LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

16 May 2019

LNG primed for $200 bill capex boom

During the next two years, nearly 90 mill tonnes per annum of LNG is expected to take final investment decision (FID) and start construction.

Recent research from Wood Mackenzie (WoodMac) showed that capital expenditure - for both LNG plant and upstream infrastructure - will total more than $200 bill between 2019 and 2025, which will provide a major boost to engineering, procurement and construction (EPC) contractors and other supply chain players.

However, the LNG industry is notorious for cost overruns and project delays - just 10% of all LNG projects have been constructed under budget, while 60% have experienced delays, WoodMac warned.

Liam Kelleher, WoodMac's senior global LNG research analyst, said: "The many projects jostling for FID right now have low headline costs, but in light of the historical reality of LNG construction, some project delays are likely.

"While there is a risk that current low LNG prices may see some proposed projects cancelled, Wood Mackenzie believes the risk to new LNG supply development is low and we see considerable upside supply potential.

"In our high case, we anticipate that a further 70 mill tonnes per annum could be sanctioned in the next three years. Should even some of this materialise, construction would be stretched beyond the height of the 2010-14 boom," he said.

But that does not mean the upcoming cycle is destined to be a replay of the last, as there are a number of key differences this time around, Kelleher said.

The Ichthys project suffered cost overruns

"Firstly, the global spread of projects will mean that the local inflation pressure, particularly in terms of manpower, which hit Australia and the US in previous cycles, is lessened.

"Secondly, developers are also being more cautious about LNG development solutions, opting for modularisation and capex phasing. This, coupled with renewed caution with investment programmes across the upstream sector, should help limit global upstream inflation," he explained.

Lower raw materials costs should also help keep a cap on expenditure, as global steel prices are set to ease from their 2018 peak.

Expenditure cap

He also said that new players entering the EPC market mean that competition for construction contracts is strong.

Kelleher added: "While LNG operators have enjoyed a return to profits in recent years, many LNG EPC contractors remain firmly in the red. Tough times bring tough contract conditions and EPC contractors have taken financial hits from project cost overruns as seen at Ichthys, Cameron and Freeport.

"With an increase in workload, there is the potential for a recovery in project revenues for EPC contractors," he said.

A lean time for upstream subcontractors has resulted in a 25% drop of workload capacity across this sector. An upsurge in activity is expected to bring higher rig rates and subsea costs, a risk for major integrated projects in Mozambique and Qatar.

He said: "Cost overruns in the previous boom averaged 33%, with Australian projects overrunning by 40%. While Wood Mackenzie does not expect similar increases this time, the potential for operators and contractors to drop the ball on project delivery remains.

"This risk will only be heightened if more projects go ahead than our base case forecast. Only time will tell whether LNG will start to shrug off its difficult delivery reputation," he concluded. ■

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LNG ORDERBOOK

US DOE authorises two LNG export projects

The US Department of Energy (DOE) has signed two long-term orders authorising the export of domestically produced LNG from Tellurian's Driftwood LNG export facility and Sempra Energy's Port Arthur LNG export project.

The signing formed part of the EU-US Energy Council High-Level Business to Business Energy Forum held in Brussels at the beginning of this month.

Under the orders, Driftwood and Port Arthur are authorised to export up to 3.88 and 1.91 bill cu ft per day of natural gas as LNG, respectively, to any countries that do not have a free trade agreement (FTA) with the US and that are not prohibited under US law or policy.

Driftwood and Port Arthur each received authorisation to site, construct, and operate their projects from US Federal Energy Regulatory Commission (FERC) on 18th April, 2019.

"The Driftwood and Port Arthur exports will ensure that US LNG continues to impact our friends and allies across the globe," said US Energy Secretary, Rick Perry, who signed the orders. "The US is the world's leading producer of natural gas, and our exports provide a reliable, diverse, and secure source of energy to countries looking to diversify their energy portfolios."

"The Department of Energy continues to act quickly on LNG orders after their review at FERC," added Assistant Secretary for Fossil Energy, Steven Winberg, who was present at the signing ceremony. "DOE is proud to do our part to unlock this important energy infrastructure that benefits both the US and our trading partners here in the EU and around the globe."

Port Arthur is one of two projects given the nod by US DOE

EIS for Venture Global projects

The US Federal Energy Regulatory Commission (FERC) has prepared a final environmental impact statement (EIS) for the Plaquemines LNG and Gator Express Pipeline projects proposed by Venture Global Plaquemines LNG and Venture Global Gator Express (Gator Express Pipeline).

On 28th February, 2017, Plaquemines LNG filed the application with SERC in which Plaquemines LNG requested authorisation to site, construct, and operate natural gas liquefaction, storage, and export facilities at an LNG terminal on the west bank of the Mississippi River in Plaquemines Parish, Louisiana.

On the same day, Gator Express Pipeline filed an application with FERC for a Certificate of Public Convenience and Necessity requesting authorisation to construct and operate associated lateral pipelines that would connect the LNG terminal to the existing US natural gas transmission grid.

Grain LNG import terminal to expand

Grain LNG import terminal has announced that up to 8.3 mill tonnes per annum of redelivery capacity, 390,000 cu m of associated storage and over 100 berthing slots could be made available at the UK Isle of Grain terminal in 2025.

The capacity offered is a combination of newbuild and existing capacity, which will come out of contract in 2025. The expansion will increase the size of the Grain terminal to around 1.2 mill cu m.

Nicola Duffin, Grain LNG's Commercial Manager, said: "Grain already has the largest storage tanks in Europe, which offer our customers the flexibility to store their LNG and optimise send out in response to market prices. With the expansion of Grain we will further optimise our existing assets, which means we'll be able to be more competitive than typical newbuild capacity.

