



www.marineLNGinstitute.com



LNG SHIPPING: IMPORT, TRADING ECONOMICS & FREIGHT COSTS.



About this Training Course:

Gas and LNG importation supply and its export is complex. Related legal and commercial agreements must take account of the technical, market, commercial, regulatory and geopolitical factors that are at play. This 3 full-day instructor led online course provides a solid grounding in the technical and market fundamentals, prevailing gas and LNG supply and associated agreements, principles and available techniques for pricing and agreement negotiation techniques. By attending this course, the participants will acquire the fundamentals of LNG international shipping, freight and LNG agreements, an understanding of gas and negotiation techniques and strategies relevant to international gas and LNG industries.

Learn what participants have said about our courses at the Marine LNG Institute:

"We have utilised this training for our crew and LNG Tech Superintendent's for several years. There are a lot of benefits," **China Shipping Lines (CSL)**

"I got so much out of it. I have never been or listen to an expert speaker in this technical LNG Maritime field. He is now going to assist us as we proceed with our ventures in the future," **Senior Manager, Shell USA**

"I have been to several seminars and this one was the best I have attended so far." **Technical Superintendent, Woodside Australia (Oil and Gas)**

"The offshore technical aspects to the trainer's seminars are excellent." **Offshore Strategic Manager, TOTAL Marine Ltd**

Objectives of this Training Course:

Upon the completion of this course, the participants will be able to:

- Reinforce their knowledge about operations, investments decisions, LNG market frameworks that are carried out in accordance with relevant national and international Law maritime legislation, ISO, local regulations, and industry best practices in the sector
- Evaluate the different procedures and factors affecting cost of the operations
- Become familiar with Gas and LNG value chains, supply, pricing, vessels, operations and equipment.
- Enhance their understanding of Gaseous transfer equipment, design cost implications, maintenance costs
- Establish useful methodologies in reducing CAPEX and risk.
- Understand Current international gas/LNG pricing trends and Global LNG pricing methodologies: Oil price indexation, (JCC crude parity, Brent etc), Henry Hub (USA), NBP (UK) & TTF (NL), Negotiated base price (PO) indexed by crude derivatives weighted
- Understand Gas transmission technologies: Comparative summary of pipeline, LNG, CNG and GTL
- View Technology innovation developments: Shale gas, FLNG, FRSU, small scale LNG
- Be able to Measurement units applicable to gas /LNG units
- Gain specific Focus on Asia Pacific Regions, European, USA, African regions within the LNG Industry
- Develop Energy security in Asia Pacific for commercial and domestic energy supply in the Maritime Industry.
- Assist government agencies with energy security and reduce supply vulnerabilities in Asia Pacific in the Maritime Industry
- Recognise and understand differences in operations and hazards between oil and gas vessels

Who should attend this Training Course?

This course is intended for the following professions from the maritime and energy industry:

- Maritime Legal Counsels or Advisors
 - LNG Commercial Managers
 - LNG Vessel negotiators
 - LNG Project Managers or Engineers
 - LNG Commercial Managers
 - Vessel Operation Managers
 - LNG Business Risk Managers
 - LNG Business Development Managers
 - LNG Contract Managers
 - LNG Sourcing / Purchasing Managers
 - Corporate Strategy Managers
 - Energy Regulators & Investor Relations
- Other useful information at a glance:

Course level:

This course can also be offered through Online Instructor Led Training format and 'In house' worldwide.

By attending this course, the participants will acquire the fundamentals of international gas and LNG agreements, an understanding of gas and LNG supply and related agreements, and negotiation techniques and strategies relevant to international gas and LNG.

Objectives of this Training Course:

Upon the completion of this course, the participants will be able to:

- Reinforce their knowledge about operations, investments decisions, LNG market frameworks that are carried out in accordance with relevant national and international Law maritime legislation, ISO, local regulations, and industry best practices in the sector
- Evaluate the different procedures and factors affecting cost of the operations
- Become familiar with Gas and LNG value chains, supply, pricing, vessels, operations and equipment
- Enhance their understanding of Gaseous transfer equipment, design cost implications, maintenance costs
- Establish useful methodologies in reducing CAPEX and risk
- Gain specific Focus on USA, Europe, Middle East, Asia Pacific Regions within the LNG Industry
- Develop Energy security in Europe, Middle East, USA and Asia Pacific
- Assist government agencies with energy security and reduce supply vulnerabilities
- Recognise and understand differences in operations and hazards between oil and gas vessels

Further Objectives of this Training Course:

After the completion of this course, the participants will be able to:

