

## **Advanced Energy Economics**

### **DAY 1**

#### **The Economic Environment and The Energy Industry**

- The Economic Environment
- Economic Challenges facing Governments and the Energy Sector
- Economic Evaluation of Reserves
- Making Economic Decisions in an Uncertain World
- EMV Expected Monetary Value & Decision Trees
- The Probability & Impact of Changes in Economic Variables: Interest Rates, Exchange Rates & Energy Prices

### **DAY 2**

#### **Economic Modelling in the Energy Industry**

- Revenue & Revenue Recognition
- The Impact of Energy Price Volatility
- Cost Estimation
- The Impact of Joint Venture & Production Sharing Agreements
- Working Interest, Royalties & Taxation
- Forecasting the Cashflow

### **DAY 3**

#### **Economic Evaluation of Energy Projects**

- Evaluating Accounting Profit and Return on Equity (ROE)
- Cost-Benefit Analysis: Finance V Economic Value Added
- Economic Analysis: Economic Value Added & Sustainability
- Key Economic Parameters - NPV, NPVI, IRR, Payback, Adjusted NPV & Adjusted Payback
- Cost Recovery Method
- Government Evaluation and Value for Money (VfM)

### **DAY 4**

#### **Economic Finance & the Energy Industry**

- Types of Finance
- Calculating the Cost of Capital (WACC) and the Capital Assets Pricing Model (CAPM)
- Determining the Economic Hurdle Rate
- Economic Management of Energy Projects
- Earned Value Analysis
- Budgetary Control & Cost Management

## **DAY 5**

### **Economic & Financial Risk Management in the Energy Industry**

- Economic & Financial Risks
- Managing Economic Risk & Uncertainty
- Developing and Using a Risk Model Analysis
- What are Derivatives? - Forwards, Options, Futures & Swaps
- International Derivative Markets & Middle East Derivative Markets
- Derivatives: Risk Management Tool or Economic Risk?