

LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

11 June 2020

LNG regasification and liquefaction growth hit

China and the US are expected to lead capacity growth in the global LNG liquefaction and regasification sectors.

This forecast was made by analysing planned and announced (newbuilding) projects between 2020 and 2024, by data and analytics company, GlobalData.

GlobalData's report, 'Global LNG Industry Outlook to 2024 - Capacity and Capital Expenditure Outlook with Details of All Operating and Planned Terminals', revealed that China leads in terms of regasification capacity growth from planned and announced projects with 2.9 trill cu ft of capacity expected to come online by 2024.

Adithya Rekha, GlobalData Oil and Gas Analyst, explained: "Out of the 2.9 trill cu ft of regasification capacity expected to come online in China, planned projects that have received the required approvals for development account for 2.2 trill while the remaining 0.7 trill could come from early-stage announced projects that are yet to receive any approvals for development."

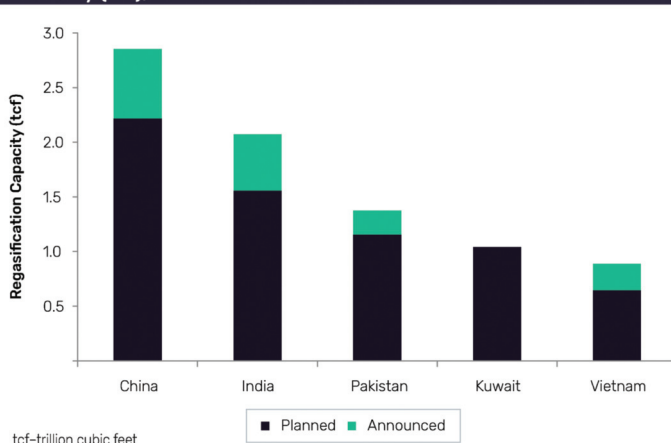
India second

India and Pakistan follow with regasification capacities of 2.1 trill cu ft and 1.4 trill, respectively, by 2024.

In terms of liquefaction capacity growth during the period, the US will lead with 131 mill tonnes per annum by 2024, the report said.

After the US, Russia and Mexico rank second and third, with liquefaction capacity additions of 31.2 mill tonnes and 11.7 mill tonnes, respectively, from newbuild liquefaction projects by 2024.

Planned and Announced Regasification Capacity Additions by Key Countries in Global LNG Industry (tcf), 2020-2024



Source: GlobalData, Oil and Gas Intelligence Center

In terms of the largest planned regasification terminals by capacity, Kuwait's Al-Zour regasification terminal is the highest with a capacity of 1.2 trill cu ft. This terminal is expected to come online by 2021.

As for the liquefaction terminals, US-based Rio Grande leads with a capacity of 17.6 mill tonnes per annum. It is expected to start operations in 2024, GlobalData's report showed, despite delaying FID until next year.

MENA situation

Turning to the Middle East and Africa (MENA), reduced demand due to economic slowdown, fuelled by the COVID-19 outbreak, has led to long-term LNG supply contract cancellations and cargo deferments by importing countries.

This has resulted in low liquefaction capacity utilisation, which in turn may lead companies to withhold or delay their capital spends on upcoming large gas projects, GlobalData, said.

For example, the bidding process of Qatar Petroleum's Ras Laffan-North Field expansion project start was delayed by a few months. The financial investment decision

(FID), which was expected this year, is also likely to be pushed back to 2021. Similarly, the start of the Rovuma LNG project, operated by Mozambique Rovuma Venture SpA, could be delayed by a year, as it has deferred FID by 12 months.

Active terminals are also being hit by challenges induced by COVID-19. The Egyptian LNG terminal has suspended work until mid-July 2020 given the current market conditions, while the deal to revive the Damietta terminal has fallen through.

In the US, failure to secure a long-term buyer commitment for the Driftwood project, Tellurian Investments is likely to delay FID by nearly two years. Similarly, Pieridae Energy, which is delaying FID on the Goldboro project from 3Q20 to 2Q21 is likely to push back the start of the project by a year to 2025.

Shell has also pulled out of the Lake Charles project, owned and operated by Energy Transfer. In the absence of a replacement, FID may get delayed and the project start year is likely to be deferred by around two years to 2027, GlobalData said.

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Golden Pass expansion plans

The US Federal Energy Regulatory Commission (FERC) has received an application from Golden Pass LNG Terminal for permission to increase its production capacity.

The project's stakeholders want to increase the export volume from 15.6 mill tonnes per annum to 18.1 mill tonnes, and from 740 bill cu ft per year to 937 bill.

Comments must be received by 18th June, FERC said.

Golden Pass claimed that this increase does not involve any equipment changes or environ-

mental permit adjustments but will be achieved by production efficiencies.

Construction started on the three-train project during the middle of last year and the sponsors claimed that it was on schedule to start up the first liquefaction train in 2024. Train 2 is expected to follow six-to-eight months later,

while Train 3 another six-to-eight months later.

Golden Pass is owned by subsidiaries of ExxonMobil (30%) and Qatar Petroleum (70%).

McDermott, Chiyoda Corp and Zachry Group are involved in building the project.

In addition, Siemens Gas and Power was recently awarded a contract from CCZ JV (a joint venture between Chiyoda International Corp, McDermott and Zachry Group) to supply three cryogenic boil-off gas (BOG) compressor trains for the export terminal.

Siemens' will cover the engineering, manufacturing, and testing of the three, single-shaft centrifugal BOG compression packages, along with all installation and commissioning activities. Each of the compressor packages will be driven by a 6.8 MW electric motor. Manufacturing, testing, and

packaging will take place in Duisburg, Germany.

The project scope also includes a frame agreement to supply all low-voltage electric motors and electric variable speed drives (1 - 200 hp) and all medium-voltage (250 - 1,500 hp) electric motors.

Siemens Gas and Power will also provide steam turbine generator sets for the export terminal.

"With 90% global market share and a fleet that has accumulated more than 4.2 mill hours of service, Siemens Gas and Power is a worldwide leader in cryogenic boil-off gas compression," claimed Matthew Russell, the company's LNG Executive Vice President. "We believe our expertise in the design and manufacturing of BOG compressors, along with our strong presence in the LNG market, played an integral role in securing the Golden Pass compression contract."



FERC has received a request from Golden Pass to increase production

SAGA LNG signs mid-size newbuildings MOU

Singapore-based Saga LNG Shipping and Indian concern, Venerable LNG signed a Memorandum of Understanding (MoU) on 26th May, 2020 to ship LNG to a terminal and infrastructure project.

Under development by VLNG, this project will target new end consumers from different storage hubs in the Eastern part of India.

