



**2022**  
**September**

# The Changing Dynamics of the LNG Shipping Market



Webinar White Paper

The Al-Attiyah Foundation



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Event: Energy Industry Webinar  
Date: September 14, 2022  
Time: 12.00-01.00 PM (GMT+3)

The Abdullah bin Hamad Al-Attiah Foundation for Energy and Sustainable Development provides robust and practical knowledge and insights on global energy and sustainable development topics, communicating these for the benefit of the Foundation's members and wider community.

## WEBINAR WHITE PAPER

H.E. Abdullah Bin Hamad Al-Attiah founded the Foundation as a platform for knowledge exchange and support for the global community in the quest towards a sustainable energy future.

The Webinar Series, which began two years ago, is a crucial networking and learning opportunity in the calendar of industry CEOs members and Foundation partners.





The LNG industry is facing major economic and political shifts. Supply had already been struggling to keep up with rebounding demand as economic activity normalised following the peak of the pandemic before sanctions on Russian energy cargos, which subsequently reduced pipeline gas deliveries from Russia to Europe.

Seeking energy security, and as winter approaches in the Northern Hemisphere, countries that were reliant on Russia's energy supplies have turned to LNG to meet supply shortfalls. However, much of LNG supply is delivered on pre-agreed terms for both price and quantities. The spot market for LNG is more limited, so prices for LNG have surged.

This has impacted the market for LNG tankers. Again, the LNG tanker market has followed the LNG cargo market and matched tankers with contracts. Consequently, the spot tanker rates have also soared, hitting record highs amid strong demand and limited supply.

LNG tankers take several years to build. New LNG export facilities need new tankers. It is the accepted practise to book building slots with ship builders to coincide with new LNG facilities. LNG ship construction facilities are now full well into the second half of the decade, according to maritime engineering and technology solutions specialist Lloyd's Register.

With nearly 400 of the 640 existing LNG carriers unlikely to comply with International Maritime Organization's (IMO) carbon intensity indicator from 2025 onwards, owners are now looking to convert their older ships to Floating Storage and Regasification Units (FSRUs) to facilitate LNG imports. However, this presents another dilemma, because conversions will take shipping capacity out of the market, creating more supply pressure.

This discussion with leading LNG experts explored the remarkable revival of FSRUs, Europe's determination to end its dependence on Russian gas imports, changing LNG trade routes and how the industry can meet tougher environmental rules.

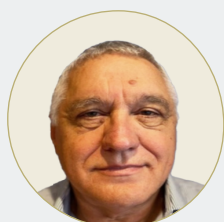
## WEBINAR SPEAKERS

### Moderator:



**Stephen Cole,**  
International  
Broadcast  
Journalist.

### Speaker



**Andy Parums,** Oil  
and Gas Industry  
Expert.

### Speaker



**Edward Gomersall,**  
Global Head of  
Gas, LNG and Coal  
Research, Refinitiv  
LSEG.

### Speaker



**Patricia Roberts,**  
Managing Director,  
LNG Worldwide.

Many countries in the European Union are deploying FSRU to ease their reliance on Russian gas imports following the bloc's sanctions on Russia, its top gas supplier.

Prior to the Ukraine invasion, Russia had provided 40% of the EU's gas imports. This figure will likely drop to 9% for full-year 2021, while the 27-country union aims to eliminate all Russian gas imports by the end of 2024. Such a target will be difficult to realise, panellists acknowledged, although FSRUs make it more achievable.

The first FSRU, which became operational in the Gulf of Mexico in 2005, was built to exploit short-term LNG opportunities by providing transportation and buoy-based supply from the vessel. Now, permanent, or semi-permanent dockside FSRUs are becoming the norm to achieve security of supply, said Edward Gomersall, Global Head of Gas, LNG and Coal Research at Refinitiv LSEG.



These floating terminals were primarily located in small markets in South and Central America, Southeast Asia, Africa and the Middle East. In 2021, around one-quarter of the global fleet of 45 FSRUs were operating as LNG carriers due to lack of demand. Now, most of these FSRUs carriers have been contracted to resume their original purpose.

