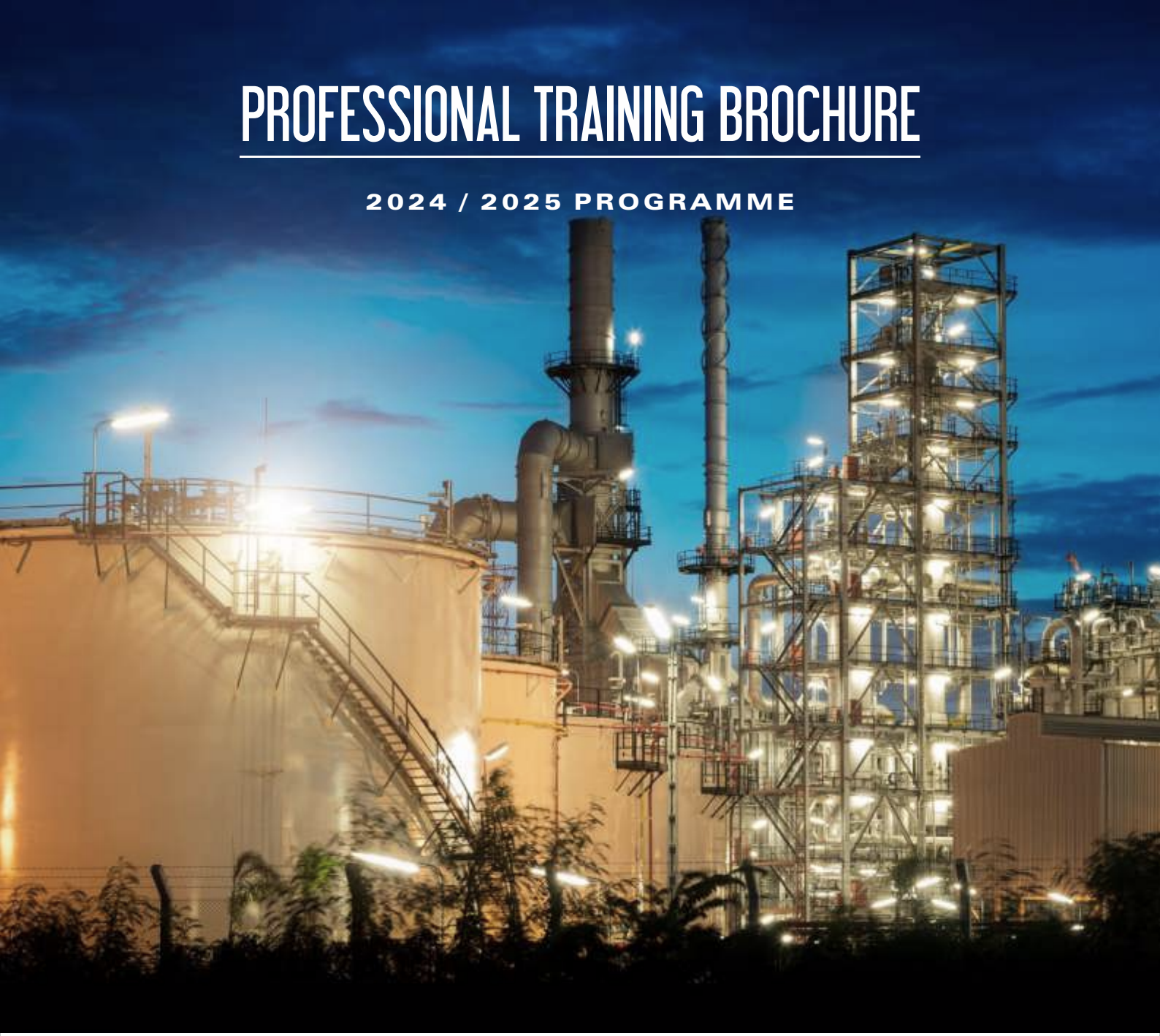
PROFESSIONAL TRAINING BROCHURE

2024 / 2025 PROGRAMME



SABEX

SABEX ENERGY SOLUTIONS LIMITED

SABEX

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PROFESSIONAL TRAINING BROCHURE

2024 / 2025 PROGRAMME

CONTENTS

CODE: SES 269

PETROLEUM DEPOT OPERATIONS MANAGEMENT

October 14th – 18th, 2024 - Lagos

Course Fee: N600,000 per participant

Learning Objectives

Participants should at the end of the course comprehend and undertake the following:

- Carry out review of depot operations
- Understand depot facilities, Hazards and Risks in the Downstream Sector
- Understand concepts of personal and process safety
- Discuss the reasons for managing health and safety in the depots
- Explain how health and safety are regulated and the consequences of non-compliance
- Summarise the main health and safety duties of different people in depots

Part 1: Depot Management

- Technical and Administrative functions
- Brief description of sectors of the oil and gas business
- Safety Management
- Depot Operations
- Equipment calibration process
- Retail Management
- Truck Management
- Maintenance and electrical
- Human capital management
- Internal Control and Internal Audit
- Shipping and Marine Operations
- Trading
- Finance
- Sales and Marketing
- Security
- Closing operational gaps

Part 2: HSE Considerations in Depot Operations

- Dynamics of Petroleum Depot Operations
- Some identified risk factors in depot operations
- Custody Management
- Safety factors in depot operations
- Permit to work system
- Features of ideal work space
- HSE management system
- Basic causes of accidents
- Identifying and controlling hazardous materials
- Safety in depot facilities
    - Safety factor/ requirements
    - Safety criteria
    - Feedback mechanisms
    - Multiple safety barriers
- Operational procedures
- Critical safety concerns

CODE: SES 271

GAS GATHERING, TRANSMISSION AND DISTRIBUTION MANAGEMENT

September 9th - 13th, 2024 - Port Harcourt
October 7th - 11th, 2024 - Uyo

Course Fee: N600,000 per participant

Introduction/Background

- Delineation of Gas Value Chain
- Importance of natural gas gathering
- Natural gas processing
- Natural gas treatment plant schematic
- Compressors metering stations and valves
- Supervised Control and Data Acquisition System
- Pipeline construction

- Safety precautions
- Natural Gas Value Chain
- Natural Gas Market Drivers
- NNPC National Gas Projects
- Regional Gas Supply (West Africa)

Nature and Future of Natural Gas

- Brief History of Natural Gas
- Formation of Natural Gas
- Composition of Natural gas
- Types of Natural Gas
  - Dry gas
  - Wet Gas
  - Condensates
- Unconventional Gas
- Global Gas Market Analysis
- Liquefied natural Gas – LNG

