

LNG Shipping News

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18 March 2021

Recommended offer for Höegh LNG Holdings

Höegh LNG Holdings has received a recommended offer by Leif Höegh & Co Ltd (LHC) and funds managed by Morgan Stanley Infrastructure Partners (MSIP).

The offer is being managed through a 50/50 joint venture - Larus Holding Limited (JVCo).

JVCo is attempting to acquire the remaining issued and outstanding shares of Höegh LNG Holdings not currently owned by LHC or its affiliates, representing about 50.4% of the outstanding shares, by way of amalgamation between Larus Limited, a subsidiary of JVCo and the company (BidCo).

All of the company's shares - other than those owned by LHC and its affiliates - will be cancelled for NOK23.50 per share on the back of an amalgamation agreement entered into between the company and BidCo.

Immediately following the completion, the amalgamated company will be wholly-owned by JVCo, and the common shares of Höegh LNG Holdings will be de-listed from the Oslo Stock Exchange.

The share acquisition price reflected a premium of around 36% to the closing share price on 5th March, 2021 and 32% to 30-day volume-weighted average share price (VWAP), valuing the total share capital of the company at around NOK1,815 mill.

Höegh LNG Holdings' board has unanimously approved the amalgamation agreement and will recommend that the unaffiliated shareholders of the company vote in favour of the transaction.

As part of this recommendation, the committee has received a fairness opinion from Fearnley

Securities, which concluded that the offered price per share represented fair value for the shareholders.

The transaction is expected to close in the first half of 2021 and is subject to the approval of Höegh LNG Holdings' shareholders.

Two thirds consent of the shares voted on the resolution at the general meeting is required for an approval, with the stake held by LHC counting towards the vote.

Waiver subjects

Furthermore, the transaction is subject to waivers of specific change of control and/or de-listing provisions in relation to the company's outstanding bonds and certain credit agreements, as well as the satisfaction of other customary closing conditions, including that neither any material adverse change nor any material breach of the agreement between the company and BidCo had occurred.

It was also agreed that, if the transaction has not been completed by 9th August, 2021 or such date as may be agreed, then it will not proceed.

Credit Suisse International, DNB Markets, a part of DNB Bank and Morgan Stanley & Co are acting as financial advisors to LHC and MSIP. Advokatfirmaet Thommessen, Kirkland & Ellis International and Conyers Dill &



Sveinung JS Støhle is overseeing Höegh LNG Holdings' sale

Pearman are acting as legal counsels to JVCo and BidCo.

Fearnley Securities has acted as financial advisor to the special committee and Advokatfirmaet Schjødt and Appleby (Bermuda) Limited are acting as legal counsels to the company and the board.

Later, Höegh LNG Holdings instructed Nordic Trustee as trustee for its senior unsecured bond issues maturing in February, 2022 and January, 2025 to summon a bondholders' meeting for 22nd March, 2021.

In addition, a special general meeting of Höegh LNG Holdings will be held at the company's registered office in Hamilton, Bermuda on 30th March 2021.

However, it was revealed that Spanish equity fund, Cobas Asset Management, which holds a 15% stake in Höegh LNG Holdings, planned to vote against the takeover, saying in a statement that the offer "significantly undervalues the company."

SHIPPING NEWS AGENDA

MARKETING

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LNG Production Capacity for the Major European and US E&P Companies



Source: GlobalData Oil & Gas Intelligence Center

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Renewables to eat into future LNG demand

The so called 'Big 5' - Qatar, US, Australia, Russia and Mozambique - will account for 73% of global LNG supply by 2030, Poten & Partners said during one of its regular webinars.

Qatar has emerged as a price setter, offering tenders in the low 10% of Brent. Only a few suppliers were willing to compete at this level, Head of APAC Business Intelligence, Sophie Tan, explained.

Sellers were rethinking market strategies and interest in mid to long term contracts was returning. More FIDs were imminent, especially in Australia, she added.

When Qatar gets its four new trains online in 2026, this will raise the producer's market share back up to around 20% by the end of this decade.

Australia and Southeast Asia LNG production is expected to decline, while Russia's share will in-

crease to 10% from today's 8%, while the US is forecast to double its market share to 20%, level with Qatar and Australia will drop to less than 20%.

Demand growth

As for demand, China will become the largest LNG market by mid 2020s. However, its share of LNG demand will remain unchanged at 18% by 2030 in a bigger market.

Strong growth is also predicted in South Korea and Taiwan as the countries switch from coal and nuclear power, although their combined share is expected to decline by 2030 to 30% from 36%.

Growth is also forecast in

Southeast and South Asia to 27% of global demand in 2030 from 15%, while Japan is expected to invest in wind and other renewables, resulting in lowering LNG demand, Tan said.

Elsewhere, European LNG demand could fall by as much as 10 mill tonnes this decade, due to a greater renewable uptake.

Carbon prices could double from current record levels of €40 per tonne, which would drive utilities to exit fossil fuel usage, including gas, she said.

