# **LNG Commercial Management**

#### **INTRODUCTION**

- LNG is natural gas that has been converted to liquid form by cooling -160C for the ease of storage, transportation and distribution. Natural gas currently accounts for 22% of aggregate global energy supply. LNG is the most energy efficient fossil fuel— it offers important energy saving benefits when it is used instead of oil or coal. It is also a source of hydrocarbons for petrochemical feedstock and a major source of elemental sulphur. Its popularity as an energy source is expected to grow substantially in the future because LNG can help achieve two important energy goals for the twenty-first century— providing the sustainable energy supplies and services needed for social and economic development and reducing adverse impacts on global climate and the environment in general.
- This interactive, applications-driven 5-day LNG Supply, Demand & Pricing training course will
  highlight the wide array of LNG business features from beginning to the end. This Oil & Gas
  Technology training course is designed to help managers and professionals to expand their
  business knowledge and stay top of LNG business dynamics.

## This training course will feature:

- The fundamentals of LNG, production, transportation, pricing and its business economics
- Global supply-demand, global production, global market dynamics
- Analysis of technical, commercial, contractual business transactions
- Understanding LNG Supply, Sales and Purchase agreements
- Understanding LNG Regional Price Disparities, and Pricing Issuing
- LNG Pricing structures key to future of LNG exports
- LNG Sales, Marketing and Trading
- Technical and economic success factors in business to support strategic initiatives; to mitigate risk; and to direct operational decision making

#### **OBJECTIVES**

By the end of this training course, participants will be able to:

- Gain better understanding of the dynamics of the entire LNG value chain
- Understand LNG production, storage, transportation and distribution
- Understand the LNG Pricing Issues, Structures, for exports
- Distinguish various sales, marketing terms and conditions
- Understand the various terms in LPG sales and purchase agreements
- Learn economic evaluation benchmarks and determine return on investments

#### TRAINING METHODOLOGY

 This LNG Supply, Demand & Pricing training course will utilise a variety of proven management learning techniques to ensure maximum understanding, comprehension and retention of the business tools, techniques and best practices presented. The daily workshops will be highly interactive and participative. Participants will learn by active participation throughout the programme through the use of programme materials, case study exercises, quizzes, training videos and discussion of business cases issues in their organizations.

#### WHO SHOULD ATTEND?

This training course is suitable to a wide range of professionals but will greatly benefit:

- Business Development Managers
- Corporate Planning Professionals
- Geoscience & Engineering Professionals
- Supply Planners & Scheduling Professionals
- Government Regulators
- Law Professionals
- Tax & Finance Advisors
- Auditing Personnel
- Compliance Officers
- Equity Analyst and Bankers
- Joint Venture Officers
- Negotiators and Contracting Professionals
- Trading Professionals

#### **Course Outline**

## Setting the Introductory LNG Scene in Energy Industry

- Introduction to the LNG Industry
- Exploration, Development and LNG Production, Shipping, Importation
- Cost and Value Drivers: Shareholder Expectations
- The Value Chain: From Wellhead to Burner Tip
- Players: Governments, NOCs, IOCs, Banks and Insurers, etc.
- Natural Gas Value Chain
- Exploration and Production
- Processing and Production
- Sales Gas Transmission
- Underground Storage
- Distribution
- Sales Gas and Product Specifications
- Global Production
- Where and Who are the Producers of LNG
- Projects currently under Development
- Global Markets
- Where and Who are the users of LNG
- Projects currently under Development
- Gas Conditioning Processes
- Excess Water Removal
- Contaminants Removal
- NGL Separation

## **Essential Logistics of LNG**

- Nitrogen Rejection Processes
- Cryogenic Process
- Absorption Process (using lean oil or solvent) Membrane Separation
- Adsorption Process (activated carbon) Storage System
- LNG Transportation Logistics
- Vapour Recovery System LACT Unit
- Sampling
- Natural Gas Transportation
- Pipeline Components
- Compressor Stations
- Metering Stations
- Valves
- Control Stations
- Pipeline Operations
- Basics of Gas Pipeline
- Gas Flow Measurement
- Liquefied Natural Gas (LNG)

## LNG Pricing Structures for Exports, Marketing and Project Risks

- LNG Sales, Marketing and Trade
- Price Disparity in Different Regions
- LNG Benchmarks
- Major Changes in LNG Business
- LNG Pricing Structures and Price Dynamics
- Natural Gas Prices
- Regional Pricing Disparity
- Pricing Structures Key To Future Of LNG Exports
- Oil Linked LNG Pricing
- Business Sector
- Industry and Market Structure
- Natural Gas Demand
- Natural Gas Supply
- Economics of the Natural Gas Plants
- LNG Expanding Market
- LNG as Land Transport Fuel
- LNG as Marine Transport Fuel
- Key Project Risk and Value Identification
- Understanding the Fundamental Commercial Drivers for Project Success
- Identification of Key Project Risks (from a commercial perspective) and Mitigation Strategies
- Reserves Definitions and Reserves Certification
- Completion and Cost Overrun Risks
- Cost Linkages to Oil and Gas Prices
- Maximizing Profitability of Gas Plant Assets
- Business Evaluation and Profitability Analysis
- Return on Investment Analysis
- Selection Criteria of Best Return on Investment
- Portfolio Management
- The Performance Strategy— Integrated Gas Plant
- The Successful Information Strategy
- Operations Strategy

# LNG Project Financing and Project Management

- Gas Plant Project Management
- Project Management Overview
- Industry Perspective
- The Project Management Process
- Project Controls & Quality Controls
- Quality Assurance
- Commissioning and Start-up
- Dispute Prevention & Arbitration
- Disputes
- Arbitration and Expert Determination
- Commercial Structures
- Alternative Commercial Structures

- Complexity of Integrating Requirements
- FOB vs. DES Sales
- LNG Project Financing Essentials
- Financial Structures in LNG
- Investment Decision Making
- The Key Value Drivers in LNG Financing
- Overview of LNG Financing Options
- Balance Financing
- ECA and Multilateral Agency Funding
- Capital Markets
- Asset based Financing
- Project Financing and Structured Recourse Financing

## LNG Agreements, Regulations and Future Trends

- LNG Agreements
- Overview of the Contractual Terminology
- Stakeholder Analysis and Drivers
- Upstream Agreements
- LNG Supply Purchase Agreements SPA
- EPC Contracts
- LNG Shipping Arrangements / Agreements
- LNG Regasification Terminal Agreements
- Fiscal and Legal Regimes Worldwide
- Production sharing Arrangements
- Regulations
- The History of Regulations
- The Market under Regulation
- The Environmental Impact
- The Future Trends in Natural Gas Trends
- Trends in LNG Markets
- Latest Changes and Movements in LNG Trading