"We're also ideally located in the South East of the UK, so tariffs to NBP are very favourable. Our customers benefit from the short haul tariff to the IUK and BBL interconnectors, allowing them to easily move gas to other European price hubs, such as TTF.

"We have two entry points to the NBP, a high-pressure entry point and a low- pressure entry point that offers our customers further savings on entry costs and a much lower minimum send out requirement compared to competitors," she said.

Grain could also benefit from proposed changes to the gas specification rules in the UK, which would significantly reduce variable costs for LNG shippers. The UK's Wobbe Limits currently require some sources of LNG to be blended with nitrogen to meet UK gas specifications.

Plans are underway to increase these limits, which could come into force by April, 2020 as part of the Gas Safety Management Regulations (GSMR). Proposals call for the limit to be changed to 52.85 MJ per cu m – a limit that would allow all but rich LNG to enter the grid without blending.

Duffin added: "LNG would be subject to lower processing and variable costs. Lower costs will make the UK a more attractive destination for LNG, which ultimately benefits UK energy consumers."

Additional services available at Grain include reloads, transhipments and a multi-bay facility for reloading road tankers, and ISO containers. A marine breakbulk facility is planned for 2021/22 and it is the only UK terminal to offer small-scale solutions to the market.

UK terminals have seen a considerable increase in usage this winter as new global supplies have come online and the economics of moving LNG from the Atlantic to the Pacific basin have failed to add up.

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German terminal moves closer

Swiss-based energy trading company Axpo and German LNG Terminal GmbH, the joint venture formed to build Germany's first LNG terminal, have signed a Heads of Agreement (HoA).

This HoA calls for a long-term capacity contract for the LNG terminal to be located at Brunsbuettel on the River Elbe in northern Germany.

This was claimed to be another important step towards taking the investment decision on the terminal.

Domenico De Luca, Axpo Group's, Head Business Area Trading & Sales and member of the Executive Committee, said:"Axpo has been active in global LNG markets for nine years now and offers tailor-made physical LNG supply and hedging solutions. Our LNG business is one of our most important strategic growth areas.

"With the shutdown of numerous coal-fired power plants expected in the medium term, LNG is expected to gain further importance as an energy source and will be able to increase its market share in Europe. Our goal is to further optimise the delivery of LNG to our customers together with German LNG Terminal," he said.

Axpo's LNG services include physical LNG supply, diversion rights, profit sharing, financial hedging structures, cancellation options and access to international trade markets.

Its growing LNG portfolio includes long-term natural gas supplies, a 5% stake in the Trans Adriatic Pipeline (TAP) and distribution channels in most European countries.

Rolf Brouwer, Managing Director of German LNG Terminal GmbH, commented; "We are delighted about this Heads of Agreement with Axpo and welcome them as an additional strong partner for German LNG Terminal.

"We continue to powerfully move forward with the realisation of our terminal project. Obviously, an increasing number of market players are convinced of the future relevance of LNG for the German energy market and rely on our concept of a multi-service terminal with an independent terminal operator. Jointly with our terminal customers, we will contribute to an efficient and long-term energy supply to German customers."

Permitting

The preparations for the terminal's permitting approval process are also moving forward. In spring 2019, the company will apply for the required permit for the terminal, while he investment decision is scheduled for the end of 2019.

After receiving the necessary permits, construction work could start in 2020 with the terminal being operational by the end of 2022.

German LNG Terminal GmbH is a joint venture of the Dutch companies, Gasunie LNG Holding BV and Vopak LNG Holding BV, as well as Oiltanking GmbH, a subsidiary of the Marquard & Bahls AG, Hamburg.

Once built, the terminal will contribute to energy diversification in Germany and will support the introduction of LNG as a cleaner fuel alternative in maritime and road transport, lowering the environmental impact of both shipping and heavy goods vehicles transport.

The terminal will combine a variety services such as unloading and loading of LNG ships, temporary LNG storage, regasification and send out into the German natural gas network and LNG distribution by truck. ■

Anadarko agrees SPA and confirms merger

Anadarko Petroleum Corp has announced that Mozambique LNG1 Co, the jointly owned sales entity of the Mozambique Area 1 co-venturers, has signed a Sale and Purchase Agreement (SPA) with JERA and CPC Corp, Taiwan.

The SPA calls for the delivered ex-ship supply of 1.6 mill tonnes per annum for a base term of 17 years from the commercial start date.

Mozambique LNG's portfolio of long-term sales now includes four of the top five LNG importing markets in the world.

"This co-purchasing agreement with JERA and CPC brings together two prominent Asian foundation customers and will ensure a reliable supply of cleaner energy to meet the growing demands of both Japan and Taiwan," said Mitch Ingram, Anadarko Executive Vice President, International, Deepwater & Exploration. "We are excited to take the next step with the expected announcement of a Final Investment Decision (FID) for the Mozambique LNG project on 18th June, as we remain on track to complete the project financing process and secure final approvals.

"This new SPA brings our total long-term agreements to 11.1 mill tonnes per annum, and we are extremely pleased and grateful to JERA and CPC for selecting Mozambique LNG to be part of their long-term energy portfolio," he added.

The company has also confirmed that it had entered into a definitive merger agreement with Occidental Petroleum Corp under which, Occidental will acquire all of the outstanding shares of Anadarko for consideration consisting of $59 in cash and 0.2934 of a share of Occidental common stock per share of Anadarko common stock.

Anadarko also announced that prior to entering into this merger agreement, it terminated its previously announced merger agreement with Chevron Corp and paid a termination fee of $1 bill to the US oil major. ■

US LNG import to export conversion

An Invitation to Tender (ITT) has been issued to US and international consortia to bid for the Engineering, Procurement and Construction (EPC) contract to convert Energy Transfer's existing LNG import facility at Lake Charles.