Some LNG buyers have been reluctant to sign deals beyond the early 2030s, on the back of rising carbon costs. Renewables could be

the answer to these higher costs.

In summary, Tan said that the supply overhang from the previous investment cycle had already been significantly reduced, due to the lack of FIDs last year.

Project developments affected by the pandemic are likely to result in tighter markets from 2023.

As mentioned, LNG demand faces a growing threat from renewables and the drive for low carbon mandates worldwide. In a net zero carbon world, LNG demand could decline as renewables become more cost competitive especially when greenhouse gas (GHG) costs are accounted for, she said.

European majors' LNG growth potential - GlobalData

European majors are expected to undergo stronger LNG capacity growth to 2025 than their US peers.

This is particularly true across three key regions - Former Soviet Union (FSU), North America and Africa, according to data and analytics company, GlobalData.

Competition to capture future LNG market growth has recently been exacerbated by Qatar Petroleum's final investment decision (FID) on its Ras Laffan North Field Expansion (NFE).

Joseph Wisdom, Oil & Gas analyst at GlobalData, commented: "Ras Laffan will boast a production capacity of 32 mill tonnes per annum by 2025, which alone is forecast to account for 6% of the active global capacity that year.

"Majors from both sides of the pond have competing projects vying for FID that are set to start-up in the latter half of the decade, but in the shorter-term, the Euro-

pean majors have secured the greatest capacity growth," he said.

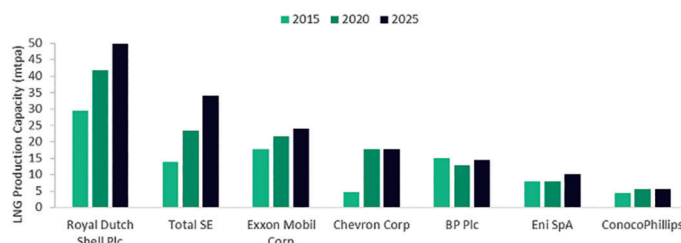
Demand for gas could increase faster than anticipated, however, with many countries looking to reduce carbon emissions. As a transitional energy source, gas supports the expansion of renewables and issues related to energy shortfall.

Furthermore, the European majors have successfully achieved green LNG deliveries, which has seen the first carbon neutral LNG cargoes delivered by Shell and Total.

This nascent trend is likely to become more popular among sellers looking to appeal to nations with stricter emissions targets, such as in Europe.

Wisdom added: "Shell currently boasts the largest LNG portfolio of both European and US majors and

LNG Production Capacity for the Major European and US E&P Companies



Source: GlobalData Oil & Gas Intelligence Center

GlobalData

continues to undergo strong growth. Through leveraging third party supply the company can even be competitive with Qatar Petroleum in terms of total LNG supply.

"Shell has a strong LNG pipeline with its sanctioning of LNG Canada, and expansions in Nigeria and Oman. Despite its intention to sell its stake in the Abadi LNG project, the company is forecast to retain its top spot

among the majors.

"While Shell and Total are expected to see substantial developments to their LNG portfolios, Exxon and Chevron lack the short to medium-term prospects. In the latter half of the decade, Exxon have some notable projects, such as Rovuma and Far East, which if they manage to take FID, could see them reach levels competitive with Total and Shell in terms of LNG production," he said.

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Vitol launches Green LNG offering

Vitol has launched a Green LNG product for its LNG customers looking to mitigate carbon emissions.

The emissions associated with the cargo, from wellhead to DES delivery, will be offset through the cancellation of verified emissions reductions (VERs).

VERs are carbon offset certificates that are verified and issued by UN Clean Development Mechanism, Verified Carbon Standard



Vitol's LNG head Pablo Galante Escobar

(VERRA), Gold Standard, American Carbon Registry, China Green House Gas Voluntary Emission Reduction Programme or Climate Action Reserve.

All of Vitol's LNG clients will be offered the opportunity of converting LNG cargoes to Green LNG through offsets. Emissions to be offset will be estimated using the Wood Mackenzie LNG emissions tool, which estimates carbon emissions from wellhead to market.

The VERs will be sourced both from Vitol's existing portfolio and the wider market.

Pablo Galante Escobar, Vitol's Head of LNG, said: "Vitol's established presence in carbon markets has enabled us to construct a compelling offering for LNG customers looking to mitigate emissions. The bar for transitional

energy solutions is rightly being raised and we are delighted to be able to add Green LNG to our portfolio."

Michael Curran, Head of Emissions Trading at Vitol, added: "This demonstrates how our established portfolio of carbon projects can add value to our wider energy customers. We anticipate demand for carbon-mitigating energy solutions to grow as the world focuses on achieving Net Zero."

Gavin Law, Head of Gas & Power Consulting, Wood Mackenzie, said: "With the growing focus on LNG-related emissions, we are delighted that the LNG Emissions Tool has been chosen as the independent source of LNG-related emissions estimates which will be used by Vitol and its customers in the offset process." ■

NFE takes FID on Fast LNG project

New Fortress Energy (NFE) has taken a final investment decision (FID) on its Fast LNG 1.4 mill tonnes per annum capacity modular liquefaction facility.

