

LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

23 January 2020

Will the uncommitted newbuildings find a home?

At a conference held in Rome last month, discussions mainly centred around the short and mid term markets.

These were deemed to be over-supplied on LNG, due to significant new production emanating from the US over the next 12 months, broking house SSY said in a report.

In addition, owners of steam and TFDE tonnage were trying to gauge the impact that the large number of currently charter free newbuildings delivering in 2021 and 2022, will have if they enter the spot market.

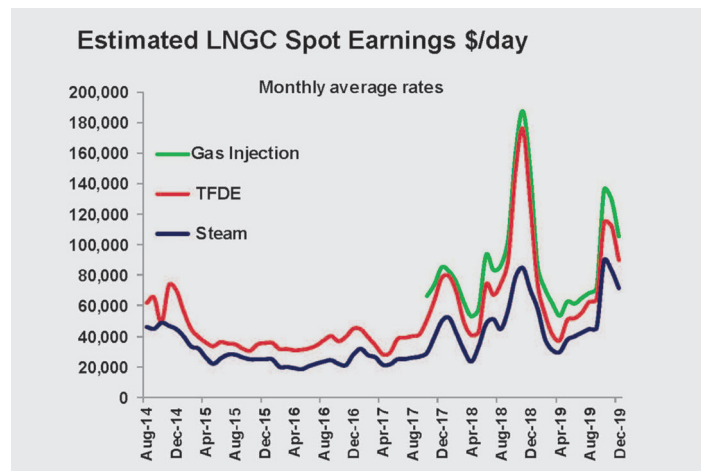
These vessels offer significant advantages to charterers and have been ordered at a newbuilding price, which is more than \$15-20 mill lower than TFDE vessels delivered in 2014-2016.

However, owners remain hopeful that new projects and charterers expanding their portfolio and trading fleet will soak up this uncommitted tonnage and for the most part, balance the market, SSY said.

Spot rates eased

On the spot market, December rates and TC economics eased off further from their October peak. However, they remained at very healthy levels, despite a commodity market in backwardation and pockets of relet length making their appearance in all three basins.

More specifically, the world-wide average daily hire rate fell 14% for steam vessels from \$83,333 per day in November to \$71,667 in December. Rates for tri-fuel vessels also softened by roughly 20% from \$112,667 to \$90,208 for the same period, while gas injection propelled



Source: SSY Consulting & Research.

vessel rates were reduced by a slightly more moderate 18.7% from \$129,667 to \$105,417 per day.

In newbuilding tenders, there were some significant developments, as Shell reportedly awarded a tender for eight firm newbuildings while retaining options for up to six additional LNGCs.

The minimum requested period was seven years plus options. All the vessels were ordered against Shell slots at HHI Samho and HHI Ulsan at a reported newbuilding price of \$188 mill each.

However, industry sources suggested the newbuilding prices may have been lower. The charters were indeed concluded for a firm period of seven years, plus options and the reported timecharter rates were in the low mid \$60,000s per day.

On the LNG production front, Nigeria LNG Limited (NLNG) announced on 27th December, 2019 that it had reached a Final Investment Decision (FID) for Train 7.

The seventh liquefaction train will have a capacity of 8.3 mill tonnes per year and thus increases the total LNG production capacity of the project by 35% to 30 mill tonnes per annum.

Turning to new LNG contracts, Vitol entered into a 10-year SPA with NLNG for 0.5 mill tonnes per annum on a DES basis from NLNG's Trains 1,2 and 3. The SPA will commence in October, 2021.

In addition, Uniper entered into an SPA to purchase 0.5 mill tonnes per annum from Woodside's global portfolio on an FOB basis.

Further, on 23rd December, the CME launched three LNG FFA contracts based on three route assessments published by the Baltic Exchange (BF 1: Gladstone to Tokyo, BF 2: Sabine to UK, BF 3: Sabine to Tokyo). All three products traded on the same day.

The need for such an instrument has been voiced for quite some time by industry players and there has been much enthusiasm around the first cleared trades, SSY claimed.

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US/China trade deal - what does it hold for LNG?

Wood Mackenzie's Asia/Pacific Vice Chair, Gavin Thompson, has commented on how the Phase One signing of the trade agreement between US and China earlier this month, will affect the LNG trades.

He said: "From an energy perspective, what is most notable is China's agreement to increase energy imports from the US by up to \$52.4 bill over the next two years as a part of a commitment to spend around \$200 bill more on US goods and services than it did in 2017.

"Let's be clear; \$52.4 bill over two years is a lot of energy. But neither the 5% tariff on US crude oil nor the 25% tariff on US LNG is to be reduced or removed by China under the Phase One deal. For China to massively increase imports of oil and LNG from the US while tariffs remain in place, is going to be challenging.

"Consider LNG. In 2017, China imports from US were approximately 1.5 mill tonnes, worth around \$0.6 bill. If China is to increase the value of US LNG imports considerably as a part of this agreement, let's say to around 10 mill tonnes in 2021, then the 25% tariff would need to be either absorbed by the importing company, or passed through to the consumer. We expect that Chinese national oil companies will be reluctant to commit to large-scale purchases given this.

"At the same time, the next two years will also see a slower pace of gas demand growth in China, rising domestic production,

and the arrival of Russian pipeline gas, creating a more competitive gas market.

"The Chinese uncontracted LNG demand is estimated to be 17 mill tonnes in 2020 and 23 mill tonnes in 2021; US offtakers will now be looking to target this market.

"Contract and portfolio suppliers with contracted supply into China and US offtakers - notably Shell, BP and Cheniere - could also target increasing volumes of US LNG within existing contracts into China, if agreement can be reached with key buyers, including CNOOC and PetroChina," he concluded. ■

PETRONAS agrees Chinese LNG supply deal- charters ships

PETRONAS, through its subsidiary, PETRONAS LNG Ltd (PLL), has signed a Heads of Agreement (HOA) with Shenergy Group Company Limited (Shenergy) to supply around 1.5 mill tonnes per year of LNG to the Wuhaogou receiving terminal in China.

