



Advanced LNG Commercial Operations



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Introduction

The Advanced LNG Commercial Operations course provides an understanding of the commercial, operational, and strategic aspects of the Liquefied Natural Gas LNG industry. It explores the complete LNG value chain, including natural gas markets, LNG production, shipping, regasification, trading, and commercial decision-making processes. It develops participants' knowledge of LNG project structures, pricing mechanisms, contractual considerations, and operational coordination requirements. The program focuses on integrating technical operations and commercial activities to optimize LNG business performance. Participants will examine real-world commercial challenges, including custody transfer, freight calculations, LNG scheduling, product quality management, and negotiation strategies. They will enhance understanding of strategic planning, performance monitoring, hydrocarbon accounting, and customer relationship management within global LNG operations.

Targeted Groups

This Advanced LNG Commercial Operations training targets professionals seeking knowledge and skills:

- LNG commercial managers managing gas trading activities.
- Natural gas professionals involved in value chain operations.
- Energy analysts supporting LNG market decisions.
- Project managers overseeing LNG developments.
- Commercial planners coordinating LNG activities.
- Shipping professionals managing LNG transportation.
- Terminal operators involved in regasification operations.
- Finance teams supporting LNG business performance.
- Engineers requiring commercial LNG knowledge.
- Executives involved in energy strategy development.

Course Objectives

Participants will achieve the following objectives by completing the Advanced LNG Commercial Operations course:

- Understand global natural gas and LNG business structures.
- Analyze LNG value chain activities and commercial interactions.
- Evaluate LNG markets, pricing methods, and trading approaches.
- Apply heating value and Wobbe calculations in LNG operations.
- Understand LNG liquefaction, shipping, and regasification processes.
- Assess LNG project structures and commercial frameworks.
- Manage LNG purchasing, production, and sales activities effectively.
- Apply custody transfer principles and calculation methods.
- Develop skills in LNG planning, scheduling, and operational coordination.
- Understand the commercial strategies that support LNG business growth.
- Analyze performance indicators, benchmarking approaches, and operational targets.
- Improve knowledge of hydrocarbon accounting and LNG documentation.

- Strengthen decision-making skills for international LNG operations.
- Enhance customer relationship and commercial reporting capabilities.

Targeted Competencies

Participants will gain the following competencies during the Advanced LNG Commercial Operations program:

- Understanding LNG business models and market dynamics.
- Managing LNG commercial operations processes.
- Evaluating LNG supply chain activities.
- Applying LNG pricing and trading concepts.
- Interpreting LNG contracts and commercial requirements.
- Performing operational calculations for LNG activities.
- Coordinating LNG scheduling and logistics.
- Monitoring LNG business performance indicators.
- Managing commercial documentation processes.
- Supporting strategic LNG planning decisions.
- Evaluating LNG project structures and risks.
- Improving customer relationship management practices.

Studying Scenarios

In this Advanced LNG Commercial Operations training, participants develop skills through the following scenarios:

- Analyze changes in the LNG market and develop commercial responses.
- Calculate LNG freight costs for alternative shipping routes.
- Evaluate LNG quality adjustments at regasification terminals.
- Review custody transfer calculations during cargo operations.
- Develop negotiation strategies for LNG cargo diversions.
- Assess operational planning challenges across LNG facilities.

Course Content

Unit 1: Natural Gas and LNG Business Fundamentals

- Overview of global natural gas industry development and energy demand trends.
- Understanding hydrocarbons as essential resources for global energy supply.
- Exploring natural gas business models and commercial structures.
- Reviewing the natural gas value chain from production to consumption.
- Analyzing key natural gas markets and regional trading patterns.
- Understanding LNG's role in global energy security and supply flexibility.
- Examining commercial drivers influencing natural gas investments.

Unit 2: Natural Gas Markets, Pricing, and Commercial Analysis

- Understanding international natural gas market structures and participants.
- Reviewing LNG and natural gas pricing mechanisms.
- Analyzing market-based pricing, oil-indexed pricing, and hybrid models.
- Evaluating supply and demand factors affecting LNG prices.
- Understanding contract duration and pricing flexibility in LNG agreements.