Fast LNG is aimed at providing low-cost supply for its growing customer base.

Its design combines the latest modular, midsize liquefaction technology with jack up rigs or similar floating infrastructure to enable a much lower cost and faster deployment schedule than today's floating liquefaction units.

A permanently moored FSU will serve as an LNG storage facility alongside the floating liquefaction infrastructure, which can be deployed anywhere there is abundant and stranded natural gas.

"Our innovative Fast LNG liquefiers should allow us to produce LNG between an expected \$3-4 MMBtu for our growing portfolio of terminals around the world," said NFE CEO and Chairman, Wes Edens. "This technology can be installed quickly and cheaply to access stranded, low-cost natural gas at a fixed price to meet the

global demand for more affordable, reliable and cleaner energy. Alongside our terrific partners, we look forward to deploying one of the world's lowest-cost LNG production facilities by 2022."

NFE has issued a limited notice to proceed to Fluor, Chart Industries and Baker Hughes, for the construction of the first Fast LNG project, which is anticipated to become operational in about 20 months.

At the same time, NFE highlighted three separate large transactions, including the acquisition of Hygo Energy Transition, which includes Brazil's largest thermal power plant and three operational or under development terminals.

These terminals are expected to be online within 12 months.

Along with Hygo, NFE is also acquiring Golar LNG Partners, which includes stable, contracted cash flows from 13 vessels. Once

released from their current contracts, these LNGCs will serve as the company's logistics backbone for terminal operations.

In addition, NFE is developing Brazil's Suape Terminal.

These transactions would bring NFE's total operational or under development terminals up to nine.

Its projects in Mexico and Nicaragua are expected to be operational in the second quarter of this year, the company said.

NFE added that it is finalising a framework agreement for a terminal in Southeast Asia that is expected to begin operations in the second half of 2021.

Under its long-term fixed price LNG supply development plan, NFE is acquiring 50% of the common units of Golar Hilli LLC, the disponent owner of the 2.4 mill tonnes per annum FLNG, through the Golar acquisition. ■

Nigeria's first FLNG project licensed

Nigeria's Department of Petroleum Resources (DPR) has awarded a licence to privately-held company UTM Offshore to allow it to establish Nigeria's first FLNG production plant.

UTM Offshore plans to install a liquefaction unit with a capacity of 1.2 mill tonnes per annum, sourcing gas from the Yoho field, which lies in Oil Mining Lease 104, offshore Nigeria.

The Nigerian government holds 60% interest in the Yoho crude oil joint venture, through NNPC, while ExxonMobil's MPN holds the remaining 40% and operates the development that started production back in 2003.

The field also produces gas but it is reinjected to eliminate flaring and maximise oil recovery.

The plant would have a capacity to process 176 mill standard cu ft per day of natural gas and condensate with natural gas feedstock from Oil Mining Lease 104, according to Nigerian law firm Templars, which is advising UTM Offshore on the development and financing of the FLNG project.

In addition, the law firm said work would now continue until completion of the project which would "contribute to the actualisation of the zero flare policy of the Nigerian government, as well as increasing Nigeria's LNG production capacity," according to local media. ■



Wes Edens' New Fortress Energy has taken FID on LNG project

Japanese carbon neutral LNG alliance formed

Tokyo Gas has joined 14 other Japanese companies to form the Carbon Neutral LNG Buyers Alliance.

The companies come from various industries and include Toshiba Corp, Isuzu Motors and Mitsubishi Estate.

In 2019, Tokyo Gas purchased a carbon neutral LNG cargo from Shell, which also supplied a similar cargo to South Korea's GS Energy, Taiwan's CPC Corp and China National Offshore Oil Corp (CNOOC).

Tokyo Gas has already sold some of the supply to local customers and wanted to expand the buyers' network, Kunio Nohata, the company's Executive Vice President, revealed at a news conference.

"We are seeking an innovation in hydrogen, methanation and carbon capture utilisation technology, but it may take time," he said. "Therefore we want to spread the use of carbon neutral LNG which is the most feasible measure right now to slash CO2 emissions."

Nohata declined to comment on carbon neutral LNG's cost, citing confidentiality, Reuters said.

Tokyo Gas hopes more LNG producers will offer carbon neutral LNG so that it can widen its procurement sources, Nohata said.

Last month, Hokkaido Gas said it will buy carbon neutral LNG, which will account for about 10% of its annual LNG purchases, from Mitsui & Co Ltd.

Chevron plans third Gorgon train shutdown

The third LNG production unit shutdown at Chevron's Gorgon plant in Western Australia will occur during the second quarter of this year.

This is necessary to check for the same defective welds that caused lengthy shutdowns and repairs at the first two units last year, revealed Chevron's Head of upstream, Jay Johnson, during the energy giant's recent US investor briefing.