- ❖ Reinforce knowledge about operations that are carried out in accordance with all relevant national and international maritime legislation, local regulations, and industry best practices.
- ❖ Evaluate the different procedures and factors affecting cost of the operation.
- ❖ LNG trading and Pricing mechanisms
- ❖ Become familiar with LNG vessels, investments operations and equipment.
- ❖ Enhance understanding of LNG Investments in Ship-to-Ship and bunkering transfer equipment,
- ❖ Design, maintenance – and training methods for STS.
- ❖ Familiarise the differences of Person in Overall Advisory Control, Mooring Master and Master of the Ship and reduce freight costs and CAPEX
- ❖ Establish a useful methodology in reducing investment and financial risks.
- ❖ Understanding environmental challenges.
- ❖ Claim for LNG shortages and Cargo Calculations
- ❖ Freight agreements and negotiations
- ❖ Futures markets and LNG trading Hubs
- ❖ LNG Cost elements, finance economics and scalability
- ❖ LNG Contracts, LNG Charterparty agreements and Custody Management Systems

Who should attend this Training Course?

This course is ideal for professionals involved in the maritime, bunkering, and energy sectors who are looking to understand the opportunities. It is particularly relevant for:

- Maritime Legal Counsels or Advisors
- LNG Commercial Managers
- LNG Investment and Financial Institutions
- Government Agencies and LNG Contractors
- Energy LNG Importers
- LNG Vessel negotiators
- LNG Trading Houses/LNG Trading Hubs
- LNG Project Managers or Engineers
- LNG Commercial Managers
- Vessel Operation Managers
- Ship owners, operators, and managers
- Marine engineers and technical superintendents
- Bunkering companies and fuel suppliers
- Port and terminal operators
- Classification societies and regulatory bodies
- Maritime consultants and surveyors
- Equipment manufacturers for marine fuel systems
- Energy and shipping traders
- Environmental compliance officers
- Maritime insurance and legal professionals

This course can also be offered through Online Instructor Led Training format and Corporate 'In House' training worldwide.

3-DAYCOURSE AGENDA BELOW

 www.marinelnginstitute.com  www.marinelnginstitute.com/enrol/  info@marinelnginstitute.com

DAY 1:

DAY 1: LNG: A COMMERCIAL, DOMESTICS FUEL SOURCE FOR INDUSTRY LNG:

The Science behind the Energy and Fuel Source

- LNG chemical composition
- Low sulphur
- The LNG Value Chain
- Calorific Values and temps
- Lean and Heavy LNG
- Changes in heating values
- Cryogenic Science and New Fuels

Commercial and Domestic Energy Redundancies

- Developing Energy Security in Asia Pacific, Europe, USA and Middle East- LNG Facilities and Infrastructure
- Existing and emerging
- Potential and worldwide energy needs for LNG
- Why LNG?

Future and current developments

- Commercial arguments LNG Trading, Productions and Sale Agreement methods LNG trading route developments Asia Pacific Regions
- New production facilities and locations
- New trading routes and hubs developing

Specific Focus on Russia, Europe, USA and Asia Pacific Trading and Production Futures

- Off-shore industry expansion options for LNG as energy and fuel
- On shore development of infrastructure
- Remote supplies and disaster recovery, portable LNG
- LNG Storage & Regasification
- Sales & Purchase Agreements (SPA)
- Spot vs Term Contracts Exercise:

Routes/Distances LNG Storage, Transfers New Shipping Technologies and Definitions LNG as a Fuel and Ship Design Configurations

Current LNG Propulsion Options

- LNG Fuel Tanks
- LNG Storage
- LNG Fuel System
- Impacts on Ship Configurations and Operation
- Suitable Ship Types
- LNG and other Ship design efficiencies
- TOTE - New LNG Fuel Containership
- Retro fitting of existing vessels with LNG technology

Introduction, Definitions

- Cargo Containment & Management
- Propulsion Systems
- Boil-Off, Heel, Re-liquefaction Case Study: Variable costs
- Port Costs, Inspection, Insurance
- Brokers Fees / Fleet Management/Manning

DAY 1 (CONTINUED):

Exercise LNG Spill Management Gas / LNG Industry Overview

- Gas / LNG chain and definitions
- Gas transmission technologies: Comparative summary of pipeline, LNG, CNG and GTL
- Technology innovation developments: Shale gas, FLNG, FRSU, small scale LNG
- Measurement units applicable to gas /LNG units
- Worked numerical examples

DAY 2: LNG ECONOMICS RISK & FREIGHT CARRIAGE RISKS AND COSTING LNG Energy Investment

Market Overview

- Overview of natural gas sector
- International pipeline trade
- LNG trade
- Regional markets: Profile of gas trade of Africa, Atlantic, Middle East, Asia Pacific, Europe and USA
- Geopolitical issues