Due to the Bay of Bengal's shallow coastline, Saga LNG will provide one or more of its LNT45-S design LNGCs. The 45,000 cu m newbuildings will feature a patented LNT A-BOX containment system, with no restrictions on partial loading, and they will have a fully laden draft of 7.8 m.

"Now that 'Saga Dawn' is successfully trading, we redouble our efforts on developing new projects to grow our fleet of small to mid-sized vessels. We believe the market needs more innovative projects like the one VLNG is developing and we are very pleased to contribute to this exciting project by providing an optimised shipping solution." David Wu, Saga LNG Shipping founder and CEO said.

"We at VLNG have a strong belief that tapping into the regions latent gas demand needs innovation in terms of strategy and implementation. We are excited to see the progress of Saga LNG in providing custom made supply solutions to draft limited ports, a necessity in order to access the distributed demand centres without dependence on third party infrastructure. We look forward to jointly working with

them to open up newer geographies for LNG supply." Mayank Garg, Managing Director of VLNG added.

VLNG is an energy company developing what it calls a sustainable small-mid scale LNG market in South Asia. With LNG supply chains in place, the company is targeting the non-traditional demand sectors for LNG, such as the Virtual LNG pipeline network in India.

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LNG finally agrees Magnolia sale

On 25th May, Liquefied Natural Gas Limited (LNG) confirmed that it had terminated a binding sales agreement with Global Energy Megatrend Limited (GEM) Limited.

This was due to GEM's failure to close the transaction within the required timeframe.

LNG then resold its interests in the US entities to Magnolia LNG Holdings for a cash price of \$2 mill. This sale was signed and closed a day later.

Magnolia LNG Holdings is a recently formed subsidiary of the Glenfarne Group.

"Magnolia LNG is a well-known and high-quality project to which Glenfarne brings its funding, marketing, development and construction expertise to take it to final investment decision (FID), and then

construct and operate the asset," said Brendan Duval, Glenfarne Founder and Managing Partner. "We believe in the essential role that natural gas plays in the transition to a lower carbon world. The facility will provide clean, low-cost and reliable energy globally, and we are proud to support this critical infrastructure project."

Glenfarne has two operating subsidiaries: Alder Midstream, which focuses on building, owning and operating midstream assets in the investment-grade Americas, and EnfraGen, a developer, owner and operator of specialist power

generation assets.

This acquisition increases Glenfarne's LNG export capacity to around 12 mill tonnes per annum, 4 mill tonnes of which comes from Texas LNG Brownsville, a late-stage LNG export development project in Brownsville, Texas for which Alder Midstream is the majority owner and managing member.

As part of the transaction, LNG and Magnolia have also agreed to work together (on a non-exclusive basis) on a potential re-capitalisation proposal for the company.

The US entities included in the sale are the proposed LNG termi-

nal development in Lake Charles, Louisiana, including Pecan Inc (and its subsidiaries), LNG Management Services and LNG Technology.

However, it does not include LNG's interest in the business and assets of the Bear Head LNG project, situated in Nova Scotia, Canada, which remain owned by entities controlled by the company.

While the company's patented optimised single mixed refrigerant (OSMR) liquefaction process technology will be sold as part of the Magnolia transaction, the Bear Head project will retain a perpetual licence to use the technology. ■

South Korean yards to benefit from Qatar orders

Following a recent agreement signed with Hudong to build LNGCs, Qatar Petroleum (QP) has now reserved newbuilding slots for more than 100 vessels with three South Korean shipyards.

By signing both accords, QP is attempting to secure about 60% of the world's LNGC shipbuilding capacity to 2027, analysts said.

Under the latest agreement, Daewoo Shipbuilding & Marine Engineering (DSME), Hyundai Heavy Industries (HHI) and Samsung Heavy Industries (SHI) will reserve a large part of their LNGC ship construction capacity in a deal, which could be worth up to QR70 bill (about \$20 bill), depending on how many ships are ordered.

"The signing of the agreements with the three esteemed Korean companies reflects our commitment to the North Field expansion projects, even during these extraordinary times," explained HE Saad Sheriba Al-Kaabi, Qatari Minister of State for Energy Affairs and President and CEO of QP at the virtual signing ceremony. "As I have previously stated, we are moving full steam ahead with the North Field expansion projects to raise Qatar's LNG production capacity from 77 mill today to 126

mill tonnes per annum by 2027 to ensure the reliable supply of additional clean energy to the world at a time when investments to meet these requirements are most needed."

The newbuildings will be equipped with the latest slow speed dual-fuel engines, utilising LNG as a fuel. They are intended for use, both to meet the company's expansion plans of its local North Field and international LNG projects, particularly in the US, as well as replacing some of Qatar's existing LNGCs.

Last month, QP announced that it would be reducing its capital and operating expenses by 30%. Further, Al-Kaabi was reported as saying that he expected it will take up to two years for demand to return to the levels experienced before the COVID-19 virus spread.

In April, QP signed an agreement with CSSC subsidiary, Hudong-Zhonghua to build up to 16 x 174,000 cu m LNGCs through 2027. ■

InfraStrata to take over UK FSRU project

InfraStrata has entered into a term sheet aimed at acquiring Meridian Holdings, which in turn will give it access to a UK FSRU project.

If the project is finalised, the FSRU will be located off Barrow-in-Furness, northwest England.

However, the purchase is still subject to a final investment decision (FID) being taken.

If completed, this will be the UK's first FSRU to be developed and commercialised. Given that more than 30% of the UK's natural gas supplies arrive as LNG shipments, the project is ideally positioned to take advantage of LNG arriving in the UK and seeking storage and regasification, InfraStrata said.

The project's estimated CAPEX will be around £350 mill - £450 mill with further CAPEX optimisation planned through value engineering. The FSRU's CAPEX is expected to be funded by a consortium of partners put together at the project level.

At a forecast capacity of about 5-6 mill tonnes per annum, the FSRU would add to the UK's security of gas supply, the company claimed.

John Wood, InfraStrata CEO, commented: "This is the culmination of many months of hard work by the InfraStrata team. The continued traction that we have been

receiving from global players within the LNG markets since the day we announced the exclusivity agreement last year, validates our belief that this FSRU project is strategic and crucial to the UK's future natural gas supplies.

"As we move towards a more de-carbonised economy, natural gas will be the transitional fuel of choice, with LNG playing the all-important role of balancing natural gas and power markets by acting as baseload feedstock for power generation, on the one hand, and providing peak shaving capabilities on the other.

"The intermittency of power generation from wind and solar means natural gas will continue to be the fuel of choice for at least the next few decades. We, therefore, continue to remain focused on energy infrastructure projects like the FSRU project, which have a long life, robust economics and provide security of energy supply to the UK whilst casting our eye on future scenarios involving the likes of hydrogen and other new technologies," he said. ■



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TOWAGE

Brazilian LNG port joins Green Award

Pecém has become the first Brazilian port to become a Green Award incentive provider.

