



# 2 day seminar in NATURAL GAS MARKET

THE ESSENTIALS  
&  
INTRODUCTION TO POWER EXCHANGE CONCEPT: MARKETS & PRODUCTS

## 1<sup>st</sup> DAY OF THE SEMINAR

### NATURAL GAS MARKET: THE ESSENTIALS

#### About this Training Course

The course is organized to provide actual understanding of the overall natural gas market. Developed by two experts on the field, this course outlines topics related to gas infrastructure, storage and regulatory issues. It concentrates on the economics of gas, and discusses topics such as trading strategies and price management with derivatives. Besides, the course explains the current developments in the European wholesale gas markets and the opportunities presented in Greek market.

#### Methodology

Theory, several examples and case scenarios related to gas markets.

#### Who Should Attend & Course Prerequisites

- Energy industry managers
- Policy makers and regulators
- Risk managers
- Physical and financial exchange staff

**Background Level:** There are no prerequisites to attend this course, apart from a basic understanding of the energy industry.



## Course Outline

### **INTRODUCTION TO NATURAL GAS MARKET (10:00-11:00)**

- Natural Gas: The Physical Commodity
- Gas Infrastructure: Transportation of Gas
- Gas Storage Overview (Types & Nature of Storages, Trade value,)
- LNG Facilities
- Regulatory Issues

### **THE ECONOMICS OF GAS (11:00-13:00)**

- The Dynamics of Trading Gas
- Gas Commodity Pricing / Price Management
- Futures, Forwards & Forecasts Curves
- LNG Trading Strategies
- LNG Hubs and Pricing

## Lunch Break (13:00-14:00)

### **EUROPEAN WHOLESALE GAS MARKETS (14:00-16:00)**

- European Markets
- How Markets are changing
- Competition LNG versus pipeline gas
- Risk, Risk Management & Hedging
- Hedging Gas Price exposure (Physical, Futures, Swaps & Forwards Markets)

### **MARKET ANALYSIS (16:00-18:00)**

- Short & Long-term Market Outlook
- Gas Risk Management to European Power Markets
- Supply Gas contracts structures & drivers
- Take-or-pay, operation liabilities
- The Politics of Gas

**Instructors:** Dr. Kostas Andriosopoulos & Mr. Ashutosh Shastri



## 2nd DAY OF THE SEMINAR

### INTRODUCTION TO POWER EXCHANGE CONCEPT: MARKETS & PRODUCTS

#### About this Training Course

The second day of the seminar provides a solid introduction to the main principles and concepts of the power market model as implemented in Europe, accompanied by the latest developments in Greece. Speakers, bring a lot of expertise on energy exchanges globally. The seminar includes an introduction to the roles of the different markets, regulation, price determination, reference price, risk management, hedging and trading with derivatives. The objective is to understand the most important features and the role of Power Exchanges.

#### Methodology

Theory, several examples and case scenarios related to electricity markets.

#### Who Should Attend & Course Prerequisites

- Energy industry managers
- Policy makers and regulators
- Risk managers
- Physical and financial exchange staff

**Background Level:** There are no prerequisites to attend this course, apart from a basic understanding of the energy industry.

**Instructors:** Mr. Ashutosh Shastri & Mr. Filippos Ioannidis



## Course Outline

### **THE POWER EXCHANGE (PX) (10:00-11:00)**

- Introduction to Power Exchange concept and its development
- Roles and responsibilities of PX
- European and global power market development

### **THE MARKETS (11:00-13:00)**

- Trading in Day-Ahead Market
- The role of the Intraday Market
- The Forwards Market
- Bidding strategy and principles
- Coexistence of bilateral contracts and Day-Ahead contracts

### **Lunch Break (13:00-14:00)**

### **THE ROLE OF NATURAL GAS IN PX (14:00-16:00)**

- Natural Gas Trading in Power Exchanges
- Trading, Transit & Transition Hubs
- Evidence from Europe (Gas Hubs & Power Exchanges)
- Traded Volumes and Prices

### **CLEARING & TRADING ELECTRICITY DERIVATIVES (16:00-18:00)**

- What is the benefit of clearing?
- The tasks and risks involved for a clearing house
- Product structure in power derivatives
- How the hedging mechanism works
- Physical contracts and trade in derivatives



Dates of the seminar:	October 22 <sup>nd</sup> & 23 <sup>rd</sup> , 2018
Conducting Hours:	10:00 - 18:00
Total seminar hours:	16
Last day for application:	September 21 <sup>st</sup> , 2018
Participation fee:	€565 (plus VAT 24%)
Venue:	Athens Exchange, 110 Athinon Ave. GR104 42 Athens
Instructors :	Dr. Kostas Andriosopoulos, Mr. Ashutosh Shastri, Mr. Filippos Ioannidis

#### NOTES

- Fees should be cleared in full by September 20<sup>th</sup>, 2018. If the course does not take place, the full amount will be refunded.
- The Athens Stock Exchange may cancel the program or change the dates and times for the suggestions without any obligation.
- Participants will receive the course material as well as a certificate of attendance.

## Instructors brief CV



**Dr. Kostas Andriosopoulos** is the Executive Director of the Research Centre for Energy Management at ESCP Europe Business School in London, where he holds the position of Professor in Finance and Energy Economics. He is also the Academic Director of the full-time and the Executive Masters in Energy Management. Kostas holds a PhD in Finance from Cass Business School, City University London. Kostas' current interests include price modelling, financial engineering and the application of operational research tools on risk management and investment techniques in energy, shipping and commodity markets. His work has been published in international finance and commodity related Journals. In addition to his academic profile he has an extensive professional experience in the business world. Kostas was from June 2014 to November 2015 the Vice-Chairman of the Board of Directors of the Greek Public Gas Corporation (DEPA). Kostas has served as an advisor for several international clients from the energy, manufacturing, commodity trading and shipping industries. Dr. Andriosopoulos is a member in various professional and academic associations such as the Hellenic Association for Energy Economics (Chairman), the Global Gas Center (Board Member), the World Energy Council, the International Association for Energy Economics, Financial Engineering and Banking Society (Board Member), and Technical Chamber of Greece. Moreover, he was a member of the Energy Commission of the Industry and Parliament Trust in the UK (2012-13).



**Mr. Ashutosh Shastri** is Member of the Board of Directors of the World Energy Council - Global Gas Center. Currently he is Director of EnerStart while in the past he worked with a diversity of Utilities and Industrial Groups in the areas of organization, strategy and operations in Europe, United States, Asia and the Middle East. Ashutosh specializes in the areas of market design, regulatory strategy, operational cost minimization, and energy trading. Ashutosh joined EnerStart in early 2003, and was previously a consultant in the European Power and Natural Gas Practice of McKinsey based in London.



**Mr. Filippos Ioannidis** is a PhD candidate on the field of Energy and Finance, in the Department of Economics at the Aristotle University of Thessaloniki. He holds a Master degree in Economics from Lund University in Sweden and a Master degree in Banking and Finance from International Hellenic University. Currently, he is a research associate of the Hellenic Association for Energy Economics, for which he participates in studies and policy proposals for topics related to energy and finance.