

EUCI COURSE

FUNDAMENTALS OF NATURAL GAS PRICING

**March 27, 2017
EUCI Offices
4601 DTC Blvd., Suite 800
Denver, CO**



EUCI is authorized
by IACET to offer
0.7 CEUs for the
course

OVERVIEW

Natural gas makes up a rising share of the nation's generation, expected to be more than a third next year. It is the primary heating fuel as well. Therefore, natural gas pricing directly impacts power plants, local distribution companies, industrial plants, and natural gas exporters. With higher natural gas prices expected in 2017, an in-depth understanding of how natural gas pricing works is essential.

This course will cover global natural gas supply and demand. It will assess regional natural gas prices and address the U.S. as a global gas supplier to Mexico and abroad. The expert instructor, with 30 years' experience working at FERC, will review FERC's policy statement on natural gas and electric price indices. He will explain what gets FERC's attention in the natural gas markets and describe how FERC performs oversight and surveillance of the natural gas markets. He will discuss fines and penalties assessed by FERC.

Attendees will leave with an understanding of physical and financial natural gas markets. They will review price discovery and liquidity. The instructor will discuss buying and selling physical natural gas and explain LNG pricing mechanisms. Natural gas futures contracts and ICE look-alike future contracts will be discussed. The course will address major trends on how physical natural gas is priced. The course will conclude with a discussion on natural gas market manipulation.

LEARNING OUTCOMES

- Discuss global natural gas supply and demand
- Assess regional natural gas prices
- Address the U.S. as a global gas supplier to Mexico and abroad
- Describe physical and financial natural gas markets
- Review price discovery and liquidity
- Discuss buying and selling physical natural gas
- Explain LNG pricing mechanisms
- Address natural gas futures contracts and ICE look-alike future contracts
- Describe how NYMEX settlement affects North American natural gas price indices and LNG Prices
- Explain global pricing of natural gas
- List natural gas price indices in North America
- Review FERC's policy statement on natural gas and electric price indices
- Address major trends on how physical natural gas is priced
- Describe how transportation and delivery is factored into prices
- Compare firm and interruptible transportation and storage costs
- Discuss LNG pricing mechanisms
- Review key regulators: FERC, Commodity Futures Trading Commission, states
- Explain what gets FERC's attention in the natural gas markets
- Describe how FERC performs oversight and surveillance of the natural gas markets
- Discuss fines and penalties assessed by FERC

WHO SHOULD ATTEND

Staff who are responsible for procuring natural gas in North America for use in power plants, local distribution companies, industrial plants, for export to Mexico, Canada, and as liquefied natural gas (LNG) to overseas markets. Attendees who need a basic understanding of the mechanisms used to price physical natural gas and LNG, including the costs of pipeline transportation and storage of gas to users and for export.

AGENDA

MONDAY, MARCH 27, 2017

8:00 – 8:30 am Registration and Continental Breakfast

8:30 am – 4:00 pm Course Timing

12:00 – 1:00 pm Group Luncheon

Global Natural Gas in Perspective

- Supply and demand
- Natural gas pipeline and processing
- LNG infrastructure
- Regional natural gas prices
- Delivery really matters
- U.S. as a global gas supplier to Mexico and abroad
- Key U.S. LNG Stakeholders

Physical and Financial Natural Gas Markets

- Overview
- Key differences
- Price discovery and liquidity
- Role of clearing in natural gas markets

Physical Natural Gas: Buying and Selling

- Where can physical natural gas and LNG be bought and sold
- Bidweek (for next month delivery)
- Daily gas (for next D-day delivery)
- Weekend delivery
- Long term deals and take and release contracts
- Physical natural gas call options
- LNG pricing mechanisms

Natural Gas Futures Contract and ICE Look-Alike Futures Contract

- What are these and how do they differ
- NYMEX Natural Gas Futures contract settlement during bidweek
- How NYMEX settlement affects North American natural gas price indices and LNG prices

How to Price Natural Gas

- Global pricing of natural gas
- Natural gas price discovery - where to find prices
- Natural gas price indices in North America
- Role of natural gas price reporting agencies and Index Publishers
- FERC's Policy Statement on natural gas and electric price indices
- Fixed price deals- next day and next month delivery
- Physical basis deals
- WebICE electronic platform
- What do Index Publishers use to calculate indices
- Growing popularity of natural gas price indices
- Major trends on how physical natural gas is priced

AGENDA

MONDAY, MARCH 27, 2017 (CONTINUED)

Often Overlooked-Transportation and Storage of Natural Gas and LNG

- How Transportation and Delivery is factored into prices
- Firm pipeline Transportation and storage costs
- Interruptible pipeline transportation and storage costs