On 5th June, commemorating the UN World Environment Day 2020, Pecém joined the Green Award network.

As a result, the port now offers up to 10% discount on the utilisation

rate of the berthing facilities by ships holding a Green certificate.

As well as handling other ship types, Pecém boasts the first flexible LNG regasification terminal built in Brazil, capable of transfer-

ring up to 7 mill cu m per day of natural gas to the Guamaré-Pecém gas Pipeline (Gasfor). The terminal is operated by Petrobras and the LNG is mainly supplied to the Ceará and Fortaleza thermal power plants.

"Pecém joining Green Award shows their commit to support the continual improvement in shipping safety, environmental protection and crew protection on board. All these topics are more important than ever at this present time and we need to tackle this together. From the global outreach of Ceara, Brazil and Green Award have, we believe we can make an impact," said Jan Fransen, Green Award Foundation's Executive Director.

"As we celebrate World Environment Day on 5th of June, the Port of Pecém is immensely proud to take part of the Green Award

network of ports, providing incentives to Green Award certified vessels. Pecém is committed to environmentally sustainable practices and today it is amongst Brazil's top five ports in the so called 'Environmental Performance Index' (IDA, in Portuguese), which is used by the Brazil's ports regulator Antaq, to monitor environmental management at Brazilian ports.

"Pecém would like to encourage shipping lines to invest more and more in sustainable ships, as well as encourage other Brazilian ports to offer similar incentives and to participate in the Green Award network, so that together, we can have a larger positive impact in sustainable waterborne transportation," Duna Uribe, Executive Commercial Director, Port of Pecém, added. ■



Pecém has joined the Green Award

Cyprus LNG terminal tenders revealed

The Cyprus Natural Gas Infrastructure Company (ETYFA) has announced that tender submissions for the the engineering team to develop the infrastructure to import LNG were finalised on 21st May.

Eight proposals were received, which will be evaluated. They were:

- 1) Consortium involving MITAS Generators, KELBERRY Joint Venture (MKJV), MT Milan Tractor.
 - 2) ABAMBA - EPCM Consultants SA (Pty), Global Maritime Consultancy & iX Engineers.
 - 3) Joint Venture involving Lloyd's Register, Sofregaz, Rogan Associates.
 - 4) Consortium involving Hill International, Bureau Veritas Solutions Marine & Offshore.
 - 5) RINA Consulting.
 - 6) Technip E&C (TECL).
 - 7) DNV GL.
 - 8) AMEC Foster Wheeler Iberia.
- The evaluation process will be completed as soon as possible to select the team to oversee the project's construction.

"The interest in the tender process for the supervision of the construction of the infrastructure for the introduction of LNG to Cyprus, as well as the great interest expressed for this important energy project, completely satisfies ETYFA and highlights both the high standard of the project, as well as the participants' confidence in the procedures followed," said Dr Symeon Kassianides, ETYFA President.

The LNG terminal will include an FSRU, a pier to moor the floating unit and a pipeline, plus other relevant infrastructure. Co-financing has been secured from the EU and the financial programme for the Connecting Europe Facility (CEF).

It is known that Höegh LNG is in the frame for the supply of the FSRU. ■

NEWS NUDGE

Nakilat takes over another Q-Flex

Nakilat assumed full shipmanagement and operations of the Q-Flex LNGC 'Al Kharaitiyat' from Shell Trading and Shipping on 27th May.

This formed part of the second phase of the Qatar company's planned fleet management transition programme (see LNG Shipping News, 28th May, page 5).

The 216,300 cu m LNGC is wholly-owned by Nakilat and chartered by Qatargas and was delivered by Hyundai Heavy Industries in June, 2009.



'Al Kharaitiyat'

She was the second vessel to come under the management of Nakilat Shipping Qatar (NSQL) this year, in the second phase transition, bringing the total number of vessels managed by NSQL to 20, comprising of 16 LNGCs and 4 LPG carriers.

Cameroon to ramp up FLNG production

Cameroon's National Hydrocarbons Corp and its partner Perenco Cameroon have reportedly said that they have started talks with Golar and Gazprom to increase LNG production.

Negotiations are underway for the FLNG 'Hilli Episeyo', stationed offshore, to remain after the initial contract period ends in order to exploit gas from Rio Del Rey in the southwestern part of the country.

Cameroon started processing and exporting LNG in early 2018, using Golar Power's converted FLNG. ■

Svitzer extends Egyptian LNG towage operations

Major towage company, Svitzer has secured a five-year extension to its current contract with Egyptian LNG.

Another contract was signed with Nacala Logistics.

This contract involves assistance to the land-based Idku LNG plant by using four tugs, two mooring boats and a pilot boat.

Last year, Svitzer also secured a 10-year contract, its second in Egypt, with the Suez Canal Authority and managed to start up within nine months of the contract's signing.

With its global network, a strong presence on the African continent and years of expertise

and experience, Svitzer claimed that it was able to offer solutions tailored to local conditions and customer needs in Africa.

Nicolai Vinther Friis, Managing Director of the AMEA region for Svitzer, commented: "We see great potential and opportunities on the African continent and I am therefore very pleased that we succeeded in securing the contracts with Nacala Logistics and Egyptian LNG.

"We have had close collaboration and strong relations with both

Nacala Logistics and Egyptian LNG and the contracts are of great strategic importance to us and will support our efforts and ambitions to further strengthen our presence and operations on the continent," he said.

A key priority for Svitzer is to ensure that its operations contribute to growth and prosperity in the communities in which Svitzer operates - meaning investing in local communities by providing training and professional development for members of the local workforce.

Friis added: "We understand that with size and scale comes responsibility; responsibility to all those we engage with, especially our employees and customers. We therefore go to great lengths to ensure that our operations bring jobs and long-term prosperity to the communities in which we operate."

In Africa, Svitzer is now operating in Egypt, Angola, Morocco, Liberia and Mozambique. ■



Svitzer has won an extension to its Idku terminal service contract

Zhoushan to have third terminal

Sinopec has signed a contract with Zhoushan provincial government to build a Y20 bill (\$2.79 bill) LNG terminal.

According to a provincial government announcement, the project, which will be jointly constructed and operated by a local government-backed company, will have an annual LNG receiving capacity of 15 mill tonnes.

Once built, it will become the third LNG terminal in the eastern Chinese port city.

The first phase will include two jetties, four 220,000 cu m LNG storage tanks and ancillary

facilities, which will be able to handle 7 mill tonnes of gas per year.

Construction is expected to begin in the first half of next year and operations are due to start in 2024, the government statement said.