The gas importer wants to convert the Lake Charles LNG facility into a large-scale LNG export project.

This follows the signing of a project framework agreement between Shell US LNG and Energy Transfer in March, outlining the commercial terms and plans to move the proposed 16.45 mill tonnes per annum LNG export project at Lake Charles towards a final investment decision (FID).

Lake Charles LNG is a 50/50 joint venture between Energy Transfer and Shell.

"We are excited to announce this major milestone in the development of the Lake Charles LNG liquefaction project," said Tom Mason, President, Lake Charles LNG. "The prospective bidders are world-class EPC contractors who will bring extensive LNG experience to bear as they develop their bids."

"The invitation to tender is another step in our journey to progress a competitive and safe LNG project on the US Gulf Coast," said Frederic Phipps, Lake Charles LNG project's Vice President. "Already, leading EPC providers have expressed interest in participating in Lake Charles LNG, a project that will contribute to growing US LNG exports should a FID be taken."

The project is fully permitted, uses existing infrastructure and benefits from abundant natural gas supply and proximity to major pipeline infrastructure, including Energy Transfer's vast pipeline network, the stakeholders claimed. ■

Nakilat lauds gas carrier safety milestone

Nakilat's Q-flex LNGC 'Al Ghashamiya' recently achieved a significant safety milestone of over 10 years without lost time injury (LTI) or total recordable case (TRC), equivalent to nearly 3 mill safe man-hours.

In April, another Nakilat-managed vessel, the LPG carrier 'Bu Sidra' achieved seven years LTI-free with 1.6 mill safe man-hours. Several other managed vessels are expected to achieve similar safety milestones in the coming months.

Nakilat's CEO, Eng Abdullah Al Sulaiti, said, "The accomplishment of such safety milestones not only affirms our high operating standards but is also a reflection of the strong safety culture and ownership amongst our seafarers, and their dedication to create a safe working environment for everyone at sea. This is essential to our global operations, given that Nakilat plays the major role of shipping Qatar's LNG exports and that we own the largest fleet of LNG carriers worldwide."


'Al Ghashamiya' has reached a milestone

Al-Sulaiti added, "At the crux of Nakilat's efforts is the concentrated energy towards achieving excellence in safety, health, and environment management, as we strive to provide shipping and maritime services in a safe, reliable and efficient manner.

"Nakilat has been recognised through various prestigious awards, such as the British Safety Council's Sword of Honour and the Green Award. This bears testament to the company's excellence in the management of health and safety risks at the workplace." ■

'Prelude' LNG cargo shipment near

Shell expects to ship its first LNG cargo from its Australian FLNG production facility, 'Prelude' in the second quarter of this year, according to CFO Jessica Uhl.

Speaking after the release of the first quarter 2019 earnings, Uhl said the first LNG would follow the shipment of the first condensate cargo from 'Prelude' last month, S&P Platts said.

The first gas flowed into the facility during 4Q18, she added.

'Prelude' has a production capacity of 3.6 mill tonnes per year of LNG, 1.3 mill tonnes of condensate and 0.4 mill tonnes per year of LPG.

The FLNG is located 475 km north-northeast of Broome in Western Australia. It is operated by Shell which has a 67.5% stake. Inpex has another 17.5%, KOGAS has 10% and Taiwan's CPC Corp 5%. ■

First Q-Flex transits Panama Canal

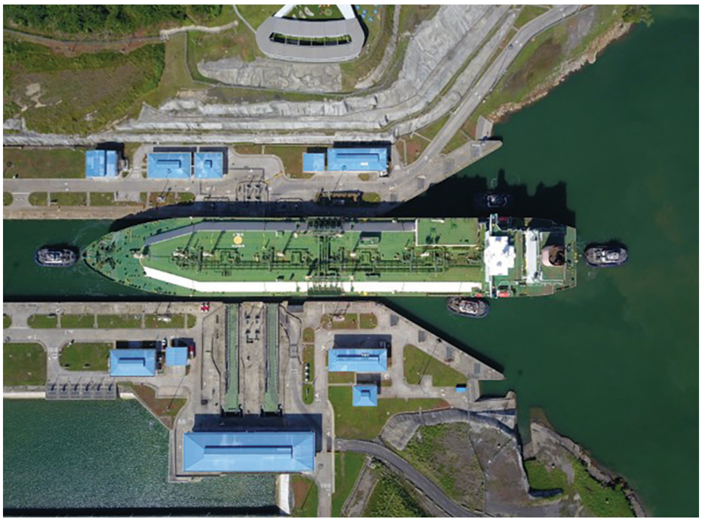
Qatargas' 'Al Safliya' has become the first Q-Flex to transit the Panama Canal.

The LNGC, which is 315 m in length and 50 m beam with a cargo capacity of 210,000 cu m transited northbound from the Pacific to the Atlantic.

"This transit reaffirms the expanded canal's ability to reshape world trade and offer customers the benefits of economies of scale," said Panama Canal Administrator (ACP) Jorge Quijano. "The Panama Canal team is grateful for the industry's continued confidence in our services and looking forward to welcoming many more Q-Flex vessels in the future."

Q-Flex LNGCs can now pass through the Panama Canal following an increase in the maximum allowable beam for vessels transiting the Neopanamax locks.

Implemented in June, 2018, the maximum beam allowed is 51.25 m, up from 49 m, as measured at the outer surface of a vessel's shell plating and all protruding structures below the lock walls.


'Al Safliya' has become the first Q-Flex to transit the Panama Canal

'Al Safliya' transited in ballast, having discharged a Qatari cargo in China.