The supply agreement is scheduled to run for 12 years starting from 2022.

PETRONAS has been a major LNG supplier to Shenergy subsidiary, Shanghai LNG Co, Ltd since 2006.

The Malaysian oil and gas major's Executive Vice President and CEO of Gas & New Energy, Adnan Zainal Abidin said; "The long-term LNG deal, which involves the delivery of mid-sized cargoes to unique LNG receiving terminals, is a testimony of PETRONAS' commitment to customer-centricity

and market adaptability.

"This could only be achieved through PETRONAS' unique business model where we customise our solutions according to our customers' needs and requirements, especially when the market is moving towards mid-sized cargo requirements or smaller parcels of LNG. With a focus on providing innovative solutions to meet customer demands, PETRONAS continues to cement its reputation as a preferred and reliable LNG supplier," he added.

To supply the LNG, PETRONAS

has signed charter contracts for two 79,900 cu m newbuilding LNGCs to be built at CSSC-affiliated Hudong-Zhonghua Shipbuilding.

The vessel were ordered by an undisclosed Chinese owner and follows the shipyard securing an AIP from ABS for the LNGC design last December.

The LNG dual-fuelled vessels are designed to operate in shallow river and coastal waters and will be used to transport LNG from Petronas' Malaysian LNG (MLNG) project to China as part of the supply agreement with Shenergy. ■

Pavilion's European operations up and running

At the beginning of this year, Pavilion Energy Pte Ltd completed the purchase of Iberdrola's portfolio of LNG and gas assets, and launched its Europe operations.

From its new European headquarters in Madrid, Pavilion Energy formally commenced LNG trading operations and natural gas supplies into UK and Spain on 1st January.

José Simón, formerly Iberdrola's Head of Global Gas, was appointed Managing Director of Pavilion Energy for Europe. Simón now oversees the organisation's European gas trading and global LNG portfolio management & origination business divisions.

Alan Heng was also appointed Managing Director for Asia, in addition to his current role as Head of the Energy Sales & Market Development division.

Both Managing Directors will establish operations in their corresponding regions and strengthen the organisation's global processes.

"We are delighted to celebrate this milestone that positions Pavilion Energy as a global energy business. We warmly welcome José and our new joiners in Madrid," said Frédéric Barnaud, Pavilion Energy Group CEO, "We are pleased to have achieved such a seamless transition in close partnership with Iberdrola and with the great support of our many stakeholders. I look forward to working with José and Alan to drive our global organisation and implement our vision." ■

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Clarksons completes world's first CME LNG freight futures trades

UK-based shipbroker and consultancy Clarksons completed the first LNG freight futures trades on CME between commodity traders Vitol and Trafigura on 23rd December last year.

The trade was a 1Q20 spread between BLNG1 Gladstone to Tokyo RV and BLNG2 Sabine to Isle of Grain RV, which took place just hours after the products launched on CME Group.

Three LNG freight futures (BLNG3 Sabine to Tokyo via Panama canal being the third) are now listed on CME Group and are based on Baltic Exchange assessments.

Christian Greenop, who led the transaction from Clarksons FFA team, said, "We have seen an increase in demand from market

participants wishing to manage freight exposure within LNG. In 2019, 160,000 cu m TFDE tonnage traded in the single voyage market in the low \$10,000 per day RV basis during April and broke the \$170,000 per day RV basis mark in October, so a risk management tool is particularly useful given this level of volatility."

It is hoped that the LNG freight futures will not only facilitate risk management but also offer transparency in an otherwise opaque market, Clarksons said. ■

Gastrade launches capacity tender for Alexandroupolis FSRU

Greek utility concern Gastrade has launched the second phase of its market test for the LNG terminal at Alexandroupolis.

This is the binding bidding phase for capacity reservations in the project. Companies that have already expressed interest in the first phase are also eligible to submit binding offers.

The deadline for interested participants to submit their offers is 24th February, 2020.

In the first phase, 20 companies submitted 'Expressions of Interest' for up to 12.2 bill cu m per year of reserved regasification capacity at the FSRU and delivery to the Greek National Natural Gas Transmission System (NNGTS). The interest was greater than the technical capacity of the project, which is designed

for 5.5 bill cu m per year.

After the capacity allocation procedure, allocated participants will be invited to sign Advanced Reservation Capacity Agreements.

The FSRU will have a nominal regasification and send-out capacity of 5.5 bill cu m per year and a peak technical regasification and send-out capacity of 22.8 mill cu m per day.

The tender process for the construction of the project is currently underway. Its commercial operation date is planned for 3Q22. It is included in the European Union list of Projects of Common Interest and is fully licensed. ■

Fos Tonkin's future secured

French LNG gas supplier, Elengy has announced that the Fos Tonkin LNG terminal, located at Fos, will continue operations until 2028.

This follows Elengy's call for subscriptions in February, 2019 for capacities at the terminal post 2020 (Open Season Fos 2021).

The proposed regasification capacity has been entirely booked, ie 1.5 bill cu m per year, which has enabled the company to take the investment decision needed to extend the site's activity beyond 2020.

Fos Tonkin can evolve as a true multi-modal platform in the western Mediterranean basin as it has significant assets enabling to offer a diversity of LNG services -

rail, road, river and sea. In addition to the unloading and loading of LNGCs, the terminal can offer the reloading of bunkering vessels, the company explained.

Elengy also said it was working on the development of the loading capacities for small LNG vessels in order to provide the market with the required services to support the growth of LNG as marine fuel. The Fos Tonkin terminal is ideally located to supply LNG to a large number of ports and islands of the western Mediterranean. ■



Elengy has announced plans for its Fos Tonking LNG terminal

Freeport in Train 2 start up

Freeport LNG has started commercial operations for the second liquefaction train out of its three train facility.

