



Offshore Engineering Society

## ONLINE MEETING

Wednesday 26<sup>th</sup> August 2020 at 17:30 (NOTE EARLIER TIME)

# Mooring systems for floating gas facilities



As the world energy transition gains increasing momentum, the role of gas as a hydrocarbon fuel for generation of electricity and as a direct fuel for land and marine transportation is increasing.

The key challenge to the distribution of gas from producing countries to the required consumers remains the same, pipelines have limited outreach and gas is not easy to transport in its natural form over long distances. Liquefied Natural Gas (LNG) offers a proven and economic means to compress gas to 1/600 of its volume in atmospheric state and allow it to be transported in a cooled (-163degC) liquid form in purpose built LNG carriers.

Aside the transport of LNG, floating terminals are now in existence that consist of permanently moored units that can store LNG and also, depending upon the duty, turn incoming gas to liquid LNG (floating liquefaction, or FLNG) or vaporize LNG into gas (floating regasification, or FSRU).

These facilities allow LNG to be created, stored, redistributed or regasified for consumption worldwide. Stationkeeping of these units is a major challenge to designers.

This talk will explain the types of mooring systems that are used to secure these facilities on their locations, which can range from huge purpose built newbuild vessels in open ocean that must sustain typhoon events to very sheltered in-harbour positions based on converted trading LNG tankers.

Considerations on the vessel size, water depth and metocean conditions will be discussed along with requirements for storage, offloading and loading functionalities.

A case study will be presented based on an FSRU project.



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## **SPEAKER:**

### **JON DUNSTAN**

Jon is a chartered engineer and a civil engineering graduate of Imperial College, London, with over 25 years experience in the offshore energy sector spending most of his career in the design, construction and installation of fixed and floating offshore facilities.

He started his working life as a structural engineer for a North Sea EPC company before joining a major contractor performing installation of large oil and gas platforms.

Since 1998 he has specialised in the design and supply of mooring facilities for FPSO, FSO and FSRU units in shallow and ultra-deep water on projects worldwide and has played a key role in developing his company, LMC into a global player in the mooring sector. In 2008, following a change in ownership, he joined an Asian FPSO owner and operator and relocated to Singapore where he held a COO role as the company undertook ownership, conversion and operation of major FPSO projects in Vietnam, Thailand and Malaysia.

In 2016, he returned to the UK and re-joined LMC where he has spent time expanding the company capabilities and track record in providing mooring solutions for the floating renewables sector and LNG sectors as the global energy transition progresses.





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## **BOOKING / JOINING INSTRUCTIONS TO FOLLOW**

Hi there,

You are invited to a Zoom webinar.

When: Aug 26, 2020 05:30 PM London

Topic: OES Meeting - Mooring systems for floating gas facilities

Register in advance for this webinar:

[https://us02web.zoom.us/webinar/register/WN\\_weOG14rcTJa5o1g6Dok7wg](https://us02web.zoom.us/webinar/register/WN_weOG14rcTJa5o1g6Dok7wg)

The limit on the attendees is 100. OES individual and corporate members will be given priority. *For meeting security ICE members may register, supplying their grade and membership number. Their registration details will be checked with the institution. This may take a little time to complete but we will endeavour to do it as quickly as possible.*

After registering, you will receive a confirmation email containing information about joining the webinar.