This transit comes less than a month after the expanded canal welcomed its 6,000th Neopanamax vessel, a milestone marked by another LNGC, 'Energy Liberty', on 23rd April.

In 2018, the canal saw 340 LNGC transits, up from 181 transits in 2017. So far in 2019, the canal has handled 100 LNGC transits.

Due to a severe drought caused by an 'El Nino', the ACP has reduced the maximum authorised draft for vessels transiting the Neopanamax locks for the fifth time this year.

The latest maximum draft is 13.41 m, which became effective 30th April. ■

NEWS NUDGE

GTT wins another three orders

GTT has received an order from Hyundai Heavy Industries (HHI), to design the tanks for a new 174,000 cu m LNGC, contracted by Greek shipowner, Capital Gas Carriers.

The company will design the tanks of the vessel, which will be fitted with the Mark III Flex membrane containment system.

The ship's delivery is planned during the third quarter of 2021.

In addition, GTT received an order from Daewoo Shipbuilding & Marine Engineering (DSME) concerning the tank design of two new 174,000 cu m LNGCs on behalf of the Greek shipowner Maran Gas.

The delivery of these ships is planned for the first half of 2021. ■

Awilco hit by 'WilForce' repairs

The Awilco LNG Group has reported net freight income of $8.4 mill in the first quarter of this year, compared to $10.4 mill in the previous quarter.

EBITDA was $5 mill, compared with $7.1 mill in 4Q18.

Vessel utilisation of 90%, compared to 84% in 4Q18, excluding off-hire from a scheduled drydocking.

Freight income for 1Q19 was $9.4 mill, down from $11.1 mill in 4Q18, due to muted demand in the Far East, combined with seasonal effects, the company said.

Provisions for machinery damage repairs on the 'WilForce' were increased by $1.1 mill in 1Q19, and a $0.9 mill increase in the corresponding insurance claim was recognised as other income in the quarter. Repairs at a yard commenced at the end of last month.

Total current assets were $27.1 mill as at 31st March, 2019, compared with $31.4 mill at the end of 4Q19, including an insurance claim of $4.9 mill relating to the 'WilForce' repairs, plus cash and cash equivalents of $18.7 mill.

Total equity as the end of March was $112.2 mill. Total current liabilities were $273.4 mill as at the end of the quarter, of which $265.9 mill relates to the 'WilForce' and 'WilPride' financial lease liabilities.

The repurchase obligations for the bareboated 'WilForce' and 'WilPride' mature on 31st December, 2019, plus 60 days extension option in Awilco's favour.

Awilco LNG explained that it had rolling repurchase options and is pursuing refinancing alternatives. ■

QP issues EPC tender

Qatar Petroleum (QP) has issued a tender to expand its LNG storage, loading and export facilities for its North Field expansion (NFE) project.

The tender calls for the engineering, procurement and construction (EPC) of two additional LNG berths with an option for a third, plus loading and return lines from the LNG berths to the tanks.

The package includes three LNG storage tanks, compressors to recover tank boil-off gas during storage and jetty boil- off gas during LNGC loading, and LNG rundown lines from the LNG trains to the LNG storage area.

"The issuance of this tender package will culminate in the award of this EPC contract by February, 2020," Saad Sherida Al-Kaabi, Qatar's Minister of State for Energy Affairs and President & CEO of Qatar Petroleum, said."This tender package is part of a strong drive to put the various NEF project components in place, including four mega LNG trains that would expand the State of Qatar's LNG production from 77 mill tonnes per annum to 110 mill tonnes by 2024.

"This also includes the recently announced major LNG shipbuilding campaign expected to initially deliver 60 LNGCs in support of the planned production expansion, with a potential to exceed 100 new LNGCs over the next decade," Al-Kaabi added. ■

> "This package is part of a strong drive to put the various project components in place..."

Construction starts at Golden Pass

ExxonMobil Corp and Qatar Petroleum (QP) were due to start building the $10 bill-plus Golden Pass LNG export terminal in Texas on 13th May.

The companies had informed the US Federal Energy Regulatory Commission (FERC) of their decision last week, Reuters said.

A final investment decision (FID) to construct the project was taken in February and the plant is expected to enter service in 2024.

Golden Pass is designed to produce around 16 mill tonnes per annum of LNG.

QP has a 70% stake in the project, while Exxon has 30%.

Enable Midstream Partners has also said it expects to complete the Gulf Run pipeline to transport gas to Golden Pass in late 2022.

Golden Pass chose McDermott International, Chiyoda Corp and Zachry Group to build the project. ■

Construction of Golden Pass has commenced

Sovcomflot concludes LNGC financing

Sovcomflot (SCF Group) has signed a $297 mill limited recourse credit facility, for up to 10 years.

Three leading international banks were involved: ING Bank; KfW IPEX-Bank, and Crédit Agricole Corporate and Investment Bank.

The funds will be used towards pre- and post-delivery financing of two 174,000 cu m Atlanticmax LNGCs, which will operate under long-term charters to Shell.

They will be fitted with a slow-speed dual-fuel X-DF engine and a gas boil-off partial liquefaction system. The first vessel is scheduled for delivery in the second half of 2020, the second in the first half of 2021.

The addition of these vessels will increase SCF's LNGC fleet to 16 vessels, and is fully in line with the group's strategy of expanding its long-term business with core clients, it said.

This deal follows a similar $149 mill credit facility signed in November, 2018, between SCF and the three banks, to finance the construction of an LNGC, which will operate on long-term charter to Total.

Nikolay Kolesnikov, SCF Executive Vice President & CFO, said: "SCF Group is pleased with this new LNG project financing with its long-standing financial partners: ING Bank; KfW IPEX-Bank, and Credit Agricole CIB.

