



## Financial Modelling and Petroleum Project Economics Training

### Description

#### Introduction

Many senior and middle managers do not utilise Excel to its maximum potential. Instead they use it as they would a calculator. If you fall into this category then this seminar is for you. Having completed this ten day seminar you will have the requisite tools to utilise Excel to its fullest and be better equipped to challenge decisions. In addition, if you work in the upstream or downstream, and your career progression is being restricted by outdated knowledge of modelling techniques then this seminar will help you move your career forward.

#### Highlights of the seminar include:

- A seminar which takes delegates from Excel basics to the most advanced use of Excel.
- Real world approach to the discipline.
- Numerous examples based around the oil and gas industry.
- Dual approach that not only develops modelling skills but also financial management skills.

#### Objectives

The seminar provides delegates with the tools required to find better answers to questions such as:

- How to improve the quality of the quantitative analysis of my corporate presentations
- How to model and advise on hedging price changes in the oil and gas industry
- How to model investment appraisal techniques and utilise decision trees to model the option to abandon

#### The Content:

##### **An introduction to the Excel Environment, with Petroleum based examples**

- Background to the Petroleum industry
- Cell referencing, using formula's, formatting

- Advanced charting within Excel
- Data manipulation and management

## **Financial Analysis in the up and down stream Oil and Gas industry I**

- Introduction to financial statements
- Ratio analysis applied to the Oil and Gas Industry

## **Financial Analysis in the up and down stream Oil and Gas industry II**

- Trend analysis using Excel
- Projecting financial statements using forecasting techniques available within Excel

## **Statistical analysis (applied to the Oil and Gas industry) using Excel**

- Analysis of equity returns of oil and gas industry companies
- Use of Excel functions for statistical analysis
- Use of scatter diagrams and regression techniques to calculate cost of equity financing.

## **Capital Structure in the Oil and Gas industry**

- Analysis of capital structure throughout the up-stream and down-stream oil and gas industry.
- Examination of bond issues and IPO's by oil and gas industry participants.
- Examination and calculation of the cost of debt financing.

## **Investment Appraisal using Excel I**

- Investment appraisal using NPV, IRR and payback as applied to the oil and gas industry.
- Use of Excel functions for investment appraisal: IRR, PV and NPV
- Use of solver in scenario analysis and stress testing

## **Investment Appraisal using Excel II**

- Using Excel to model decision trees
- Using Excel to calculate the value of a real option and the abandonment decision

## **An introduction to energy derivatives**

- An introduction to the derivatives market
- Examination of petroleum based derivatives, including futures and options.
- Modelling up-stream down stream energy products using Excel

## **Hedging risk using energy derivatives**

- Hedging against price decreases and increases using petroleum futures
- Using VBA to create functions to value energy derivatives
- Hedging against price changes using petroleum based options

## **Oil product spreads**

- Examining the relationship between energy products

- Using futures spreads to speculate and to hedge against profit margin risk

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