Zhoushan currently has one LNG terminal in operation owned by ENN Energy Holding. This has an LNG processing capacity of 3 mill tonnes per year, which will be

expanded to 5 mill tonnes in the first half of 2021.

Zhejiang Energy Group, together with local government and Shenzhen Energy Gas Investing Holding, is also building a 12 mill tonne LNG receiving terminal at Zhoushan.

The first phase of this terminal, with an annual receiving capacity of 6 mill tonnes, is expected to come on stream in 2023. ■

US receives LNG imports again

The LNGC 'Kinisis' arrived at Dominion Energy's Cove Point LNG plant in Maryland on 6th June loaded with Trinidad LNG.

Some energy firms are willing to send cargoes to the US, as European inventories were filling up.

Another LNGC, 'Madrid Spirit', is sailing across the Atlantic from Nigeria and may also discharge her cargo in the US, Reuters said.

Price declines have allowed US gas futures to trade at a premium over major European benchmarks for the first time in a decade in late April.

With gas more expensive in the US than Europe where stockpiles are expected to be full by the end of this summer, US LNG buyers cancelled dozens of cargoes for June and July and analysts thought that it made sense for some energy firms to send LNG to the US for storage.

There were 21 LNG deliveries to the US last year, mostly from Trinidad, while the country exported more than 500 cargoes.

However, European gas prices have soared around 60% since the start of June after falling to record lows in late May, making gas in Europe more expensive than the US again.

Energy traders talking with Reuters said they expected LNG buyers to cancel more US cargoes this summer but not as many as previously thought, following the spike in European gas prices. ■

NEWS NUDGE

Novatek orders two LNG transshipment barges

Daewoo Shipbuilding & Marine Engineering (DSME) has won an order to build two large LNG barges for Russian gas producer

Novatek.

DSME will build the two LNG barges for about Won901.3 bill (\$748.2 mill) with an option for another two units.

The floating storage and trans-

shipment barges will serve Novatek's planned projects in Murmansk and Kamchatka that will be developed in co-operation with Japan's Mitsui OSK Lines (MOL).

Once built, they will tranship

Yamal and Arctic 2 LNG from ice-breaking LNGCs to conventional gas ships.

DSME said that it expects to deliver the two LNG barges by the end of 2022. ■

Golar LNG sees operating income plummet

Golar has reported a severe drop in its operating income to \$21.2 mill for the first quarter of this year, compared to \$68.9 mill recorded in 4Q19.

Total operating revenues also fell from \$139 mill in 4Q19 to \$122.6 mill in 1Q20, while voyage, charter hire and commission expenses increased from \$2.3 mill to \$4.8 mill.

Operating revenues declined, despite the improvement in vessel utilisation from 90% in 4Q19 to 94% in 1Q20.

This decrease was due to seasonally lower spot rates, which reduced the daily rate achieved in Golar's index linked charters, and also as 'Golar Viking', on hire for most of the previous quarter, entered Hudong shipyard in January to be converted into an FSRU.

Costs associated with positioning the vessel to the yard, which were not capitalisable, accounted for most of the \$2.5 mill increase in voyage, charter hire and commission expenses.

Revenues from vessel and other operations, including management fee income, were \$68 mill, while, net of voyage, charter hire and commission expenses, decreased

by \$19 mill to \$63.2 million in 1Q20.

Increases in US LNG supply combined with a mild winter contributed to a counter-cyclical drop in gas and LNG prices, Golar explained. Covid-19 lockdowns in the Far East during February and in Europe in March exacerbated this negative trend.

By mid-March 2020, quoted carrier headline spot rates had fallen to near \$100,000 per day from their height in October, 2019, negatively impacting earnings from the company's LNGCs on index linked charters.

Strategy change

Golar's strategy of increased charter coverage for 1Q20 versus 1Q19 offset part of the softening in spot LNG freight rates. As a result, full fleet TCE earnings decreased from \$77,000 per day in 4Q19 to \$61,900 in 1Q20, but increased relative to the \$39,300 per day achieved in 1Q19.

FLNG 'Hilli Episeyo' generated

operating revenues of \$54.5 mill, including base tolling fees and amortisation of pre-acceptance amounts recognised.

Iain Ross, Golar LNG CEO, said: "Golar is pleased to report Q1 operating revenues of \$122.6 mill and adjusted EBITDA of \$76.2 mill, that were driven by a solid performance in FLNG, with 100% commercial uptime on 'Hilli Episeyo', and strong seasonal results in shipping, which delivered a Q1 TCE of \$62,000 per day, a 57% increase on the \$39,300 achieved in 1Q19.

"In Golar Power, the 1.5 GW Sergipe power plant in Brazil reached its COD acceptance milestone, which triggered commencement of earnings under the 25-year PPA contract and associated FSRU 'Golar Nanook' charter. The first three small-scale customers have also now been formally signed up and LNG distribution operations are expected to start in 2021. This short time to cash flow and the very

strong project return confirms the attractiveness of our small-scale business.

"To date, a further 200 potential customers have signed letters of intent to pursue various small-scale opportunities with Golar Power, demonstrating the robust consumer appetite to reduce both energy costs and environmental footprints.

"Safety remains our highest priority and several initiatives have been implemented in response to the Covid-19 pandemic to keep our seafarers, staff and our wider communities safe whilst ensuring that all our assets remain operational and that we are meeting our customer commitments.

"In response to the combination of Covid-19 demand reduction and lower LNG/Brent pricing we have already implemented a number of liquidity assurance and cost reduction measures to ensure the business can withstand any prolonged economic downturn," he said. ■

Höegh's FSRUs not affected by pandemic

Höegh LNG Holdings has reported a net loss of \$1 mill for the first quarter of this year.

EBITDA was \$59.6 mill and a dividend of \$0.025 was declared for 1Q20.

Höegh LNG's contract coverage increased to almost 100% for this year and during 1Q20, the company completed a revolving credit facility for up to \$80 mill and also completed a new senior unsecured bond issue of NOK650 mill.

Subsequently, the company said that it had been selected as preferred bidder for two new FSRU projects in Latin America, while Australian-based AIE had received approval to increase the import capacity through the Port Kembla gas terminal, which will utilise a Höegh FSRU.

In addition, the company has completed the amendment, ex-

tension and \$45 mill increase of the FSRU 'Independence' debt facility. She is currently operating in Klaipeda, Lithuania.

Höegh LNG and Total have also reached a final binding agreement to settle the boil-off dispute regarding the LNGCs 'Neptune' and 'Cape Ann'.

At the same time, the company also announced a dividend suspension and implemented a cost savings plan targeting \$9-11 mill savings for 2020.