This came with the commencement of gas deliveries from BP under its 20-year tolling agreement with Freeport.

Freeport LNG's Train 1 began commercial operations last month, with the commencement of Osaka Gas' and JERA's tolling agreements.

"We are thrilled to now be providing service to BP, in addition to Osaka Gas, and JERA," said Michael Smith, Founder, Chairman and CEO, Freeport LNG. "We are also especially pleased with the performance of our electric motor drive liquefaction units. Freeport's electric drive motors not only reduce emissions by over 90% relative to other plants which use combustion turbines, they should

also require less maintenance with less downtime.

"The performance test on Train 2 was completed in only 37 days after first gas was delivered to the liquefaction facilities, down from 107 days on Train 1. We are extremely pleased with the current operational efficiency and performance from both trains," he said.

Construction on Freeport's Train 3 is essentially complete, the company claimed. Gas has been introduced to the pre-treatment facilities and US Federal Energy Regulatory Commission (FERC) approval to bring gas to the liquefaction site is expected next month.

Train 3 remains on track for a commercial start date in May. ■

“

Freeport's electric drive motors not only reduce emissions ...relative to other plants ... they should also require less maintenance with less downtime

”

- Michael Smith, Founder, Chairman and CEO, Freeport LNG

'Coral Sul' hits the water

The hull of Eni and Area 4's FLNG 'Coral Sul' has been floated out in Geoje, South Korea.

'Coral Sul' is part of the Coral South project that will produce 450 bill cu m of gas from the Coral reservoir, offshore Mozambique. The FLNG is more than 60% complete and is on schedule for a production start up by 2022.

The hull is 432 m long, 66 m wide and weighs around 140,000 tonnes. Its eight-storey accommodation module, which will house up to 350 people, is ready to be lifted and integrated with the hull system. Fabrication activities are also well underway for the 12 gas treatment and LNG modules, with all main equipment ready for integration and first deck stacking executed, Eni said.

With a gas liquefaction capacity of 3.4 mill tonnes per year, the 'Coral Azul' will be the first FLNG to be deployed in deep waters, at

a depth of about 2,000 meters, and the first purpose-build FLNG in to be moored in Africa.

Drilling and completion activities for the six subsea wells that will feed the liquefaction unit are ongoing offshore Mozambique.

Adriano Mongini, Eni's Executive Vice President, West Africa Region, said; "The 'Coral Sul' FLNG hull launching is an outstanding milestone, which has been possible thanks to the commitment of Eni, its Area 4 partners, contractors and Mozambican authorities. We share the belief that Coral South is a pioneering project that will trigger further developments and new investments."

Carlos Zacarias, Chairman of the Mozambican Institute of Petroleum (INP), representing the



The hull of the giant FLNG was recently floated out of the building dock

Mozambique Government, commented; "We believe that at this rate we will in fact have, by 2022, the production, liquefaction and export of the first LNG cargo gas from the Coral FLNG project, and from Mozambique, consequently making the expected transformations in job creation, development of local business and incomes from LNG sale of the first gas liquefaction project in the country, benefiting the Mozambican state and

people over the duration of the project."

Coral South is the first LNG project in Mozambique. Direct training and recruitment activities for more than 800 Mozambicans are underway in Mozambique, South Korea, and Italy, while vocational training opportunities and local content plan initiatives for further 1,000 people are being carried out by Coral South contractors. ■

LNG cargo news updates

According to industry sources, Indian Oil Corp (IOC) is seeking six LNG cargoes for delivery between April and December this year.

IOC wanted the cargoes on a delivered ex-ship (DES) basis, a source told Reuters.

Japan's Osaka Gas has offered two LNG cargoes for loading from the newly commissioned US Freeport LNG project, industry sources said (see page 3).

Osaka is thought to have offered cargoes for delivery into Europe in July and November.

Bids were said to be due this week.

Indonesia's Bontang LNG plant was believed to have offered three cargoes for loading between February and April.

South Korea's Korea Midland Power Co Ltd (KOMIPO) and Posco International Corp are jointly seeking to buy a cargo for delivery between 4th and 6th March, according to a tender document.

The cargo will be discharged at Gwangyang and will also be bought

on a delivered ex-ship (DES) basis.

Portuguese Galp Energia has also issued a tender for an LNGC in 2022.

The company wants the vessel for three potential voyages before starting full operations in 2023, sources said.

Egypt plans to double its LNG exports to Europe, to around 20 shipments per month, the country's energy minister, Tarek El-Molla, reportedly said.

Egypt currently exports 1 bill cu ft of LNG monthly in 10 shipments to European buyers. The aim is to boost shipments after the restart of the Damietta LNG plant, Kallanish Energy reported, which has been idle since 2016, due to supply issues and a dispute with Egypt.

Damietta is operated by UFG, a joint venture between Spain's Naturgy and Italy's Eni. ■

NEWS NUDGE

More LNGC newbuildings in the pipeline

ExxonMobil was believed to have reserved up to 14 LNGC slots at Samsung.

According to a report in TradeWinds, the energy major has followed Shell's example, as it gears up to cover new cargo needs.

At the smaller end of the scale, probunkers has agreed terms with Hyundai Mipo Dockyard (HMD) to build two firm 7,600 cu m LNG bunker vessels.

The Greek company has signed a Letter of Intent (LOI) with the South Korean yard.

"Having reached an initial agreement with HMD is a major milestone in our project that underlines our aim towards quality and reliability, cornerstones in probunkers' philosophy, while at the same time demonstrates the confidence of all stakeholders in the success of our plan and the importance of it," probunkers' CEO,

Alexander Prokopakis commented.

Second Yamal LNG project ship named

Mitsui OSK Lines, (MOL) held a naming ceremony for a second LNGC on 8th January this year.

