

GPPS LNG Workshop Program

We are pleased to welcome you to our first LNG Workshop event based in Zurich, Switzerland. We expect the event to highlight some of the key considerations you will encounter when investing or designing LNG systems. As it is an ever-evolving field with constantly changing socio-economic pressures, we look forward to introducing you to new concepts and discussing potential future developments.



Schedule

Day 1

ROOM: HG F 33.5

13:30 -
14:30

Registration
ETH Main Building Entrance

14:00 -
14:10

Welcome and Introduction
Matt Taher (Bechtel Energy)

14:10 -
15:10

Overview of LNG Geopolitics & Economics
Prof. Reza Abhari (ETH Zurich)

15:10 -
16:10

Matt Taher (Bechtel Energy)
- LNG Value Chain (Liquefaction, Shipping, Regasification)
- LNG Liquefaction Technology: Quest for the Right Choice
- LNG Liquefaction Plant Layout and Different Design Options
- Process Units and Main Equipment: Supply Chain and Demand, CAPEX, OPEX

16:10 -
16:30

Coffee Break

16:30 -
18:00

- LNG Shipping (Classification of vessels, BOG management, Technical Facts)
- LNG Regasification and Import Terminals (Onshore, Offshore GBS, FSRU)
- Decarbonization of LNG Value Chain (Technical Challenges and Opportunities)
- EPC Projects: Main Activities (from a Conceptual Design to Commissioning and Start-up)



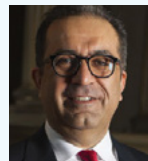
For More Information Click
or Scan the QR Code

Speakers



Day 1 + Day 2

Matt Taher
Principal Engineer, LNG Technology,
Bechtel Energy, USA



Day 1

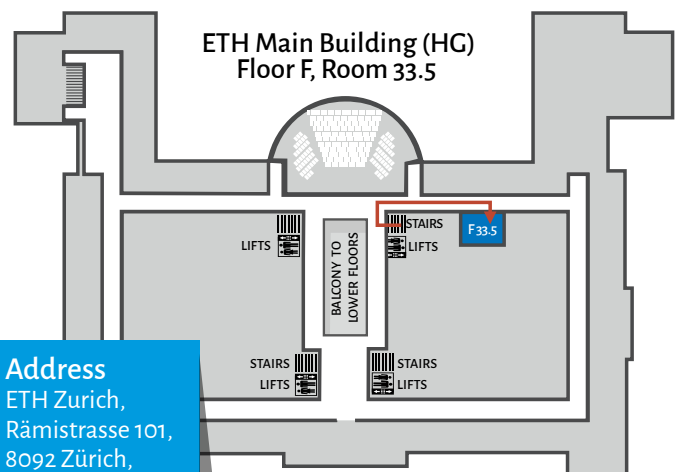
Reza Abhari
Full Professor, ETH Zurich, Switzerland

Location:

ETH Main Building | Floor F | Room F 33.5

The workshop will be hosted at the ETH Zurich University main building, which is conveniently located within walking distance of the city centre, main train station; for [map see our website](#).

The LNG Workshop is located on the F Floor, take staircase on left side of registration desk. Walk up one complete floor, turn right, then right again, continue for 10m, F33.5 door is on your right side.



Address

ETH Zurich,
Rämistrasse 101,
8092 Zürich,
Switzerland



Schedule

Day 2

ROOM: HG F 33.5

08:00 - 09:30 Registration
Ground Floor Main Entrance, ETH Zurich

09:00 - 09:10 Welcome and Introduction
Matt Taher (Bechtel Energy)

- 09:10 - 10:40**
- LNG Liquefaction Plant Configuration
 - LNG Liquefaction Process
 - Feed Gas Treatment (Acid Gas Removal, Dehydration, Mercury Removal, Heavies Removal, Feed Gas Pressure Boosting)
 - Liquefaction Unit (Refrigeration Compressors and their Arrangements, Heat Exchangers)

10:40- 11:00 Coffee Break

- 11:00 - 12:45**
- Drivers for Refrigeration Compressors (Steam Turbines, Aeroderivative Gas Turbines, Heavy Duty Gas Turbines, Large Induction and Synchronous Motors, LCI/VSI VFDs)
 - Matching of Centrifugal Compressors with their Drivers (Performance Characteristics, Operating Envelope, Power Margin)
 - Brief Review of Standard Requirements (API 617: Centrifugal Compressors, API 616: Gas Turbines, API 541: Induction Motors, API 546: Synchronous Motors, ASME PTC-10: Performance Tests of Centrifugal Compressors)

12:45- 14:00 Workshop Lunch
Dozentenfoyer, Floor K (via elevator to Floor J)

- 14:00 - 15:40**
- Turboexpanders in LNG Plants (Expander-Compressors, Expander-Generators, Liquid Expanders, API Standard Requirements, Supply Chain)
 - LNG Storage Tanks and Boil-off Gas Management
 - LNG Shipping (LNG Tankers as Floating Pipelines, Vessel Classifications, BOG Management and BOG Re-liquefaction)
 - LNG Import Terminals and LNG Regassification (Process overview, Marine Facilities, Send-out and Vaporization, LNG Vaporizer types, Expanders and Power Recovery)

15:40 - 16:00 Coffee Break

- 16:00 - 17:30**
- Decarbonization of LNG Value Chain
 - Carbon Capture in LNG Liquefaction Plants (Sources of CO₂ Emissions)
 - Electrification of LNG Liquefaction Plants (Technical Challenges and Opportunities, Replacing of Gas Turbines with Large Electrical Motors, Electrical Heaters)
 - CO₂ Compression/Liquefaction (Transcritical CO₂ Compression Pathways, CO₂ Compression versus Pumping, Current Limits of the Technology)
 - Use of Hydrogen and Renewable Energy Sources in LNG Value Chain

17:30 - 18:00 Q&A and Wrap-up

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