Liquefied Natural Gas Pricing Mechanisms

- Oil-Indexed (% of Brent or Japan Crude Cocktail [JCC])
- Gas Hub Linked - Henry Hub, National Balancing Point or TTF
- Benchmarks- Japan/Korea Marker (Platts JKM)
- Assessments- Platts Gulf Coast Marker
- Sales Purchase Agreements vs. Tolling
- Shipping costs
- Examples of LNG pricing mechanisms

Natural Gas Market Manipulation

- Natural gas price and pipeline transportation manipulation
- Key Regulators: FERC, Commodity Futures Trading Commission, States
- What gets FERC's attention in the natural gas markets
- How FERC performs oversight and surveillance of the natural gas markets
- FERC's Hotline and its role in preventing market manipulation
- Fines and penalties assessed by FERC

INSTRUCTOR

**Tom Russo****Principal, Russo on Energy LLC**

Tom Russo is an Energy and Environmental expert with unique regulatory skills in siting energy infrastructure, markets and physical/cybersecurity.

Prior to founding Russo on Energy LLC in May 2015, Mr. Russo worked for over 30 years as a Manager and Sr. Energy Industry Analyst at the Federal Energy Regulatory Commission (FERC). During that time he amassed experience in hydropower licensing, NEPA environmental impact assessment of energy projects, business process reengineering, and natural gas and crude oil market oversight. Mr. Russo thoroughly understands the Natural Gas Act, Natural Gas Policy Act, Federal Power Act and Energy Policy Act as they apply to natural gas and hydroelectric projects. He also assisted FERC's new Energy Infrastructure Security Office with understanding physical and cybersecurity threats and vulnerabilities to natural gas, oil and gas-fired power projects and physical natural gas and related futures and swaps.

In FERC's Office of Enforcement, he managed and led efforts on the development and implementation of FERC Order 704 and FERC's Form 552 Annual Natural Gas Transaction Report program from 2008 to 2015. He also has helped numerous energy companies address FERC compliance issues in the natural gas, LNG, and hydropower area, as well as natural gas market participants in achieving compliance with transactional issues related to natural gas indices and index formation.

Mr. Russo is a native of Brooklyn, New York. He earned a credential as a Certified Information Systems Security Professional (CISSP) in 2010. He also graduated with a MBA in Finance from the George Washington University and a MS in Biology from the University of Alabama.

REQUIREMENTS FOR SUCCESSFUL COMPLETION OF PROGRAM

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

INSTRUCTIONAL METHODS

Case studies, PowerPoint presentations, classroom exercises.

PROCEEDINGS

The proceedings of the course will be published, and one copy will be distributed to each registrant at the course.

EVENT LOCATION

EUCI Offices

4601 DTC Blvd. Suite 800
Denver, CO 80237

NEARBY HOTELS

Hyatt Regency Denver Tech Center
7800 E. Tufts Ave
Denver, CO 80237
Phone: 303-779-1234
0.3 miles away

Hampton Inn & Suites
5001 S Ulster Street
Denver, CO 80237
Phone: 303-804-9900
0.5 miles away

Denver Marriott Tech Center
4900 S. Syracuse St
Denver, CO 80237
Phone: 303-779-1100
0.7 miles away

Hilton Garden Inn Denver Tech Center
7675 E. Union Ave
Denver, CO 80237
Phone: 303-770-4200
0.7 miles away

IACET CREDITS



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the AN-SI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the AN-SI/IACET Standard.

EUCI is authorized by IACET to offer 0.7 CEUs for the course.

REGISTRATION
to register [CLICK HERE](#) or

Call: 201 871 0474
fax: 253 663 7224
email: register@pmaconference.com/
web: <http://pmaconference.com/>
Mail: POB 2303 Falls Church Va 22042

Please make checks payable to: "PMA"

EVENT LOCATION

EUCI Offices
4601 DTC Blvd. Suite 800
Denver, CO 80237

View nearby hotels on page 5.

PLEASE REGISTER

FUNDAMENTALS OF NATURAL GAS PRICING COURSE:

MARCH 27, 2017: US \$995,
Early bird on or before March 10, 2017: US \$895

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name

Job Title

Company

What name do you prefer on your name badge?

Address

City State/Province Zip/Postal Code Country

Phone Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card Account Number

Billing Address Billing City Billing State

Billing Zip Code/Postal Code Exp. Date Security Code (last 3 digits on the back of Visa
and MC or 4 digits on front of AmEx)

OR Enclosed is a check for \$ _____ to cover _____ registrations.

Substitutions & Cancellations

Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before February 24, 2017 in order to be refunded and will be subject to a US \$195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at (201) 871-0474.