



Intro to Energy Markets

Focus on Oil, Gas & Power



Understand all of the critical “need-to-know” components of the Power, Gas and Oil industries.

Course Date & Location

When: March 10-11, 2010

8:30 a.m. – 4:30 p.m.

Where: Regus Conference Center
Downtown Houston
Two Allen Center
1200 Smith Street, 16th Floor
Houston, TX 77002

Recommended Hotels on p.2

What You Will Learn

Gain a thorough understanding of the natural gas, power and oil industries. *Intro to Energy Markets* will introduce you to these dynamic and evolving industries and expose you to all of the critical “need to know” industry components.

The course describes the power, natural gas and oil industries from four major functions:

- ▣ Origins & destinations of gas, power and oil
- ▣ Exploration through distribution
- ▣ Buying, selling & marketing
- ▣ Transportation

Additionally, this course inter-twines the relationships of:

- ▣ Macro & micro market fundamentals
- ▣ Purchasing & selling methodology
- ▣ Producing & marketing
- ▣ The various market relationships that impact the everyday aspects of the business.

Specific topics covered include:

- ▣ Power transmission – Electron flow from the plant to the end user
- ▣ Natural gas distribution – Gathering field to the burner tip
- ▣ Oil upstream and downstream – Production well to the pump
- ▣ Locational marginal power economics
- ▣ FERC orders and their impact on the natural gas industry
- ▣ The players and where they fit in the infrastructure
- ▣ Peak oil and alternative fuels
- ▣ Traditional buying techniques

Who Should Attend

This course will benefit anyone seeking a top to bottom, fundamental education in the Natural Gas & Power industry. Perfect for those new to the industry: Wholesale Power &/or Natural Gas marketing companies, utilities, generation, supply & distribution personnel, traders, end-users, commercial companies, cogeneration, industrial companies & government agencies. Great for new hires, interdepartmental transfers, finance management, administrative personnel, & human resource personnel.

Program Registration Fees

1st delegate: \$1,895

2nd delegate: \$1,595

3rd delegate: \$1,395

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

CPE Credits

This course earns 12 CPE credits. EMI awards credit hours towards CPE and Certified Purchasing Manager status (CPM).





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Course Syllabus

DAY ONE (begins at 8:30 a.m.)

Morning Session: Natural Gas Fundamentals

▣ **Session 1: Let's go back in time & a bit upstream.**

Where did natural gas come from? What is the history of natural gas? Let's review the composition, sources & measurement. You will not only learn where natural gas comes from but why it's the environmental fuel of choice. What is done with the feedstocks that are produced prior to arriving at the burner tip? Follow the flow as feedstocks go through a typical natural gas processing plant & the resulting products – natural gas liquids, LPG, propane, butane, ethane & isobutane.

Next, you'll get an **overview of macro & micro world natural gas market fundamentals**, including: What is impacting Natural Gas margins today, macro & micro supply & demand, processing problems, & weather. We'll emphasize what to watch & when & how to identify which factors impact price & supply & risk management programs.

▣ **Session 2: FERC orders & their impact on the natural gas industry.**

Who is in the driver's seat? No doubt it is FERC. This session will review all of the major FERC orders since the late 80's & correlate these orders to how they shaped the industry into what is it today. & we'll review what's on FERC's the horizon & how it might impact the industry.

▣ **Session 3: Where Do All the Players Fit into the Natural Gas Infrastructure?**

Exploration – Producing – Processing – Supply & Distribution – Marketing – Transportation & Trading...You will learn what this flow means, how it has evolved over the last 30 years & where the optimum entry & operating points are for each of the participants.

▣ **Session 4: Transportation – Moving natural gas to the market.**

The existing interstate pipeline network consists of over 200,000 miles of pipeline. About 80 to 90 pipeline systems make up the network with about 50 classified as major by FERC. How does this all work? We'll review the infrastructure issues & the operational trends.

▣ **Session 5: Buy Low, Sell High...Traditional Buying Techniques.**

What ever happened to Bid Week? Natural gas can be purchased at all levels of the infrastructure: Spot – Wholesale – Retail. NG can be purchased using traditional & non-traditional methods. Products can be purchased from various types of suppliers: Marketers – Regulated Utilities – Unregulated Utilities – Traders – Other Jobbers. You'll get the knowledge you need to purchase in an ever-changing environment & to manage price & margin risk.

Recommended Hotels (Within Walking Distance)

Doubletree

400 Dallas Street, Houston, TX 77002
PH 713.759.0202

Hyatt

1200 Louisiana Street, Houston, TX 77002
PH 713.654.1234

Crowne Plaza

1700 Smith Street, Houston, TX 77002
PH 713.739.8800

Residence Inn

904 Dallas Street, Houston, TX 77002
PH 832.366.1000

Course Syllabus

DAY ONE (continued)

Afternoon Session: Electric Power Fundamentals

▣ **Session 1: Overview of macro & micro US power market fundamentals.**

Discussion of the factors that affect electricity prices & margins in the power industry today: weather, fuel prices, transmission constraints, credit ratings, EPA regulations, & the economy. We will discuss the unique characteristics that make the electricity market unlike any other energy commodity & what can make prices so volatile. We will emphasize on what to watch, & when & how to identify which factors impact price & supply. Review of Electricity Deregulation: How did the once staid, conservative utility industry undergo such a dramatic change to where it is now? We will review the FERC orders that deregulated the wholesale & retail electricity market over the last decade & their effects, as well as a post mortem of the California crisis & the latest FERC initiatives.

