



Managing growing LNG market volatility:

LNG market outlook and how STS
operations add value





Background:

The international energy industry has seen seismic shifts over the past few years, and it faces a significant challenge in its roadmap to meet global commitments to net zero emissions by 2050.

Liquefied natural gas (LNG) is a key component of the energy mix as a cleaner, alternative fuel, which will help the world to transition to a low-carbon future. However, the LNG market faces challenges with significant volatility, such as rising costs and supply shortages, which has led to shifting trade patterns.

With the rise in energy companies seeking new opportunities to optimise their shipping and trading portfolios, James Fisher Fendercare (JF Fendercare) responded to growing customer demand by utilising its experience and expertise to develop solutions in the LNG ship-to-ship (STS) market.

LNG market outlook

A picture of extreme volatility and a new era for global gas markets:

After curtailment of Russian pipeline gas, Europe has been forced to forgo its role as the global balancing market, which has been the dawn of new era for the LNG market dynamics. Europe now lacks the security of wholesale gas pricing and is open to the free-market conditions posed by LNG trading.

For over a decade, Europe has played an important role in providing price sensitive demand that's helped manage volatility in the global gas market. They have greatly benefitted from this position, securing lowest cost gas that has fuelled their industrial sectors.

Today, no alternative market has stepped up to take Europe's position. As a result of this, we are in a transition period where new sources of demand flexibility are being established.

The outlook for this transition brings continued uncertainty in terms of gas pricing, location of demand and shipping needs – a trifecta of uncertainty that is challenging for market participants to manage.

Are hyper-seasonal LNG spot shipping rates here to stay?

As additional volumes of LNG head on the longer route to Asia, the LNG fleet traditionally tightens over winter. Additionally, with the market having experienced extreme price volatility and high rates over the previous two winters, with large regional variance in market rates, it can anticipate low spot vessel availability towards the end of 2023.

Increasingly players must maximise optionality to combat extreme volatility. Shipping operators are facing much more complex chartering decisions and requiring new methods to manage increased volatility in charter rates.



How STS operations add value:

Growing use of LNG STS for portfolio optimisation:

Ship-to-ship (STS) transfer of LNG cargoes is primarily undertaken alongside floating storage regasification units (FSRUs) and floating liquefied natural gas (FLNG) terminals, as a means to import or export.

However in recent years, we've observed a growing demand in STS being used as a tool to optimise LNG portfolios. This has driven a rise in the number of STS operations demanded away from floating import or export facilities. Historically, vessel optimisation has been the main driver for such activities, yet, as of last year, the record-high LNG prices saw new innovative uses of STS operations - most of which were targeted at cargo optimisation.

A recent example of optimisation saw the building of bulk cargoes by combining several small heel cargoes into a single large ship in Asia, which once fully loaded could be sold at premium spot market prices in Europe. This specific trading activity hadn't been utilised before and presents a key opportunity for traders looking to benefit from regional price differences.

Using Vortexa's proprietary data and intelligence, JF Fendercare has tracked both the FSRU and non-FSRU STS operations across the world. There's been a rise in STS on both fronts, driven primarily by a growing number of FSRU facilities. This has especially been the case in Europe given the drive for new regasification capacity. Supported by a growing fleet of LNG vessels, this has further fuelled the rise in LNG demand and increased traded LNG volumes.

A global STS capability:

