

N661: Oil & Gas Economic Evaluation

Instructor(s): Ed Jankowski

Format and Duration

Classroom - 5 Days

Virtual - 10 Sessions

Summary

This course will focus on the valuation of Oil and Gas projects based on industry standard methodology. During this course, participants will learn how companies and governments analyse project returns and identify the main value drivers. The link between technical and commercial input assumptions and value will be the main focus of the course. This will include the classification and categorization of volumes into Resources and Reserves using the Petroleum Resources Management System (PRMS). An introduction to petroleum fiscal systems and Government Take will be given. The course will focus on the structure of Production Sharing Agreements and the variations in contract terms. Participants will be introduced to the structure of such contracts via practical modelling exercises using Microsoft excel.

Learning Outcomes

Participants will learn to:

1. Understand the basics principles of petroleum economic analysis and know what input data and assumptions are needed to undertake an economic analysis.
2. Appreciate the link between hydrocarbon volumes and economic value.
3. Demonstrate an understanding of petroleum fiscal systems and how these link to project net cash flows.
4. Understand the structure of the main types of fiscal contracts
5. Appreciate the importance of government take and investment incentives
6. Have a detailed understanding of the structure of Production Sharing Agreements
7. Appreciate the drivers of value in such agreements and how to analyse project returns

Training Method

A classroom course comprising a combination of lectures and practical exercises to ensure participants learn and develop an understanding of the concepts covered.

Course Content

- Project vs. Company/State cashflows
- General framework of hydrocarbon fiscal systems
- Project development (development options, production forecasts, cost estimation and schedule)
- Project valuation (unrisked and risked valuation of oil and gas projects, NPV vs. EMV)
- Project cash flow analysis (calculation of future cash flows, cash flow metrics), incremental economics and sensitivity analysis