- Applying heating value calculations for commercial energy transactions.
- Performing Wobbe index calculations for gas compatibility assessment.
- Examining market risks influencing LNG commercial decisions.

Unit 3: LNG Value Chain and Asset Management

- Understanding the complete LNG value chain from upstream to customers.
- Reviewing LNG production, transportation, storage, and delivery processes.
- Analyzing LNG assets including liquefaction plants and terminals.
- Understanding commercial responsibilities across LNG facilities.
- Evaluating asset utilization and operational efficiency factors.
- Reviewing LNG infrastructure requirements for global operations.
- Understanding the relationship between physical assets and commercial performance.

Unit 4: LNG Liquefaction, Shipping, and Transportation Operations

- Understanding LNG liquefaction processes and production stages.
- Reviewing LNG plant capacity, efficiency, and operational considerations.
- Analyzing LNG shipping operations and vessel requirements.
- Understanding LNG transportation routes and logistics planning.
- Performing freight calculations for LNG cargo movements.
- Comparing Panama Canal routing with alternative shipping options.
- Evaluating shipping costs, scheduling challenges, and delivery commitments.

Unit 5: LNG Regasification and Commercial Terminal Operations

- Understanding LNG regasification processes and terminal functions.
- Reviewing LNG storage, unloading, and send-out operations.
- Managing LNG terminal commercial activities and coordination.
- Understanding product quality requirements during regasification.
- Applying Wobbe adjustment calculations at LNG terminals.
- Evaluating terminal capacity planning and operational limitations.
- Coordinating commercial requirements with technical operations teams.

Unit 6: LNG Commercial Operations and Business Execution

- Understanding LNG project structures and commercial arrangements.
- Reviewing LNG purchasing and gas supply strategies.
- Managing LNG production planning and commercial requirements.
- Coordinating commercial operations planning and execution activities.
- Understanding LNG sales processes and customer commitments.
- Managing LNG cargo scheduling and daily operational coordination.
- Reviewing custody transfer principles and measurement requirements.
- Applying custody transfer calculations for LNG transactions.

Unit 7: LNG Trading Strategy and Commercial Decision-Making

- Understanding LNG commercial strategy development processes.
- Evaluating LNG portfolio management approaches.
- Developing planning methods for LNG business optimization.
- Applying diversion calculations for LNG cargo decisions.
- Understanding LNG negotiation strategies and commercial flexibility.

- Evaluating alternative market opportunities and customer demands.
- Supporting strategic decisions through commercial analysis.

Unit 8: Business Planning, Performance Monitoring, and Management Systems

- Understanding LNG business planning processes and frameworks.
- Developing commercial plans aligned with organizational objectives.
- Reviewing management information systems supporting LNG operations.
- Monitoring LNG business performance through operational data.
- Establishing benchmarking methods for LNG activities.
- Setting targets and key performance indicators for commercial teams.
- Evaluating business performance and improvement opportunities.

Unit 9: Hydrocarbon Accounting, Documentation, and Customer Management

- Understanding hydrocarbon accounting principles in LNG operations.
- Managing LNG volume measurement and reconciliation processes.
- Reviewing commercial documentation requirements for LNG cargoes.
- Understanding Bills of Lading BOL and Certificates of Quality COQ.
- Managing LNG cargo documentation and transaction records.
- Developing customer information management and reporting practices.
- Supporting accurate commercial reporting and compliance processes.

Unit 10: Professional Competence and LNG Commercial Excellence

- Understanding competency management in LNG commercial organizations.
- Developing professional capabilities for LNG business roles.
- Managing resources required for effective commercial operations.
- Improving collaboration between commercial and operational teams.
- Applying continuous improvement approaches in LNG activities.
- Strengthening leadership skills within LNG commercial environments.
- Building sustainable practices for long-term LNG business success.

Final Insights & Key Takeaways

The course equips professionals with integrated knowledge of LNG markets, commercial processes, operational coordination, and strategic business management. Participants develop the capability to support efficient LNG decision-making, optimize commercial performance, and manage complex global LNG activities.