Natural Gas Distribution and Management

- Introduction to Natural Gas Value Chain
- Phases of Natural gas
- Methods of Natural Gas Transportation
- LNG Regasification Techniques
- Gas Distribution Systems
- Gas Industry Segments
- Determining Pressures for Distribution
- Linking Transmission and Distritution Lines
- Distribution systems

Types of Gas Distribution

- Gas City Gate Location
- Pressure Reduction and Metering Systems
- Gas Codes
- Gas Pipeline Hydraulic Design
- Temperature Indicators and Transmitters
- Gas Scrubbers
- Gas Odouring Units
- Gas Sampling and Analysis Unit
- Fire Detection System
- Sectionalisation, Bypass Lines and Vent Lines
- Cthodic Protection
- Gas Supply Requirements

CODE: SES 273

FINANCIAL MODELING AND PROJECT ECONOMICS

October 14th - 18th, 2024 - Accra, Ghana
November 25th - 29th, 2024 - Nairobi, Kenya

Course Fee: $5,000.00 per participant

Financial Modeling Section

Learning objectives

- Carryout Model Design in Excel
- Carryout Financial Modeling using Excel
- Value Investment Opportunities using Discounted Cash Flow Model in Excel

Lecture Topics

- Financial Modeling Overview
- Definitions
- Uses of Financial Model
- Objectives of Financial Model
- Qualities of Financial Modelers
- Types of Financial Models
- Building Three Statement Model
- Steps in Building Three Statement Model
- Discounted Cash Flow (DCF) Valuation Modeling
- Financial Risk and Sensitivity Modeling

Petroleum Project Economics Section

Learning Objectives

The learning objectives will among others include the following:

- Guide participants on how to develop economic systems
- Acquaint participants with common economic terms used in the petroleum industry
- Guide participants on basic techniques on how to develop economic models on petroleum fiscal regimes
- Carry out cash flow analyses on petroleum projects
- Evaluate and quantify risks and uncertainties
- Acquire skills to evaluate profitability analysis on projects
- Carry out sensitivity analysis
- Acquire skills to make the right investment decisions in the midst of risks

Course Content

- Types of petroleum Contracts
- Fiscal Terms for Petroleum Contracts
- Project Cash flow analysis including (DCF)
- Time value of money
- Profitability analysis
- Risk analysis
- Choosing between alternative projects, decision scenarios, analysis and evaluation
- Determination and application of IRR, NPV, Pay Back Period etc

Who Should Attend

- ·Engineers
- ·Economists
- ·Planners
- ·Accountants
- ·Other categories of staff

CODE: SES 267

FINANCIAL MODELING AND VALUATION

May 13th - 17th, 2024 - Accra, Ghana
June 24th - 29th, 2024 - Accra Ghana
August 5th - 9th, 2024 - Kigali Rwanda

Course Fee: $5,000.00 per participant

Introduction

The value of any investment opportunity arises from the future cash flows it will generate. To estimate the cash flows resulting from an investment, there is a need to project its future earnings. Thus, the objective of this module is to ensure that participants are aware of a number of elements of Excel and to enhance participant's skill and knowledge in Financial Modeling using Excel as well as valuation of investment opportunities using DCF Model.

Learning Objectives

At the end of the session, participants will be able to:

- carry out model design in Excel;
- build financial modeling using Excel; and
- value investment opportunities using Discounted Cash Flow Model on Excel

Day 1 Course Title: Introduction to Model Design in Excel

Introduction to Model Design in Excel

Course Outline

- Model Process-Introduction
- Understanding some basic principles for reducing errors in Excel Modeling
- Basic project evaluation
  - Model Process-Introduction
  - Understanding some basic principles for reducing errors in Excel Modeling
  - Basic project evaluation

Day 2 Course Title - Financial Modeling and Investment Valuation Technique

- Developing Business Plan
  - Estimating Sales and Operating Cost Assumptions for five financial year period
  - Forecasting business capital expenditure estimates
  - Estimating planned debt and interest payments
- Building Financial Model
  - Forecasting Business Future Earnings Using Income Statement
  - Sensitivity Analysis of the result
  - Case Study- Wind Farm Investment Project
- Valuing Investment Opportunities using Discounted Cash Flow Model

Day 3 Course Title: Discounted Cash Flow (DCF) Valuation Modelling

Learning Objectives

To expose participants to practical DCF modelling approach

- Gain proper understanding on how to design, construct, and review a best-in-class DCF valuation model
- Acquire practical knowledge on estimation of cost equity and debt
- Gain practical knowledge of how to utilize analytical historical data to construct a projected financial information
- Understand practical steps involved in the use of DCF valuation model
- Understand the bases of calculating the terminal value in DCF valuation model
- Transfer the skills set required in valuing any form of business regardless of stage of development using DCF valuation model

Course Outline

- Valuation model overview
- Concept of unlevered free cash flow
- Cash flow projection and discounting
- Historical analysis and valuation cash flow projection
- Stages in projected cash flow statement
- Estimation of capital expenditures (capex)
- Estimation of movement in working capital
- Estimating terminal value
- Determining the effective cost of capital such as cost of equity, debt and WACC
- Determining the enterprise value and equity value
- Practical demonstration of enterprise value and equity value using live data

Day 4 Course Title: - Financial Risk and Sensitivity Modelling

Objectives:

- Expose participants to the theoretical underpinning of the subject matter.
- Gain good understanding of financial risk tools used in the period of risk and uncertainty.
- Appreciate excel modelling for sensitivity analysis.
- Gain knowledge of how to determine independent and dependent variables.
- Understand the basis of constructing sensitivity analysis data table.
- Application of sensitivity analysis to various risk-based financial analysis.

Course Outline

- Financial risk analysis overview
- Financial risk analysis methods
- Financial risk analysis under risks and uncertainties
- Difference between scenario analysis and sensitivity analysis
- Steps in sensitivity analysis
- Performing sensitivity analysis in excel
- Constructing sensitivity analysis table
- Interpreting sensitivity analysis table

Day 5 Course Title: General course review (recap of in class practical)

- Excel based modelling Techniques
- Business Plan Development
- Valuing Investment Opportunities
- Financial Risk Modelling
- Financial Risk analysis etc
- Certificate award to participants

CODE: SES 249

PETROLEUM DECISION MAKING AND RISK ANALYSIS

May 27th - 31st, 2024 - Accra, Ghana
July 8th - 12th, 2024 - Kigali, Rwanda
August 26th - 30th, 2024 - Accra, Ghana

Course Fee: $5,000.00 per participant

Introduction

The Global Petroleum Industry is beset with numerous challenges which require sound empirical decision making. The availability of oil and gas on a yearly basis is getting thinner while the consumption of the commodity is increasing. One of the main challenges in the industry is how to produce oil and refined products at lower cost to remain competitive. Many oil companies adopt cost reduction as a core corporate strategy. With the global

economy facing recession and wide spread fluctuations in energy demand, cost reduction has become a guiding principle for oil and gas companies. Environmental advocates posit that the extractive industries including the oil and gas industry damage the ecosystem. Environmental protection is indeed one of main issues of concern in the industry. Weak management in exploration and production processes will cause financial losses to the company and damage to the environment. In this regard effective petroleum decision making and analysis is imperative to sustain the aggressive operations in the industry.