He claimed that Gorgon's production reliability had been increasing, while the train's weld faults were due to manufacturing issues and had not been caused by operations at Barrow Island.

"These defects that we're having to address on the first two trains, trains one and two, the investigation is still under way, but the initial indications are that these are manufacturing defects that were there from the begin-

ning of manufacture, not an operational issue," Johnson said, adding that repairs to the heat exchangers on the first two trains had been successfully completed.

Johnson also said the Gorgon

trains were now running 5% above their original design capacity, while production at Chevron's second major Western Australia LNG plant, Wheatstone, was running 9% above the rated capacity.



Chevron is to shut another train at Gorgon

Albanian import terminal on the cards

Excelerate Energy, ExxonMobil LNG Market Development and the Albanian Ministry of Infrastructure are to conduct a feasibility study aimed at developing an LNG facility.

The terminal and a power plant would be located at Vlora in Southern Albania.

Under a memorandum of understanding (MOU) signed on 12th March, Excelerate will conduct a study on an integrated LNG to power solution that will include an LNG import terminal, converting and/or expanding the existing Vlora thermal power plant, and establishing small scale LNG distribution to Albania and the surrounding Balkans region.

"As Albania looks to improve energy security and resiliency, we are confident that an LNG solution would provide reliability to the country's power grid while complementing intermittent renewables and alternative resources," Steven Kobos, Excelerate's President and

CEO, said. "We are pleased to work with our partners in developing a reliable and affordable solution for Albania's energy resilience."

Home to eight major river systems, Albania relies on hydropower plants, which can become unreliable during times of drought, to supply energy to the country's 2.8 mill inhabitants.

Albania's Minister of Infrastructure and Energy, Belinda Balluku, said, "Supply diversification and the enhancement of supply security are crucial to Albania and to our Balkan neighbours as well. We are confident that LNG can be the key to achieving these strategic objectives and to finally providing a solution to the complex Vlora TPP project by choosing the best partners, equipped to deliver a

project of such magnitude."

ExxonMobil will be responsible for identifying opportunities to support the supply of LNG into Albania.

"LNG enables transportation of natural gas from supply centres to customers safely and cost effectively," explained Ed Austin, ExxonMobil LNG Strategy and Portfolio Manager. "While we are at the early stages of exploring this opportunity, ExxonMobil's global resources and reliable LNG supply chain can help Albania meet its fast-growing demand for natural gas and ensure long-term supply security."

The pre-feasibility report is expected to be delivered in the third quarter of this year, while the targeted start-up for the LNG project could be as early as 2023, Excelerate said.

NEWS NUDGE

Shell expands LNGVVs

Shell has expanded its LNG bunker vessel portfolio by char-

tering a newbuilding Knutsen 5,000 cu m LNGC.

She is being built in Spain and will call at Barcelona's Enagas LNG terminal to load the gas.

In January, Shell announced that the first US-based offshore

LNG bunkering articulated tug and barge (ATB), 'Q-LNG 4000' had been delivered in Port Canaveral.

The ATB performed her first operation refuelling a Siem car carrier.

Shell also said that the LNGBV 'FuelNG Bellina' had arrived in Singapore and will commence operations in early 2021.

In addition, the energy major has been granted a license to bunker LNG at Gibraltar.

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SCF reports strong 2020 performance

Leading tanker and LNG player, PAO Sovcomflot (SCF) has reported a 2020 net profit increase of 18.4% to \$266.9 mill, while EBITDA rose by 9.8% to \$903.4 mill.

SCF Group's industrial business portfolio, comprising gas transportation (LNG and LPG carriers) and harsh environment offshore services (shuttle tankers and ice-breaking supply vessels) accounted for a half of SCF Group TCE revenue in 2020 and continues to provide a long-term fixed income revenue stream, the company said in its results roundup.

Gas transportation business growth was helped by the addition of two new LNGCs delivered in February and September, 2020 under long-term contracts with energy majors Shell and Total.

SCF continued to grow its long-term industrial business portfolio, and as at 31st December, 2020, the contract backlog had reached \$24 bill, compared with \$10 bill as at the end of 2019.

During 2020, the Group focused strongly on growing its gas transportation business which was reflected in a healthy portfolio of new contracts.

For example, SCF has, either directly or through its 50% owned SMART LNG joint venture with NOVATEK, concluded time charter contracts for 17 Arc7s for the Arctic LNG 2 project.

Some 14 of contracts were signed with SMART LNG and the

remaining three independently by SCF. Combined, these timecharters added around \$14 bill to SCF's contract backlog.

In February and September 2020, SCF took delivery of two 174,000 cu m Atlanticmax LNGCs, 'SCF La Perouse' and 'SCF Bar-ents', both fixed to energy majors, Total and Shell, under long-term timecharter contracts. A third arrived in January, 2021.

Subsequently, in January, SCF and Total concluded a long-term timecharter agreement for another newbuilding Atlanticmax LNGC with options for up to a further two vessels. Delivery of this vessel is scheduled for 3Q23.

