

INTRO TO THE NATURAL GAS INDUSTRY AND NATURAL GAS MARKETS

August 12-13, 2019 Pittsburgh PA

“

“This course was very comprehensive and provides excellent value to people of all experience levels.”

Senior Natural Gas Trader, TVA



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

OVERVIEW

This course will present an overview of the natural gas industry and related natural gas liquids (NGLs) and shale oil infrastructure so that attendees gain a comprehensive understanding of the gas industry and markets. Attendees will discuss natural gas terminology, measurements and conversions. They will review the basics of natural gas production, gathering, operations and markets. It will provide an in-depth understanding of natural gas processing plants, pipelines, storage, LNG peak shaving plants, LNG Import and Export terminals and local distribution companies (LDCs). The course will address important components of natural gas transportation, including regional costs of firm and interruptible pipeline transportation, nominations, balancing, and section 4 and 5 ratemaking proceedings on natural gas pipeline transportation.

The intent is that participants will be able to apply the information learned the first day they return to their jobs. Hands-on activities will be included throughout the day.

LEARNING OUTCOMES

- Explain the natural gas value chain: upstream, midstream and downstream
- Discuss natural gas terminology, measurements and conversions
- Review the basics of natural gas production
- Describe the types of shale plays
- Discuss natural gas gathering, operations and markets
- Address natural gas processing plants
- Review elements of natural gas producer economics
- Explain fungibility and gas interchangeability in U.S., Asia and Europe
- Describe natural gas pipelines, including their parts, how they operate, and their role in a changing market
- Evaluate natural gas storage types, operations and storage issues
- Discuss an overview of liquefied natural gas (LNG)
- Address peak shaving plants
- Review Local Distribution Companies (LDCs)
- State the process of natural gas infrastructure siting
- Discuss that natural gas plays in integrating wind and solar energy into the electric grid and Clean Power Plan
- Describe how FERC policy, major orders and regulations have evolved into today's "Open Access" environment
- Relate an overview of regulated rate components and rate design and new rate policies on the horizon
- Address important components of transportation, including: Pooling, nominations, confirmations, scheduling, receipt, and balancing
- Explain PDAs, OBAs, OFOs, allocations, and curtailments



"Worthwhile, enough in-depth information to fill the day without being overwhelming."

Product Manager, Extrel CMS



"Excellent course for those in your organization that are newer employees of need to become familiar with natural gas basics from wellhead to burner tip."

Director of Operations, WPPI Energy

REGISTER TODAY! CALL 201 871 0474 or [Click Here](#)

AGENDA

August 12, 2019

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

8:30 am – 4:30 pm **Course Timing**

12:00 – 1:00 pm **Group Luncheon**

The Natural Gas Value Chain

- Upstream
- Midstream
- Downstream
- How the natural gas industry operates across the value chain

Natural Gas Basics

- Terminology
- Measurements
- Conversions

Basics of Natural Gas Production

- Conventional
- Horizontal drilling
- Hydraulic fracturing

Kinds of Shale Plays

- Dry
- Wet
- Oil
- Locations

Industry Basics

- Gas gathering
- Operations
- Markets
- Regulatory considerations

Producer Economics

- Natural gas processing plants
- Pipeline quality
- Economic importance of NGLs

Fungibility and Gas Interchangeability in U.S., Asia and Europe

Natural Gas Pipelines

- Key parts
- How pipelines operate
- Who are the pipeline players?
- Role of shippers and purchasers

FERC Review of 1999 Pipeline Policy Statement



“Excellent introduction to natural gas infrastructure and pipelines.”

Analyst, USAID

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AGENDA

August 12, 2019 (CONTINUED) **Natural Gas**

Storage

- Different types
- Operations
- Storage development
- Regulatory issues

Liquefied Natural Gas (LNG)

- Basics
- Import/export terminals
- Vessels

Peak Shaving Plants

- Who uses them
- Locations
- Why they are important

Local Distribution Companies (LDCs)

- Physical plant-related operations
- How they work
- Economic trends
- Rates
- Regulatory trends

Natural Gas Infrastructure Siting: Who Regulates What

Greening of Power Sector

- Role that natural gas plays in integrating wind and solar energy into the electric grid and Clean Power Plan

Natural Gas Regulations

- Who regulates what, where, how, and why
- How FERC policy, major Orders and regulations have evolved into today's "Open Access" environment
- How natural gas delivery and storage is regulated across the value chain
- Significant FERC regulatory initiatives, policies and Orders that have transformed the industry
- Hot policy, regulatory, environmental, and safety issues that may impact how the industry operates
- Overview of regulated rate components and rate design and new rate policies on the horizon
- The fundamentals of Certificate and Rate Proceedings and how to understand capacity matters and pipeline tariffs, transportation services, agreements, and rates using FERC's etariff and FERC forms

Gas Transportation through the Value Chain

- Overview of gas transportation
- Nominations
- Scheduling
- Receipt
- Balancing
- Operational Balancing Agreement (OBA)
- Operational Flow Order (OFO)
- Penalties
- Interruptions
- Curtailments



“Good course to learn basics of natural gas industry.”

Energy Market Consultant,
Energy Exemplar

OVERVIEW

This course will present an overview of physical and financial natural gas markets. Attendees will review natural gas market basics, including terminology, concepts, and the mechanics of physical natural gas trading. They will discuss the role of NYMEX Natural Gas Futures Contract in determining the value of physical natural gas. Our expert instructor will provide an in-depth understanding of gas indices, fixed price, and physical basis deals. He will address major trends on how sellers and purchasers price physical natural gas. Attendees will gain an understanding of where to find price information, what affects prices, and the role of natural gas index publishers. They will leave the course with the ability to assess the importance of liquidity in physical natural gas markets and review considerations used to determine whether or not to hedge. The course will discuss the role of FERC, the Commodity Futures Trading Commission (CFTC), states, and other participants in regulating natural gas markets. The course will conclude with a discussion regarding where natural gas markets are headed.