▣ **Session 2: State of the Power industry.**

Earlier this decade deregulation was the hot trend. Since then, we've had the California power crisis & the bankruptcies of some of the state's largest utilities. This was followed by the demise of Enron & the after effects that afflicted the rest of the power industry. So who is left standing & what are their strategies in dealing with the new market? What are the lessons to be learned? Is retail choice still viable?

▣ **Session 3: Power Transmission – Electron flow from the plant to the end user.**

The existing transmission grid consists of thousands of miles of power lines. While in theory it is possible to send power across the country, most of the power sold is in the regional power pool where it is generated. Wheeling or sending power to another pool or even within the same pool can be difficult & costly. We will review the infrastructure issues & operational trends & the economics involved. We'll also cover building a transportation arbitrage matrix, which includes the cost of transportation applied to the value of power in various US locations. & we'll show how to get setup with the transmission entities & how to put all of the pieces together to optimize the supply & distribution network.

▣ **Session 4: Power Economics.**

Unlike other energy commodities, electricity cannot be stored & is consumed virtually instantaneously. Furthermore, limitations on transmission affect where excess power can be sold or bought. How can you get a better price for your power? What determines the forward curve? What are the industry benchmarks? We will take a look at power prices & the factors involved with pricing power. Electricity can be bought & sold at the wholesale & retail level. Power can be purchased by traditional & non-traditional sources. Wholesale power can be purchased from a variety of suppliers – regulated utilities, independent power producers, marketers & trading companies. You'll get the knowledge you need to purchase in an ever-changing environment & to manage price & margin risk.

Program ends at approximately 4:30pm





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DAY TWO (begins at 8:30 a.m.)

Morning Session: Oil Fundamentals

▣ **Session 1: Crude Oil.**

The petroleum industry starts with crude oil. From its beginnings as lamp oil to its vital role in world economics today, this session covers it all. Follow oil from its formation through exploration, drilling, storage, and transportation. Learn why not all oil is the same and who the real players are in this global game of supply and demand.

▣ **Session 2: Refining.**

Crude oil is of little use in its natural state. Refining however, unlocks the value stored in every barrel pumped from the ground. This detailed session walks you through the operation of a refinery, and the various processes used to extract a multitude of products. You'll see that crude yields not only the fuels needed to power our vehicles but many other products. Everything from carpet to crayons to the roads we drive on come from refineries.

▣ **Session 3: Pipelines and Terminals**

Pipelines are the arteries that keep petroleum flowing throughout the United States. They are the major source of distribution moving fuel from the refinery to where it is needed. If there were no pipelines, highways would be clogged with tens of thousands more tanker trucks. You will learn about the location, operation, and importance of major pipelines to the industry. Further, we'll explore storage terminals along the pipeline system that feed your local markets. We'll show you why inventory at these locations is critical to the supply and demand economics that affect your buying price.

▣ **Session 4: Price Setting.**

How do oil companies set the price for the fuel they sell? It sometimes appears that prices indiscriminately move up and down without cause. How come a jump in the price of oil immediately affects pump prices when it takes days or weeks for the oil to get here? What are the trends? How much volatility will there be in the future? What is benchmarking and cost-plus? This session looks at all the behind-the-scenes variables that factor into the market price of fuels.

Afternoon Session: Energy Trading and Alternative Fuels

▣ **Session 1: Exchange Traded Energy.**

Energy commodities are traded everyday on the regulated New York Mercantile Exchange. This critical paper market reaches around the world to establish market values for energy products and set expectations for things to come. Learn the important facts about why this exchange market exists, how it functions, and why it is vital to understand its impact on your business. You'll learn the basic concepts of a futures exchange, the forward market, and mechanisms that establish energy values.

▣ **Session 2: Futures and Options Trading.**

Armed with knowledge of regulated markets, this session dives deeper into examples and uses of exchange traded futures and options. You learn the simple mechanics of hedging and managing energy price risk. You'll see examples of futures trading being used to offset physical price risk. You'll learn about different types of options and when and where to use them. We'll walk through specific examples of who uses futures and options and why they use them.

▣ **Session 3: Energy Policy and Alternative Fuels.**

With the stroke of a pen, Congress can move the industry in new directions. We have seen it happen many times before through legislation like The Clean Air Act, the Energy Policy Act, and the National Energy Security Act. See what the latest changes are to the regulatory environment of the petroleum industry. Learn how you will be impacted by these changes. See what Congress has in mind for alternative fuels and how that will affect the fuel you buy and sell. Is biodiesel poised to be the next ethanol? Or will natural gas vehicles claim the spot light? This session will provide the answers.

Program ends at approximately 4:30pm

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 sub-committee 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.

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

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.