Petroleum Decision Making and Analysis is an essential course which equips young professionals with key concepts and practical skills. The course provides an overview of the following:

- Emerging Trend in the Global Oil and Gas Industry
- The Role of Strategy in Petroleum Decision Making
- Legal Considerations in Corporate Decision Making
- Financial Risk Analysis in the Petroleum Industry
- Elements of Effective Decision Making

Course Outline

Day 1: The Global Economy

- Global Economic Outlook
- World GDP Growth Analysis
- GDP and Primary Energy Consumption
- Imperatives of Energy Security
- Key Drivers of Energy Future
- Global Gas Market Analysis
- Global Gas Market Drivers
- Energy Transition Scenarios

Day 2: Financial Risk Analysis

- Overview of Financial Risk Analysis
- Importance of Financial Risk Analysis
- Identification of Financial Risks in the Oil and Gas Industry
- Types of Financial Risks in Oil and Gas Industry
- Methods of Financial Risk Analysis
- Techniques of Measuring Financial Risks
- Financial Risk Management Tools

Day 3 The Role of Strategy in Petroleum Decision Making

- Operational Definition of Strategy
- Strategy Creation
- Strategic Alternatives
- Strategic Evaluation Technics
- Strategic Thinking and Planning
- Alternative Approaches to Strategic Planning
- The planning Gaps
- Contemporary Approach to Strategic Planning
- Failures, Consolidation and Recovery Strategies

Day 4 Legal Considerations in Corporate Decision Making

- Legal Structure of the Business
- Regulatory Landscape
- Contracting
- Tax Regime in PIA 2021
- Confidentiality and Non-Disclosure Agreements
- Insurance
- Dispute Resolution
- Labour and Employment Matters

Day 5 Elements of Effective Decision Making

- Introduction and Definition
- Importance of Decision making
- Crucial Steps in Decision Making
- Decision Styles Matrix
- Business Goals
- Elements of Business Goal
- Decision Tree Analysis
- Advantages and Disadvantages of Decision Tree
- Organisational Diagnostics
    - SWOT
    - PESTEL Analysis
- Barriers to Effective Decision Making

CODE: SES 251

ENERGY TRANSITION, OIL AND GAS VALUE CHAIN OPTIMIZATION

June 3rd - 7th, 2024 - Lagos
July 22nd - 26th, 2024 - Port Harcourt

Course Fee: N600,000 per participant

Introduction

The oil and gas industry is facing increasing demands to clarify the implications of energy transition for their operations and business models. They are further required to explain the contributions that they can make to reduce greenhouse gas emissions. The increasing social and environmental pressures on many oil and gas companies raise complex questions about the role of fossil fuels in a changing energy economy. Energy Transition has three main scenarios namely – More Energy scenario, Evolving Scenario and the Rapid Transition.

1. The more Energy Scenario targets increased energy supply to satisfy the requirements of the growing global population. Currently about 80% of the global population consumes less than 100GJ/capita of energy. This is considered low therefore it is contended that more energy should be produced to allow more people have access to this essential resource. It is sad to note however, than more energy is associated with increased carbon dioxide emission (about 10% increase by 2040) which aggravates global warming.

2. The Evolving Transition Scenario (Business as Usual) addresses the current rate of consumption of energy

3. The Rapid Transition Scenario focuses on the introduction of more renewable energy with a view to reducing carbon emission by about 40% contended in year 2040.

4. Net Zero scenario targets global warming at 1.5o Celsius Energy transition effectively implies low use of PMS,

AGO, Kero etc which are associated with large emission of Green House Gas responsible for the devastating effect on the global climate. It is apparent in these circumstances that in the face of reduced PMS, AGO and Kero consumption gas will continue to be a preferred energy source.

The purpose of the course Energy Transition and Gas Value Chain Optimisation is to critically examine how gas based options can be maximized for economic growth. The primary reason for the optimization of Gas Value Chain is to ensure that revenue losses on the side of oil and other hydrocarbon derivatives can be adequately mitigated through gas value chain optimization.

Key Learning Objectives are;

- Acquaint participants with the compelling issues of climate change
- Understand the need for energy diversification and security
- Understand the current and future projections of the roles of renewable energy sources in the global energy mix
- Understand the main drivers of energy transition
- Know the Decarbonization pathways for the oil and gas industry
- Assess the impact of renewable energy on fossil fuels
- Understand the elements/pillars of decarbonization
- Know the tools for measuring decarbonization
- Know the importance of energy security in national development

Part I – Energy Transition

Course Content

- Brief overview of Green House Effect
- Important agreements on climate change
- Enhanced Green House Effect
- The Energy Transition agenda
- Geopolitics of Renewable Energy
- Carbon emission from energy use
- Envisioning the future of gas
- Emerging global LNG business
- Emergence of Electric Vehicles
- Impact of Crude oil theft, illegal refineries on climate change and the environment

Part 2 – Oil and Gas Value Chain Optimisation

Course Content

- Energy supply chains in transition
- Mapping out clean energy supply chains
- Material needs for net-zero emissions
- Role of enabling infrastructure for clean technologies and components
- Energy security in national development
- Global perspective to energy security
- Components of energy security
- Safety culture for energy insecurity
- Nigeria's energy security infrastructure
- Nigeria national energy security imperatives
- Upstream transformation in oil and gas company emission targets
- Price assessment (carbon market, guarantees of origin,SAF/Alternative fuels)
- Activities involved in upstream, midstream and downstream sectors of the oil and gas value chain
- Strategies for decarbonization
- Standard operating procedures (SOPs) for decarbonization (plan for the future, getting prices right and smooth the transition)

Training Approach

The course will be delivered virtually or at a chosen venue. It will be interactive and participants shall have opportunity to ask questions and share experiences. Power point presentations will be deployed and syndicate groups will be formed to examine special topics and case studies

