

Fundamentals of Power Trading



Join our leading industry experts and understand the key factors that drive success in power markets.

Course Date & Location

When: March 22-23, 2010

Where: Norris Conference Center
Houston/City Centre I/
10 Katy Freeway Area
803 Town and Country Lane
Houston, Texas 77024
713.590.0950
Recommended Hotels on p.2

What You Will Learn

Our leading industry expert will provide comprehensive hands on instruction, lecture and real-life examples that bring to life the entire power market complex. Our curriculum sets a new standard in higher learning as we delve deeply into the power markets with highly relevant content for today and tomorrow's energy industry.

This course provides basic to mid-level participants with comprehensive training on power trading. Beginners will learn the essentials while more advanced learners will learn many finer points. EMI delivers highly focused insight into the key factors that drive success in power markets.

Topics covered during this course include:

- ▣ Why are the power markets the most volatile of all markets?
- ▣ What fundamental factors drive the power markets?
- ▣ What role does weather play in determining prices?
- ▣ What role do fuel prices play in determining prices?
- ▣ What are Locational Marginal Prices and why should I care?
- ▣ What is the difference between real time, day ahead and forward power prices?
- ▣ What trading tools are used in the power markets, and where can participants find liquidity?
- ▣ How are power trading books analyzed, and how do risk management best practices apply?
- ▣ What is the status of power market de-regulation and where is it headed?
- ▣ How do ancillary services, emissions and renewable mandates affect the power markets?

Who Should Attend

Power and fuel purchasers, analysts, traders, trade support staff, finance and auditing personnel. Entry-level to intermediate professionals from: merchant generators, banks, utilities, power marketers, retail providers, back office, hedgers, marketers, end-users, and government agencies.

Program Registration Fees

1st delegate: \$1,895

2nd delegate: \$1,595

3rd delegate: \$1,395

Fee includes full two-day course, expert instruction, course materials, continental breakfast, & lunch.

CPE Credits



This course earns 11 CPE credits. EMI awards credit hours towards CPE and Certified Purchasing Manager status (CPM).



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Course Syllabus

Day 1 – Fundamentals (8:00 a.m. – 4:00 p.m.)

▣ Session 1 – Overview

We will begin our day with a broad discussion of the state of the North American markets with particular attention to the various catastrophes that have befallen the sector. This will include a discussion of the fallout from Enron and other bankruptcies, the California debacle, and the August 2003 East Coast blackout.

▣ Session 2 – Power Industry

We will further our discussion by exploring basic industry facts and terminology. How is power delivered to our home or business? What is a peak day? Capacity? Reserves? Load? What is “reliability” and why is it so important? How is reliability ensured?

▣ Session 3 – Regulatory Framework

We will continue with a thorough examination of the regulatory framework of the power markets. This will include FERC Orders 888, 889, 2000, and Standardized Market Design (SMD), progress of de-regulation, ISOs and RTOs and the role of the NERC Regional Reliability Councils.

▣ Session 4 – Comparative RTO markets

By FERC mandate, competitive markets are the future for power. We will deepen our understanding of the power markets by thoroughly examining the LMP markets where values are resolved. How do day ahead and real time differ? What are Financial Transmission Rights? How do the regions differ in their implementation of FERC mandates? How are ancillary services handled? How does FERC ensure that the markets are competitive? What plans does FERC have for the future?

▣ Session 5 – Market Fundamentals

Then, we will explore the fundamental factors drive price and volatility in the power markets. How do the laws of economics and physics apply to the power sector?

- Supply: Capacity mix. Fuel costs. Coal. Natural Gas. Fuel Oil. What is a ‘supply stack’? Heat rate? Implied heat rate?
- Demand: Growth. Weather. Elasticity. How has DSM helped?
- Volatility. Why are the power markets so volatile?

Recommended Hotels (Within Walking Distance)

1. Hotel Sorella - Attached by skybridge

800 West Sam Houston Parkway, Houston, TX 77024
PH 713.973.1600 www.hotelsorella-citycentre.com

2. 4 Points Sheraton (0.7 miles)

10655 Katy Freeway, Houston, TX 77024
PH 866.716.8133 www.FourPoints.com/MemorialCity



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Course Syllabus

Day 2 – The Markets (8:00 a.m. – 4:00 p.m.)

▣ Session 1 – Market Participants and Motivations

Understanding the roles and motivations of power market participants is important to understanding market action. Who participates in the power markets and why? How do their motivations influence their strategies and behavior?

- Hedgers: Utilities, Merchants, Retail, and Power Marketers.
- Traders: Banks. Funds.

▣ Session 2 – Forward Markets

In recent years, the Intercontinental Exchange (ICE) has challenged the NYMEX in energy trading. We will compare and contrast the two exchanges and their contractual offerings in power. What are futures, forwards, swaps and options? How do related energy markets influence power? What is financial versus physical settlement? Cleared versus bilateral? What regional differences are important?

▣ Session 3 – Mechanics

We will extend our discussion of the markets with a focus on the mechanics and vocabulary of trading.

- Forwards, futures and swaps
- Margins
- Backwardation. Contango. Inverse. Bid/Ask.
- Spreads: Temporal. Locational. Spark. Strips.
- Execution Brokers

▣ Session 4 – Options

Options are a key derivative contract by which we trade and manage volatility. We will deepen our understanding of the markets by examining the mechanics, vocabulary and principles of options trading.