Jointly ordered by MOL and China COSCO Shipping Corp, the ceremony was held at Hudong-Zhonghua Shipbuilding (Group) Co, Ltd's shipyard.

'LNG Merak' is the second of four 174,000 cu m newbuilding LNGCs for the Yamal LNG project and a sistership of the 'LNG Dubhe', which was delivered at the end of last October from the same shipyard.

'LNG Merak' will transport Yamal's LNG from transshipment terminals in Europe to Asian terminals.

MOL currently operates 11 LNGCs built in China for other projects, and 'LNG Merak' will be the 12th LNGC Chinese built LNGC to join the fleet. ■

New Fortress negotiates loan

New Fortress Energy has agreed a fully committed \$800 mill term loan facility.

This facility was provided by funds and accounts managed by affiliates of Apollo Global Management, together with its consolidated subsidiaries.

It has a three-year term, and loans issued under the facility will bear interest at an annual rate



New Fortress' Wes Edens is to develop new projects

equal to LIBOR plus 6.25%, subject to a 1.5% LIBOR floor and annual increases in the interest rate spread.

Net proceeds of the loan will be used to fund the development and construction of New Fortress's energy infrastructure projects around the world, and to repay the company's existing \$500 mill term loan facility in full, it said.

"This transaction provides additional capital for us to continue to build LNG terminals and infrastructure around the world," said New Fortress Chairman and CEO, Wes Edens. "Our investments in new terminals and modern power infrastructure bring significant economic and environmental benefits to customers. Apollo has a great track record of success with funding innovative projects around the world, and we're excited to have their support."

Apollo is a global alternative investment manager with about

\$323 bill of assets under management as of September, 2019 in credit, private equity and real assets funds invested across a core group of nine industries.

"Apollo is pleased to support the growth of New Fortress Energy, a market-leader that is having a tangible impact on driving the transition to clean energy and whose business strategy closely aligns with our ESG commitment and goals," said James Zelter, Apollo's Co-President. "Over the last decade, Apollo has built one of the largest alternative credit businesses in the world, with more than \$200 bill of assets under management invested across a diverse spectrum of more than 20 different strategies. This transaction represents the type of creative financial solutions Apollo is uniquely qualified to deliver."

This facility is still subject to the customary closing conditions. ■

Höegh LNG secures financing

Höegh LNG Holdings has received a commitment letters for a revolving credit facility of up to \$80 mill.

Security came from the company's common units in Höegh LNG Partners LP.

The facility is provided by three banks and will be used to refinance part of the HLNG02 bond loan which matures in June, this year and general corporate purposes.

It has a tenor of two years and an estimated interest rate of about 5.2% for drawn amounts based on the current floating interest rates. The facility is still subject to final documentation, which is expected to be completed during first quarter of 2020.

Sveinung Støhle, Höegh LNG CEO & President said: "This revolving credit facility proves the importance of Höegh LNG's strong and long-lasting relationship with

our core banks. The facility provides Höegh LNG with flexible financing, in line with the company's financial strategy, while at the same time reducing the financial costs."

Later, Höegh LNG Holdings said that it had successfully completed a NOK denominated five-year senior unsecured bond issue of NOK650 mill with maturity date 30th January, 2025.

The bond carries a coupon of three months NIBOR + 600 bps per annum with quarterly interest payments. As a result, Höegh LNG has repurchased \$28.4 mill of the HLNG02 bonds. The transaction was claimed to be significantly oversubscribed.

Danske Bank, DNB Markets, Nordea, Swedbank and ABN AMRO acted as Joint Lead Managers for



Höegh LNG has negotiated further loans

the bond issue.

An application will be made for the bonds to be listed on Oslo Stock Exchange. ■

NEWS NUDGE

Qatargas delivers first Q-Flex cargo to Summit

Qatargas recently delivered the first Q-Flex LNG cargo to the 'SUMMIT LNG' FSRU located offshore Bangladesh.

The cargo, on board Qatar-gas-chartered 'Al Safliya', was loaded at Ras Laffan on 27th December, 2019 and delivered to the FSRU on 14th January, 2020.

This is the first commercial open water ship-to-ship (STS) transfer involving a Q-Flex vessel delivering to Petrobangla at the Summit LNG terminal (SLNG).

SLNG is a project jointly developed by Excelerate Energy and the Bangladesh Oil, Gas & Mineral Corporation (Petrobangla) on a build, own and operate basis. The FSRU 'SUMMIT LNG' is under a 15-year charter to Petrobangla and carried the inaugural LNG cargo from Qatar in April, 2018.

Murgados moves up to third spot

The Ferrol-based Murgados LNG terminal is now the third most used in Spain in relative terms, overtaking Barcelona.

Owned and operated by Reganosa, last year, the terminal received 20 LNGCs for discharge, compared to 13 in 2018 and 12 in 2017. A total of 2.2 mill cu m of LNG was unloaded. In addition, four cooling down, gassing up and loading operations were carried out at Ferrol.

The rise in the number of LNGCs was reflected in the increase in regasification work. From January to December, the facility accounted for 20.7% more energy to the network than in the previous 12 months.

During the past year it worked at an average of 32% of its maximum capacity (with specific peaks of 100% of its maximum capacity).

This average was below that recorded at Bilbao (76%) and Huelva (38%), and above those measured in Barcelona (30%), Sagunto (22%) and Cartagena (13%). ■

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LNGSTS posts record 2019 results

Last year was a record-breaking 12 months for LNGSTS having carried out 112 open water LNG ship-to-ship (STS) cargo transfers.

From November, 2018 until July, 2019 LNGSTS was the technical and manpower service provider for the largest LNG STS project, located in Honningsvåg, Norway.

Under Arctic conditions, LNGSTS completed 123 STS operations from 11 different Arc7 LNGCs to 14 different conventional LNGCs at three separate anchorages simultaneously.