Prior to the Ukraine war, there were four FSRUs operating in mainland Europe – two in Italy, plus one in each of Croatia and Lithuania. Combined, these had a capacity of less than 20 billion cubic meters (bcm). A swathe of FSRUs will soon become operational across the continent, according to Refinitiv data, including six in Germany, two in the Netherlands, one in France and four more in Italy. Many of these are being relocated from the likes of Argentina, China, Egypt, Israel, Kuwait, while others will be newly constructed, Mr Gomersall noted.

"This highlights the very global impact Europe's race for new import capacity is having," said Mr Gomersall.

FSRUs will provide 20 bcm of additional gas capacity to Europe by the end of 2022, a further 28 bcm in 2023, plus 13 bcm in 2024, Refinitiv forecasts. A key advantage of FSRUs is their speed of execution: they can become operational in the desired location within 18 months of being commissioned, whereas an LNG terminal will typically take four to five years to reach this stage. European nations have lowered the FSRU commission-to-operation even further, with the first Dutch FSRU to be online just six months from contract signing, the fastest in history.

Patricia Roberts, Managing Director of LNG Worldwide, attributed FSRUs' shorter implementation period in Europe to a change in thinking among the continent's decision makers who are now doing most of the processes in parallel rather than step-by-step.

"That's a good sign that the industry can react, but there is a finite amount of capacity in (terms of) keeping on bringing FSRUs to market," she said.

FSRUs also tend to be significantly cheaper than onshore terminals in terms of overall cost (capital expenditure and operational expenditure combined).



In the webinar's first poll, 58% of respondents said a limited shipyard capacity was the biggest constraint and cause of rising newbuild prices in the LNG shipping industry, while 33% cited a sharp rise in construction materials, and 8% blamed greenhouse gas reduction measures introduced by the International Maritime Organisation (IMO).

"This is clearly a real, pressing short-term problem, but in the longer-term shipyards are not just LNG shipyards - they're general shipyards, so availability of shipyards depends on the global economy, which is facing a lot of headwinds," said Andy Parums, an oil and gas industry expert. "Once you get into the medium to long term, the constraints in terms of shipyards ought to be manageable - I query whether the current glitch is a fundamental problem or just a short-term issue."

A shortage of LNG carriers will have a detrimental impact, Mr Gomersall warned, highlighting the importance of logistics in the LNG industry. Since the Ukraine conflict began in February, Europe has taken a share of U.S. LNG exports that were previously destined for East Asia.

By the end of 2024, 70% of floating re-gas capacity will be mobile and so can move to where demand is greatest, said Mr Gomersall.

"That can mitigate some of the uncertainty around (long-term) demand in Europe," he said, noting eight of the 10 largest project financing deals worldwide were to build LNG facilities. "It's tens of billions (of dollars) of cost, so it needs certainty."

The LNG industry is inherently inefficient, Ms Roberts highlighted, noting LNG vessels may spend up to half their time in ballast i.e., without cargo.

"There's a drive to have a lot more cooperation to try to increase vessel efficiency in terms of their routing - cooperation between Asian and European utilities to try to optimise the whole shipping dynamic," said Ms Roberts.

"I'm optimistic that that's another industry efficiency that's there to be used, but we haven't accessed it and really leveraged it to the full."

Mr Parums said he was slightly concerned about the capital available to the shipping industry. "You can expect ship owners to finance ships based on long-term charters, but in order to do so they need a contract to take to the bank," he said.



"So, the dilemma is whether enough people will be willing to offer those long term guaranteed contracts to finance the next set of new builds. I don't think the problem - if there is a problem - is physical. It isn't a lead time problem. It's a business model issue to attract enough capital into the sector."

In the first eight months of this year, Europe imported more LNG than it did in the whole of 2022.

"Europe is on course to have a big draw on LNG shipping capacity, but it's a more efficient route to export to Europe from the U.S. (than to Asia)," said Ms Roberts, noting current charter rates were around \$160,000 per day, while running costs are about \$70,000 daily so ship operators are making a considerable margin.