- Volatility
- Greeks
- Monthly exercise
- Daily Exercise

▣ Session 5 – Position Management

How do we aggregate the elements of our position coherently into a 'value at risk' measure? What is liquidity, why is it important, and where can we find it? Can dynamic hedging be used effectively?

▣ Session 6 – Emissions and Renewables

No discussion of the power sector would be complete without a discussion of pollution mitigation. Topics for discussion will include: NOX, SOX, mercury, carbon trading, green credits, clean coal, nuclear, wind energy and other renewables.



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About EMI Instructors



Learn From the Experts that Experts Trust

EMI experts are frequent editorial contributors to petroleum magazines & are trusted by today's leading news sources. Our experts have been featured in:

Futures Magazine • *The Wall Street Journal* • *USA Today* • *The New York Times* • *The Washington Post* • *Journal of Commerce* • CNN • NBC • CBS • ABC • Bloomberg • Reuters

EMI's industry experts have provided risk and value management analysis, advice, information, and services to a variety of companies in the electric power industry. Clients have included power marketers, integrated utilities, retail power providers, hedge funds, and power plants.

EMI's leading industry experts have an average of over 30 years of knowledge and experience in:

**Energy • Commodity trading • Risk management
• Education • Consulting • Financial services**

Plus many years of managing marketing, international trading, manufacturing, consulting, start-up operations and project finance operations of well-known companies; integrated major oil companies as well as international trading companies.

Highlights of our instructors' experience include: • Developing a suite of models for a variety of power markets that quantify value and risk • Managing spark spread portfolios for hedge funds in the power markets • Operating in futures trading pits as a market observer in the power markets • Developing working papers for investigations and performing compliance audits in the power industry • Helping Texaco initiate its first use of futures exchanges as an integral part of hedging/trading strategy • Chief Operating Officer of Triwell Marketing and refining • Director of OPIS, Oil Price Information Service, a management-consulting and educational services group that solely focused on the downstream energy industry • Member of Board of Directors of Longview Refinery • Member of the New York Mercantile Exchange Petroleum Advisory Board • Expert witness for a hearing before the subcommittee on surface transportation for the Commerce, Science, and Transportation Committee of the US Senate • Supplied expert testimony to a US Senate subcommittee hearing on diesel petroleum product pricing • Supplied testimony to the Federal Highway Administration regarding fuel tax evasion • Expert witness in a MTBE litigation against the major oil companies • Publishers of *The Daily Hedger*, *BTU's Daily Gas Wire* and *BTU's Daily Power Report*, which advise thousands of petroleum professionals daily.

Our instructors are **frequent expert speakers for numerous petroleum industry events and trade associations including:**

- DOE DESC World Energy Conference
- OPIS Fleet Fueling
- NYMEX
- Fuel Management University
- NATSO
- ATA
- AAA
- Dairy Distribution
- eyeforEnergy eCommerce
- OPIS Supply Summit
- CIOMA
- American Society of Mechanical Engineers
- American Society of Lubricating Engineers
- Ambrust Aviation
- NACHA.

Over the years EMI has developed a series of intensive courses covering all aspects of Energy from production all the way to managing the impact price and volatility on the margin of end-users, resellers, traders, marketers, shippers, retailers and refiners. Our instructors have had the privilege to instruct thousands of professionals representing all aspects of the energy industry, including every major oil company (i.e. Exxon Mobil, BP, Shell, Equilon, Motiva) major power utilities (i.e. Sempra, Edison Mission, Berkley, Toronto Hydro, Dominion, Conectiv) small marketers (i.e. Sprague, Getty, Southern Counties, Western Petroleum) trucking fleets from 50 to 10,000 (i.e. UPS, U.S. Postal Service, Yellow, Pepsi, Werner), gasoline-powered fleets hyper-markets (i.e. The Pantry, Wawa, BJs Wholesale) and many fortune 500 energy consumers.



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Reserve Your Seat Today!

Three easy ways to register:

1. Call PMA Conference Management at 201.871.0474 or send email to: register@pmaconference.com.
2. Complete & fax this form to 253.663.7224.
3. Complete & mail the form to: PMA Conference Management, POB 2303, Falls Church, VA 22042.

A Registration Fees: \$1,895 for full two-day program This fee includes expert instruction, course materials & lunch.	Discount for Additional Attendees: 2 nd delegate \$1,595 3 rd delegate \$1,395
B Enrollment Information (please print clearly) NAME: _____ COMPANY: _____ ADDRESS: _____ _____ PHONE: _____ FAX: _____ E-MAIL: _____	
C PAYMENT METHOD <input type="checkbox"/> Please invoice my company (payment must be received prior to course date) <input type="checkbox"/> MasterCard <input type="checkbox"/> Visa <input type="checkbox"/> American Express Card Number _____ Expiration Date ____/____/____ Card Holder Name _____ Card Holder Signature _____	

REFUND/CANCELLATION POLICY:
 Attendees may reschedule for a different date or course with no penalty. 100% refundable with 14 days cancellation notice. 80% refundable with 5 days cancellation notice. Cancellations are non-refundable day of or after course.
