

# El Oil and Gas Training 2010

## Financial and contracts management portfolio



# Practical Workshop: Building Excel Models of Oil and Gas Fiscal Terms

13–15 April 2010, London, UK



El member £1,600.00 (£1,880.00 inc VAT) Non-member £1,800.00 (£2,115.00 inc VAT)\*

\*includes complimentary Affiliate membership to the Energy Institute

A key task for oil and gas organisations working with upstream assets is to be able to understand and model the economic implications of varying fiscal terms on their projects. Proprietary software designed to analyse fiscal terms has many short-comings in this regard (e.g. black-box methodology and the need for expensive specialist software engineers to modify / update it). Most analysts need from time to time to build, and rapidly modify, their own models to facilitate detailed analysis. Excel offers the ideal platform for such work with its transparent and highly flexible functions, supplemented by excellent graphics and visual basic (VBA) macro options.

This course offers hands-on instruction for building, developing and applying spreadsheet models to analyse the economic performance of upstream fiscal terms. It is built around a series of workbook modules compatible with Excel 2007 and 2003 versions. **Delegates are required to bring their own laptop computers loaded with a functioning version of Excel 2003 or 2007 for use during the course.**

Delegates are not confronted with one large complex model that is difficult to interpret and audit. Rather they are provided daily with a number of workbooks to load, evaluate and develop through structured exercises into increasingly sophisticated models. Some basic knowledge of operating Excel software is required, but detailed expertise is not essential, as the workbooks provided are concise, user-friendly and structured to explain their objectives in easy-to-follow steps. The emphasis of the workshop is on providing insight to fiscal analysis rather than developing advanced spreadsheet skills, but both should be part of the learning outcomes.

The course is broken down into approximately **one-quarter theoretical instruction and three-quarters practical hands-on facilitated spreadsheet model development.** Brief PowerPoint presentations are delivered to review the key fiscal elements involved in a wide range of upstream fiscal designs. The presentations provide delegates with useful insight into how upstream fiscal systems are structured. They address mineral interest (tax and royalty) and production sharing systems and the common components used in those alternatives around the world, including R-factors, rates of return and a range of depreciation methods. Investment yardsticks are developed in some workbooks to analyse fiscal performance. These include the discounted cash-flow metrics of net present value, rates of return, profit / investment ratios, payback time and financial exposure measures.

The models are developed from the perspective of investing companies and the government's (i.e. total government take and partial government take, e.g. state-owned company positions). Concepts of state-take percentages of revenues and cash-flows are developed. Some models address the issues of inflation and buying-power valuation and explain in simple terms how nominal (money-of-the-day) and real values are derived and their significance.

The workbook modules introduce the delegates to some powerful graphics' techniques and illustrate how visual basic (VBA) macros can greatly enhance the speed and power of many fiscal models. These enable wide-ranging sensitivity analysis to be conducted and displayed rapidly.

Many companies make extensive use of proprietary economic modelling software, often requiring macros to be built to evaluate case-specific problems. In such cases, even though spreadsheets may not be used routinely, it is of enormous benefit for analysts and decision-makers to understand how such models can be built, developed and manipulated on a spreadsheet platform. Spreadsheets in conjunction with built-in functions, add-ins and VBA macros provide an extremely powerful platform for such analysis. The course practical sessions will demonstrate how such features can be simply and effectively harnessed to build quite sophisticated, but highly functional, analytical models.

**The training materials provided to delegates for this course are all in digital formats.** The course workbooks should arm the delegates with easy-to-adapt tools for building their own fiscal models.

## Detailed content covered by course

### Day one – Key Features of Upstream Licence Agreements

- Common Types of Upstream Fiscal Design
- Contracts versus Licences and Licence Agreement
- Division of Economic Rent
- Royalty, Production Taxes and Income Taxes
- Progressive and Regressive Fiscal Elements
- Time Value, Discounting and Depreciation
- Economic Performance Measurements and Yardsticks
- Net Present Value (NPV) and Mid-year Discounting
- Investor's Rate of Return (IRR) and Payback
- Production Sharing Agreements and Contracts (PSA or PSC)
- Cost Recovery Allocations: Cost Oil and Cost Gas
- Profit Oil and Gas
- Revenue Split Flow Diagrams to Illustrate Fiscal Design
- Splitting the Proceeds of One Production Unit

### Day two – Components of Multi-year Spreadsheet Fiscal Models

- Multi-year Production Sharing Contract Cash Flow Models
- Switching Production Data Profiles for Analysis Using CHOOSE Function
- Programming and Display Styles: Named Ranges Versus Nested IFs
- Gross and Net (of cost) Tax Bases
- Royalties and Their Regressive Nature
- Minor Fiscal Terms: Bonuses and Rentals
- Establishing Economic Limits and Field Shutdown / Abandonment Logic