Successful IPO

In October, 2020, SCF conducted an initial public offering of 408,296,691 newly issued ordinary shares of a nominal value of RUB1 each, at a price of RUB105 per ordinary share and listed them on the Moscow Exchange.

The total net proceeds of the IPO, after expenses and stabilisation-related buy-back, are RUB38 bill (equivalent to \$480 mill as per the date of issue). The free float shares amounted to 15.6%, and the Russian state retained 82.8%.

The proceeds are being used



SCF President and CEO Igor Tonkovidov has reported improved results

for investments in new assets, with a focus on industrial projects, de-carbonisation and further deleveraging.

Igor Tonkovidov, SCF President and CEO, said: "2020 proved to be a challenging year without precedence for the shipping industry in terms of operational restrictions. The COVID-19 pandemic has changed sanitary rules and closed borders in many areas of our fleet's operation but we have met these challenges and we have sustained the efficiency of fleet operations and provided uninterrupted services to our customers. We are grateful to our crews and shore personnel, whose health and safety was our prime focus.

"SCF Group continues to implement SCF-2025 strategy and with the proceeds from the recent IPO will grow further focusing on

higher value-added segments, 'green' technologies and advanced engineering solutions," he said.

CFO Nikolay Kolesnikov, added: "In 2020, SCF Group demonstrated strong financial performance achieving a company record EBITDA of \$903.4 mill. October, 2020 marked an important milestone in SCF history as the company accessed public equity capital markets and raised over \$500 mill in a landmark IPO with its shares now listed on the Moscow Exchange.

"The recapitalisation resulted in a strengthening of the balance sheet and the financial position of the Group, with net debt to EBITDA ratio falling to 2.6 times. The company has sufficient investment capacity to undertake large scale projects and to pursue further growth in its core strategic segments," he claimed. ■

AG&P gets go ahead for Batangas terminal

Manila-based Atlantic Gulf & Pacific Co (AG&P) has received a Notice to Proceed (NTP) from the Philippines' Department of Energy (DOE).

The NTP is for the development of its Batangas Bay LNG import and regasification terminal on the main island of Luzon - Philippines LNG (PLNG).

PLNG will store and send natural gas to power plants, industrial and commercial customers and other consumers.

The facility will have the initial capacity to deliver up to 3 mill tonnes per annum of regasified LNG, with additional capacity for liquid distribution.

On day one, PLNG will have

scalable onshore regasification capacity of 420 mmscfd and almost 200,000 cu m of storage. AG&P has already completed the pre-development work and the terminal is expected to be commissioned by the summer of 2022.

"We are excited about this critical step in bringing AG&P's Philippines LNG Import Terminal online. AG&P is working very hard to bring this safe, environmentally-friendly, competitive fuel to our customers by the summer of 2022 and hope that the wide availability of natu-

ral gas will spur manufacturing and jobs in the Philippines while we all enjoy healthier air.

"We salute the Philippines' DOE for its professionalism and hard work in evaluating our proposal and granting AG&P the Notice to Proceed. We are aligned with the DOE's forward-looking vision for clean energy and look forward to supporting it every day. I would also like to recognize the hard-working engineers in our Korean subsidiary, Gas Entec, which has brought its world-leading technology to PLNG," said Karthik

Sathyamoorthy, AG&P's President of LNG Terminals & Logistics.

The DOE approved AG&P's NTP application as part of its commitment to make the Philippines a regional LNG hub in Southeast Asia.

"The Philippines LNG Terminal is a landmark development for the country that will accelerate industrialisation, create jobs, lower pollution and trigger overall economic and social progress. It will directly and indirectly improve the quality of life for many thousands of Filipinos," Sathyamoorthy added. ■

Dynagas boosted by net income hike

Dynagas LNG Partners has registered a 92.7% increase in its fourth quarter 2020 net income to \$10.6 mill, compared to the \$5.5 mill reported for 4Q19.

This increase was mainly attributable to a fall in interest and finance costs.

For the full year, the net income was \$34.1 mill, compared to \$3.6 mill for 2019.

Adjusted net income for 4Q20 was \$10.7 mill, compared to \$5.6 mill in the corresponding period of 2019, representing a net increase of 91.1%. For the full year, adjusted net income was \$37.8 mill, compared to \$10.9 mill for the previous year.

Voyage revenues for the three-month periods in 2020 and 2019 were \$34.4 mill and \$34.3 mill, respectively, plus \$137.2 mill and \$131 mill, respectively for the years 2020 and 2019.

Dynagas also said that its average daily hire gross of commissions of around \$62,700 per day per vessel in 4Q20, compared to

about \$62,200 per day per vessel in the corresponding period of 2019. During both periods, the Partnership's vessels operated at 100% utilisation.

Fourth quarter vessel operating expenses were \$7.1 mill, which corresponds to a daily rate per vessel of \$12,940, compared to \$12,799 per day per vessel in 4Q19.

