

#### Setting the Introductory LNG Scene in Energy Industry

- Introduction to the LNG Industry
  - o Exploration, Development and LNG Production, Shipping, Importation
  - o Cost and Value Drivers: Shareholder Expectations
  - o The Value Chain: From Wellhead to Burner Tip
  - o Players: Governments, NOCs, IOCs, Banks and Insurers, etc.
- Natural Gas Value Chain
  - Exploration and Production
  - o 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
  - o Projects currently under Development
- Gas Conditioning Processes
  - o Excess Water Removal
  - Contaminants Removal
  - NGL Separation



## **Essential Logistics of LNG**

- Nitrogen Rejection Processes
  - Cryogenic Process
  - o Absorption Process (using lean oil or solvent) Membrane Separation
  - o 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
  - o Basics of Gas Pipeline
  - o Gas Flow Measurement
- Liquefied Natural Gas (LNG)
  - Why LNG a Growth Industry
  - o Compression & Refrigeration
  - Transportation of LNG
  - Major LNG Exporting Nations
  - Major Importing Nations



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
  - o Regional Pricing Disparity
  - Pricing Structures Key To Future Of LNG Exports
  - Oil Linked LNG Pricing
- Business Sector
  - o 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
  - o Understanding the Fundamental Commercial Drivers for Project Success

- Identification of Key Project Risks (from a commercial perspective) and Mitigation
  Strategies
- o Reserves Definitions and Reserves Certification
- Completion and Cost Overrun Risks
- Cost Linkages to Oil and Gas Prices
- Maximizing Profitability of Gas Plant Assets
  - o Business Evaluation and Profitability Analysis
  - Return on Investment Analysis
  - Selection Criteria of Best Return on Investment
  - Portfolio Management
  - o 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
  - o Industry Perspective
  - The Project Management Process
  - Project Controls & Quality Controls
  - Quality Assurance
  - o Commissioning and Start-up
- Dispute Prevention & Arbitration
  - o Disputes
  - o Arbitration and Expert Determination
- Commercial Structures
  - Alternative Commercial Structures
  - Complexity of Integrating Requirements
  - o 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
  - o ECA and Multilateral Agency Funding

- Capital Markets
- Asset based Financing
- Project Financing and Structured Recourse Financing

# DAY 5

### LNG Agreements, Regulations and Future Trends

- LNG Agreements
  - o 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
  - o The History of Regulations
  - o The Market under Regulation
  - The Environmental Impact
- The Future Trends in Natural Gas Trends
  - Trends in LNG Markets
  - o Latest Changes and Movements in LNG Trading
  - The Impact of Shale Gas
  - o Hubs vs. Oil for Price Setting
  - Market Shifts in Importation and Liquefaction
  - Mid and Small-Scale LNG
  - o Benefits of Floating LNG Business
- Wrap-up and Summary