Höegh LNG President and CEO, Sveinung Støhle, commented: "I am proud to report that Höegh LNG's employees continue to deliver under these unprecedented circumstances caused by Covid-19, as shown by our financial and op-

erational results, meaning Höegh LNG is experiencing limited operational impact of the Covid-19 pandemic.

"While the Covid-19 crisis has caused major disruptions and uncertainties to the energy markets, the demand for FSRUs does not appear to have been significantly affected, as can be seen by the selection of Höegh LNG as preferred bidder for two new FSRU projects in the quarter," he said.

At the AGM held on 4th June, 2020, Leif O Höegh, Andrew Jamieson and Jørgen Kildahl were re-elected as Directors of the Company. Leif O Höegh was also re-appointed as Deputy Chairman of the Board. ■

NEWS NUDGE

Botas to import Total gas

Turkish state-owned oil and gas company, Botas, has signed a three-year LNG supply deal with Total.

According to Turkish state-owned news agency, Anadolu, the contract calls for the supply of 1.2 mill tonnes per year and deliveries are due to start later this year.

Turkey has recently increased its LNG imports and reduced its pipeline purchases to a minimum in order to take advantage of low spot prices.

According to local reports, Botas has tendered for at least nine LNG cargoes recently for June to September deliveries. ■

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Flex LNG hit by TCE drop

Flex LNG has announced a net loss of \$14.9 mill and a loss per share of \$0.27 for the first quarter of this year, compared to a net income of \$23.9 mill and earnings per share of \$0.44, for 4Q19.

Revenues for 1Q20 were \$38.2 mill, compared to \$52 mill in the previous quarter.

An average TCE rate of \$67,740 per day was achieved during the period, compared to \$94,000 per day for 4Q19.

Adjusted EBITDA was \$27.8 mill, compared to \$41.6 mill for 4Q19. Adjusted net income was \$9.3 mill, compared to \$22 mill for 4Q19.

In January, 2020, a 12-month extension option was exercised under the timecharter agreement for 'Flex Enterprise', giving a firm charter period up to the end of 1Q21.

The following month, Flex LNG agreed a \$629 mill financing with a syndicate of banks and the Export-Import Bank of Korea (KEXIM) for five of the newbuildings scheduled for delivery in this year.

Subsequently, in May 2020, the company received firm commitments from a syndicate of banks for a \$125 mill financing for the newbuilding 'Flex Volunteer', scheduled for delivery in 1Q21.

In the same month, Flex LNG received confirmation of a credit approval from an Asian-based leasing house for a \$156.4 mill sale and leaseback transaction for the newbuilding 'Flex Amber' based on a term sheet signed in early April, 2020.

Øystein Kalleklev, Flex LNG Management CEO, commented: "The LNG market has been very challenging this year, due to another mild winter and the global covid-19 pandemic. We have witnessed unprecedented demand destruction, due to shut-downs of all major economies and more specifically shut-ins of cargoes, due to historically low gas prices. These factors have adversely affected the demand for shipping and thus consequently freight rate levels.

"Despite this turmoil, we have been able to run our ships without any disruptions and deliver cargoes to our customers safely and on time. Our in-house technical department and crew have been

hands-on to ensure that we deliver the first class service level that is expected from Flex LNG even in these very challenging times.

"Notwithstanding the headwinds, Flex LNG is pleased to deliver TCE trading results for Q1 of \$68,000 per day, which is in line with our guidance. Further, we are pleased to announce \$281 mill of attractive long-term financing for the two remaining newbuildings to be financed. Flex LNG is thus well capitalised with \$121 mill of cash at the bank, as well as \$910 mill of financing in place for the \$937 mill remaining capex related to the seven newbuildings, which are scheduled for delivery over the next 12 months.

"While the near term outlook for LNG shipping is challenging, the long-term outlook for LNG remains very attractive as the world turns towards cleaner energy with LNG offering cheap and abundant supplies that are displacing coal and diesel," he concluded. ■

Myanmar imports first Petronas LNG cargoes

Malaysia's state-owned energy firm Petronas has delivered the first LNG cargoes to Myanmar.

The deliveries were made on a free-on-board (FOB) basis as part of an agreement signed earlier this year between Petronas subsidiary Petronas LNG Ltd (PLL) and Chinese company CNTIC VPower, which last year won contracts for four power generation projects in Myanmar.

PLL delivered 190,000 cu m of LNG.

"The two LNG cargoes that were successfully delivered to CNTIC VPower marks a new era in the growth of LNG demand in the Southeast Asian region," PLL's CEO, Abdul Aziz Othman said.

Petronas also revealed that it was also working with CNTIC VPower on further deliveries.

CNTIC (Consortium of China National Technical Import & Export Corp) and VPower Group Holdings last year won three LNG power production project contracts in Myanmar.

The LNG for each project will be purchased from Petronas. ■

Voyage revenues boost Dynagas

Dynagas LNG Partners net income for the three months ended 31st March, 2020 was \$7 mill, compared to \$1.9 mill in the corresponding period of 2019.

This was an increase of \$5.1 mill, or 268.4%, which was mainly due to the rise in voyage revenues, as well as a decrease in finance costs, compared to 1Q19.

Adjusted net income was \$7.1 mill, compared to \$1.7 mill in 1Q19, an increase of \$5.4 mill or 317.6%.

Voyage revenues for 1Q20 were \$34.5 mill, compared to \$31.4 mill for the corresponding period in 2019, which represents an increase of \$3.1 mill. This was mainly due to the higher revenues earned on 'Lena River' following her delivery to a multi-year contract with Yamal Trade in July, 2019.

Average daily hire, gross of commissions, was around \$63,100 per day per vessel, compared to about

\$57,700 per day per vessel in 1Q19. During both periods, the Partnership's vessels operated at 99% and 100% utilisation, respectively.

Vessel operating expenses were \$7.6 mill, which corresponds to a daily rate per vessel of \$13,872 in 1Q20, compared to \$6.9 mill, or a daily rate per vessel of \$12,817 in 1Q19. This increase was mainly due to planned engine maintenance on an LNGC that was completed in 1Q20.

Adjusted EBITDA was \$23.7 mill, compared to \$21.7 mill for 1Q19. The increase of \$2 mill, or 9.2%, was mainly due to the net effect of the increase in revenues and the rise in the vessel's operating expenses.

As of 31st March, 2020, Dynagas

had total cash of \$70.1 mill, including \$50 mill of restricted cash. The Partnership's outstanding debt under the \$675 mill credit facility totalled \$651 mill, gross of un-amortised deferred loan fees and including \$48 mill, which was repayable within a year.

As of 4th June, 2020, the Partnership had estimated contracted timecharter coverage for 100% of its fleet for 2020, 92% of the estimated available days for 2021 and 83% of the fleet estimated available days for 2022.