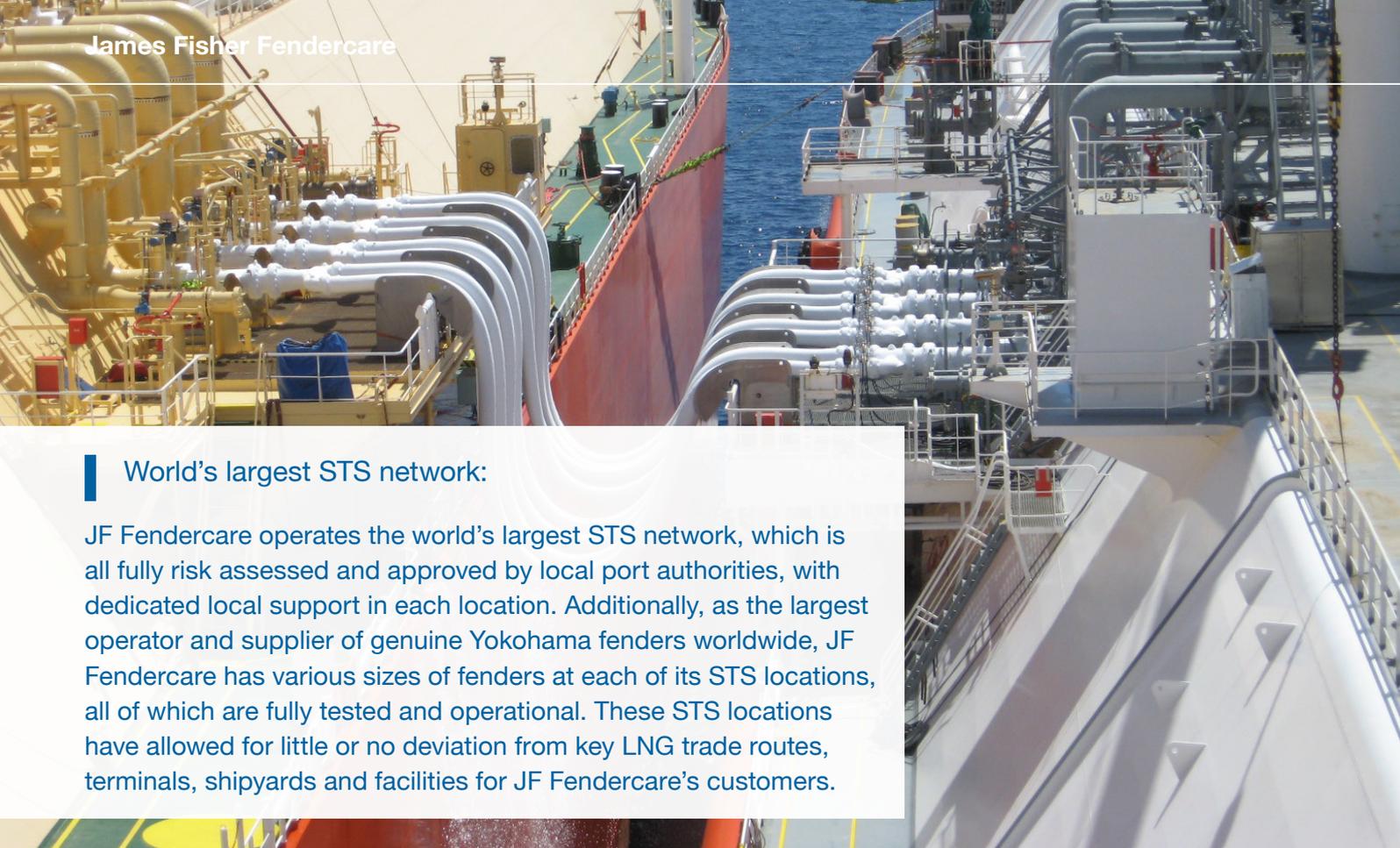
JF Fendercare has the global capability to deliver safe and highly efficient STS solutions, with market-leading services, specialised equipment, and expert personnel, helping you to maximise your LNG cargoes and portfolios. Constantly endeavouring to raise operating standards, JF Fendercare has supported the growth of the LNG industry for almost 15 years.

While STS with FSRUs has now become common, JF Fendercare has recognised that non-FSRU related STS can play a big part in accommodating increased global LNG trading and shipping volumes. Through our close customer relationships with key LNG traders and shipping companies, JF Fendercare set about developing solutions that were at sea, highly convenient and efficient, and commercially attractive.

To facilitate growing demand for these services, JF Fendercare invested heavily in specialist LNG transfer systems and deployed them strategically across its global network of LNG STS locations.

JF Fendercare has performed LNG STS operations worldwide to accommodate various customer requirements, including:

- Break-bulk / build-bulk
- Gas up / cool down
- Optimising trade / shipping
- Emergency
- Bunkering



World's largest STS network:

JF Fendercare operates the world's largest STS network, which is all fully risk assessed and approved by local port authorities, with dedicated local support in each location. Additionally, as the largest operator and supplier of genuine Yokohama fenders worldwide, JF Fendercare has various sizes of fenders at each of its STS locations, all of which are fully tested and operational. These STS locations have allowed for little or no deviation from key LNG trade routes, terminals, shipyards and facilities for JF Fendercare's customers.

Each location has been carefully assessed to ensure it provides the highest degree of weather operability to limit downtime whilst allowing for rapid deployment to meet client needs.

Having invested in four market-leading LNG transfer systems globally, all SIL 1 rated, JF Fendercare's systems are mobile, highly universal and can be used in various STS applications. The STS transfer systems can achieve high flow rate, effective cargo transfer and boil of gas (BoG) management, all of which are critical to limit time alongside.

