



Arabian Institute For Training

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# International Gas Business Management

## INTRODUCTION

- The hydrocarbon gas industry is fundamental to the successful exploitation of one of the world's most important resources. This industry plays a critical role in driving the global economy. The ever increasing use of energy to power the need for the industrial development has resulted in rapid expansion of gas exploration, processing and usage.
- The processes and systems involved in producing processing and distributing large quantities gas are highly complex, capital-intensive and require state-of-the-art technology.
- As the gas industry faces challenges related to climate change, alternative energies, and energy substitutions, it recognizes the need for managers who have a comprehensive and broad understanding of the industry, including economics, evaluation and decision-making skills and who understand the issues that face the gas industries in the future.
- This Gas Business Management training seminar will provide a basis for functional managers and those whose experience has been limited to a particular area of the industry, to prepare for additional responsibilities by providing a broad base of knowledge covering the total spectrum of the gas business and specific skills related to the evaluation of opportunities and enhanced decision-making.

This training seminar addresses the following key highlights:

- Understanding of the process considerations of the hydrocarbon gas chain
- Effective and efficient operations of the industry
- The Economics of the gas industries
- Skill developments for opportunity evaluation relating to the gas market

## OBJECTIVES

At the end of this training seminar, participants will have:

- An understanding of the value added steps in the gas processes
  - Gain an insight in the way the Gas Industries have organized to operate effectively and efficiently
  - Learn the details of gas processing
  - Understand the fundamentals of the economics of the gas industries
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## TRAINING METHODOLOGY

- This training seminar will be conducted along workshop principles with formal lectures, case studies and interactive worked examples. Relevant case studies will be provided to illustrate the application of each tool in an operations environment. Each learning point will be re-enforced with practical exercises. There will be ample opportunities for discussion and sharing experiences.

## ORGANISATIONAL IMPACT

- Recognized and respected certification for the delegates attending
- Assurance that the course is delivered by a quality training organization using a very experienced lecturer
- Managers who have a broad understanding of the structure and operation of the gas industries
- Employees knowing the details of gas operations at all levels of the value chain
- Delegates who understand the fundamental economics of the gas industries

## PERSONAL IMPACT

- Better understanding of the overall gas industries and the challenges they face
- Ability to contribute to corporate decision making
- Understanding of the structure of the gas industries
- Develop skills to assist in the evaluation of corporate opportunities
- Recognise the importance of the process operations relating to the gas production and transport

## WHO SHOULD ATTEND?

- Engineers
- Managers
- Employees working in the areas of Planning Marketing or Finance
- Anyone requiring a broad understanding of the structure operations and economics of the gas industries

## Course Outline

### Sources Origins and Nature of Hydrocarbon Gas

- Fundamentals of Organic Chemistry
  - Definition of Hydrocarbon Gases
  - The Gas Industry
  - Basic Gas Geology
  - Origins of Hydrocarbon Deposits
  - Exploration Activities
  - Exploration Methods
  - Types of Well
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## Sources Origin and Nature of Hydrocarbon Gas - Continued

- Gas Fields Developments
- Production
- Well Fluids and Surface production
- Transportation
- Ship Transportation
- Pipelines

## Exploration Drilling & Production

- Where and how does drilling take place?
- Gas leasing process and terms
- Searching for Oil and Gas
- Types of Wells
- Drilling Operations
- Natural Gas Production and Processing Operations

## Gas Companies, Corporate Relations, and Structures

- Operating Companies and Service Companies
- Local, National and Multi National Gas Companies
- Major National Gas Companies
- Major International Gas Companies
- Integrated and Non Integrated Companies
- Integrated Companies
- Non Integrated Companies

## Processing Operations and Economics

- Gas Processing Operations
  - Inlet Separation
  - Sulphur Removal and Sulphur Recovery
  - Dehydration
  - Dewpoint Control and by-product recovery
  - Gas Compression
  - Basic Economics of the Gas Industries
  - Gas Quality and Measurement
  - Richness
  - Impurities
  - Sulphur
  - Acidity
  - Specifications
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## World Gas Supply and Demand

- Supply Chain
- Production
- Transport
- Storage
- Distribution
- Sales and Marketing

## Evaluation of Gas Opportunities

- Estimating the Cost of Gas Facilities
- Using Historical Costs
- Cost curves
- Adjusting For Different Sizes
- Adjusting For Different Time Periods

## LNG – LNG Chain

- Process
- Liquefaction
- Shipping
- Storage
- Re-Gasification

## Other Technologies

- Gas to Liquids
- Gas Commodity and Transport Capacity
- Industry Regulation
- Ownership
- State owned
- Joint Ventures
- Privatised
- Price Controls
- Rate of Return

## Gas for Power Generation

- The 'Dash for Gas' – key drivers
  - Economics: CCGT v Oil v Coal v Nuclear
  - Efficiency Gains
  - Cost and Market Trends
  - Gas Supply
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