Policymakers' support to persuade European LNG buyers to commit to long-term contracts could make it feasible that the continent can halt all Russian gas imports by the end of 2024, said Mr Gomersall.

"Energy security concerns are such that there's room for LNG to grow quite strongly over the coming years," said Mr Parums.



## COMPLIANCE WITH NEW CARBON INTENSITY RULES

In a second poll, 44% of respondents said the most viable solution to make older LNG carriers compliant with new carbon intensity rules was to upgrade them, while 33% opted for converting such craft into FSRUs and 22% preferred slowing vessels' speed to reduce emissions.

"The poll results reflect what will happen - it will be a mix of all the above," said Mr Parums.

The penalties for failing to meet carbon emissions targets are insufficient to convince ship owners to upgrade their vessels when profit margins currently are so high, said Mr Gomersall.

The quickest way for Europe to up its LNG capacity is to contract FSRUs that are operating elsewhere when their contracts expire, said Mr Gomersall. Current availability is about zero, he noted.



In a third poll, 33% of respondents said Africa was the best alternative gas source should Russia shut off its supply to the EU, while 22% said the United States, 22% said the Middle East and 22% said other European countries.

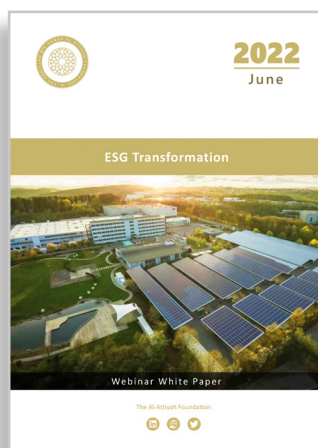
"The best alternative supply option is a diversified portfolio of supplies where you're not just relying on one country or one region," added Ms Roberts.

From slumping to milestone lows in mid-2020 at the height of the pandemic, gas prices have soared to a 14-year peak this year amid geopolitical turmoil that has caused Europe to reinvent its energy strategy. LNG will play a key role, not only in helping Europe to diversify its energy sources, but also as a transition fuel as the global economy shifts towards a lower-carbon future.

While temporary shipping shortages are problematic, the prospects for LNG seem positive for years or even decades to come.



Have you missed a previous issue? All past issues of the Al-Attiyah Foundation's Research Series, both Energy and Sustainability Development, and Whitepapers can be found on the Foundation's website at [www.abhafoundation.org/publications](http://www.abhafoundation.org/publications)



June – 2022

## ESG Transformation

Since 2020, the Foundation has hosted a webinar series, in partnership with Refinitiv, to explore key trends and insights as the coronavirus pandemic impacts the energy industry and hastens the switch to renewables.



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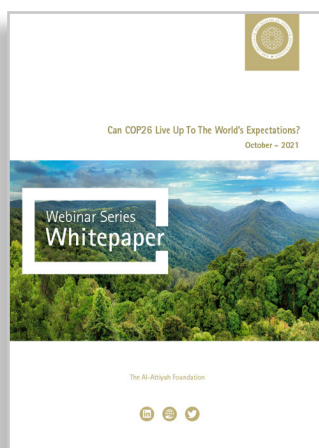
March – 2022

## Stepping up the Pace of Hydrogen Development

The latest Al-Attiyah Foundation webinar, titled Stepping up the Pace of Hydrogen Development, was held on 7 March and brought together worldrenowned experts to discuss the role environmentally friendly hydrogen can play in the ongoing energy transition and how using the gas in more urban activities can help nations achieve their net-zero carbon emissions targets.



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October – 2021

## Can COP26 Live Up To The World's Expectations?

The race towards carbon neutrality by mid-century has certainly gathered momentum in the years since the Paris Agreement, with about 70% of the global economy now covered by firm or indicative net-zero targets. However, widescale changes are required if the terms of the agreement are to be met and temperatures kept "well below" 2°C above preindustrial levels by 2100.



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Our partners collaborate with The Al-Attiyah Foundation on various projects and research within the themes of energy and sustainable development.





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