As of the same date, Dynagas contracted revenue backlog estimate was \$1.21 bill, with an average remaining contract term of 8.3 years. ■

NEWS NUDGE

GTT wins FSRU contract

GTT has received an order from Daewoo Shipbuilding & Marine Engineering (DSME) for the design of a large FSRU on behalf of Mitsui OSK Lines (MOL).

With a capacity of 263,000 cu m, the FSRU will be fitted with the NO96 membrane cryogenic containment system.

The vessel delivery is scheduled in 2023 and she will be located in Wilhelmshaven, Germany. ■

Arc7 in historic eastbound NSR transit

Sovcomflot's Arc7 'Christophe de Margerie' successfully completed a Northern Sea Route (NSR) transit on 31st May bound for China loaded with a Yamal LNG cargo.

This was the first time that a large-capacity vessel of this type had crossed the NSR eastbound in May, when ice conditions in the eastern sector of the NSR remain challenging. Normally, the navigation in this sector doesn't start until July, SCF explained.

The voyage from Sabetta to Cape Dezhnev took 12 days, during which the LNGC covered 2,563 nautical miles at a speed deemed safe given the navigational conditions.

While transiting the NSR, 'Christophe de Margerie' was escorted by Atomflot's nuclear-powered icebreaker 'Yamal'. 'Yamal' assisted the LNGC in the most challenging parts of the route, including fast-ice fields in the Vilkitsky Strait, as well as hummocky ice floes in the East Siberian and the Chukchi seas.

Sergey Frank, SCF Board Chairman, commented: "Over many years, SCF has been steadily undertaking increasingly challenging transportation projects in the Arctic seas, in partnership with Atomflot, Russian energy companies, and R&D institutions.

"The company has accumulated unique experience of safely operating large-capacity vessels of high

Ice Class, purpose designed for the harsh environments of the NSR. Thorough preparation has allowed us to make the next step and safely carry out this unique voyage, fully in line with SCF's core principle 'Safety Comes First.'"

Igor Tonkovidov, SCF President and CEO, said: "This successful voyage across the NSR, in May, allows us to move one step closer to realising the full transit potential of the Northern Sea Route, marking an important expansion in the shipping opportunities available to Arctic industrial projects in particular.

"Even in the challenging ice conditions encountered during this time of the year, choosing the NSR allows for a significant reduction in the length of a voyage delivering LNG to APAC ports compared with using the Suez Canal. A shorter voyage both allows to optimise logistics and reduce the carbon footprint of the shipping. What's more, the vessel that began this new era in Arctic shipping both carries LNG, the cleanest fuel currently available, and uses LNG fuel herself, which drastically reduces the vessel's impact on the environment.

"The success of this challeng-

ing voyage was possible thanks to the high level of training and professionalism of the vessel's crew and SCF personnel ashore, as well as to an exhaustive and nuanced risk analysis and close collaboration with all the other parties involved in the voyage, such as NOVATEK and Atomflot."

Sergey Gen, 'Christophe de Margerie's' Master, added: "The ice conditions encountered during the voyage matched our forecast: on some segments, the movement was heavily obstructed, but the crew was well prepared to handle it.

"The voyage has proven 'Christophe de Margerie's' excellent icebreaking, manoeuvring, and structural capabilities, both when following an icebreaker or sailing independently in various modes. I also want to give credit to the crews of both 'Christophe de Margerie' and 'Yamal' for the high level of co-ordination between the two vessels during the NSR passage."

The trip also provided extensive information about the ice conditions along the eastern part of the NSR, whilst allowing the co-ordination between the LNGC and escorting icebreaker to be honed

under extreme conditions.

This will prove valuable for planning transportation solutions for future energy projects in the Arctic, and could help expedite the future growth of NSR cargo traffic and will also be reflected in the design of future generations of Arctic vessels, SCF said. ■

WE wins large LNGC contract

WE Tech Solutions has won a contract to supply its solution - one economical operations - to eight LNGCs, with an option for another six vessels.

The 174,000 cu m LNGCs will be chartered to Shell by Knutsen OAS Shipping, JP Morgan Asset Management and Korea Line and are being built by Hyundai Heavy Industries in Ulsan and Hyundai Samho Heavy Industries in Mokpo, South Korea.

The equipment delivery will start in February, next year.

WE's package includes two sets of direct drive permanent magnet shaft generators, variable speed frequency drives and dedicated power management system (DPMS).

The economical operations solution supplies the vessels electrical power distribution from shaft generators allowing for the auxiliary generators to be stopped. This, according to WE Tech Solutions, means that 'substantial fuel saving is achieved'.

"This is the third order from South Korean shipbuilding for delivering our economical operations solutions to gas carriers since WE Tech stepped into the Korea market in 2019. The previous two orders were for LPG carriers, while this order is the first of many to follow for LNG carriers," said Mårten Storbacka, WE Tech Solutions Managing Director. ■



Capt Sergey Gen seen on the bridge of the 'Christophe de Margerie'

ABB aids Arc7 NSR transit

Supporting the 'Christophe de Margerie' during her NSR transit (see page 10) was ABB who provided remote diagnostics services for increased safety and performance.

The Arc7 now has round-the-clock remote support provided through ABB's global network of eight ABB Ability Collaborative Operations Centres.

Remote support and connectivity, coupled with advanced data analytics enabled by the patented ABB Ability Remote Diagnostics System, enhances 'Christophe de Margerie's' operational safety and ensures optimal performance, while helping to promptly detect and correct faults on board, ABB claimed.

"ABB Azipod propulsion, with which 'Christophe de Margerie' is equipped, strongly contributed to the vessel's successful passage along the Northern Sea Route while facing some of the world's most challenging ice conditions," SCF's President, Igor Tonkovidov said.

"ABB's Remote Diagnostics System ensures that our crews can rely on a robust round-the-clock support, which helps enhance vessel performance and operational safety."

The Arc7 had made history in 2017 as the first commercial vessel to transit the NSR without ice-breaker assistance.

"This latest development in our long co-operation with Sovcomflot is another major step forward in our 'Electric. Digital. Connected.' strategy," explained Juha Koskela,

Managing Director, ABB Marine & Ports. "It comes at a key moment in shipping's digital journey, with real-time support for a sophisticated vessel such as 'Christophe de Margerie' demonstrating that our connected expertise can be delivered in full, no matter how remote the location."

Like her sisterships serving Yamal LNG, the 172,600 cu m vessel is equipped with three of the largest patented Azipod propulsion units ever supplied by ABB. To-

gether, the 15 MW units provide a total power of 45 MW, enabling the vessel to navigate safely through ice up to 2.1 m thick.