Adjusted EBITDA for 4Q20 was \$24.4 mill, compared to \$24 mill for the corresponding period of 2019, an increase of 1.7%. For the full year, adjusted EBITDA was \$96.5 mill, compared to \$90.4 mill for 2019.

CEO, Tony Lauritzen, said: "All six LNG carriers in our fleet are operating under their respective long-term charters with international gas producers with an average remaining contract term of 7.5 years.

"Our estimated contracted revenue backlog is approximately \$1.1 bill. Absent any unforeseen events or unscheduled drydockings the earliest contracted re-delivery date for any of our six LNG carriers is in the third quarter of 2021 ('Arctic Aurora'), with the next carrier ('Clean Energy') becoming available for re-chartering in the first quarter of 2026.

"The current short term market for LNG shipping is challenging, however, we believe this market will improve going into the second half of the year driven by seasonal demand.

"Despite the ongoing operational challenges, the industry is facing as a result of the COVID-19 outbreak, we are pleased to report 100% utilisation for our fleet for the fourth quarter of 2020. The ongoing impact of the COVID-

19 outbreak has been operationally manageable, due to our manager's COVID-19 response plan, which has been implemented with the support of our seafarers, charterers, and employees, for which we are grateful.

"Subsequent to the quarter, we entered into an amended and restated agreement with our manager under which the technical management fee was reduced by 13%, which is equivalent to \$417 per vessel per day effective from 1st January, 2021.

"Going forward, we intend to continue our strategy of using our cash flow generation to deleverage our balance sheet and reinforce our liquidity so as to build equity value over time. This, we believe, will enhance our ability to pursue future growth initiatives," he concluded. ■

NEWS NUDGE

LNG trade indices go live

The Baltic Exchange's new set of independent indices for LNG seaborne trade went live on 2nd March.

Published twice weekly, the new indices were given the acronym (BLNGg) and are published alongside the current LNG indices, which are based on LNGCs burning very low sulphur fuel oil (VLSFO).

Historical data for the new indices will be available dating back to 1st January, 2020.

The new standard Baltic vessel has the following speed and consumption specification when burning LNG as a fuel:

- 17 knots on 210 cu m LNG/day laden.
- 16 knots on 190 cu m LNG/day ballast.
- 0.1% boil off.
- Port consumption 42 cu m LNG/day idle.

- Port consumption 85 cu m LNG/day working.

US dollar per day assessments are available on the following routes:

- BLNG1g Australia to Japan round voyage.
- BLNG2g US Gulf to Continent round voyage.
- BLNG3g US Gulf to Japan round voyage.

CME Group plans to launch three new futures contracts based on the new Baltic Exchange indices on 22nd March, 2021, pending a regulatory review.

KARMOL's first FSRU leaves the yard

KARMOL's first FSRU was delivered on 15th March at Sembcorp Marine in Singapore and has begun sea trials off Singapore ahead of its deployment in Senegal.

'Karmol Lngt Powership Africa', will enable KARMOL - a joint venture between Karpowership and Mitsui OSK Lines (MOL) - to offer LNG-powered electricity to Senegal for the first time using

its floating Powership, 'Karadeniz Powership Ayşegül Sultan'.

In Senegal, Karpowership is operating the 235 MW capacity Powership, to produce around 15% of the country's supply, since August, 2019. The Powership will

switch to operating with LNG before the end of June.

KARMOL plans to switch its whole fleet of Powerships to LNG. Another FSRU is under construction, which is planned for deployment in Mozambique. ■



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NextDecade and Bechtel review Rio Grande

NextDecade and Bechtel Oil, Gas and Chemicals have completed a pricing review on the lump-sum turnkey engineering, procurement, and construction (EPC) agreements for the first three trains at the Rio Grande LNG project.

This review had no impact to the overall cost of the project. The EPC agreements pricing is now valid until 31st December, 2021. In addition, NextDecade and Bechtel agreed to extend the EPC agreements validity until 31st July, 2022.

"We value our strong partnership with Bechtel, the world's leading LNG EPC contractor," said Matt Schatzman, NextDecade's Chairman and CEO. "Our global LNG customers, feed gas suppliers, and other stakeholders can have the utmost confidence in the

on-time and on-budget delivery of our Rio Grande LNG project.

"We are pleased to continue to progress our engineering and procurement activities under limited notices to proceed, and we look forward to providing Bechtel with a full notice to proceed with the development of this world-class project immediately following FID," he said.

NextDecade anticipated taking a final investment decision (FID) on a minimum of two trains at Rio Grande LNG this year. ■



NextDecade is in talks with Bechtel over Rio Grande LNG

QP looks at LNGC designs

Qatar Petroleum (QP) has signed an interim agreement aimed at developing new medium and large LNGC designs.

The partners are QP, Singapore-based LNG cargo containment system developer LNT Marine, American Bureau of Shipping (ABS) and Shanghai Waigaoqiao Shipbuilding (SWS).

A joint industry project (JIP) is to be established to target new LNGC design development, utilising the LNT A-Box LNG cargo containment system, QP said.