Organizational Benefits

Sabex Energy solutions courses are structured to benefit sponsoring organisations in a variety of ways. The courses deliver skills, concepts and competences needed for improved organizational performance. Organisations can through the input of personnel achieve improvement in the following areas:

- Mitigating the impact of carbon dioxide emission
- Deployment of Carbon Capture and Utilisation (CCU) as well as Carbon capture and sequestration (CCS) techniques when necessary
- Fact based and data driven climate related decision making
- Formulation of proactive climate change mitigation policies
- Deploy personnel competences in critical policy areas

Individual Benefits

Participants will acquire deeper understanding of the oil and gas industry. Such knowledge will manifest in the following ways:

- Understanding of the dynamics of the global oil and gas industry
- Understand the link between energy transition and gas value chain optimization
- Comprehend the impact of nonconventional resources on the Nigerian hydrocarbon business
- Appreciate the essence of energy security
- Know gas optimization processes
- Comprehend the challenge of renewable energy to fossil fuels
- Recognising and addressing the global challenge of energy security

Who should attend?

- Directors
- Managers
- Commercial Officers
- Supervisors
- Planning Officers
- HSSE Personnel
- Other categories of officers

CODE: SES 247

PETROLEUM DECISION MAKING, PROJECT ECONOMICS & RISK ANALYSIS

September 9th - 13th, 2024 - Kigali, Rwanda
November 18th - 22nd, 2024 - Accra Ghana

Course Fee: $5,000.00 per participant

Introduction

Engineers, geoscientists and economists perform technical work to support the "business" objectives of the organisation they work for (corporation, government). It is therefore important that they understand that "business" because it will influence the judgements they make. Economic evaluations provide the main source of the organisation's information by which investment and operational decisions are made regarding the most effective use of resources. It is through these decisions corporate value is being created (or destroyed).

There are many subtleties and assumptions that underlie the apparently straight-forward

economic calculations that are often seen. Consequently, a fundamental understanding of the concepts behind economic evaluation and of techniques for performing them within a corporate decision making context, are essential skills. Furthermore, as all investment decisions are made without knowing what the future holds, understanding the uncertainties we face in any given decision situation is essential for good decision-making.

This course provides the tools necessary for engineers to economically evaluate their uncertainties and decisions. It also allows engineers, geoscientists, economists, planners etc to communicate with the "business" world, which is generally more interested in monetary values and their risks, than engineering tolerances and specifications. It also provides understanding and knowledge of economic and business concepts, time-value of money, discounted cash flow, cash-flows, net present value and other economic decision criteria, the decision-making process, multi-objective decision making, decision-tree analysis, and value-of-information & flexibility. Some of the psychological and judgmental aspects of how people respond to uncertain and complex decision situations will be discussed.

Learning Objectives

At the end of this course, participant are expected to:

- Acquire skills on techniques for developing economic models on Petroleum fiscal systems
- Develop robust cash flow models for petroleum projects
- Understand how and when to apply fiscal instruments for Economic Rents
- Develop skills on how to evaluate and quantify uncertainty and risks
- Acquire skills to evaluate profitability analysis on projects
- Develop skills on how to measure economic rents in the petroleum industry
- Acquire skills to make the right investment decisions among alternative projects

Course Content

- Introduction
- Prospect appraisal
- Assessing risks and uncertainty
- Deterministic vs probabilistic methods
- Expected monetary value concept (EMV)
- Types of petroleum contracts (PSC, JV, Risk service, pure service, buy-back etc)
- Economic rents in the petroleum industry
- Fiscal devices and their effects applied to petroleum exploitation
- Developing a cash flow model before and after tax basis

- Application of sliding scale royalty calculations in cash flow analysis for different terrains (onshore, offshore and frontier environments) as contained in the PIA
- Discounted Cash Flow Analysis and Time Value of Money
- Profitability indicators (Payout time, NPV, IRR, P/I ratio)
- Screening and ranking of investments using profitability indicators
  - Measuring economic rents using (NPV, IRR, P/I ratio)
  - Modelling oil and gas fiscal systems and construction of spreadsheet for cash flow analysis
  - Choosing between alternative projects, decision scenarios, analysis and evaluation

Training Approach

The Petroleum Projects Economics and Risk Analysis course includes a number of exercises aimed at enhancing the capacity to conduct various economic evaluations. In addition each participant will carry out various economic analysis calculations. At the end of the training each participant will develop a comprehensive spread sheet economic model that undertakes a complete economic evaluation including sensitivity analysis

The course assumes no prior knowledge of the topics covered. New concepts and tools are introduced gradually to enable the delegates to progress from the fundamental to the advanced concepts of the economic evaluation. Pre and post course assessment will be used to measure the effectiveness of the training.