JF Fendercare recognises the importance of being able to accommodate STS on a prompt basis, as keeping ships moving is not only paramount to its customers, but the industry as a whole. That's why each of its systems are strategically located where there is the highest demand for STS services. Should there be a requirement to STS in another location, JF Fendercare has capability to swiftly deploy the equipment to anywhere in the world.

JF Fendercare recognises that a dynamic LNG market requires an STS network to grow as the global LNG market evolves, and JF Fendercare continues to constantly assess new locations and technologies to facilitate its customers' requirements, effectively and efficiently.

● Global LNG STS Locations





Case studies:

2023 | Victoria Bay, Labuan, Malaysia – break bulk

JF Fendercare is renowned for providing the complete LNG STS package. Included within JF Fendercare's scope of services is the provision of:

- Specialist equipment
- Expert personnel
- Operating procedures
- Marine technical expertise
- All STS assessments and studies



JF Fendercare conducted break-bulk LNG STS operations for a leading energy company, transferring cargoes of varying quantities. Requiring meticulous planning and preparation, this allowed the cargo to be split from a large vessel to numerous smaller vessels to overcome local terminal restrictions.

- World's first LNG STS at the location
- Multiple STS operations completed in succession



2022 | Gibraltar Bay, Gibraltar – optimising

One of the world's largest commodity traders required the transfer of LNG via STS as part of a trade. Traditionally, LNG STS is planned well in advance but, due to a narrow window to execute the deal, the notice for this STS was just five days. During this time, JF Fendercare had to rapidly deploy its services, which included performing all the studies and compatibility assessments, arranging deployment of the equipment, and gaining approval from the local authorities in Gibraltar.

JF Fendercare then completed the transfer safely in less than two days. Demonstrating capability to perform LNG STS on a very prompt basis allowed the trader to seize a new opportunity for trade and shipping optimisation.

- Rapid deployment of services with no delays to vessels
- Commenced operation at short notice (less than 5 days)



2022 | Linggi, Malaysia – gas up / cool down

This operation required JF Fendercare to cool down the customer's vessel via STS rather than at a terminal. The complex operation involved gassing up then cooling down the cargo tanks. This was then followed by loading heel cargo for the vessel to cool down all tanks during onward voyage and prior to reloading.

With the growing challenges of performing such operations at terminals, JF Fendercare's tried and tested STS solutions provided a cost-effective and convenient alternative.

- Gas up and cool down warm vessel via STS and transfer of heel cargo
- Cost effective alternative to terminals

Conclusion:

A sensitive and volatile LNG market means energy traders need alternative options to optimise cargoes.

LNG market outlook:

Despite recent reductions in one million British thermal unit (MMBtu) levels, the LNG market remains sensitive and volatile. Uncertainty of European trade and expectation of low spot vessel availability in winter means traders need to consider alternative options to optimise their cargoes.

How STS operations add value:

Ship-to-ship transfer solutions can help manage and ease this volatility, allowing traders flexibility in delivering to market demands. JF Fendercare's global capability and market-leading services offers traders various options to optimise cargoes and fleet, with prompt delivery of STS ensuring traders can maximise their profits and portfolios.

Historically, vessel optimisation has been the main driver for such STS activities. However, as of last year, the record high LNG prices saw new, innovative uses of STS operations, with traders considering alternative options to optimise their cargoes.

STS can help manage and ease volatility, allowing traders flexibility in delivering to market demands. Prompt delivery of STS ensures traders can maximise their profits and portfolios, and with its global capability and market-leading services, JF Fendercare is positioned to offer traders various options when it comes to optimising their cargoes and fleets.

About us

James Fisher Fendercare:

James Fisher Fendercare is a global leader in ship-to-ship (STS) transfers with over 25 years of experience working for many of the world's largest energy companies, commodity traders and shipping companies.

In addition to having regional hubs in the UK, the UAE, Singapore, Brazil, India, Australia, and West Africa, the company boasts the largest network of STS locations globally to support its position as the leading provider of third-party ship-to-ship transfer services to the hydrocarbon and bulk transportation markets.

JF Fendercare has invested significantly to facilitate demand for LNG STS and is renowned for driving the highest safety standards, having been approved by many of the world's largest energy companies.

Vortexa:

A global energy intelligence provider, Vortexa strives to provide unprecedented access to global waterborne oil and gas operations data to help open, connect and optimise the energy world.

Combining deep industry knowledge and technology, Vortexa uses real-world context from global industry experts to continuously train and improve its innovations.



James Fisher
Fendercare



James Fisher Fendercare

LNG:

T: +44 (0)1508 482 666 (24hrs)

E: lng@fendercare.com

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