Other signatories include Qatargas and affiliates of energy companies, ConocoPhillips, Exxon-Mobil, Shell and Total.

"We are pleased to collaborate with LNT Marine, ABS and SWS to introduce new designs utilising innovative technologies to the LNG shipping industry," Saad Sherida al-Kaabi, Qatar's Minister of State for Energy Affairs and QP President and CEO, said.

"With this signing, Qatar Petroleum reaffirms its commitment to the continuous improvement of the LNG industry by supporting new concepts and encouraging innovation in areas that

benefit the industry as a whole, in a safe and economic manner," he added.

David Wu, LNT Marine's Founder and Chairman, said, "We are very pleased to co-operate with Qatar Petroleum and other market leaders in the LNG industry, to support new technology development for the next wave of LNG carriers.

"Based on our decade of hard work and today's co-operation with Qatar Petroleum, Qatargas and the other distinguished international partners, including ABS and SWS, we have confidence in our ability to develop state-of-the-art LNG carrier designs with the (patented) LNT A-BOX containment system to accommodate the requirements of the LNG industry," he said.

"ABS has a proud record of supporting innovation in gas carrier development and we are delighted to be able to a project to that list," said Patrick Janssens, ABS Vice President, Global Gas Solutions. ■

Trelleborg acquires Gutteling

Through subsidiary Trelleborg Industrial Solutions, Trelleborg has finalised the acquisition of the Dutch Gutteling Group.

Gutteling designs and sells composite hoses to the chemical industry and claims to be the market leader in hoses for LNG ship-to-ship (STS) transfers.

This acquisition complements the Group's industrial hose, and specifically, composite hose, offering, Trelleborg said.

Composite hoses are mainly used for aggressive chemicals, such as chlorine, sulfuric acid, biofuels and LNG.

Gutteling's head office and production facility is in Rotterdam, with production undertaken in the Czech Republic, plus a sales office in the US.

"I am delighted to welcome

Gutteling to Trelleborg. We have a long-standing business relationship and recognise the company as an innovative supplier of high-quality hoses and fittings for demanding environments.

"The addition of Gutteling reinforces our position as a system provider in LNG transfer, while also strengthening us in the aftermarket. We can also see sales synergies between the company and our existing composite hose offering," said Jean-Paul Mindermann, Trelleborg Industrial Solutions business area President.

The transaction was finalised on 4th March. ■

NEWS NUDGE

Goltens fits more Techcross BWTS

Engineering firm Goltens has again been contracted to fit Techcross ballast water treatment (BWTS) plants on Nigerian operated LNGCs.

Having completed successful BWTS retrofits of one of its LNGCs, Goltens Singapore was hired to complete similar turnkey retrofits on two 15-year old, 83,000 dwt LNGCs.

The scope was comprehensive and included completion of the following throughout the project lifecycle:

- 3D scanning & vessel survey.

- Basic and detailed engineering.
- Class approvals & shipyard management.
- Procurement & Prefabrication.
- Supply of material (big bore piping, small bore piping, site run piping & fittings, valves, actuators, cable & etc).
- Installation and supervision in the yard.

The 2005-built LNGCs were retrofitted with two Techcross ECS-3,200 B BWTS at the MMHE shipyard at Johor, Malaysia.

Each vessel is fitted with three 3,200 cu m per hour ballast water pumps. ■

HHI to transfer LNGC technology to smaller shipbuilders

Hyundai Heavy Industries Group (HHI) is to transfer its LNG shipbuilding technology to medium-sized shipbuilders.

This move is to pave the way for its merger with Daewoo Shipbuilding & Marine Engineering (DSME).

HHI plans to move its LNG technology to STX Offshore & Shipbuilding and Hanjin Heavy Industries.

This will allow a plan to be submitted to the European Commission thus eliminating the possibility of a monopoly. The EC is

currently conducting a business combination review on HHI and DSME.

Last year, the EC told HHI to find a solution to remove the possibility of limited competition in the LNG shipbuilding market.

At present, HHI and DSME's combined share of the LNGC building market is running at around 70%.

The two major shipbuilders announced a merger plan in 2019. South Korea, the European Union and Japan are currently examining the plan and China, Kazakhstan and Singapore have already approved the merger.

However, the EU had expressed concerns over the possibility that the merger would lead to a mega shipbuilder and less bargaining

power in the LNGC market.

"It is said that Hyundai Heavy Industries Group and the European Union are continuing with their negotiations and the competition authorities of South Korea and Japan are likely to be affected by the European Commission's decision," said an industry source to the Business Korea media outlet. ■

NEWS NUDGE

Newbuildings

Chinese gas distributor Shenzhen Gas has announced plans to order an 80,000 cu m LNGC at CSSC Hudong-Zhonghua Shipbuilding for around \$120 mill, according to various reports.

She is to be delivered in 2023.

The company reportedly said that she will be owned and managed by a company to be set up in Hong Kong.

Elsewhere, brokers reported that Maran Gas had declared an option for another 174,000 cu m LNGC at Samsung Heavy Industries (SHI).