"We very much value the involvement of these three prominent lenders in this deal, which was accomplished in direct continuation of a similar LNG financing concluded with these banks in November, 2018, reflecting the banks' long-term and strong commitment to SCF Group.

"With the conclusion of this deal, the Group has addressed in full its capital expenditure funding requirements for the next two years," he said. ■

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GasLog's Wogan expects rates to improve

GasLog Ltd has reported revenues of $166.5 mill, a profit of $5.9 mill and a loss per share of $0.17 for the quarter ended 31st March, 2019.

EBITDA was $109.8 mill for 1Q19 and adjusted EBITDA was $109.9 mill. Adjusted profit was $28.1 mill and adjusted earnings per share was $0.11.

GasLog declared a quarterly dividend of $0.15 per common share payable on 23rd May, 2019.

During the quarter, the company signed a 12-year timecharter with Japanese LNG shipping entity JERA for Hull No. 2274, a newbuild 180,000 cu m LNGC to be fitted with a low pressure dual-fuel 2-stroke X-DF engine and scheduled for delivery in the second quarter of 2020.

In addition, an eight-year timecharter was agreed commencing May, 2021 with a wholly owned subsidiary of Endesa for the 'GasLog Warsaw', a newbuilding 180,000 cu m LNGC, also fitted with X-DF propulsion, and scheduled for delivery in the third quarter of 2019.

At the post quarter end, the company completed the sale of the 'GasLog Glasgow' to GasLog Partners for $214 mill, with an attached multi-year charter to a Shell subsidiary.

On 15th March, GasLog took delivery of the 'GasLog Gladstone', a 174,000 cu m LNGC with X-DF propulsion, which was also chartered to Shell.

GasLog's newbuilding 'GasLog Gladstone' has commenced a long term charter

On 20th February, the company entered into a new five-year amortising revolving credit facility, which refinanced $354.4 mill of current debt due in November, 2019 and provided $90 mill of incremental available liquidity.

CEO Paul Wogan, stated: "GasLog continued to deliver on our strategy in the first quarter of 2019 as we contracted two of our newbuildings to JERA and Endesa for 12 and eight years, respectively. We have now ordered and fixed seven newbuild vessels on long-term contracts with four high quality counterparties since our April, 2018 investor day and have made excellent progress toward our target of more than doubling consolidated run-rate EBITDA over the 2017 to 2022 period.

"We continued to drop vessels down to GasLog Partners with the sale to the Partnership of the 'GasLog Glasgow' earlier this year. The JERA and Endesa charters have increased the drop-down pipeline to 13 vessels, reinforcing the Partnership's growth potential. The successful debt refinancing during the quarter is further evidence of the Group's ability to source attractively priced finance to fund GasLog's newbuilding programme.

"The first quarter saw spot LNG carrier rates fall from the historic highs of the fourth quarter of 2018 as unseasonal weather conditions led to low LNG prices and disincentivised long-haul LNG trade. Nonetheless, spot vessel earnings were roughly in line with those seen in the first quarter of 2018.

"We are confident that the fundamentals of the LNG shipping market are tighter than the evidence that the first quarter implies, and we believe that rates will improve in the second half of the year and through 2020. As a result, we continue to see the potential to deliver enhanced returns to our shareholders," he concluded. ■

Yamal LNG's first Chinese cargo this year

Yamal LNG has shipped its first cargo to China this year, which was also believed to be the first under a long term contract.

The cargo was loaded on the 'Clean Planet', which is on route to the PetroChina-controlled Caofeidian gas terminal in Tangshan, according to Refinitiv Eikon shipping data. She is due to arrive on 20th May.

A low price spread between European and Asian LNG prices this year had confined Yamal's cargoes to Europe, Refinitiv data showed, according to Reuters.

Yamal has agreed to supply 3 mill tonnes of LNG to PetroChina over 20 years. The deal was expected to take effect this month.

The agreement is on a delivered-ex ship basis, with China given as the destination, meaning the cargoes have to be delivered on Yamal LNG operated ships.

In addition to the supply contract, PetroChina has a 20% stake in Yamal LNG, allowing it to offtake spot cargoes from the project.

PetroChina's London subsidiary has been selling spot cargoes to Europe during the past year.

Around 1 mill tonnes are expected to be imported by China under the long-term deal this year, ramping up to 3 mill tonnes later, an industry source told Reuters.

A total of 14 cargoes were shipped from Yamal to China last year on a spot basis, instead of under the long-term deal. ■

NEWS NUDGE

Poten announces LNG courses

This June, shipbroker and analyst, Poten & Partners is to hold two LNG training courses - LNG Trading in Singapore and LNG 101 in New York.

LNG Trading - From Strategy to Practice will be held in in partnership with TwoTwoFive between 11th and 13th June and will cover -

- Mechanics of LNG Trading.
- LNG trading in Asia.
- Simulations.
- Managing LNG Complexities.
- Pricing Risk Management.
- Key Issues and Opportunities.

LNG 101 - Energy for a Cleaner Future will be held on 27th June in partnership with the NYU School of Professional Studies Center for Global Affairs.

The course will provide a robust overview of the LNG value chain from upstream development, liquefaction, shipping and regasification through to downstream market delivery.

Poten said that this course is ideal for:

- New financial analysts focusing on energy and commodity markets or energy infrastructure;
- Legal counsels and lawyers new to the gas space and contract negotiations;
- New entrants to the upstream, midstream and downstream gas markets;
- New strategists, planners, and analysts at government institutions focused on energy and energy infrastructure policy. ■

Sonihull achieves ATEX approval

Ultrasonic anti-fouling system company, Sonihull, was recently certified in compliance with 94/9/EC ATEX Approval, the regulation applied to all equipment intended for use in explosive atmospheres.