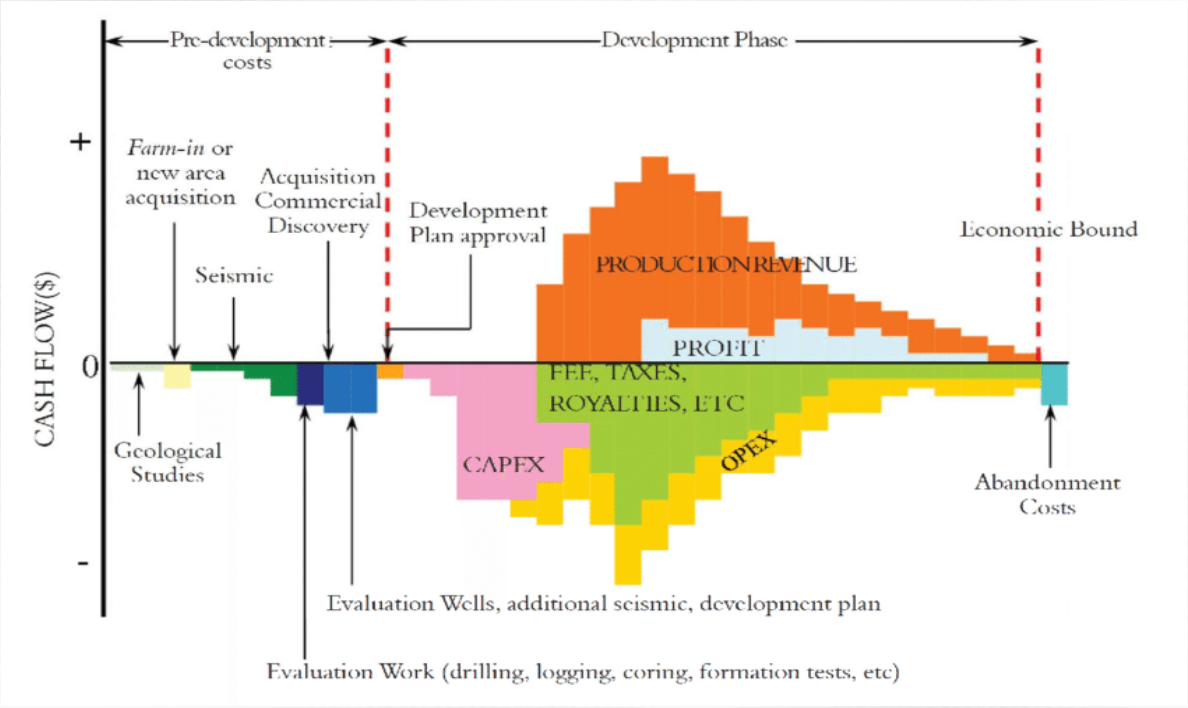
Individual Benefits

By the end of the course participants will feel confident in their understanding of:

- The principles underlying the economic evaluation of projects.
- How to develop cash flow models that are typical for oil & gas valuations.
- Tax regimes and the impact of discounting.
- The impact of uncertainties in the data that goes into economic calculations, and how risk is dealt with.
- The use of decision analysis as a method to deal with the complexity and uncertainty involved in many real-world decisions.
- The value of information concepts and their application to the E&P setting

Who Should Attend?

- Petroleum/Reservoir Engineers
- Engineers
- Geologists
- Economists
- Planning Officers
- Accountants
- Computer Analysts
- Commercial Officers
- Other categories of officers



CODE: SES 253

UNDERSTANDING THE GLOBAL OIL AND GAS MARKET

August 12th - 16th, 2024 - Lagos

Course Fee: N600,000.00 per participant

Introduction

Emerging Trends in the Global Oil and Gas Market is an essential course delineating critical developments in the global oil and gas market. It is a course which undertakes an elaborate assessment of the impact of economic activities on the oil and gas market. The course provides an overview of the following:

- Global Economic Outlook
- Growth in GDP and the primary energy sector
- Population growth and energy consumption
- Energy Transition Scenarios
- Energy Security
- Key drivers of energy future
- Natural gas reserves and production forecast
- Geopolitics of oil and gas resources

Course Objectives

The Sabex Energy Solutions courses are designed to ensure that participants understand the following:

- Major events in the global oil and gas market
- The link between GDP growth and oil demand
- Causes of global oil and gas price movements
- Key drivers of the energy future
- Evolution of unconventional hydrocarbon resources
- Global gas market drivers
- Imperatives of energy security
- Energy transition scenarios
- Declining energy intensity and implications for oil demand

Training Approach

The course will be highly interactive and participants will have opportunity to ask questions and share experiences. Power point presentations will be deployed and syndicate groups will be formed to examine special topics. Case studies will also be used during the course.

Organizational Benefits

Sabex Energy Solutions courses are structured to benefit sponsoring organizations in a variety of ways. The courses deliver skills, concepts and competencies needed for improved organizational growth and performance. Organizations can through the input of trained personnel achieve improvement in the following areas:

- Recognizing the global challenge of energy security
- Mitigating the impact of unconventional resources
- Fact based decision making
- Embracing and prioritizing problems of host communities

- Efficient engagement of scarce resources
- Promoting excellence in company operations
- Formulating proactive policies
- Deploy personnel competences in appropriate critical sectors

Individual Benefits

Sabex Energy Solutions courses will enable participants to acquire deeper understanding of the oil and gas industry. Such knowledge acquired will manifest in the following ways;

- Understanding of the dynamics of the global oil and gas industry
- Comprehend the link between GDP Growth and primary energy demand
- Identify the key regions/countries driving energy demand
- Understand relationship of global prosperity and energy demand
- Know the global energy outlook and energy transition scenarios.
- Understand the key drivers of energy future
- Comprehend the reality and scope of unconventional resources.

Who Should Attend the Course?

- Management and middle Management staff
- Directors/Deputy Directors
- Superintendents
- Supervisors
- Commercial officers
- Planning officers
- Career path officers

Course Outline

Day 1: The Global Economy

- Global Economic Outlook
- World GDP growth rate analysis
- Global inflation assessment
- Global prosperity and economic growth
- Declining energy intensity
- Evaluating energy demand in China, India, Japan and Korea

Energy Outlook Scenario

- Primary energy consumption by fuel type
- Emerging energy transition scenarios

- Energy consumption by sectors
- The dual challenge of more energy and less carbon
- Imperatives of energy security
- The global energy mix
- OPEC oil reserves and future challenges

Day 2: Natural Gas Market Overview and Analysis

- Natural gas reserves ranking – 2016
- Global gas market Drivers
- Global unconventional oil and gas play distribution.
- Shale gas reserves – by region
- Shale oil and gas in the US
- China LNG fueled heavy duty transport
- Gas hubs and price movements
- Principal components of natural gas
- Types of natural gas

Day 3: Oil and Gas Value Chain

- Delineation of the oil and gas value chain
- Consideration of upstream activities
- Evaluation of mid-stream activities
- Downstream activities mapping
- Gas demand and supply balance
- Renewable and natural gas growth

Day 4: Petroleum Risk Analyses and Management

- Introduction
- Environmental problems of oil and gas development
- Ecological risk assessment methodology
- Risk assessment technology and technics
- Time dimension of Risk Assessment
- Risk characterization-phase
- Political risks
- Environmental safety risks assessment
- Economic risk assessment
- Risk management/decision making

Day 5: Contemporary Maritime issues

- Elements of Maritime law.

- Syndicate Group discussion
  Topic: The development implications of the fracking revolution
  - Introduction
  - The magnitude of fracking
  - Impact of US shale gas supply
  - Magnitude of shale tight oil in US
  - Impact of US and Chinese shale gas production
  - Impact of fracking on developing countries
  - Geopolitical implications of fracking.

CODE: SES 255

GAS MONETIZATION AND THE GLOBAL LNG BUSINESS

December 9th - 13th, 2024 - Lagos

Course Fee: N600,000.00 per participant

Introduction

The Proportion of gas in the global energy mix continues to increase. There is a concerted effort to promote gas to shift from a regional to global market. Liquefied Natural Gas (LNG) has provided an opportunity for gas to attain the status of a global market. The expansion of global LNG liquefaction capacity and availability of specialized transportation vessels and regasification facilities create room for a competitive gas market. LNG has also created huge feed stock for petrochemical companies as well as the power sector globally. The course focuses on the LNG market and examines the factors driving its evolution. It also evaluates the expanding economic values derived from the commodity.

