Understand ethanol production and learn the basic tools of risk management: futures, options, and derivatives, set in the context of ethanol.

Why You Should Attend

Regional adoption of ethanol as a gasoline extender started over 30 years ago. Its use as an oxygenate in markets like Chicago enhanced its status in the mid 1990’s. The acceptance and use of fuel ethanol grew in the Midwest throughout that time. However, outside of the Corn Belt ethanol was relatively unknown.

Fast forward to today and we see a dramatically different landscape. The first big mover was California who replaced MTBE with ethanol. Then Congress failed to give the oil industry a waiver of MTBE liability, and ethanol began a hasty replacement as the oxygenate of choice in reformulated gasoline markets across the country. This change created a dramatic increase in ethanol demand resulting in a production facility building spree and expansion boom. Beside the demand created by air quality standards, the renewable fuel standard requires 9 billion gallons of renewables in 2008 which will grow quickly to 36 billion in less than 14 years. The market is evolving so fast that ethanol has recently broken from its pricing correlations with gasoline and has begun to make a market of its own. Clearly ethanol is here to stay.

What You Will Learn

*Ethanol Fundamentals and Risk Management* is a study in both the physical and financial world of ethanol. On the physical side of the market, the course looks at the production of ethanol from a variety of feedstocks. Grains, grasses, and trash are all part of the feedstock equation with corn the clear winner thus far. Next follows an exploration of the dry milling process that leads today’s industry as well as a look into emerging cellulosic technology. We finish off the physical market with an understanding of distribution down to the consumer level and its related issues.

The financial side of ethanol risk management has been evolving rapidly. The market recognized the need to manage price risk volatility when the first exchange traded ethanol futures contract was introduced in 2004. Exchanges have merged and consolidated since then but the need to manage risk and the basics of hedging remain the same. Learn the basic tools of risk management: futures, options, and derivatives set in the context of ethanol. Complete with a look at current exchange offerings.

(Continued on next page)
What You Will Learn

Attendees of EMI’s Ethanol Fundamentals and Risk Management benefit from a diverse base of subjects. As a fundamental level course, topics are comprehensive yet introductory and require no prerequisite learning. Subjects will include:

- Ethanol History
- Feedstock economics
- Dry milling production
- Cellulosic technology
- Pipeline considerations
- Terminal operations
- Risk management defined
- Regulated exchanges
- Futures contracts
- The forward curve
- Options
- Over-the-counter markets
- Derivative instruments

Who Should Attend

Ethanol Fundamentals and Risk Management is designed to benefit all those with a financial interest, investment, or involvement in the expanding role of the fuel ethanol market. Ethanol producers and marketers, downstream petroleum refiners and jobbers, and commercial and industrial gasoline consumers will all benefit from this cross-discipline course. Strongly consider attending if you fit one of the following categories:

- Ethanol producer
- Ethanol marketer
- Corn grower/cooperative
- Commodity broker
- Oil company marketing
- Commercial gasoline fleet
- Industrial gasoline consumer
- Ag-, Petro- Investment banking
- Industry trade group
- Petroleum marketer
- Pipeline operator
- Terminal operator
- New Hires!!
- Financial management
- EIA/DOE
- Clean Cites
- Students and Academics
- Media
Day One (Starts at 9:00 a.m.)

**Session 1 – History:** It’s usually best to start at the beginning so we’ll step back in time to see just how the industry evolved to where it is. As you can imagine, ethanol’s early use was not as a fuel extender or oxygenate. What exactly is alcohol and how has it been used over time? We probably have the American Bald Eagle and a tearful Native American to thank more than anyone for its roll in the petroleum world today…see why. We’ll cover the basics here and set the stage for detailed topics to come.

**Session 2 – Feedstocks:** Ethanol can be made from a multitude of feedstocks. It may even surprise some to learn that the petroleum industry has made ethanol from crude oil for years. Still, corn is the big winner thus far and we will discuss modern farming and production, and the associated economics. Beyond corn, we will explore the use of other forms of biomass including those eyed for use with cellulosic processing.

**Session 3 – Production:** Turning feedstock into ethanol can take several proven paths. We’ll look at the basics of various process technologies in use today as well as the much talked about emerging cellulosic technology. This session walks you through the basic operation of an ethanol plant and the various processes used to extract a multitude of products. You’ll understand the concepts of how this fuel is made, and the co-products that heavily impact if a plant is a boon or a bust.