With this approval, Sonihull becomes the first ultrasonic anti-fouling system to be awarded ATEX certification, making it the ideal choice for LNGCs, oil rigs, FPSOs, and other petrochemical applications looking for biocide-free anti-fouling solutions in hazardous areas, the company claimed.

"Sonihull is ideal for protecting the raw seawater [RSW] cooling-systems on LNG vaporisers," explained Dominic Findlow, Sonihull's Technical Director. "Our transducers can be fitted in-situ to the dry side of the RSW handling equipment and pipework without the drilling or welding associated with impressed-current or dosing systems. Once installed, there's no regular maintenance to replace costly anodes."

Sonihull's ultrasound transducers have been approved for use in Zone 0 and the control box has been certified for use in Zone 1 and Zone 2 applications, if fitted in a separate cabinet.

The system is claimed to be easy to install, as the ultrasound transducers are bonded to the dry-side of the RSW handling equipment or pipework. This removes the need for any drilling or welding, and the requirement for extra class surveys, pressure-testing and documentation.

With simple installation and no expensive anodes to replace, a Sonihull system can reduce capital and MRO costs by up to 95%, compared to similar impressed-current anti-fouling systems. Sonihull will also reduce maintenance costs, extend maintenance intervals and can facilitate quick mothballing and re-activation without the need to drydock. ■

First Centrica Dominion Cove cargo shipped

Centrica has loaded its first LNG cargo at Energy's Cove Point export terminal in Maryland under a long term contract, a company trading official said at an energy forum in Brussels.

This contract was part of a swap agreement Centrica signed with Cove Point offtaker Tokyo Gas in 2016, S&P Platts reported.

During a presentation at a US-EU Energy Council forum webcast, Jonathan Westby, co-managing director of Centrica's energy marketing and trading unit, said the first cargo from Cove Point, subject to the arrangement with Tokyo Gas, was recently loaded.

The facility, which is designed to produce up to 750 mill cu ft per day of LNG, operates a tolling model, under which the buyer of the LNG is responsible for securing its own feedgas and deciding where the cargoes are to be delivered.

S&P Global Platts Analytics estimated that as much as 60%-80% of US LNG was either swapped or sold on spot/short-term tender in 2018.

Dominion has long-term offtake contracts with Gail, India and a joint venture involving Japan's Sumitomo and Tokyo Gas. ■

Kathleen Eisbrenner

It is with deep regret that *LNG Shipping News* has to report the passing of Kathleen Eisbrenner at the age of 58.

Eisbrenner was the founder and chairwoman of the board of Houston LNG-based NextDecade.

NextDecade confirmed Eisbrenner's death in a statement released last week.

"It is with great sorrow that we announce the untimely passing of our friend and colleague," said Matthew Schatzman, NextDecade President and CEO. "Kathleen was a true energy industry pioneer. We at NextDecade are grateful for her foresight and leadership, without which we would not be where we are today."

Eisbrenner founded NextDecade in 2010 and led the company to its listing on the Nasdaq Stock Exchange in July, 2017. She jointly served as board chair and CEO until February, 2018 and remained as NextDecade's board chair until her death.

She was previously an executive vice president with Royal Dutch Shell, where she oversaw the company's global LNG portfolio and trading business.

Prior to Shell, Eisbrenner founded Excelerate Energy and served as its CEO.

Kathleen Eisbrenner

She was also an independent director of EXMAR and a member of the American Bureau of Shipping and JERA's fuel business expert advisory board, among other interests. ■

NEWS NUDGE

New orders announced

Samsung Heavy Industries (SHI) has received a $190 mill order from an undisclosed interest for a 174,000 cu m LNGC, according to a recent regulatory filing.

The South Korean shipbuilder is scheduled to deliver the LNGC by March, 2022 to an Oceania-based shipowner. The name of the company was not disclosed, due to confidentiality reasons, Samsung said.

So far this year, SHI has won orders to build eight LNGCs and one FSRU, which totalled a combined $2.6 bill of orders.

Elsewhere, Daewoo Shipbuilding & Marine Engineering (DSME) confirmed this week that it had received an order to build a LNGC for an Oceania region owner.

The LNGC will be built at Okpo and will be delivered by the second half of 2021, the company said in a statement.

On 14th May, Mitsubishi Shipbuilding held a christening ceremony for another Sayaringo STaGE type LNGC, ''Bushu Maru', being built for a joint venture between JERA and NYK.

Flex LNG files US SEC registration

FLEX LNG has publicly filed a registration statement on Form 20-F with the US Securities and Exchange Commission (SEC).

This relates to the proposed listing of its ordinary shares on the New York Stock Exchange (NYSE).

No new securities will be issued in connection with the listing, which is expected to commence after the SEC completes its review process.

Following the listing, the company's ordinary shares will be listed for trading on both the NYSE and the Oslo Stock Exchange. ■

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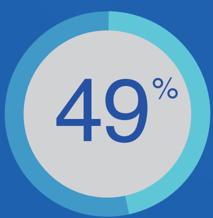