Course Objectives

The Sabex Energy Solutions courses seek to ensure that participants understand the following

- Characteristics of LNG
- LNG life cycle
- The expanding Global LNG market
- LNG Pricing
- The Global LNG Trade
- Shale Gas production and LNG market expansion
- LNG Demand projection
- Gas monetization

Training Approach

The course will be highly interactive and participants will have opportunity to ask questions as well as share experiences. Power point presentations will be used. Syndicate groups will be formed to examine selected case studies in the industry.

Organizational Benefits

The course is designed to benefit sponsoring organizations. It will deliver skills, concepts and competencies needed to drive organizational growth and excellence. Operational excellence stresses the application of principles, systems and tools for sustainable improvement of key performance metrics. The organization would reposition to be globally competitive through the recognition of key driving factors as follows:

- Global economic growth
- Market liquidity
- Excess/new capacity costs
- Ship construction and shipping costs
- New markets and new users
- Energy efficiency and environmental traction

Individual Benefits

The Global LNG Business and Gas Monetization course would allow participants to comprehend the global LNG business. Skills acquired will manifest as follows:

- Understanding the growing importance of gas in the global energy mix
- Comprehending the typical LNG life cycle
- Know basic LNG technology – FLNG, FRSUs, Vessel types etc
- LNG Pricing Mechanisms/Contracts
- Understand the future challenging path of LNG
- Manage supply and demand uncertainties
- Comprehend the LNG trade and global fleet disposition

Who should Attend the Course?

- Management and middle Management staff
- Directors/Deputy Directors
- Superintendents
- Supervisors
- Commercial officers
- Planning officers
- Career path officers

Course Outline

Day 1: Natural Gas Characteristics

- What is natural Gas and its sources
- Types of natural gas
- Natural gas composition
- Natural Gas Liquids
- Types of natural Gas Reserves
- Fractions of raw gas
- Uses of Natural gas
- Natural Gas value chain

Fundamentals of LNG Production Process

- Overview of natural gas supply sources
- Typical LNG process
- General LNG cooling process
- Gas plant with NGL recovery
- Natural Gas Treatment
- Liquefied Natural Gas
- Storage, transportation and regasification.

Day 2: The Global LNG Business

- Brief History of LNG
- Characteristics of LNG
- LNG Life Cycle
- The Expanding global LNG market
- LNG Demand Drivers
- LNG Pricing
- LNG Transportation
- LNG Liquefaction capacity growth

Day 3: Global LNG Trade

- LNG Trade volumes 1990-2017
- Global Gas Snapshots
- Net LNG Exports and imports
- Nigeria LNG Trade (Benefits and Challenges)
- Global LNG Trade trend
- Short term LNG demand
- LNG capacity expansion
- LNG export/imports and market share by country
- Types of LNG carriers
- Gas Monetization

Day 4: Petroleum Business Strategy

- Investment strategy options
- Hydrocarbon Resources Governance
- Transparency and Accountability
- Local Content Development

Day 5: Petroleum Industry Value Chain

- Introduction
- Petroleum Industry Structure
- Oil and gas value chain
- Classification of the industry
- Business cycle of the upstream
- Components of the upstream sector
- Midstream sector and activities
- Characteristics of the downstream sector
- Distribution of the refined products
- Petroleum company types
- International oil companies and operations
- National Oil Companies

CODE: SES 257

FUNDAMENTALS OF OIL AND GAS FISCAL REGIMES

October 7th - 11th, 2024 - Dubai

Course Fee: $5,000.00 per participant

Introduction

Fundamentals of oil and gas fiscal regimes, is an essential course which creates an opportunity for participants to understand the mechanisms for deriving revenues from the hydrocarbon exploitation process. The course examines fiscal regimes and their implementation which allow government to derive maximum economic benefits from the various upstream activities in the industry. Revenue generation is a key issue in the oil and gas industry but the mechanism for achieving this cardinal object is not quite familiar to key personnel of organisations in the industry. The above course will create an opportunity for participants to adequately understand the role of oil and gas fiscal regimes. It provides an overview of the following:

- Life cycle of a petroleum project
- Legal arrangements in the oil and gas industry
- Fiscal regimes for the oil and gas sector
- Designing efficient fiscal systems
- Resource sector characteristics
- Objectives, Trade-offs and general principles
- Tax neutrally
- Compensating the owner of the resources etc

Course Objectives

At the end of Sabex Energy Solutions course participants will understand the purpose, characteristics and functions of fiscals systems in generating government revenue. Specifically participants will understand the following:

- Resource characteristics
- Allocating risks: government versus resources company
- Resource revenue timing: now or later
- Political risks, Tax neutrality
- Royalty Regime (concessionary system)
- Production Sharing Regime
- Service Contract
- Profit taxes, Cost recovery, One-off payments
- State equity participation
- Capital gains taxes, withholding taxes etc
- Fiscal allowances, deductions and other special topics

Training Approach

The course will be interactive in nature. Participants will have opportunity to ask questions and share experiences. Power point presentations will be deployed. Syndicate groups will be formed to examine case studies and other supporting materials.

Organizational Benefits

Sabex Energy Solutions courses are designed to benefit sponsoring organizations. The courses deliver new knowledge, analytical skills, concepts and competencies needed for organizational growth and performance. Benefits of the sponsoring company are as follows:

- Effective implementation of fiscal systems
- Generate more revenue on behalf of government
- Constructive engagement with oil and gas companies
- Utilize personnel competencies appropriately

Individual Benefits

Sabex Energy Solutions courses will equip participants to understand the following:

- The role of Fiscal Regimes in revenue generation
- Understand principal fiscal instruments such as
  - Royalty, Profits taxes, Cost recovery
  - Resource rent, wind fall profit taxes
  - One-off payments
- State equity participation
- Capital gains taxes
- Tax holidays , Thin capitalization, Ring fencing
- Accelerated depreciation
- Decommissioning costs credit
- Foreign tax credit
- Fiscal treatment of natural gas
- Renegotiation of government share and investment incentives
- Transfer pricing

Who should Attend

- Management staff
- Commercial officers
- Finance officers
- Supervisors
- Superintendents
- Technical Assistants
- Careers officers

Day 1: Petroleum Project Life Cycle

Introduction

Resource sector characteristics

- Long and costly exploration and development
- High geological and technical risk
- Volatility and uncertainly of prices
- Resource exhaustion
- Poor access to the extractive industry
- Significant environment and social impact
- Petroleum Project life cycle