In addition to the provision of the STS services, LNGSTS also developed the terminal operations and safety manual and specific STS equipment maintenance manual, as well as carrying out the required compatibility studies for all vessels using the offshore transshipment terminal, ensuring that the optimal fender and mooring arrangements were used during the operations.

LNGSTS Mooring Masters and superintendents co-ordinated all transfers to guarantee that the equipment was set up and operated safely, as per specifications, and that all procedures were followed correctly.

Another successful ongoing project is the company's involvement



LNGSTS has reported a record year

in Labuan, Malaysia. This project involves providing LNG breakbulk services in Brunei Bay, Sabah Malaysia using LNGSTS' equipment, staff and manuals.

LNG breakbulk transfers are carried out back-to-back from a conventional LNGC acting as the discharging 'mother' vessel to two smaller receiving 'daughter' vessels.

Up to the beginning of January,

LNGSTS had carried out six breakbulk operations in the region with four being carried out this year.

The project's success is down to an ongoing relationship in the region with Petronas, ARGO Engineering, Eastport Marine, Asian Supply Base, Sabah Ports Authority, Sabah Department of Ports and Harbours, Sabah Port SDB BERHAD and Malaysia Marine Department, the company explained. ■

NEWS NUDGE

GTT ends 2019 on a high

At the end of December, 2019, GTT received eight orders from Korean shipyards Hyundai Heavy Industries (HHI) and Hyundai Samho Heavy Industries (HSHI).

Each of the eight LNGCs will have a capacity of 174,000 cu m and will be fitted with the Mark III Flex technology.

Four will be built by HHI: two on behalf of an Asian shipowner and two for a European shipowner. The others four LNGCs will be built by HSHI for another European shipowner.

All of the vessel deliveries are expected during the second half of 2022.

Philippe Berterrotière, GTT Chairman and CEO, said: "These eight last orders confirm the dynamism of the market observed throughout this year. This brings the number of LNGC orders obtained in 2019 to 57, which is a record year for GTT and illustrates the partnership of excellence that we have with the shipyards of the Hyundai Group."

These are probably for the LNGCs ordered on the back of Shell charters - Ed. ■

BW Group upgrades KVH HTS network

BW Group has signed a new contract to continue KVH VSAT services for at least five years and is upgrading 102 vessels, including the LNGCs, to fit KVH's patented mini-VSAT Broadband HTS network.

BW first chose KVH in 2013 to provide satellite connectivity for part of its fleet and since then has rolled out KVH VSAT systems on additional vessels. The vessel migration is expected to be completed by the third quarter of this year.

"Migrating our vessels to KVH's advanced HTS network enables us to optimise our operational efficiency with fast, reliable connectivity from a trusted partner," said BW's procurement officer. "We originally chose KVH because of their commitment to excellence and the ease of working with a

sole provider, and we continue to value that relationship."

"It is an honour for KVH to continue working with BW Group, a company whose commitment to quality vessels, operational efficiency, and crew welfare is well known throughout the maritime industry," said Ken Loke, KVH's vice president for Asia/Pacific. "It is particularly gratifying that based on the performance of our legacy network, BW is now migrating to our newest HTS network. We value the strong working relationship that has developed between our companies during the

past years and look forward to the continuation of that relationship for years to come."

Under the newly signed contract, BW will equip the majority of the 102 vessels with KVH's TracPhone V11-HTS, a 1 m Ku/C-band maritime VSAT antenna designed to deliver worldwide data speeds as fast as 20 Mbps down/3 Mbps up.

The TracPhone HTS-series system is designed for KVH's mini-VSAT Broadband HTS network, which uses Intelsat's FlexMaritime service to deliver multi-layered coverage, enabling vessels to see

multiple HTS and wide beam satellites for maximum availability of broadband service; the KVH network also uses additional capacity from SKY Perfect JSAT.

"Our vessels travel the world so working with a global provider such as KVH is extremely important to our operations," said BW's senior manager for business solutions - fleet. "We value the global coverage of the KVH network and the excellent support we receive from KVH's worldwide technical services team to ensure that our fleet has the connectivity we need to stay competitive." ■

Load cells for LNGC cranes

UK-based Scotload, a subsidiary of James Fisher and Sons, has supplied load monitoring systems to MOL LNG Transport (Europe) Ltd.

The systems allow MOL to install cranes on the company's LNGCs.

As an offshore operator, MOL LNG Transport (Europe) Ltd required a system that could withstand harsh environments while adhering to the latest regulatory standards; Scotload's SmartLoad solutions, with a zone 1 rating and full hazardous area compliance, met those demands, the company claimed.

The manufacturer specified an intrinsically safe 12.5 tonne capacity tension load cell, along with a range of ancillary rigging products, complying with IECEx (international), ATEX (European) and AEx (North American) standards.

The load cell is manufactured

from an anti-static material, which maintains certification, regardless of any damage caused by general use. In addition, the system's batteries can be changed in hazardous areas, reducing the risk of downtime caused by insufficient battery life.

To accompany the load cell, Scotload supplied a wireless SmartLoad handset, which displays load-on-hook readings in real time, to alert operators to any instances of overloading. The handset has been approved for safe use in both zone 1- and zone 2-rated hazardous areas.

The manufacturer also provided a SmartLoad base station viewing application, enabling MOL

LNG Transport to perform functions, such as renaming load cells, checking calibration records, and using the technology's data-logging tool for post analysis and traceability purposes.

As a result, MOL LNG Transport was able to expand its general weighing and ship-to-ship (STS) transfer capabilities thanks to the enhanced safety of the on board marine cranes; the shipping company subsequently opted to install SmartLoad systems on all of its LNGCs.

MOL also purchased ancillary rigging from Scotload, including a 13.5 tonne safety pin bow shackle, a 25 tonne variant of the shackle, and a single leg wire rope sling. ■

Babcock wins VLEC contract

Babcock's LGE business has won a cargo handling system design and supply contract for two Very Large Ethane Carriers (VLEC) at China's Jiangnan shipyard.