The Azipods, which can be rotated 360 deg, boost vessel manoeuvrability and have unparalleled performance in ice, providing thrust in any direction, ABB said.

This latest contract brings the total number of SCF vessels supported by ABB's remote diagnostics systems for Marine to 16. ■

NEWS NUDGE

Cheniere in LNGC charter deals

Cheniere Energy has chartered two of TMS Cardiff Gas LNGCs.

In a statement appearing on its social media channels, Cheniere Energy said that 'Amberjack LNG' and 'Bonito LNG' were delivered to the company under long-term charter agreements.

Both vessels were built by Hyundai Heavy Industries, have a capacity of 174,000 cu m each, feature GTT's Mark III Flex containment system and are powered by 2-stroke, low-pressure WinGD X-DF main engines.

In addition, Cheniere is to take delivery of two chartered GasLog LNGCs for a period of seven years.

The second, 'GasLog Galveston' was floated out at Samsung on 30th May.

GasLog said it expects to take delivery of the 174,000

cu m vessel by the end of October this year.

These newbuildings feature GTT's Mark III Flex Plus containment system and also WinGD's X-DF main propulsion units.

Gaslog has another two 180,000 cu m LNGCs to be chartered by Cheniere on order at Samsung, both of which are to be delivered in 2021. ■



ABB monitored the Arc7 while on her NSR transit

LNG rate assessments

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

Region	This week	Change*
East of Suez	\$30,000	-
West of Suez	\$32,000	-
12 mos T/C	\$43,000	-

*Since last report (28/05/20)

Source: Fearnleys (10/06/20)

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WORLD LNG CARRIER ORDERBOOK

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Amberjack Lng	GTT Mark III Flex	Hyundai	XDF	174000	01/04/2020	Cardiff Marine
Gaslog Wales	GTT Mark III Flex	Samsung	XDF	180000	01/04/2020	GasLog
Qogir	GTT Mark III Flex	Samsung	XDF	174000	01/04/2020	Cardiff Marine
Elisa Larus	GTT Mark III Flex	Hyundai	XDF	174000	01/04/2020	NYK
Bonito Lng	GTT Mark III Flex	Hyundai	XDF	174000	01/04/2020	Cardiff Marine
Maran Gas Psara	GT NO 96	DSME	MEGI	173400	01/04/2020	Maran Gas Maritime
Gaslog Windsor	GTT Mark III Flex	Samsung	XDF	180000	15/04/2020	GasLog
Global Energy	GT NO 96	DSME	MEGI	173400	01/05/2020	Nakilat
Traiano Knutsen	GTT Mark III Flex	Hyundai	MEGI	180000	01/06/2020	Knutsen
Flex Aurora	GTT Mark III Flex	Hyundai	XDF	174000	01/06/2020	Flex LNG
Bw Pavilion Aramhera	GT NO 96	DSME	MEGI	173400	01/06/2020	BWGas
Flex Amber	GTT Mark III Flex	Hyundai	XDF	174000	01/07/2020	Flex LNG
Lng Phecda	GT NO 96	Hudong-Zhonghua	MEGI	174000	01/07/2020	MOL
SHI Gaslog #2	GTT Mark III Flex	Samsung	XDF	180000	15/07/2020	GasLog
SHI #1	GTT Mark III Flex	Samsung	XDF	174000	15/07/2020	Cardiff Marine
Scf Barents	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2020	Sovcomflot
Energy Pacific	GT NO 96	DSME	MEGI	173400	01/08/2020	Alpha Gas
Flex Artemis	GT NO 96	DSME	MEGI	173400	01/08/2020	Flex LNG
Flex Resolute	GT NO 96	DSME	MEGI	173400	01/08/2020	Flex LNG
Vivit Americas Lng	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2020	Cardiff Marine
Diamond Gas Metropolis	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2020	NYK
Flex Freedom	GT NO 96	DSME	MEGI	173400	01/09/2020	Flex LNG
Cool Discoverer	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2020	Thenamaris
Samsung 2297	GTT Mark III Flex	Samsung	XDF	180000	01/10/2020	Celcius Shipping
Samsung 2300	GTT Mark III Flex	Samsung	XDF	174000	01/10/2020	GasLog
Aristos I	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2020	Capital Gas
Yiannis	GT NO 96	DSME	MEGI	173400	01/10/2020	Maran Gas Maritime
Samsung 2276	GTT Mark III Flex	Samsung	XDF	174000	01/10/2020	Cardiff Marine
LNG Megnez	GT NO 96	Hudong-Zhonghua	MEGI	174000	01/10/2020	MOL
Aristidis I	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2020	Capital Gas
Global Star	GT NO 96	DSME	MEGI	173400	01/11/2020	Nakilat
Flex Volunteer	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2020	Flex LNG
Daewoo 2498	GT NO 96	DSME	MEGI	180000	01/12/2020	MOL
Hyundai Samho 8008	GTT Mark III Flex	Hyundai	XDF	174000	01/12/2020	Sovcomflot
Samsung 2301	GTT Mark III Flex	Samsung	XDF	174000	01/12/2020	GasLog
Energy Endeavour	GT NO 96	DSME	MEGI	173400	01/12/2020	Alpha Gas
Daewoo 2481	GT NO 96	DSME	MEGI	173400	01/12/2020	Minerva Marine
Celcius #2	GTT Mark III Flex	Samsung	XDF	180000	15/12/2020	Celcius Shipping
Lngships Athena	GTT Mark III Flex	Hyundai	XDF	174000	01/01/2021	Cardiff Marine
Cool Racer	GTT Mark III Flex	Hyundai	XDF	174000	01/01/2021	Thenamaris
Samsung 2304	GTT Mark III Flex	Samsung	XDF	174000	01/01/2021	Minerva Marine
Samsung 2313	GTT Mark III Flex	Samsung	XDF	180000	01/02/2021	Celcius 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 = 1st April 2020

