

2-DAYS GAS-TO-OIL PRICING & HEDGING

This document outlines a 2-day training course which is specifically designed to expand delegates' knowledge of energy derivatives, clearing and settlement of derivatives contracts, margining procedures and collateral requirements, trading platforms, price references, benchmarks and indices, cleared products as well as pricing and valuation of these products.

Extensive explanation of products and markets is provided, as well as the working of processes and systems.

The training sessions have a strong interactive character whereby the involvement of participants is of utmost importance. While dealing with each subject, attention is given to the various characteristics, aspects, opportunities and risks attached to that subject.

Target Group

This training course is specifically suitable for -but certainly not limited to- Back Office staff and ICT experts, including:

- Confirmations officers & Settlements officers
- Project managers & ETRM experts

But also for:

- Staff from the finance department & Controllers
- Exchange staff & Clearing corporation's staff
- Bank employees
- Brokers

Learning Objectives

The learning objectives of this extensive education programme are to acquire insight and knowledge of, and practical skills regarding:

- Asset classes: Financial instruments & products
 - Their working
 - Pricing, benchmarks & indices
- Trading platforms
 - Exchanges & OTC markets
- Markets: market participants and their role
 - Clients and their role or desires
 - The role of banks, brokers, exchanges and clearing organizations
- Clearing of financial instruments
 - Margin requirements and collateralization
- Settlement of financial instruments & products
- Pricing & Valuation
 - Mark-to-Market valuation
 - End of day prices
 - Indices
 - Data & news providers
- Systems
 - Reporting systems
 - Trading & risk management systems
 - ICT applications

DAY 1

Session 1

Gas pricing

- History of gas pricing
 - Lack of reference
 - Gas-to-Oil pricing
 - Formula types
 - Oil ingredients
- Current tendency
 - Decoupling
 - Gas-to-Gas pricing
 - HH, NBP, TTF

Session 2

Oil products explained

- Crude
 - Brent
 - Brent, Forties, Oseberg & Ekofisk
 - WTI
- Refinery products
 - Gasoil
 - Fuel oil
- Exchanges
 - ICE, NYMEX & DME
- Data & News providers
 - Bloomberg, Reuters, Platts, Argus, ICIS Heren

Session 3

Statistical concepts simply explained

- Consequences of formula pricing & hedging
 - Liquidity
 - Volatility
 - Correlation

Exercise

Volatility, correlation & liquidity

Session 4

Swing contract

- Oil formula-based swing contract
- Swing optionality
- Flexibility is an option
- Pricing
 - ARIMA
 - 3.0.3 contracts
 - 6.1.3 contracts
 - 6.2.3 contracts

Exercise

Calculate the gas price in a gas-to-oil priced swing contract

DAY 2

Session 5

Gas procurement & FX trading

- Oil pricing
 - Currency
 - USD
 - Different units
 - Barrels
 - Tonnes
 - Gallons
- Gas pricing
 - Different currencies
 - Different units
 - Therms
 - BTU
 - Cubic meters
 - MWh
- Currency pairs
 - EUR versus GBP
 - EUR versus USD
 - GBP versus USD

Simulation

FX hedging & trading

Session 6

Swap contracts

- Book structure
 - The impact of cross-commodity trading & hedging on different books
 - Book structure explained
- Swaps
 - Gas swap
 - Oil swap
 - Gas-Oil swap
 - FX swap

Exercise

Gas and oil swap contracts

Session 7

Risk management

- Value at Risk
 - VaR
 - Time horizon
 - Confidence level
- VaR of a combined portfolio
 - Various commodities
 - Gas & oil
 - How to implement correlation coefficients?
- Dirty hedge
 - Cross-margining
 - Interpretation of exposures

Exercise

Calculate the VaR of an oil & gas position

Session 8

Hedging

- Value hedging
 - The impact of value hedging
 - How to effectuate value hedging in practice?
- Formula hedging
 - The impact of formula hedging
 - How to effectuate formula hedging in practice?
- Beta hedging
 - The impact of beta hedging
 - How to effectuate in beta hedging practice?

Exercise

Hedge a long term contract

Exercise

Beta hedging