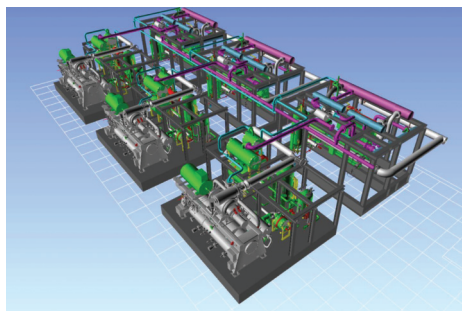
Building on 2019's strong orders in LPG and the patented ecoSMRT LNG cargo handling and reliquefaction solutions, these new contracts mark an important milestone for Babcock LGE and a successful start to 2020 in a new market, the company said.

The VLEC cargo handling systems will include patented SuperCooler and ecoETHN technologies, both part of Babcock LGE's intellectual property (IP) portfolio.

SuperCooler improves plant efficiency by increasing reliquefaction capacity whilst reducing

energy consumption, while ecoETHN integrates the reliquefaction plant with the fuel gas supply system by removing boil off gas, utilising it as fuel for main engine and auxiliary power generators to increase plant capacity.

Neale Campbell, Babcock LGE Managing Director, said: "Our SuperCooler and ecoETHN technologies combine to promote safe and efficient vessel



Babcock has won orders to fit systems on VLEC newbuildings

operations, while delivering significant commercial advantage to the shipowner.

"We offer a portfolio of customer focused solutions and delivery of over 300 projects working with the world's largest shipyards, such as Jiangnan.

"We are delighted to have been awarded the contract and look forward to working with our customers to further the global reach of our technology," he added.

Several more VLECs are expected to be ordered in the coming years, as the export of ethane from the US develops. ■

NEWS NUDGE

New Alaskan export facility planned

Start up company, AlaskCAN LNG, plans to build a \$12 billion liquefaction/export facility in Alaska, close to Prince Rupert, British Columbia, according to a report by Alaska Public Media.

The company is thought to be looking at sites where gas could be processed on a floating platform attached to a small island to produce up to 12 million tonnes per year of LNG for export to Asia.

Such a plant could begin operations in 2027 or 2028, the company was reported as saying.

Flex LNG wins timecharter extension

Flex LNG has extended the timecharter of the 'Flex Enterprise'.

As a result, the charter is now due to expire during 1Q21. However, the charterer has further extension options remaining.

The timecharter rate is variable as a function of the overall market conditions, the company said.

Øystein Kalleklev, Flex LNG Management CEO, commented: "We are happy to announce another timecharter extension, this time for 'Flex Enterprise'."

CMES to take equity in Yamal LNGCs

China Merchants Energy Shipping (CMES) is to acquire the equity from several companies under the Sinotrans Shipping banner as part of a consolidation of its shipping assets.

As a result, CMES will purchase LNGCs and drybulk carriers from China Merchants Sinotrans Shipping for RMB6.57 billion.

The acquisition will be funded by internal capital and overseas loans, the company said.

The deal includes a 25.5% equity interest in five Yamal LNGCs. ■

LNG rate assessments

Spot market (155,000-165,000 cu m)

Region	This week	Change*
East of Suez	\$74,000	-\$11,000
West of Suez	\$79,000	-\$13,000
12 mos T/C	\$74,000	-\$1,500

*Since last report 09/01/20

Source: Fearnleys (22/01/20)

WORLD LNG CARRIER ORDERBOOK

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Marvel Pelican	Moss	Kawasaki	TFDE	155,000	15/12/2019	MOL
BW Magnolia	GT NO 96	DSME	MEGI	173,400	15/12/2019	BWGas
HHI / Total	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/01/2020	Cardiff Marine
HHI / Cardiff #1	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/02/2020	Cardiff Marine
HHI / Total / Sovc	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	28/02/2020	Sovcomflot
LNG Merak	GT NO 96	Hudong-Zhonghua	MEGI	174,000	01/03/2020	MOL
Elisa Larus	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	30/03/2020	NYK
Maran Gas Psara	GT NO 96	DSME	MEGI	173,400	01/04/2020	Maran Gas Maritime
Gaslog Windsor	GTT Mark III Flex	Samsung	XDF	180,000	15/04/2020	GasLog
HHI / Cardiff #2	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/04/2020	Cardiff Marine
SHI Gaslog #1	GTT Mark III Flex	Samsung	XDF	180,000	15/04/2020	GasLog
Samsung 2271	GTT Mark III Flex	Samsung	XDF	174,000	15/04/2020	Cardiff Marine
Daewoo 2478	GT NO 96	DSME	MEGI	173,400	15/05/2020	Nakilat
Flex Aurora	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/05/2020	Flex LNG
Bw Pavilion Aramhera	GT NO 96	DSME	MEGI	173,400	01/06/2020	BWGas
Traiano Knutsen	GTT Mark III Flex	Hyundai Heavy	MEGI	180,000	01/06/2020	Knutsen
Flex Reliance	GT NO 96	DSME	MEGI	173,400	01/07/2020	Flex LNG
Flex Amber	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	01/07/2020	Flex LNG
MOL HUDONG-ZHONGHUA 3/4	GT NO 96	Hudong-Zhonghua	MEGI	174,000	15/07/2020	MOL
SHI Gaslog #2	GTT Mark III Flex	Samsung	XDF	180,000	15/07/2020	GasLog
SHI #1	GTT Mark III Flex	Samsung	XDF	174,000	15/07/2020	Cardiff Marine
Flex Resolute	GT NO 96	DSME	MEGI	173,400	01/08/2020	Flex LNG
Energy Pacific	GT NO 96	DSME	MEGI	173,400	01/08/2020	Alpha Gas
HHI Sovcom #1	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	30/08/2020	Sovcomflot
Cool Discoverer	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	01/09/2020	Thenamaris
HHI 3037	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/09/2020	Cardiff Marine
HHI NYK DG #1	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/09/2020	NYK
MOL HUDONG-ZHONGHUA 4/4	GT NO 96	Hudong-Zhonghua	MEGI	174,000	01/10/2020	MOL
Samsung 2300	GTT Mark III Flex	Samsung	XDF	174,000	01/10/2020	GasLog
Maran Gas DSME	GT NO 96	DSME	MEGI	173,400	15/10/2020	Maran Gas Maritime
Flex Freedom	GT NO 96	DSME	MEGI	173,400	15/10/2020	Flex LNG
Aristos I	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/10/2020	Capital Gas
Celcius #1	GTT Mark III Flex	Samsung	XDF	180,000	15/10/2020	Celcius Shipping
SHI #17	GTT Mark III Flex	Samsung	XDF	174,000	15/10/2020	Cardiff Marine
Aristidis I	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	01/11/2020	Capital Gas
Flex Volunteer	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/11/2020	Flex LNG
HHI 3038	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/11/2020	Cardiff Marine
DSME 2484	GT NO 96	DSME	MEGI	173,400	01/12/2020	Alpha Gas
Samsung 2301	GTT Mark III Flex	Samsung	XDF	174,000	01/12/2020	GasLog
Celcius #2	GTT Mark III Flex	Samsung	XDF	180,000	15/12/2020	Celcius Shipping