- Fiscal Terms Driven By Production, Reserves and Economic Yardsticks
- Sliding Scales Using Simple and Compound VLOOKUP Function
- Annotating Dynamic Graphics driven by Spinners
- Inflation, Money of the Day versus Real Terms
- Issues Associated with Fiscal and Contractual Stability

### Day three – Models to Interrogate Fiscal Performance and Risk

- Sensitivity Analysis Using Multipliers Driven by Spinners
- Using Solver and Goal Seek Excel Functions for Break-even Analysis
- Detailed Sensitivity Analysis Using VBA Macro
- Risk Analysis of Project Cash Flows
- Probabilistic Analysis
- Expected Value (EV) and Expected Monetary Value (EMV)
- Farm-out Analysis Using a Decision Tree
- Tax Floors and Ceilings
- Income Taxes, Carry-forward Losses and Time Limits on Tax Allowances
- Debt Supported Cash Flows
- Developing VBA Macros for Scenario Analysis

## Who should attend this course?

This course is suitable for commercial, technical and financial analysts, tax accountants, economists, bankers, planners, lawyers and others working in the upstream oil and gas industry wishing to develop fiscal analysis skills using Excel spreadsheets to evaluate oil and natural gas projects. The material is designed to illustrate perspectives of oil and gas companies, governments, state-owned oil companies and those providing financial services to the industry.

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[www.argusmediagroup.com](http://www.argusmediagroup.com)

# Financial skills for non-financial managers

5-7 July 2010, London, UK



El member £1,880.00 (inc VAT) Non-member £2,115.00 (inc VAT)\*

\*includes complimentary Affiliate membership to the Energy Institute

## UNDERSTANDING THE KEY NUMBERS AND HELPING TO MAKE BETTER DECISIONS

A highly participative 3-day course which covers the principles, techniques and skills involved in the analysis of financial information in the oil industry, blending a clear theoretical framework with extensive use of real-life examples and case studies.

This course starts with a review of the financial language and the accounting basics, and explains the full scope of how financial analysis and accounting are interrelated. It explores how a clear understanding of the nature of the three cycles of financing, investing and operating a business will help the participants make improvements in their own businesses.

This course is focused on expanding the financial competencies of all staff who have an involvement with financial information so they can contribute to the making of better value-added decisions in their companies. The competencies emphasised include the necessary basic financial and accounting knowledge, the analytical skills needed to review financial information, and the ability to ask pertinent questions and then make good recommendations on the basis of the data analysed.

Understanding the nature of financial reports and being able to analyse and interpret financial information will offer a new perspective on business operations, which will enable a greater contribution to the success of the business as a whole.

### Course objectives

- Acquire an understanding of the fundamentals of financial information and the skills needed to use such information in order to help in the making of better value-added decisions
- Develop practical experience of how to apply financial skills in order to facilitate such value-added delivery in real life
- Raise personal financial skill levels in all four key areas

### Training methodology

There will be a strongly participative, learning-by-doing, style, making extensive use of examples and exercises/short case studies (both numeric/analytical and non-numeric/descriptive) as well as open plenary discussion sessions.

Given the financial nature of the course, and the frequent practical exercises, it is essential that participants are reasonably numerate. Ideally they should also have some prior familiarity with the financial basics (profit and loss accounts, balance sheets, discounted cash flow) – though this is not essential. Participants will make use of calculators, pencils and paper.

The course consists of several modules (see outline below). Each day will comprise several sessions, introducing new material to build on the learning in the previous sessions.

The course manual includes copies of all the slides used, as well as a Glossary of Financial Terms and a short Guide to DCF.

### Who should attend?

- *This course is designed for non-financial personnel who lack an in-depth knowledge of Accounting and Finance, and who need to acquire a broader understanding of these topics to improve their performance in their current role and/or to plan their future career.*
- *Business executives, strategic and business development planners and project managers who wish to refresh their understanding and enhance their skills in Financial Analysis and Decision Making.*



### COURSE OUTLINE – Introduction

- Seminar Objectives and Overview
- Financial Skills: Importance, Framework and Course Focus
- Corporate Framework and Objectives
- The Three Cycles of Business: Financing, Investing and Operating

### PART ONE

The Financial Language and Accounting Basics

- Accounts are not just for Accountants...
- The Fundamental Accounting Principles
- The Three Key Financial Statements
- Differentiating between Cash and Accruals Accounting
- Different Profit Measures
- The Structure of the Balance Sheet
- Basic Cash Flow Statements
- Impact of Working Capital on Cash Flow
- Accounting Exercises
- ROACE: A Measure for Everyone
- The SFS (Standard Financial Summary)
- The Impact of Inflation on Financial Performance: Case Study