Gas / LNG market structure and gas industry regulatory issues Freight Agreements and Negotiations – Allocation of Risk in the Carriage of LNG

Claims for Shortage of Oil/LNG Cargo and Statistics

- Overview of LNG Supply Chain
- 'Boil-Off' During the Voyage and Bunkering
- Owners' Warranted Performance
- BIMCO / GIIGNL / CTMS / LNG HEEL
- Charterparties for the Carriage of LNG Cargo
- Insurance and loss
- Owners compensate
- Changes in chemical characteristics whilst in Transit
- LNG Risk Mechanisms
- Responsibility for Cargo care
- Tank conditions

Cargo calculations

- Supervision of loading / discharging of the cargo
- Vetting the suitability of the vessel to carry LNG
- The Vessel's containment system
- BOG management
- Forced Boil off and Boil off Cap
- LNG delivery 'Windows'
- Foreseeable Ballast voyage
- Parties responsible for 'cool down'

Examination of the Contractual Allocation of Risk under LNGVOY Controls to Prevent LNG Freight Cargo and Bunkering Shortage Costs

Operating Costs Elements and variables

- Roles and responsibility of terminal in LNG cargo transfer
- Terminal loading and discharging
- Storage tank capacity
- Storage tank types

LNG Trading HUB Economics

- Overview of LNG Trading and definitions
- How they work and why?
- Contract and Spot evaluations
- Asian Market Premium vs Europe and USA
- JCC markets and leverage in the LNG Import sector
- Global LNG Market leverage systems
- How to leverage LNG Imports and Hedging
- Institutional Finance market in LNG

Charter Party Agreements Exercise: FSRU and LNG Bunkering Case Study Plan and Review STS / FSRU Exercises

- Plan review and discuss checklists and equipment items required
- Confirm any training requirements
- Simulation training and bridge team resources management

LNG Custody Transfer Measurement Agreements and Economic Calculations for Commercial and Domestic infrastructure and Shipping

- How it's done
- LNG Long-Term duration Investments
- OEM commercial and domestic suppliers of new Technology for heavy industry - National Energy supplies of LNG for Industry Investments
- System setup parameters
- Ship and surveyor roles

Certificate of Loading Types of LNG Custody Transfer Measurement Systems and Equipment

- Liquid form measurement
- Volumetric measurement
- Temperature measurement
- Custody Transfer Measurement system
- Dynamic Metering
- Ultrasonic Metering
- Vortex Metering
- (CTMs) testing and checks
- LNG Custody Transfer Procedure

DAY 3: FINANCE AND ECONOMIES OF SCALE IN THE ENERGY SECTOR: GAS / LNG CONTRACTS, AIMS, RISK AND VALUE CONSIDERATIONS

- Basic questions
- Contracts objectives
- Gas / LNG chain contracts
- Operational, commercial and legal basis for long-term contracts
- Contract perspectives of Buyer and Seller: Obligations, risk mitigation and value LNG as a Fuel and Ship Design Configurations

Current LNG Propulsion Options

- LNG Fuel Tanks
- LNG Storage
- LNG Fuel System
- Impacts on Ship Configurations and Operation
- Suitable Ship Types
- LNG and other Ship design efficiencies
- TOTE – New LNG Fuel Containership Retro fitting of existing vessels with LNG technology Nature of LNG Commercial

FINANCE AND ECONOMIES OF SCALE IN THE ENERGY SECTOR: GAS / LNG CONTRACTS, AIMS, RISK AND VALUE CONSIDERATIONS CONTINUED DAY 3

Parties and Industry Parties involved in LNG industry and their Relationship to One Another

- How parties are involved (Oil / Gas Majors, Charterers, Service Provider, Cargo Surveyors, FSRU operators, POAC, Ships' masters and Mooring Master)

LNG Pricing and Economics

- Basic principles and main drivers
- Gas pricing methodologies: Cost plus, cost of service, net back / market value
- Regional price formation
- Current international gas/LNG pricing trends
- Global LNG pricing methodologies: Oil price indexation, (JCC crude parity, Brent etc), Henry Hub (USA), NBP (UK) & TTF (NL), Negotiated base price (PO) indexed by crude derivatives (weighted)

LNG Large and Small scale – Compatibility Studies

- Development of LNG Export facilities
- Development of LNG Import Facilities
- LNG Road Transportation
- Floating LNG Facility design
- Differences to On and Off shore design capabilities
- Ship-to-Shore operations interfaces
- Compatibility forms

Optimoor and accelerate LNG Compatibility Risks

- FSRU and STS OPTIMOOR studies
- Simulator training for FSRU and STS equipment
- Cargo discharge
- LNG Cargo Unloading arms and Hoses

STS / FSRU – Best Practices Oil and LNG comparisons

- Discuss main considerations
- FSRU Operational Case Study
- Time / durations / Locations and Regulations

FSRU Simulations Case Study - Commercial aspects of LNG Cargo Agreements: Incidents and Claims – How it affects all participants in the LNG Industry

What is G.A – why does it affect all participants commercially?