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WORLD LNG CARRIER ORDERBOOK

Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
JMU	SPB	165000	TFDE	Apr-19	Feb-14	MOL
JMU	SPB	165000	TFDE	Jul-19	Feb-14	MOL
JMU	SPB	165000	TFDE	Apr-19	Feb-14	NYK
DSME	GT NO 96	173400	MEGI	May-19	Jun-14	Maran Gas Maritime
DSME	GT NO 96	172000	TFDE - Azipod	Jul-19	Jul-14	Teekay LNG
DSME	GT NO 96	172000	TFDE - Azipod	Aug-19	Jul-14	Teekay LNG
DSME	GT NO 96	172000	TFDE - Azipod	Oct-19	Jul-14	Teekay LNG
DSME	GT NO 96	172000	TFDE - Azipod	Nov-19	Jul-14	Teekay LNG
DSME	GT NO 96	172410	TFDE - Azipod	Sep-19	Jul-14	MOL
Kawasaki	Moss	155000	TFDE	Dec-19	Sep-14	MOL
DSME	GT NO 96	173400	MEGI	Apr-19	Nov-14	BP
Mitsubishi H.I.	Moss	177000	STaGE	Sep-19	Jan-15	MOL
DSME	GT NO 96	173400	MEGI	Sept-19	Sep-15	BWGas
Kawasaki	Moss	177000	STRH	Jul-19	Sep-15	MOL
Mitsubishi H.I.	Moss	165000	STaGE	May-19	Nov-15	Mitsubishi
Mitsubishi H.I.	Moss	180000	STaGE	Jun-19	Nov-15	NYK
Mitsubishi H.I.	Moss	180000	STaGE	Feb-19	Nov-15	NYK
Hyundai Heavy	GTT Mark III Flex	180000	XDF	Apr-19	May-16	SK Shipping
Hyundai Heavy	GTT Mark III Flex	180000	XDF	May-19	May-16	SK Shipping
DSME	GT NO 96	173400	MEGI	Oct-19	Jun-16	Maran Gas Maritime
DSME	GT NO 96	173400	MEGI	Nov-19	Jun-16	Maran Gas Maritime
DSME	GT NO 96	173400	MEGI	Apr-20	Dec-16	Maran Gas Maritime
Hyundai Heavy	GTT Mark III Flex	180000	MEGI	May-19	Mar-17	Knutsen
DSME	GT NO 96	173400	MEGI	Jun-19	Mar-17	Flex LNG
DSME	GT NO 96	173400	MEGI	Aug-19	Mar-17	Flex LNG
Hyundai Heavy	GTT Mark III Flex	180000	MEGI	Jun-19	May-17	Knutsen
Hudong-Zhonghua	GT NO 96	174000	MEGI	Dec-19	Jul-17	MOL
Hudong-Zhonghua	GT NO 96	174000	MEGI	Mar-20	Jul-17	MOL
Hudong-Zhonghua	GT NO 96	174000	MEGI	Jul-20	Jul-17	MOL
Hudong-Zhonghua	GT NO 96	174000	MEGI	Oct-20	Jul-17	MOL
Samsung	GTT Mark III Flex	180000	XDF	Jun-19	Dec-17	GasLog
DSME	GT NO 96	173400	MEGI	May-20	Dec-17	Maran Gas Maritime
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Mar-20	Jan-18	NYK
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jan-20	Jan-18	Cardiff Marine
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Feb-20	Jan-18	Sovcomflot
DSME	GT NO 96	173400	MEGI	Dec-19	Feb-18	BWGas
DSME	GT NO 96	173400	MEGI	Jun-20	Feb-18	BWGas
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Mar-20	Feb-18	Cardiff Marine
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Apr-20	Feb-18	Cardiff Marine
DSME	GT NO 96	173400	MEGI	Aug-20	Feb-18	John Fredriksen
DSME	GT NO 96	173400	MEGI	Sep-20	Feb-18	John Fredriksen
Hyundai Heavy	GTT Mark III Flex	174000	XDF	May-20	Mar-18	Flex LNG
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jul-20	Mar-18	Flex LNG
Samsung	GTT Mark III Flex	180000	XDF	Apr-20	Mar-18	GasLog

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 = 4th April 2019

Fearnley LNG

Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Samsung	GTT Mark III Flex	174000	XDF	Mar-20	Mar-18	Cardiff Marine
DSME	GT NO 96	173400	MEGI	Dec-20	Mar-18	Minerva Marine
DSME	GT NO 96	173400	MEGI	Jan-21	Mar-18	Minerva Marine
Hyundai Heavy	GTT Mark III Flex	180000	MEGI	Jun-20	Mar-18	Knutsen
DSME	GT NO 96	173400	MEGI	Aug-20	Mar-18	Alpha Gas
DSME	GT NO 96	173400	MEGI	Dec-20	Mar-18	Alpha Gas
Samsung	GTT Mark III Flex	180000	XDF	Sep-20	May-18	GasLog
DSME	GT NO 96	173400	MEGI	Oct-20	Jun-18	Maran Gas Maritime
DSME	GT NO 96	173400	TFDE	Apr-21	Jun-18	Maran Gas Maritime
DSME	GT NO 96	173400	MEGI	Apr-21	Jun-18	Alpha Gas
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Sep-20	Jun-18	Thenamaris
Hyundai Heavy	GTT Mark III Flex	174000		Feb-21	Jun-18	Flex LNG
Hyundai Heavy	GTT Mark III Flex	174000		May-21	Jun-18	Flex LNG
Hyundai Heavy	GTT Mark III Flex	174000		Oct-20	Jul-18	Capital Gas
Hyundai Heavy	GTT Mark III Flex	174000		Nov-20	Jul-18	Capital Gas
Hyundai Heavy	GTT Mark III Flex	174000		Mar-21	Jul-18	Capital Gas
Hyundai Heavy	GTT Mark III Flex	174000		Jun-21	Jul-18	Capital Gas
DSME	GT NO 96	173400	MEGI	Nov-20	Jul-18	John Fredriksen
Samsung	GTT Mark III Flex	180000	XDF	Dec-20	Aug-18	Celsius Shipping
Samsung	GTT Mark III Flex	180000	XDF	Mar-21	Aug-18	Celsius Shipping
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Sep-20	Aug-18	Cardiff Marine
Samsung	GTT Mark III Flex	174000	XDF	Oct-20	Aug-18	GasLog
Samsung	GTT Mark III Flex	174000	XDF	Dec-20	Aug-18	GasLog
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Feb-21	Sep-18	Cardiff Marine
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Feb-21	Sep-18	Thenamaris
Samsung	GTT Mark III Flex	174000	XDF	Mar-21	Sep-18	NYK
Samsung	GTT Mark III Flex	174000	XDF	Jan-21	Oct-18	Minerva Marine
Samsung	GTT Mark III Flex	174000	XDF	Sep-21	Oct-18	Minerva Marine
Samsung	GTT Mark III Flex	174000	XDF	Feb-21	Nov-18	Cardiff Marine
Samsung	GTT Mark III Flex	174000	XDF	Jan-21	Nov-18	Cardiff Marine
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Mar-21	Nov-18	Cardiff Marine
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Apr-21	Nov-18	Cardiff Marine
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Feb-21	Nov-18	Latsco Shipping
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Mar-21	Nov-18	Latsco Shipping
Samsung	GTT Mark III Flex	174000	XDF	Aug-21	Dec-18	NYK
Samsung	GTT Mark III Flex	174000	XDF	Nov-21	Dec-18	NYK
DSME	GT NO 96	174000	MEGI	Feb-21	Dec-18	BWGas
DSME	GT NO 96	174000	MEGI	Jun-21	Dec-18	BWGas
DSME	GT NO 96	173400	MEGI	Jun-21	Dec-18	Maran Gas Maritime
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Nov-20	Dec-18	NYK
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Mar-21	Dec-18	NYK
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-21	Dec-18	NYK
DSME	GT NO 96	180000	MEGI	Dec-20	Dec-18	MOL
DSME	GT NO 96	173400	MEGI	Jun-21	Dec-18	MOL
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Sep-20	Dec-18	Sovcomflot