### PART TWO – The Financial Statements and Financial Analysis

- The key elements of published reports and accounts
- Ratio Analysis
- Profitability and Liquidity ratios
- Disaggregating ROACE
- The Cash Conversion Cycle
- KPIs and WYMIWYG
- Ratio Exercises
- Consolidation
- Financial Benchmarking

### PART THREE – Planning, Budgeting and Cost Analysis

- The Value Model
- Planning
- The Cost of Capital
- The Time Value of Money/DCF Basics

- DCF Exercises
- Budgets and Plans
- Budgeting Approaches
- Budget Variance Analysis
- Cost Behaviour and Allocations
- Value-based Cost Analysis
- Operational Benchmarking

### PART FOUR – Analysis of Capital Investment Decisions

- What is Capital Investment
- Standard Evaluation Methodology
- The 4 Key Economic Indicators
- Defining the Right Base Case
- DCF Mini Case Studies
- Risk Management
- Sensitivity Analysis
- Alternative Evaluation Methods
- Acquisitions
- Acquisition Case Study
- The Drivers of Value
- Getting Approval

### PART FIVE – Analysis of Working Capital Decisions

- Optimise not Minimise
- Gross Working Capital Concept
- Key Issues and KPIs: Debtors, Creditors, Stocks
- The Cost of Working Capital
- The Working Capital Toolkit
- Working Capital Toolkit Exercises
- Credit Risk Management
- Settlement Options

### FINAL SESSION

- Course Summary and Checklists
- Financial Skills: Further Development
- Course Review: Feedback and Actions

For more information please contact Nick Wilkinson  
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[www.argusmediagroup.com](http://www.argusmediagroup.com)

# International upstream fiscal terms and contract negotiations



12–15 July 2010, London, UK

El member £2,585.00 inc VAT Non-member £2,820.00 inc VAT\*

\* includes complimentary Affiliate membership to the Energy Institute

The terms and structures of upstream licence agreements between companies and governments determine whether a specific oil and gas field can be developed on a commercial basis and how costs and profits will be divided over the field's life cycle. Global comparisons of the economic performance of production sharing contracts (PSCs), tax and royalty, service, risk and joint-venture contracts identify strengths, weaknesses, risks and opportunities associated with specific contracts.

The many issues, going beyond just the fiscal terms, that must be considered when negotiating licence agreements and these are identified during the course and reinforced through the use of examples and exercises.

The 4-day course will also focus on the fiscal, economic, negotiation and operational issues associated with a comprehensive range of the licence agreements encountered in the upstream oil and gas industry. Detailed explanations are provided of the key components (i.e. bonuses, royalty, cost oil, profit oil and various elements of taxation) of structurally different types of licence agreements and their implications for petroleum companies and governments.

## Topics covered include:

### Day one – Key features of upstream licence agreements

- Upstream licence agreements: definitions, objectives and concepts
- Contrasting host government and oil company perspectives
- Production Sharing Contracts (PSCs): origin, rationale and structure
- Title to resources and concepts of economic rent
- Contract term and relinquishment schedules
- Progressive and regressive taxation mechanisms
- Spectrum of taxation instruments applied
- Tax stability versus instability and asset appropriation
- Flexible drivers required for a range of E&P objectives: sliding scales
- Cost recovery mechanisms: cost oil, uplift and amortisation

### Day two – Establishing meaningful and workable contracts

- Competitive bidding, bonuses and licensing rounds: 'Winner's curse'
- Negotiating strategies to achieve workable terms
- Managing E&P licence agreements: accountability and control issues
- Authorising and budgeting for expenditure
- Authority for expenditure, cash calls and billing
- Allocating revenues and overheads
- Joint-venture operating and accounting principles
- Procurement and tendering issues
- Foreign currencies, accounting and cost allocation
- Limits on cost recovery, production allocations and tax allowances

- Ring fencing of costs and revenues
- Interface with operational and contractor agreements

### Day three – Managing and financing upstream contracts

- Operating and management committees and voting rights
- Integrating other contracts with upstream licensing terms
- Planning negotiations and setting agendas
- Options for financing field developments and contractual issues
- Loan interest tax treatments: deductions, allowances and credits
- Contractual risks and how to address them
- Clauses specific to gas, condensate and liquid petroleum gas (LPG)
- Oil price caps, local posted prices and domestic supply obligations
- Negotiating strategies and tactics

### Day four – Dealing with state involvement

- Carried interests and buy-back concepts
- State participation and back-in options
- Rights of assignment, farm-out and divestment issues
- Team negotiations
- Cultural issues impacting contract negotiations
- Sole risk and non-consent options
- Dispute resolution options and issues
- Approval of field developments and other work programme
- Safety, environment and decommissioning issues
- Documentation and learning from contractual experience