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Bw Lesmes	GT NO 96	DSME	MEGI	174000	01/02/2021	BWGas
Daewoo 2499	GT NO 96	DSME	MEGI	180000	01/02/2021	MOL
Cobia Lng	GTT Mark III Flex	Hyundai	XDF	174000	15/02/2021	Cardiff Marine
DSME Minerva #2	GT NO 96	DSME	MEGI	173400	15/02/2021	Minerva Marine
Marvel Swan	GTT Mark III Flex	Samsung	XDF	173400	01/03/2021	Navigare
Bw Helios	GT NO 96	DSME	MEGI	174000	01/03/2021	BWGas
Hyundai Samho 8039	GTT Mark III Flex	Hyundai	XDF	174000	01/03/2021	Latsco Shipping
Hyundai Ulsan 3039	GTT Mark III Flex	Hyundai	XDF	174000	01/03/2021	Cardiff Marine
Flex Vigilant	GTT Mark III Flex	Hyundai	XDF	174000	01/03/2021	Flex LNG
SHI #18	GTT Mark III Flex	Samsung	XDF	174000	15/03/2021	Cardiff Marine
Aristarchos	GTT Mark III Flex	Hyundai	XDF	174000	15/03/2021	Capital Gas
Samsung 2302	GTT Mark III Flex	Samsung	XDF	174000	01/04/2021	NYK
Celcius #4	GTT Mark III Flex	Samsung	XDF	180000	15/04/2021	Celcius Shipping
DSME 2485	GT NO 96	DSME	MEGI	173400	15/04/2021	Alpha Gas
Hyundai Samho S971	GTT Mark III Flex	Hyundai	XDF	174000	01/05/2021	NYK
Diamond Gas Crystal	GTT Mark III Flex	Hyundai	XDF	174000	01/05/2021	NYK
Daewoo 2501	GTT Mark III Flex	DSME	MEGI	174000	01/06/2021	Maran Gas Maritime
Hudong-zhonghua H1827a	GT NO 96	Hudong-Zhonghua	XDF	174000	01/06/2021	CSSC
Daewoo 2495	GT NO 96	DSME	XDF	174000	01/06/2021	Maran Gas Maritime
Daewoo 2500	GT NO 96	DSME	MEGI	174000	01/06/2021	Alpha Gas
SHI Gaslog CE #1	GTT Mark III Flex	Samsung	XDF	180000	15/06/2021	GasLog
Attalos	GTT Mark III Flex	Hyundai	XDF	174000	15/06/2021	Capital Gas
Adamastos	GTT Mark III Flex	Hyundai	XDF	174000	01/07/2021	Capital Gas
DSME MOL #3	GT NO 96	DSME	MEGI	173400	15/07/2021	MOL
Asterix 1	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2021	Capital Gas
SHI Gaslog CE #2	GTT Mark III Flex	Samsung	XDF	180000	15/08/2021	GasLog
Hyundai Ulsan 2939	GTT Mark III Flex	Hyundai	XDF	180000	01/09/2021	SK Shipping
Daewoo 2504	GT NO 96	DSME	XDF	174000	01/09/2021	Maran Gas Maritime
Daewoo 2502	GTT Mark III Flex	DSME	XDF	173400	01/09/2021	Nakilat
Samsung 2305	GTT Mark III Flex	Samsung	XDF	174000	01/09/2021	Minerva Marine
Diamond Gas Victoria	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2021	NYK
Hyundai Samho 8040	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2021	Latsco Shipping
Samsung 2355	GTT Mark III Flex	Samsung	XDF	174000	01/10/2021	NYK
Daewoo 2507	GT NO 96	DSME	XDF	174000	01/10/2021	Maran Gas Maritime
Hyundai Ulsan 3111	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2021	Capital Gas
Samsung 2306	GTT Mark III Flex	Samsung	XDF	174000	01/10/2021	NYK
Hyundai Ulsan 3157	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2021	Tsakos Energy Navigation
Samsung 2315		Samsung	XDF	174000	01/12/2021	
Hyundai Samho 8025	GTT Mark III Flex	Hyundai	XDF	174000	01/12/2021	Hanjin Shipping
Daewoo 2503	GTT Mark III Flex	DSME	XDF	173400	01/12/2021	Nakilat
Samsung 2307	GTT Mark III Flex	Samsung	XDF	174000	01/12/2021	NYK
Daewoo 2508	GT NO 96	DSME	XDF	174000	01/01/2022	Maran Gas Maritime
Hyundai Samho 8032	GTT Mark III Flex	Hyundai	XDF	174000	01/01/2022	NYK

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Samsung 2336	GTT Mark III Flex	Samsung	XDF	174000	01/01/2022	JP Morgan
Hyundai Ulsan 3137	GTT Mark III Flex	Hyundai	XDF	200000	01/01/2022	Dynagas
Hudong-zhonghua H1828a	GT NO 96	Hudong-Zhonghua	XDF	174000	01/01/2022	CSSC
Samsung 2332	GTT Mark III Flex	Samsung	XDF	174000	01/01/2022	Minerva Marine
Hyundai Samho 8026	GTT Mark III Flex	Hyundai	XDF	174000	01/02/2022	Hanjin Shipping
Hyundai Samho 8033		Hyundai	XDF	173000	01/03/2022	NYK
Samsung 2316		Samsung	XDF	174000	01/03/2022	
Samsung 2319	GTT Mark III Flex	Samsung	XDF	174000	01/03/2022	Nisshin Shipping
Hudong-zhonghua #1	GT NO 96	Hudong-Zhonghua	XDF	80000	01/04/2022	K-Line
Hyundai Ulsan 3138	GTT Mark III Flex	Hyundai	XDF	200000	01/04/2022	Dynagas
DSME May19	GT NO 96	DSME	MEGI	174000	15/05/2022	Maran Gas Maritime
Hudong-zhonghua #2	GT NO 96	Hudong-Zhonghua	XDF	80000	01/06/2022	K-Line
Samsung 2317		Samsung	XDF	174000	01/06/2022	
Hyundai Ulsan 3145	GTT Mark III Flex	Hyundai	XDF	180000	01/07/2022	SK Shipping
Samsung 2337	GTT Mark III Flex	Samsung	XDF	174000	01/07/2022	JP Morgan
Hyundai Samho 8091	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2022	Knutsen
Hyundai Ulsan 3185	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2022	Korea Line
Daewoo 2509	GT NO 96	DSME	MEGI	174000	01/08/2022	BWGas
Samsung 2318		Samsung	XDF	174000	01/09/2022	
Daewoo 2510	GT NO 96	DSME	MEGI	174000	01/09/2022	BWGas
Hyundai Ulsan 3187	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2022	JP Morgan
Hyundai Samho 8092	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2022	Knutsen
Hyundai Ulsan 3186	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2022	Korea Line
Hyundai Ulsan 3188	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2022	JP Morgan
Hyundai Samho 8093	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2022	Knutsen
Hyundai Samho 8094	GTT Mark III Flex	Hyundai	XDF	174000	01/12/2022	Knutsen
Samsung 2364	GTT Mark III Flex	Samsung	XDF	174000	01/01/2023	MISC
Samsung 2365	GTT Mark III Flex	Samsung	XDF	174000	01/02/2023	MISC

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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

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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 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	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	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	CNTIC VPOWER Global	28,000	LNG	Myanmar	Yes	Dalian Inteh Group
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	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
2021	TBN	18,600	LNG	Mediterranean	Yes	MOL
2021	TG TBN	500	LNG	Korea	Yes	Trans Gas
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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