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
DSME Dec #1	GT NO 96	DSME	MEGI	180,000	15/12/2020	MOL
HHI Sovcom #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/12/2020	Sovcomflot
Global Star	GT NO 96	DSME	MEGI	173,400	01/01/2021	Nakilat
DSME Minerva #1	GT NO 96	DSME	MEGI	173,400	15/01/2021	Minerva Marine
Cool Racer	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/01/2021	Thenamaris
SHI Minerva #1	GTT Mark III Flex	Samsung	XDF	174,000	15/01/2021	Minerva Marine
HHI 3112	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/01/2021	Cardiff Marine
Samsung 2313	GTT Mark III Flex	Samsung	XDF	180,000	01/02/2021	Celcius Shipping
DSME Minerva #2	GT NO 96	DSME	MEGI	173,400	15/02/2021	Minerva Marine
HHI Latsco #1	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/02/2021	Latsco Shipping
DSME 2496	GT NO 96	DSME	MEGI	174,000	15/02/2021	BWGas
DSME Dec #2	GT NO 96	DSME	MEGI	180,000	15/02/2021	MOL
Marvel Swan	GTT Mark III Flex	Samsung	XDF	173,400	01/03/2021	Navigare
Aristarchos	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/03/2021	Capital Gas
Flex Vigilant	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/03/2021	Flex LNG
HHI 3039	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/03/2021	Cardiff Marine
SHI #18	GTT Mark III Flex	Samsung	XDF	174,000	15/03/2021	Cardiff Marine
DSME 2485	GT NO 96	DSME	MEGI	173,400	15/04/2021	Alpha Gas
SHI NYK	GTT Mark III Flex	Samsung	XDF	174,000	15/04/2021	NYK
Celcius #4	GTT Mark III Flex	Samsung	XDF	180,000	15/04/2021	Celcius Shipping
DSME 2495	GT NO 96	DSME	XDF	174,000	15/05/2021	Maran Gas Maritime
HHI NYK DG #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/05/2021	NYK
Attalos	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/06/2021	Capital Gas
DSME 2497	GT NO 96	DSME	MEGI	174,000	15/06/2021	BWGas
HHI NYK DG #3	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/06/2021	NYK
SHI Gaslog CE #1	GTT Mark III Flex	Samsung	XDF	180,000	15/06/2021	GasLog
Alpha Gas	GT NO 96	DSME	MEGI	174,000	15/06/2021	Alpha Gas
CSSC #1	GT NO 96	Hudong-Zhonghua	XDF	174,000	15/06/2021	CSSC
Capital Gas #5	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/07/2021	Capital Gas
DSME MOL #3	GT NO 96	DSME	MEGI	173,400	15/07/2021	MOL
HHI Latsco #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/08/2021	Latsco Shipping
SHI Gaslog CE #2	GTT Mark III Flex	Samsung	XDF	180,000	15/08/2021	GasLog
DSME Maran	GTT Mark III Flex	DSME	MEGI	174,000	15/08/2021	Maran Gas Maritime
DSME Maran #2	GTT Mark III Flex	DSME	XDF	173,400	15/08/2021	Nakilat
Samsung 2305	GTT Mark III Flex	Samsung	XDF	174,000	01/09/2021	Minerva Marine
SHI 2306	GTT Mark III Flex	Samsung	XDF	174,000	15/09/2021	NYK
Capital Gas #6	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/09/2021	Capital Gas
HHI SK E&S	GTT Mark III Flex	Hyundai Heavy	XDF	180,000	15/09/2021	SK Shipping
DSME Maran #3	GTT Mark III Flex	DSME	XDF	173,400	15/10/2021	Nakilat
Samsung #11	GTT Mark III Flex	Samsung	XDF	174,000	15/10/2021	NYK
SHI 2307	GTT Mark III Flex	Samsung	XDF	174,000	15/11/2021	NYK