Day 2: Key Elements of Petroleum Legal Framework

- Petroleum legal arrangement
- Concessionary system
- Contractual system
- Key features of concessionary and contractual systems
- Key differences between Concessionary and PSC arrangements
- Fiscal Regimes
- Fiscal Instruments

Fiscal Instruments

- Royalty
- Profits Tax
- Cost Recovery
- Tax and Non Tax components
- Ring fencing
- Corporate Income Tax
- Resource Rent Tax
- Import and Export duties
- Capital Gains Taxes
- Withholding Taxes
- Value Added Tax (VAT)
- Surface Taxes
- Bonuses
- Government participation
- Cost recovery limit
- Foreign exchange controls
- Environmental taxes and bonds
- Local content objectives
- Customs duties

Day 3: Planning and Fiscal Consolidation

Planning

- Imperatives of strategic planning
- The strategic planning approach
- Developing a strategic plan
- Evaluating the legal, economic, political and environmental dimension of planning
- Strategic planning tools

Day 4: Guiding Principles

- Tax Competition
- Generally applicable law
- Political Risk and stability
- Public perception
- Robustness to changing conditions
- Appropriate incentives
- Administrative capacity
- Progressive Tax Instruments
- State Equity participation

Fiscal Allowances

- Tax holidays
- Thin capitalization(Debt Equity Ratio)
- Ring fencing
- Decommissioning cost
- Foreign Tax Credit
- Fiscal treatment of natural gas

Day 5: Syndicate Group Presentation

Syndicate Activities

- Fiscal Stabilization,
  Renegotiation of Fiscal Model
- Renegotiation
- Fiscal modeling
- Fiscal Administration
- Transfer Pricing Abuse
- Transparency

CODE: SES 259

SHIPPING, CHARTERING AND DEMURRAGE CALCULATION

November 4th - 8th, 2024 - Dubai

Course Fee: $5,000.00 per participant

Introduction

The shipping company has undergone a gradual structural change. In the earlier days a shipping company was involved in all operations relating to vessel namely –owning, manning, technical operations and commercial operations. A number of circumstances have led to division of functions such as; the owning function (including finance); management function (manning, technical supervision, spares, bankers etc); operations function (daily routine concerning the vessel). Shipping is an international business and a person dealing with chartering has to work with conditions prevailing day by day in the international freight market. A large number of customs and rules of the trade have been established globally and strict business ethics have been developed. These ethics have to

be observed in the professional shipping business. Commercial activities may be carried out by a broker normally working in close cooperation with the owner but on an ad-hoc basis and without particular authority to bind the owner.

The course provides an overview of the following:

- The freight Market
- Sales contracts and Bill of Lading
- Chartering routines
- Common clauses
- Voyage charter
- Time charter
- Contract of Affreightment etc
- Lay-time and Demurrage Calculation

Course Objectives

At the end of Sabex Energy Solutions course participants will understand basic Ship broking and Chartering practices. The objectives of the course are as follows:

- Provide, enhance and develop knowledge of the chartering procedures (dry cargoes and tankers) taking into consideration all parties involved in the process
- Develop participants' ability to assess the relevant market reports in order to determine and propose the proper chartering strategy for the company.
- To enhance participants' ability to effectively utilise acquired knowledge when drafting or negotiating the Charter Parties.
- Understand the types of charter, commercial, technical and financial obligations of owners and charterers.
- Understand the role of ship broking
- Analyze what can go wrong with dry or wet cargo chartering and how to prevent them
- Learn practical voyage estimating, its importance and how it affects lay time calculation.
- Understand Lay-time and Demurrage Calculation

Training Approach

The course will be interactive. Participants will have opportunity to interact with shipping practitioners who will share practical experience. Power point presentations will be deployed and syndicate groups will evaluate special shipping case studies.

Organizational Benefits

Sabex Energy Solutions courses are designed to benefit sponsoring organizations in a variety of ways. The courses allow participants to acquire new knowledge and skills required for organizational growth. Benefits will manifest in the following:

- Increased productivity
- Improvement in quality of work
- Positively affect personnel competencies and morale
- Position organizations to adapt to change and prepare for growth.
- Company acquires competitive advantage over rivals
- Allows company to attract top talent into the business if the company is seen as one that values and invests in the workers

Individual Benefits

The Ship broking and chartering practice course will provide the opportunity for participants to understand the global ship broking and chartering business. Learning out comes as it relates to participants are as follows:

- Understand the two types of charter
- Comprehend the principal features common to all charter parties
- Know the main obligations of the ship-owner
- Know what hire is and how to calculate the hire period
- Know owners remedies for charterer's failure to pay hire on time.
- Know the standard time charter provisions
- Know who is responsible for loading and discharging cargo
- Know what would be considered an unsafe port
- To identify major voyage charter party terms

Who Should Attend

- Ship owners
- Shipping Managers
- Commercial officers
- Crude oil marketing officers
- Shipping terminal superintendents
- Legal advisers
- Government bodies and representatives

Ship Broking and Chartering Practice

Day 1: The Freight Market

- The dry cargo market
- The dry and wet decker market
- The container market
- The Ro/Ro market
- The small ship market
- The tanker market
- The car market
- The sale and purchase market
- The state of the market
- Ship owning conditions and market
- Attitudes in negotiation

Sales Contract, Carriage and Bill of Lading

- Sale contract financing and carriage
- Intercoterms
- Risk and liability distribution between parties
- The 14 intercoterms
- The Bill of Lading
- Types of liability
- Cargo claim and time limits

Day 2: Demurrage and Lay-time calculations

- Definition of Demurrage
- Nature of Demurrage
- Provisions of Demurrage
- Demurrage Calculation
- Definition of Lay-time
- Standard Lay-time period
- The content of Fact-form
- Determination of Ship arrival
- Definition of Port and Berth
- Reachable on Arrival / Always Accessible
- Lay-time calculation
- Reversible Lay-time
- Notice of Readiness

Common Clauses and Concepts

- Preamble
- Parties to the contract
- Vessel nomination, identity etc
- Vessel trading limits/Seaworthiness
- Lay/Can
- War clause/war cancellation and war risk clauses
- Maritime lien
- Arrest of vessels

Day 3: Type of Charter Party / Voyage Charter Party

- Description of Vessel
- Specification of cargo capacity
- Nomination of Ports –Rotation
- Safe port, safe berth, always afloat
  - Near clause
  - Ice Clause
  - Sea voyage
  - Deviation
- Cargo type and specification
- Cargo quantity
- Freight –definition, fixing of freight
- Brokerage
- Lay time
- Demurrage calculation
- Routines and allocation of costs
- ETA, harbor cost, Harbour dues, freight taxes.

