LNG Project and Value Chain Economics - G-53

COURSE

About the Course

Liquefied Natural Gas (LNG) has provided international mobility to natural gas, which now provides around 25 % of the world primary energy. Being the cleanest fossil fuel natural gas/LNG consumption is forecasted to grow in all future scenarios. With the entry of various actors, including Trading companies, the LNG value chain is becoming increasingly complex, and solid understanding of its economics and management of its interfaces have become crucial to identify and assess investment opportunities and risks.

Recent market disturbances make a deep understanding of LNG Value Chain Logistics and Economics even more essential to ensure security of energy supplies sustainably and profitably.

This course starts with a concise introduction to the LNG business. Thereafter, the elements of the LNG value chain are described, and their individual economics analysed. A Business Activity Model along the value chain will be developed and discussed in depth, covering the following key processes:

Buy Gas -> Transport Gas -> Liquefy Gas -> Sell LNG/Products -> Ship LNG -> Regasify LNG

The integrated chain economics will then be developed and quantified. A hands-on group workshop/exercise developing the economic case of a full-size Liquefaction project will be carried out, considering the forecasted cash flows throughout the project life, the location of the plant, its markets, project sensitivities and profitability assessment.

Excel based tools/models (LNG Liquefaction project development NPV analyses, Shipping Freight Calculations and Economics) will be provided to the participants for these exercises and their future personal use.

Target Audience

Technical, Operational, Shipping, Commercial, Project and Governance professionals already active in a specific section of the LNG Value Chain will directly benefit in developing a wider and deeper perspective on how the LNG VALUE CHAIN operates and can be optimised.

Managers (Projects, Technical, Financial, Legal and Governance) less familiar with the specifics of the LNG Industry will also benefit from this course, as they will get the required background to be able set sharper targets, suitable performance indicators, and governance and performance assessment guidelines for units engaged in the chain.

You Will Learn

At the completion of this training the participants will:

- **Understand** how the LNG Value Chain operates, bound by the relevant Contracts and Agreements
- **Learn** the basic economic parameters (operating, capital costs, financing, profitability) of each major element of the value chain
- **Appreciate** the complexity of the value chain, and the associated opportunities and risks
- **Develop** quantitative Project evaluation skills
- **Explore** options to maximise profitability in a given LNG value chain
- **Discuss** best practices on how to manage, steer and govern these activities

Course Content

Overview of Natural Gas & LNG Industries

- Introduction and course overview
- Hydrocarbons for energy - foundation
- Natural gas & LNG business
- Deep dive into the elements of the LNG Value Chain

LNG Value Chain Economic Concepts/Elements

- Economics of the LNG Value Chain
- Liquefaction projects
- LNG project shipping
- Exercises:
  - Freight Calculations
  - Hands-on DCF Calculations

Project Calculations

- DCF/NPV Modelling
- Integrated Project Economics Workshop

Quantifation & Optimization of Value Chain Economics

- Integrated value chain economics
- Shipping cost calculations
- Freight optimization exercise
- Optimizing the value chain

- LNG bunkering, trucking

Planning, Managing Value Chain Performance

- Risk identification, assessment, management
- Business/project performance management
- LNG outlook and Energy Transition

Product Details

Categories: Midstream

Disciplines: Gas Processing Energy Business

Levels: Intermediate

Product Type: Course

Formats Available: In-Classroom

Instructors: Aydin Esener

In-Classroom Format

2 Dec '24 6 Dec '24 -	Course	In-Classroom (in London)	$5,585.00