## Who should attend?

*This course is designed for a multi-disciplined audience with diverse commercial, technical, corporate, operations, planning, legal and risk management backgrounds from the oil and gas sector. Course content addresses issues and skills relevant to professionals working with or negotiating upstream petroleum contracts and licences, including: analysts, accountants, asset managers, bankers, contractors, economists, engineers, geologists, government regulators and representatives, financial controllers, insurers, investors, lawyers, national oil company and ministry personnel, negotiators, planners, portfolio managers, project managers, risk analysts, strategists and taxation administrators and advisors.*



# Registration form

**UK Entry Visas** – Please note that there have been recent changes to the UK Entry Visa application system. Given this, it now takes a minimum of 15 working days/3 weeks, to process any applications. If you wish to attend a course and need a visa, you are urged to apply at least 1 calendar month prior to the start date of the course. Full information at: [www.ukvisas.gov.uk/en/howtoapply/wheretooapply/](http://www.ukvisas.gov.uk/en/howtoapply/wheretooapply/)

To register, by post or fax, please complete this registration form in **BLOCK CAPITALS** and return it to the address below, together with payment of all fees. Nick Wilkinson, EI Oil and Gas Training, Energy Institute, 61 New Cavendish Street, London W1G 7AR, UK f: +44 (0)20 7255 1472 To register by email, please provide the same contact details (shown below), together with the relevant course details and send to: [nwilkinson@energyinst.org](mailto:nwilkinson@energyinst.org) To book online, visit: [www.energyinst.org](http://www.energyinst.org)

I am/my employer is a member of the EI and entitled to the EI member's rate. EI Membership Number: .....

Mr/Mrs/Miss/Ms/Dr/Other: ..... Name: .....

Job title or present position: ..... Company/Organisation: .....

Name and address against which an invoice should be raised: .....

.....

t: ..... f: .....

e: .....

Mailing address for joining instructions (if different to invoice address above): .....

.....

Please indicate if you have any particular dietary requirements:.....

I confirm that I have read and agree to the conditions of registration as specified in the General Information section.

Signature: ..... Date: .....

**Under UK Excise Regulations, delegates from all countries are required to pay VAT on any course taking place in the UK.**

Course Title:.....

Course date: ..... Cost of course: £ .....

Less 10% discount for each subsequent delegate from the same company attending the same course on the same date  
£ .....

I enclose my remittance, made payable to the Energy Institute, for: **TOTAL PAYMENT** £ .....inc VAT

The total amount may be paid by Sterling Cheque or Draft drawn on a bank in the UK.

To pay by Credit or Charge Card, circle appropriate card name and give card details below:

Visa                     
  MasterCard                     
  Euro Card                     
  Diners Club                     
  Amex

Card No: \_\_\_\_\_ Start Date \_\_ \_\_ / \_\_ \_\_ Expiry Date \_\_ \_\_ / \_\_ \_\_

Please enter your 3-digit\* security code above. This will be deleted upon authorisation. \*4-digits for Amex users.

Credit/Charge card holder's name and address: .....

.....

Signature: ..... Date: .....

**Payment:** Full payment must be received before a place can be guaranteed. Under UK Excise Regulations, delegates from all countries are required to pay VAT on any event taking place in the UK. Please note that VAT may be liable to amendment. All prices are correct at the time of going to press, but may be subject to change without prior notice.

**Acknowledgement of registration:** Confirmation of registration and a VAT receipt will be sent to all delegates. Joining instructions will be sent out prior to the start date of the course. If you have not received your acknowledgement seven days prior to the start date of the course, please contact EI Oil and Gas Training at the Energy Institute to confirm your booking.

**Language and course materials:** All presentations, course materials and supporting documentation will be presented in English. **Audio-visual recording of presentations is strictly forbidden. Course materials cannot be purchased by non-attendees.**

**Cancellation:** In the event of a delegate cancelling, a refund of the registration fee less a 20% administration charge will be made provided that notice is received in writing at least 28 days before the date of the course. No refunds will be paid after that date. However, course papers, as supplied to attendees, will be provided after the event.

**Substitution**  
If you are unable to attend, a substitute delegate may attend in your place, provided that EI Oil and Gas Training is notified in advance.

**Enquiries**  
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**DATA PROTECTION ACT**

The EI will hold your personal data on its computer database. This information may be accessed, retrieved and used by the EI and its associates for normal administrative purposes. If you are based outside the European Economic Area (the 'EEA'), information about you may be transferred outside the EEA. The EI may also periodically send you information on membership, training courses, events, conferences and publications in which you may be interested. If you do not wish to receive such information, please tick this box

The EI would also like to share your personal information with carefully selected third parties in order to provide you with information on other events and benefits that may be of interest to you. Your data may be managed by a third party in the capacity of a list processor only and the data owner will at all times be the EI. If you are happy for your details to be used in this way, please tick this box