**Session 4 – Distribution:** Pipelines are the arteries that keep petroleum flowing throughout the United States. They are the major source of distribution moving fuel to the point of consumption. Why then are they not used for ethanol? Today ethanol is moved via rail and truck from production plants to blending terminals where the oxygenated gasoline is ultimately created. You will learn the concepts related to railing ethanol and piping petroleum to create a finished consumer product.

**Session 5 – Terminal Operations:** Whether ethanol and petroleum products travel via rail, pipeline, truck, or barge, they almost all end up in a wholesale storage terminal. See how oil companies manage inventories and blend products through injection and splash methods. How can you manage 50,000 barrels of product in a 30,000 barrel tank? Prior to the wholesale terminal, ethanol and petroleum exist in their own space. At this juncture in the supply chain, the two are joined and economies merge.

**Session 6 – Energy Policy and Taxation:** 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 Renewable Fuels Standard. See how today’s regulatory environment is impacting ethanol for the good and the bad. We’ll also look at influences brought on by the alternative fuels movement…forget oxygenates how about foreign oil replacement!

**Session 7 – Risk Management Defined:** What exactly is risk management and hedging? How are the terms hedging and risk management related. Is hedging considered speculation? Before digging into the specifics of ethanol risk management, it is important to understand exactly what it is, and what it is not. Having a clear concept of the definition and purpose of hedging is the first step in building a knowledge base on the subject. We’ll look at various industries and their use or lack thereof of hedging practices.

Course ends at approximately 4:00 p.m.
Day Two (Starts at 9:00 a.m.)

- **Session 1 – Futures Markets:** Energy commodities are traded everyday on regulated exchanges. 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 its vital role as the basis of ethanol and petroleum hedging. You’ll learn the basics of futures trading and a thorough comprehension of their mechanics.

- **Session 2 – The Forward Curve:** Futures markets are just that; because they trade in future months. Depending on the commodity, some contracts trade for years into the future. How does the market know what the price will be years from now? How can knowing the anticipated future price help your business? Who trades in future months? Can I buy and sell product in future months? This session will answer those questions and show how you can use the forward curve to establish a very sound budget and begin building stability into your business.

- **Session 3 – Options Markets:** In addition to buying and selling futures outright, exchanges offer options on those futures. This financial tool can open up many different scenarios not available with futures alone. There are different risk levels, exposures, and costs associated with options strategies. This session will explain the what, why, and how of options and put those into perspective. Calls and puts, in-the-money and out, you’ll gain an understanding of it all.

- **Session 4 – Over-The Counter Markets:** Commodities and their associated financial instruments are not only traded on regulated exchanges, but also in the OTC market. OTC markets are huge and play an important role in meeting the industry and client specific needs of those hedging energy risks. Learn how the OTC market functions and differs from the exchange traded world in this session. We’ll touch on major points like counterparty risk, indices, and the tremendous flexibility available in OTC instruments.

- **Session 5 – Swaps and Swaptions:** Two instruments available to the energy hedger in the OTC market are the swap and the swap option or swaption. These two derivatives can be used to manage ethanol price risk in situations not easily hedged by exchange traded instruments. Futures contracts are very standardized and do not necessarily fit all situations. For those unique hedging situations, we turn to a customizable swap. This session will demonstrate the virtually unlimited variety of hedging instruments available.

- **Session 6 – CME Group’s Ethanol Offering:** Our host, CME Group, will give a detailed final session describing in detail the ethanol hedging instruments available on their exchange. You learn the exact contract specifications and nuances that make up ethanol trading today. This is your chance to interact directly with exchange personnel who can answer and speak first hand of the trials and successes of ethanol traders.

- **Bonus Session – Globex Control Center (GCC) Tour and Reception:** In the not-so-distant past, futures and options contracts were solely traded through the open outcry process. Traders would stand shoulder to shoulder shouting and gesturing to get deals done. Today, technology has swept over the marketplace and trading is now also conducted virtually around the clock and around the world in an electronic environment. Meet with members of the CME Group Market Operations team during this unique opportunity and gain an understanding of how going electronic has paved the way to higher volumes and greater liquidity for all those involved.

Course should conclude by 3:00 p.m. on day two.
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.

EMI’s industry experts have also 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.

**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

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.