



Course length: One day

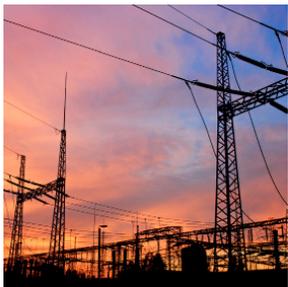
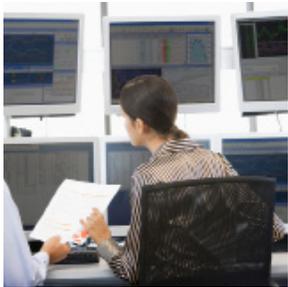
Prerequisites: None

CPE credits: 8

A beginner-level introduction to what Independent System Operator (ISO) markets are and how they work

Organized electric markets facilitated by ISOs continue to expand and play a critical role in the electric industry. Yet these markets can seem confusing to those new to this area of the business. This seminar clearly explains what ISO markets are, how they work, how they are used by market participants, and the effects of market outcomes. With this knowledge, learners are better prepared for a successful career working for ISOs or organizations involved in ISO markets.

Upon request this seminar's content can be customized to a specific ISO.



WHO WILL BENEFIT FROM THIS SEMINAR?

- New employees at ISO organizations
- Employees who work for utilities, generators, transmission owners, and energy marketers and those who are new to ISO markets
- Professionals such as attorneys, regulatory affairs professionals, accountants, and public relations specialists newly involved in ISO market issues
- Professionals in technical fields such as information technology, engineering, and operations who seek to understand the role of markets

WHAT PARTICIPANTS WILL LEARN

- Electricity basics needed to understand the role of ISO markets
- What electric markets are and who participates in them
- The services that are traded in electric markets
- The various ISO-facilitated markets and how they work
- How market participants use and are effected by ISO markets

COURSE AGENDA

Introduction to Electricity and Markets

- How electricity works
- Electric system characteristics
- The electric physical delivery system
- Competitive electric markets
- What markets are
- What an ISO is
- Electric units used in markets

Market Participants and Their Needs

- Demand curves
- System balancing and maintaining frequency
- Why we need markets
- The concept of long and short

- The key market participants (generators, wholesale power markets, transmission owners, utilities, retail power marketers, end-use customers)
- Needs of participants and how they interact

Key Wholesale Services

- Capacity
- Energy
- Ancillary services
- Financial Transmission Rights (FTRs)

Markets for Buying and Selling Services

- Bilateral markets
- Centrally organized ISO markets
- Which services are sold in which markets

How ISO Markets Work

- Time frames of various markets
- ISO capacity markets and auctions
- How capacity selected through capacity markets gets used
- Energy markets
 - Bilateral transactions and how they are scheduled by ISO
 - Day-ahead energy
 - Real-time energy
- Operating reserves
- Financial Transmission Rights (FTRs)
- Day-ahead scheduling for various services
- Locational Marginal Pricing (LMP)
- Operating reserves locational pricing
- Real-time scheduling, pricing, and settlement

Conclusion – How Various Markets and Services Are Used by Participants

- The overall picture

Market simulation