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 12th December 2019

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
HHI TEN	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/11/2021	Tsakos Energy Navigation
DSME Maran 2504	GT NO 96	DSME	XDF	174,000	15/12/2021	Maran Gas Maritime
HHI Capital Gas #7	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/12/2021	Capital Gas
DSME 2507	GT NO 96	DSME	XDF	174,000	15/12/2021	Maran Gas Maritime
HSIH	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/12/2021	Hanjin Shipping
CSSC #2	GT NO 96	Hudong-Zhonghua	XDF	174,000	15/01/2022	CSSC
HHI Samho Edison	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/01/2022	NYK
Samsung N/A	GTT Mark III Flex	Samsung	XDF	174,000	15/01/2022	Minerva Marine
Samsung 2019 #9	GTT Mark III Flex	Samsung	XDF	174,000	15/01/2022	JP Morgan
SHI Mar19	GTT Mark III Flex	Samsung	XDF	174,000	15/03/2022	Nisshin Shipping
H Samho NYK	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/03/2022	NYK
Hyundai European #1	GTT Mark III Flex	Hyundai Heavy	XDF	180,000	15/03/2022	Dynagas
Maran gas dec19	GT NO 96	DSME	XDF	174,000	15/03/2022	Maran Gas Maritime
H-Line #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/04/2022	Hanjin Shipping
DSME May19	GT NO 96	DSME	MEGI	174,000	15/05/2022	Maran Gas Maritime
Hyundai European #2	GTT Mark III Flex	Hyundai Heavy	XDF	180,000	15/06/2022	Dynagas
BW oct 2019 #1	GT NO 96	DSME	MEGI	174,000	15/06/2022	BWGas
Samsung 2019 #10	GTT Mark III Flex	Samsung	XDF	174,000	15/07/2022	JP Morgan
BW oct 2019 #2	GT NO 96	DSME	MEGI	174,000	15/09/2022	BWGas
Samsung 2364	GTT Mark III Flex	Samsung	XDF	174,000	01/01/2023	MISC
Samsung 2365	GTT Mark III Flex	Samsung	XDF	174,000	01/02/2023	MISC

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 12th December 2019



The whole LNG Market at your fingertips

- Increased market visibility through a quick "lowdown of the market" on Monday morning and detailed "bird's eye" view of the past month
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- Access to pre-digested primary market data
- Consistent & systematic market perspectives
- Market and fleet overview in one convenient package

LNG Unlimited



WORLD SMALL SCALE LNG FLEET*

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
1974	Seagas	187	LNG	Sweden	Yes	AGA
1988	Kayoh Maru	1,517	LNG	Japan	Yes	Daiichi
1993	Aman Bintulu	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1996	Surya Aki	19,475	LNG	Indonesia - Japan	Yes	MCGC
1997	Aman Sendai	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1998	Pelita Energy	18,800	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
2000	Triputra	23,096	LNG	Indonesia - Japan	Yes	MCGC
2003	Pioneer Knutsen	1,100	LNG	Norway	Yes	Knutsen
2003	Shinju Maru No.1	2,540	LNG	Japan	Yes	Shinwa
2005	North Pioneer	2,500	LNG	Japan	Yes	Japan Liquid Gas
2007	Sun Arrows	19,531	LNG	Malaysia-Russia-Japan	Yes	Mitsui
2008	Kakurei Maru	2,536	LNG	Japan	Yes	Hogaki Zosen
2008	Shinju Maru No.2	2,540	LNG	Japan	Yes	Shinwa
2009	Coral Methane	7,551	LNG/LPG/Ethylene	Northwest Europe/Baltics	Yes, sometimes	Anthony Veder
2010	Coral Favia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2010	Coral Fraseri	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Akebono Maru	3,556	LNG	Japan	Yes	Chuo Kaiun
2011	Coral Furcata	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Coral Fungia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Vision Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2011	Unikum Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2015	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	JS Ineos Ingenuity	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos Evergas	
2015	JS Ineos Insight	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos Evergas	
2015	JS Ineos Intrepid	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos Evergas	
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
2016	JS Ineos Indepence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos Evergas	
2016	JS Ineos Innvation	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos Evergas	
2016	JS Ineos Inspiration	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos Evergas	
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
2017	Oizmendi	600	LNG	Bilbao	Yes	Itsas Gas
2017	ENGIE Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	Anthony Veder
2017	Cardissa	6,500	LNG	Northwest Europe	Yes	Shell

For more information please visit <http://small-lng.com>

*Includes multi-gas, ethylene and LNG bunker ships with 40,000 cubic metres LNG cargo capacity or less

TBN = To Be Nominated indicates ships are still at construction/planning stage

** = project shelved † = Data to be verified Data last updated = 27th November 2019

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	Coral EnergiICE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	JS Ineos Invention	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	JS Ineos Intuition	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	Coral Encanto	30,000	LNG	China	Yes	Anthony Veder
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2018	LNG London	3,000	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2018	Kairos	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	Qi Yuan	28,000	LNG	China	Yes	Dalian Inteh Group
2018	Bunker Breeze	0	LNG	Barcelona	Yes	Suardiaz Energy Shipping
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2019	Gas Agility	18,600	LNG	NWE	Yes	MOL
2019	Flexfueller 001	1,480	LNG	Amsterdam	Yes	Titan LNG
2020	Q-LNG 4000	4,000	LNG	US Coast	Yes	Q-LNG Transport/Harvey Gulf
2020	Stolt TBN (option) **	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	FuelLNG TBN	7,500	LNG	Singapore	Yes	FuelLNG
2020	CLS TBN	3,500	LNG	Japan	Yes	CLS
2020	Elenger TBN	6,000	LNG	NWE	Yes	Elenger
2020	ENN TBN	8,500	LNG	China	Yes	ENN
2020	Flexfueller 002	1,480	LNG	Antwerp	Yes	Titan LNG
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2021	Knutsen TBN	30,000	LNG	Mediterranean	Yes	Knutsen OAS
2021	Gazprom Neft TBN	5,800	LNG	Russia	Yes	Gazprom Neft
2021	PE TBN	12,000	LNG	Singapore	Yes	MOL
2021	JMU TBN	2,500	LNG	Japan	Yes	JMU
2022	Stolt TBN	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2022	Stolt TBN	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2022	PNE TBN	5,400	LNG	USG	Yes	PNE
2024	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2024	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2026	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2026	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas

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