choice
- The history of electric restructuring and current status of supply choice

Making Money and Managing Risk

- How various market participants make money
- Risk exposures in the gas and electric businesses
- How prices are set and how they fluctuate over time
- Tools for managing risk

The Future

- Evolution of the gas and electric markets, technology, and regulation