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 = 4th April 2019

Fearnley LNG

Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Feb-21	Dec-18	Sovcomflot
Samsung	GTT Mark III Flex	180000	XDF	Jun-21	Dec-18	GasLog
Samsung	GTT Mark III Flex	180000	XDF	Aug-21	Dec-18	GasLog
Samsung	GTT Mark III Flex	174000	XDF	Mar-21	Dec-18	Cardiff Marine
DSME	GT NO 96	174000	MEGI	Jun-21	Dec-18	Alpha Gas
Samsung	GTT Mark III Flex	174000	XDF	Mar-21	Dec-18	Navigare
Samsung	GTT Mark III Flex	180000	XDF	Jun-21	Feb-19	Celsius Shipping
Samsung	GTT Mark III Flex	180000	XDF	Sep-21	Feb-19	Celsius Shipping
Hudong-Zhonghua	GT NO 96	178000	XDF	Sep-21	Feb-19	CSSC
Hudong-Zhonghua	GT NO 96	178000	XDF	Feb-22	Feb-19	CSSC
DSME	GTT Mark III Flex	174000	MEGI	May-21		Nakilat
Samsung		174000		Sep-22		Sinokor
Samsung		174000		Sep-22		Sinokor
Samsung		174000		Sep-22		Sinokor
Samsung		174000		Sep-22		Sinokor
DSME	GTT Mark III Flex	173400	XDF	Aug-21		Nakilat
DSME	GTT Mark III Flex	173400	XDF	Oct-21		Nakilat
Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-21		Capital Gas
Samsung		174000		Mar-22		Nisshin Shipping

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 = 4th April 2019

Fearnley LNG

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	Aman Hakata	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	Norgas Creation	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2010	Norgas Innovation	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Akebono Maru	3,556	LNG	Japan	Yes	Chuo Kaiun
2011	Norgas Conception	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Norgas Invention	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
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
2014	LNG-Oil combi**	2,000	LNG	Germany	Yes	Veka
2014	Short Sea LNG Tanker **	4,000	LNG	Germany	Yes	Veka
2015	LNG Inland bunker**	800	LNG	Germany	Yes	Veka
2015	LNG bunker barge 1†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG bunker barge 2†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG bunker barge 3†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	10 small carriers TBN**	5,000	LNG			Bimantara Group
2015	Jahre TBN**	6,200	LNG	Norway	Yes	Donsotank/Jahre Marine
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
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	TBN 1	27,500	LNG	China?		Danyang?
2015	TBN 2	27,500	LNG	China?		Danyang?
2015	TBN 3	27,500	LNG	China?		Danyang?
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 Innvovation	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)
2016	Navigator Aurora	35,000	Ethane/Ethylene	Markus Hood - Stenungsund	Ethane, for Borealis	Navigator
2016	Gaschem Beluga	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2016	Gaschem Orca	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services

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 = 4th March 2019

Small-LNG.com

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2016	Ocean Yield TBN**	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2017	Oizmendi	600	LNG	Bilbao	Yes	Itsas Gas
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
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
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 EnergICE	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	Yuan He 1	30,000	LNG	China	Yes	CSR
2017	Navigator Eclipse	35,000	Ethane/Ethylene	US	Ethane	Navigator
2017	Navigator Nova	35,000	Ethane/Ethylene	US	Ethane	Navigator
2017	Navigator Prominence	35,000	Ethane/Ethylene	US	Ethane	Navigator
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2018	CME TBN†	2,200	LNG	US Coast	Yes	CME
2018	Shell Bunker Barge TBN 4	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	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
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
2020	Shell Bunker Barge	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	Total TBN	18,600	LNG	NWE	Yes	MOL
2020	FuelLNG TBN	7,500	LNG	Singapore	Yes	FuelLNG
2020	CLS TBN	3,500	LNG	Japan	Yes	CLS
2020	Eesti Gaas TBN	6,000	LNG	NWE	Yes	Eesti Gaas
2020	ENN TBN	8,500	LNG	China	Yes	ENN
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
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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