- G.A – Carriers concerns
- LNG Loss and Case Studies
- LNGC Cost of Losses and how to minimise commercial and economic risks
- LNG Calculations and how to minimise loss
- Charterer concerns
- Facilities and Operators concerns
- STS, Bunker Handlers & Bunker Operators concerns
- Commercial Contracts and the effects on all parties
- Technical nature of G.A



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MARINE LNG INSTITUTE – COURSE CERTIFICATION & CERTIFICATES ARE ISSUED UPON COMPLETION.



Individualized “One to One” for 1 hour post training!

To further optimise your learning experience from our courses, the Marine LNG Institute also offer individualized “One to One” for 1 hour post training **free of charge**. We help improve your competence in your chosen area of interest, based on your learning needs. This is a great opportunity to improve your capability and confidence in a particular area of expertise. It will be delivered over a secure video conference call by one of our senior trainers.



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4. LNG Project Managers or Engineers
5. LNG Commercial Managers
6. Vessel Operation Managers
7. LNG Business Risk Managers
8. LNG Business Development Managers
9. LNG Contract Managers
10. LNG Sourcing / Purchasing Managers
11. Corporate Strategy Managers
12. Energy Regulators & Investor Relations
13. Ship Owners and Managers
14. Offshore Vessel and FPSO Owners and Operators
15. Oil Majors, NOCs and Independents
16. Ship Superintendents and Safety Officers
17. Ship Officers and Crews (Master, Chief Officers, Chief Engineers etc)
18. Bunkering industry Personnel including Loading and Mooring Masters
19. STS Service Providers
20. Liquid Cargo and Bunker Surveyors
21. Ports and Terminal Operators
22. P&I Inspectors and Executives
23. LNG FSU Owners, Managers, Operators
24. Company Assurance Managers and Superintendents
25. Project Directors

REGISTRATION FORM

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|--|--|------------|--|
| LNG SHIPPING IMPORT, TRADING ECONOMICS AND FREIGHT COSTS | | MAX 10 PAX | <p>Group bookings at the same time from the same company receive the following: 3 or more at 5% off 5 or more at 7% off 8 of more at 10%</p> <p>All other promotions are exclusive of the group discount.</p> |
|--|--|------------|--|

DELEGATE DETAILS

Delegate 1

Mr Ms Mrs Dr Others: _____

Name : _____

Job Title : _____

Department : _____

Telephone No. : _____

Email : _____

Delegate 2

Mr Ms Mrs Dr Others: _____

Name : _____

Job Title : _____

Department : _____

Telephone No. : _____

Email : _____

Company : _____

Address : _____

Country : _____ Postcode: _____

Attention : _____

Invoice to : _____

Telephone No. : _____

Fax No. : _____

PAYMENT METHODS

By Direct Transfer. Please quote your Students Name with the remittance advise via email to student enrolments via our website. www.marinelnginstitute.com

All bank charges to be borne by payer. Please ensure that the full invoiced amount per student is received in USD.

We do not accept By Credit Card.

As Payment through credit card incurs a 3.5% admin fee payable by the payer. Payment through credit card is not applicable.

PAYMENT POLICY

Payment is due in full at the time of registration and enrolment. Full payment is mandatory for event attendance. By submitting this registration form, you have agreed to payment terms.

CANCELLATIONS & SUBSTITUTIONS

You may substitute delegates at any time. For cancellations received in writing more than seven (7) days prior to the training course, delegates will receive a 100% credit on the amount paid which can be used in another training course for up to one year from the date of issuance.

The credit is transferable to other persons in the same company and applicable against any future public course. For cancellations received seven (7) days or less prior to an event (including day 7), no credit will be issued.

In addition, a cancellation fee equivalent to 15% of the course fee will be charged. In the event that we postpone or cancels a course, delegate payments at the date of cancellation or postponement will be refunded in full. MLNGI does not provide refunds for cancellations and postponements or waive fees for unpaid invoices upon receipt of registration

3 EASY WAYS TO REGISTER

Please note

- Indicate if you have already registered and made payment by Email + or Web.
- If you have not received an acknowledgement by email before the training course, please contact us to confirm your booking.
- Photocopy this form to register multiple delegates.

3 EASY WAYS TO REGISTER

Marine LNG Institute www.marinelnginstitute.com Contact Enquires: Student Enrolments

Email: info@marinelnginstitute.com

Website Portal: [Enrol – Marine LNG Institute](#)

