

LNG Value Chain - Risks and Opportunities for Gas Market Participants

A 1-2 Day Tailored Industry Interactive Seminar



This interactive seminar comprises presentation, discussion, practical case studies and worked examples. It sets out a brief historical context for today's sophisticated LNG sector, and how the current approach to project structuring, partnerships, engineering and optimisation, gas sale and purchase arrangements and related marine features are organised, as well as how these features interact with resource management and reserves determination, project economics, and the increasingly complex global competitive pricing situation.

As each aspect of the LNG chain is explained, the way in which risk is allocated among and between stakeholders, government, buyers, sellers and lenders is set out, so that participants can gain a good understanding of the keys to a successful project, and how risk allocation and price are interdependent, and why stakeholder alignment is essential in any LNG undertaking.

GCA's Global Gas and LNG Group - Supporting Clients Across the Gas Value Chain

Here at GCA, we believe that whichever part of the LNG value chain you participate in or support, a comprehensive understanding from the "well head to the gas burner tip" is essential to ensure that you extract the maximum value whilst managing risks appropriately.

Aims and Objectives of the Seminar

- The aim of the workshop is to provide participants with a grounding in all aspects of the LNG value chain, such that they have an understanding of how each step in the chain works.
- Course participants are taken from initial resource definition through development planning, gas treatment and liquefaction, marine transportation, regasification and gas marketing, with the emphasis on how these fit together to form a sustainable value chain on the back of which financing can be sourced, and a Final Investment Decision (FID) can be successfully reached.
- Development and operational phases of the LNG cycle are also examined to identify key technical, commercial and strategic risks and opportunities.
- Key commercial agreements and terms are covered to raise awareness of how risk and value are shared along the value chain.
- Changing current market and pricing dynamics are discussed, along with commercial challenges and opportunities, and implications for various market participants including sellers, buyers, governments, traders, aggregators, investors, financial and legal specialists.

Content

- Each attendee receives a hard copy of all the course material. The course manual offers information and background from a variety of sources and the direct project experience of GCA team members, taken from dozens of LNG projects over the last 35+ years.
- The materials also include worked examples and project based illustrations that are used to underline the key learnings.
- The workshop will look at why things are changing in the LNG sector in response to economics, global pricing trends, and technology.
- The seminar can be presented as a multi-client presentation, or a bespoke offering focused to the particular needs of the client.
- A sample outline of the multi-client seminar is shown overleaf.

**Gaffney,
Cline &
Associates**

Seminar Schedule

Day One

Grounding in the LNG Value Chain:

- LNG technology and historical development
- Value chain components
- Fuel, losses, efficiency, scale and other financial features
- Safety and environmental considerations
- Typical regulatory factors

Overview of LNG Supply Chain Economics:

- Factors affecting economic viability
- Global trends in gas chain economics and competitiveness
- Global LNG supply and demand

Project Definition Phase:

- Reserves considerations:
 - a. Conventional/unconventional
 - b. Onshore/offshore
 - c. Quality considerations
- Importance of project participants and geography:
 - a. Credit/balance sheet
 - b. LNG track record
 - c. Supply chain etc.
 - d. Geopolitical factors
 - e. Role of integrated players (i.e. buyer participation in producing asset/LNG plant)
- Fiscal terms and conditions

Pre-Feed Phase:

- Project structure:
 - a. Dedicated reserves
 - b. Portfolio of reserves
- LNG early marketing:
 - a. Equity marketing
 - b. JV marketing
 - c. Shipping/marine considerations
- MoU/LOI with buyer(s)
- Financing considerations

FEED Phase:

- Definition and costings
- Selection of EPC contractor
- Project Financing options and costs

Marine Considerations:

- Delivery point
- Contractual features/charter arrangements
- Marine risk allocation
- Ship size and technology considerations
- Shipping costs and economics
- Future trends

Day Two

Detailed Negotiations of SPA:

- Typical structure of an LNG contract
- Risk balance between buyer and seller
- Price determination and mechanisms
- Price reopener trends
- Other contractual features

Requisites for FID:

- Finance
- Manageable volume/price risk
- Environmental permits
- Suitable host government fiscal terms and assurances

Project Risks:

- What can and does go wrong on LNG projects
- Risk identification and mitigation

Global Supply and Demand Overview:

- Overview of world LNG plants (current and proposed)
- Insights into global supply and demand outlook scenarios

Emerging Trends:

- Trading Mechanisms
 - a. Spot market/pricing mechanisms
 - b. Short term contracts
- Technology and LNG Markets

Market Reform and Liberalisation in Asia:

- Market liberalisation in Japan, South East Asia, China and India
- Lessons learned from UK and European market reform
- Implications for sellers and buyers of LNG

Seminar Provisions

GCA is flexible in the provision of the seminar in terms of location, number of attendees and tailoring to specific focus areas. GCA is unique in that its seminars can be tailored through discussion to focus on the client's data and area of interest in order to maximise the relevance of the seminar content.

Given the range of alternative options, please contact GCA to discuss specific requirements. We will always attempt to meet the requirements of our clients.