The intent is that participants will be able to apply the information learned the first day they return to their jobs. Hands-on activities will be included throughout the day.

LEARNING OUTCOMES

- Discuss an overview of physical and financial natural gas markets and their key differences
- Explain the role of NYMEX Natural Gas Futures Contract in determining the value of physical natural gas
- Review natural gas market basics, including terminology, concepts, and the mechanics of physical natural gas trading
- Express where physical natural gas can be bought and sold
- Discuss gas indices, fixed price, and physical basis deals
- Address major trends on how sellers and purchasers price physical natural gas
- Describe where to find price information and what affects prices
- Explain the role of natural gas index publishers
- Assess the importance of liquidity in physical natural gas markets
- List the major players of physical natural gas markets
- Review considerations used to determine whether or not to hedge
- Describe the role of FERC, the Commodity Futures Trading Commission (CFTC), states, and other participants in regulating natural gas markets
- Discuss where natural gas markets are headed

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How Oil, NGL and Gas Prices are affecting the Shale Gas Revolution

- Where are natural gas prices headed?
- Why crude oil, NGL, aging infrastructure and environmental factors are important
- Shale 2.0

Physical and Financial Natural Gas Markets

- Overview
- Key differences
- Liquidity in physical markets vs. financial markets
- Role of clearing in natural gas markets

Physical Natural Gas: Buying and Selling

- Where can physical natural gas be bought and sold
- Bidweek (next month gas)
- Daily gas
- Intraday
- Weekend gas markets

Natural Gas Pricing

- How is natural gas priced?
- Natural gas indices
- Fixed price deals
- Physical basis deals
- Role of index publishers and price discovery
- WebICE electronic platform
- What do index publishers use to calculate indices
- Major trends on how sellers and purchasers price physical natural gas
- Gas and electric coordination

NYMEX Natural Gas Futures Contract and ICE Look-Alike Futures Contract

- What are these and how do they differ
- Role of NYMEX Natural gas futures settlement during bid week in setting gas prices
- How Settlement of the NYMEX affects physical daily and monthly gas indices

Natural Gas Market Basics

- Terminology
- Concepts
- Mechanics of physical natural gas trading
- Role of: Intercontinental Exchange and Natural Gas Exchange (NGX)
- Voice brokers
- Firm and interruptible pipeline transportation nominations

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AGENDA

August 13, 2019 (CONTINUED)

Hedging with Physicals, Futures and Swaps

- How to physically hedge natural gas with firm transportation, storage, LNG, peak shaving plants, and take and release contracts
- To hedge or not to hedge- and how much?
- Hedging for natural gas producers and purchasers with examples
- Key differences between futures and swaps and related costs to hedge

Natural Gas Markets: Regulatory Perspectives

- Who's watching the natural gas markets for manipulation?
- FERC, Commodity Futures Trading Commission, States
- What gets FERC's attention in the natural gas markets
- How FERC performs over sight 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 FERC regulatory skills in siting hydropower, natural gas and liquefied natural gas infrastructure, NEPA environmental impact assessment and in how energy markets, prices and physical/cybersecurity affect infrastructure investments.

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 is very active in hydropower and natural gas matters and writes an Energy and Environmental column for the Natural Gas and Electricity Journal. He also co-authored for the R Street Institute entitled "Ebbing the flow of hydropower red tape."

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.

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REQUIREMENTS FOR SUCCESSFUL COMPLETION

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 will be used in this course.

EVENT LOCATION

The event is located at the Pittsburgh Marriott City Center, 112 Washington Pl, Pittsburgh, PA 15219 1 412-471-4000. **Please make your reservations early.**

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 ANSI/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 ANSI/IACET Standard.

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

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Upon successful completion of this event, program participants interested in receiving CPE credits will receive a certificate of completion. EUCI is authorized by CPE to offer 12 credits for the course. There is no prerequisite for this course. **Program Level:** Beginner, **Delivery Method:** Group-Live, **Advanced Preparation:** None

EUCI is authorized by CPE to offer 8.0 credits

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To Register, Click Here, or

EVENT LOCATION

Mail Directly To:

[PMA Conference Management](#)
POB 2303
Falls Church VA 22042
email: register@pmaconference.com

p:201-871-0474
f: 253-663-7224

The event is located at the Pittsburgh Marriott City Center,
112 Washington Pl, Pittsburgh, PA 15219 1 412-471-4000.
Please make your reservations early.

- BOTH INTRODUCTION TO THE NATURAL GAS INDUSTRY, INFRASTRUCTURE AND REGULATIONS AND NATURAL GAS PHYSICAL & FINANCIAL MARKETS COURSES**
August 12-13, 2019: US \$1895

- INTRODUCTION TO THE NATURAL GAS INDUSTRY, INFRASTRUCTURE AND REGULATIONS COURSE ONLY**
August 12, 2019: US \$995

- NATURAL GAS PHYSICAL & FINANCIAL MARKETS COURSE ONLY**
August 13, 2019: US \$995

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

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List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card

Billing Address

Account Number

Billing City

Billing State

Exp. Date

Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

Billing Zip Code/Postal Code

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 June 14, 2019 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. EUCI reserves the right to alter this program without prior notice.