Time Charter Party

- The Vessel description
- Cargo capacity
- Speed and bunker consumption
- Maintenance
- Geopolitical limit, non-geographical limits etc
- Trip time chartering
- The Cargo-type and specification
- The period –the length of the period
- Delivery and redelivery
- The hire and payment of hire
- Fixing of the hire
- Payments - (Late payments –owners security)

Day 4: Contract of Affreightment

- Definition of contract of Affreightment
- Characteristics of the contract of affreightment
- The terminology, the documents, etc.
- The contract period
- The cargo-type and quantity
- Charterer's obligation to offer cargo
- Owner's obligation to carry cargo
- The vessel
- Nomination procedure

Day 5: Syndicate Group Presentation

Day 5 (Part B): Elements of Maritime Law

- Some general remarks on contract law
- The parties
- Maritime law and legislations
- Court and arbitration proceedings
- Evidence
- Construction and interpretation of charter agreements
- Design of the Charter Party
- The offer and the making of the contract
- Problems of interpretation

CODE: SES 261

GEOPOLITICS OF OIL AND GAS RESOURCES

November 18th - 22nd, 2024 - Lagos

Course Fee: N600,000.00 per participant

Introduction

Energy security has become a major preoccupation of countries in their quest to maintain economic and military power. Access to oil and gas resources and gaining control of these resources has become a driving force of IOCs. The process of gaining control of hydrocarbon resources has often generated conflict between contending multi-national companies. Countries that have huge reserves such as Saudi Arabia, Iraq, Russia, Iran etc wield enormous power at the global scene as a result of their hydrocarbon endowments. Oil and gas resources have often been used as weapons against hostile or ideologically belligerent countries. The Six-Day Arab-Israeli war triggered the use of oil as a weapon against Israel and its allies. At present there are geopolitical contentions over oil and gas

resources in the Gulf of Hormuz, Caspian Sea, South China Sea, Black Sea, Gulf of Guinea etc.

The purpose of the course on Geopolitics of Oil and Gas Resources is to acquaint personnel of National Oil Companies (NOCs) with oil and gas conflicts in various regions of the world. Oil and Gas conflicts cause major disruptions in hydrocarbon supply. Decline in oil supply causes disruptions in the global economy thereby inflicting pain and hardship on people around the world. The course provides overview of the following:

- The Geopolitics of oil and Gas Resources
- Regional oil and gas reserves
- The story of the Seven Sisters in the Pre-OPEC era
- Areas of oil and gas conflict
- The oil rich Caspian Sea, Black Sea etc
- The Central Asian countries
- The South China Sea
- The Global chokepoints

Course Objectives

At the end of the Geopolitics of Oil and Gas Resources course participants will understand the geopolitical upheavals which threaten the smooth production and transportation of hydrocarbon resources globally.

The course objectives are as follows:

- Understand the impact of oil and gas conflicts on the global economy
- Know major global oil and gas conflict regions
- Know the chokepoints that control global oil and gas trade
- Understand global safety and security ratings of oil producing regions Know the hydrocarbon contentions in the South China Sea
- Analyse and evaluate various oil and gas conflicts
- Discuss appropriate measures that would mitigate geopolitical conflicts.

Training Method

The course will be analytical and interactive. Participants will have opportunity to examine and analyse the origins of conflict. Such areas of interest would among others include the Gulf of Hormuz, Gulf of Guinea, South China Sea, Caspian Sea, the Amazon region etc. Power point presentations and syndicate group presentations will aid the learning process.

Organizational Benefits

Sabex Energy Solution courses are structured to benefit sponsoring organization in several unique ways. The courses will deliver analytical skills, global perspectives, competencies and concepts that will enhance the growth of the organization through high performance of trained personnel.
The organizational benefits are as follows:

- Become sensitive and evaluate oil and gas related conflicts
- Develop strategies to safeguard negative impacts of supply increase in the global market
- Ability to accurately predict global hydrocarbon conflicts
- Understand the changing trend in global oil and gas resources distribution.
- Be aware of the incremental emergence of US and China as future key producers of unconventional resources.
- Consolidate existing market share
- Diversity the company revenue base and set up investments in renewable energy.

Individual Benefits

Sabex Energy Solutions courses will enable participants develop global perspectives in oil and gas matters. The courses will assist participants to be more aware about global developments in the oil and gas industry. Knowledge acquired during the course will show in the following ways:

- Understand geopolitical issues
- Know the linkages between global oil and gas producing regions
- Have a clear understanding of global oil and gas conflict regions
- Know the estimated oil and gas reserves in conflicts regions.
- Understand the effect of militarization of the Caspian Sea.
- Understand the danger posed by conflicts to flow of oil and gas by sea.
- Develop strategies and techniques for mitigation of conflicts.

Who should Attend

- Management and middle Management staff
- Directors/ Deputy Directors
- Superintendents
- Commercial officers
- Planning officers
- Supervisors
- Technical Assistants
- Career officers

Course outline

Day 1: Negotiating Access to Oil and Gas Resources

- Politics of Oil
- Risk based classification of oil producing states
- Effect of oil rent on NOCs
- The Seven Sisters
- OPEC formation

Day 2: Areas of Conflict

- Delineation of conflict areas
- Origins of conflicts
- Russian Hegemony
- Central Asian countries
- The militarization of the Caspian Sea
- The Black Sea hydrocarbon contentions
- South China Sea conflict
- East China Sea conflict

Day 3: Global Chokepoint

- Strait of Malacca
- Strait of Hormuz
- Suez Canal
- Strait of El-Mandeb
- Strait of Bosporus
- The Panama canal
- Trade volume through South China Sea

Day 4: The Regional Conflicts

- The Suez Canal crisis
- The Six-Day war (3rd Arab-Israeli war)
- Iran-Iraq war
- Iraq-Kuwait war
- Angola oil war
- Sudan oil and gas conflict
- The Nigerian civil war.
- Framework of Analysis

Day 5: Energy Outlook

- Energy consumption by fuel type
- Energy transition
- Imperatives of energy security
- The dual challenge of more energy and less carbon
- Global energy mix
- Oil and Gas Value Chain
- OPEC oil Reserves and future challenges
- Syndicate Group work presentation

Extra Topic: Petroleum Industry Value chain

- Introduction
- Petroleum Industry Structure
- Classification of the industry
- Segments of the upstream
- Characteristics of the downstream process
- National Oil Companies and reserves

SABEX

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