



LNG Arbitrage, Hedging and Risk Management In-house training course *Example 3 day Course*

Course Outline

Improve your expertise with this course in LNG

This 3 day intensive course will give you the cutting-edge knowledge needed in today's complex LNG market. These three days will increase your expertise in the LNG market, raise your knowledge to a higher level and enhance your performance.

Course Objectives:

- ❑ Understand the current and global drivers in world Natural gas and LNG markets
- ❑ Understand the structures with which LNG is traded and risks are hedged
- ❑ Discover the trading opportunities, risks and hedging strategies in LNG
- ❑ Assess the benefit of having LNG in a portfolio of gas operations

Case Studies:

We use cases throughout this course in various forms. The cases allow the practical application of participants' newly-acquired knowledge. Case studies also stimulate independent thinking and discussion among the participants.



About Kasper Walet



Kasper Walet has more than 20 years of experience and extensive knowledge on a theoretical and practical level about all the aspects related to trading, derivatives and risk management in the (energy) commodity industry.

Kasper received a Masters degree in Law from the University of Utrecht in 1987. He started his career at the NLKKAS, the Clearing House of the Commodity Futures Exchange in Amsterdam. After working for the NLKKAS for five years, Kasper was appointed as Member of the Management Board of the Agricultural Futures Exchange (ATA) in Amsterdam at the age of 31. While working for the Clearing House and exchange, Kasper became an expert in all the aspects of trading and risk management of commodities.

In 1997 he founded his own specialist-consulting firm that provides strategic advice about (energy) commodity trading and risk management.

Kasper has advised government agencies such as the European Commission, investment banks, major utilities and commodity trading companies and various exchanges in Europe, CEE countries, North America and Asia. Some of the issues he has advised on are the development and implementation of a Risk Management Framework, investment strategies, trading and hedging strategies, initiation of Power Exchanges (APX) and other trading platforms, the set-up of (OTC) Clearing facilities, and feasibility and market studies like for the LNG Market.

Kasper has given numerous seminars, workshops and (in-house) training sessions about both the physical and financial trading of commodity products. The courses have been given to companies all over the world, in countries like Japan, Singapore, Thailand, United Kingdom, Germany, Poland, Slovenia, Czech Republic, Malaysia, China, India, Belgium and the Netherlands.

Kasper has published several articles in specialist magazines such as *Commodities Now* and *Energy Risk* and he is the co-author of a book called *A Guide to Emissions Trading: Risk Management and Business Implications* published by Risk Books in 2004.



Day 1

1. Overview of Natural Gas Markets

- Liberalisation and regulation, opportunities to trade
- Supply chain
- Demand and Supply
- Price drivers
- Main trading Hubs
- Physical Flexibility Tools
- Storage
- Hub services

2. Overview of LNG Markets

- Relationship between natural gas and LNG trading
- LNG Value Chain
- Supply and demand
- LNG Trade Flows
- Competition between markets
 - LNG Supply; Atlantic Basin, Pacific Basin, Middle East and New producers
 - LNG Import; Atlantic Basin, Pacific Basin
- Pricing
 - Contract structures
 - LNG spot price; Netbacks
- Players in LNG market
- Market trends
- Future Outlook

3. Natural Gas and LNG trading markets

- Players in the trading markets: banks, brokers, traders, end users, producers:
- What is their role?
- Why do they trade?
- How do they make money?
- Energy markets and how they function:
- What is OTC? What is exchange trading?
- OTC versus exchange trading
- Spot versus forward trading
- Forward and futures markets and how they function:

4. Trading

- Trading physical commodity
- Hedging of price and volume
- Demand impact on trading
- Selling or Trading
- Management tools for forecasting and portfolios
- Hedging against the unknown
- Arbitrage - local and international



Day 2

5. Features Derivatives

- What are derivatives
- History
- History disasters; e.g Enron, Societe General, LTCM and others

6. Forwards and Swaps; the basics

- Forwards and Futures (example of natural gas swap)
- Swaps (example of natural gas swap)
- Definitions
- Hedging with Futures and Forwards
- Hedging with Swaps

7. Basics of Commodity Options

- Calls and Puts
- Difference between buying and selling options
- Terminology
 - Moneyness
 - Expiration
 - Intrinsic Value
 - Premium
 - Strike Price
 - Time value
- Cap, Floor and Collar
- Hedging applications

8. Relation Spot and Forward Markets

- Demand, supply and pricing
- Inventories
- Theory Storage and Futures
- Inventories and Futures Prices
- Convenience Yield
- The Forward Value
 - Backwardation and Contango
 - Forecasts versus forward prices

9. Concept of hedging

- What is hedging
- Hedging efficiency
- Optimal hedge ratio
- Cash flow at risk
- Dynamic hedging



Day 3

9. Forward hedging strategies for Natural Gas and LNG

- Trading and hedging strategies: Optimising return while minimising risk
- Hedging against spot price risk
- Hedging and liquidity risk
- Evaluation of trading and hedging strategies
- Roll-over hedge
- Value-at-Risk in a trading organisation
- Using risk capital: matching return with risk
- **Case Studies: 5 real life LNG hedging scenarios**

10. Structured Products in Commodity Markets

- Decomposing contracts: financial engineering
- Spreads
 - Calendar and Locational spreads
 - Spark and Dark spread
 - Crack spread
 - Cross-correlations between natural gas, oil, coal and electricity markets

11. Risks and Risk Management

- Identification and quantification of risk
- Counter party and credit risk
- Typical trading strategies and their associated risks
- Main sources, scale and timing of risk
- Static reporting and dynamic management
- Risk/reward strategies
- Mark-to-Market
- Value-at-Risk
- Correlation and Volatility

Contact

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Your Commodity Markets and Risk Management Partner