The order was believed to be on the back of a long term charter to Total.

This contract is valued at \$186.5 mill and brings Maran Gas' total to two firm orders at SHI.

Shell's first European carbon neutral cargo

Shell Global LNG recently took delivery of its first carbon neutral LNG cargo in Europe.

The Gazprom cargo was unloaded at the Dragon LNG terminal in Milford Haven, Wales.

Elsewhere, Woodside Burrup and its Pluto LNG joint venture partners, Kansai Electric Power Australia and Tokyo Gas Pluto, have delivered their first cargo of carbon offset condensate to Trafigura.

This cargo was loaded at Pluto LNG in Western Australia.

The CO2 equivalent emissions associated with extraction, storage and shipping of the 650,000 barrel cargo will be offset through a combination of efficiency measures, which reduce emissions, and surrender of carbon offsets.

Trafigura said that it was working with the vessel owner to minimise actual emissions associated with transporting the cargo.

Cargo milestones

On 3rd March 2021, Elengy, celebrated the discharge of its 10,000th LNG cargo.

Since the first delivery was made to its Le Havre LNG terminal in 1965, Elengy has unloaded 326

mill tonnes of LNG, about 10% of the LNG delivered worldwide.

After Le Havre facility closed in 1989, the company now operates the Fos Cavaou, Fos Tonkin and Montoir-de-Bretagne terminals.

Le Havre first handled the 25,500 cu m 'Jules Verne' in 1965 and since then, the other terminals now handle Q-Maxes and the new Arc7s.

Almost 290 different LNGCs have called at the terminals, Elengy said.

Meanwhile, Chevron-operated Angola LNG said it has loaded and shipped its 500th cargo since the launch of the 5.2 mill tonnes per annum Soyo plant in 2013.

The milestone cargo left recently on board the 160,500 cu m 'Sonangol Benguela', according to Angola LNG.

She has since delivered the cargo to Petrobras receiving FSRU terminal in Guanabara Bay.

DESFA takes FID

Greece's gas grid and terminal operator DESFA recently took a final investment decision (FID) to

build a small-scale jetty at its Revithoussa LNG import terminal.

The project is believed to be valued at around €20.4 mill while the new jetty is due to be commissioned in September, 2022, according to a development plan.

DESFA revealed plans for the project last year as part of the Poseidon Med II LNG bunkering initiative.

The jetty will be built in the northeastern part of the island located in the gulf of Pachi at Megara, 45 km west of Athens.

It will have the capacity to load small-scale LNGCs ranging from 1,000 cu m capacity up to 28,000 cu m.

The smaller vessels will be earmarked to supply gas to LNG-powered cruise ships, container-ships, and other ship types primarily at Piraeus but also other locations, DESFA said.

The larger ships will supply outlying LNG storage and distribution facilities in other Greek ports, such as Patras, as planned within the Poseidon Med II initiative, as well as islands through virtual pipeline schemes. ■

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	\$186.96 mill
Five years old (160,000 cu m)	\$140.31 mill
Total Fleet (508 ships)	\$54.50 bill
Orderbook (133 ships)	\$25.32 bill

Source: VesselsValue (03/03/21)

*The above is updated each month courtesy of VesselsValue

LNG rate assessments

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

Region	This week	Change*
East of Suez	\$30,000	-
West of Suez	\$30,000	-
12 mos T/C	\$49,000	+\$1,000

*Since last report (04/03/21)

Source: Fearnleys (17/03/21)

WORLD LNG CARRIER ORDERBOOK

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Bw Lesmes	GTT 96 GW	MEGI	DSME	01/03/2021	174000	BWGas
Marvel Swan	Unknown	XDF	Samsung	01/03/2021	173400	Navigare
Lngships Empress	GTT MK III Flex	XDF	Samsung	01/03/2021	174000	TMS Cardiff Gas
Hellas Diana	GTT MK III Flex	XDF	Hyundai	01/03/2021	174000	Latsco Shipping
Lngships Athena	GTT MK III Flex	XDF	Hyundai	01/03/2021	174000	TMS Cardiff Gas
Lng Adventure	GTT MK III Flex	XDF	Samsung	01/03/2021	174000	NYK
Lngship Manhattan	GTT MK III Flex	XDF	Hyundai	01/04/2021	174000	TMS Cardiff Gas
Celsius Charlotte	Unknown	XDF	Samsung	01/05/2021	180000	Celsius Shipping
Diamond Gas Crystal	GTT MK III Flex	XDF	Hyundai	01/05/2021	174000	NYK
Flex Vigilant	GTT MK III Flex	XDF	Hyundai	01/05/2021	174000	Flex LNG
Energy Integrity	GTT 96 GW	MEGI	DSME	01/05/2021	173400	Alpha Gas
Yiannis	GTT 96 GW	MEGI	DSME	01/06/2021	174000	Maran Gas Maritime
Mu Lan	GTT 96 L03+	XDF	Hudong-Zhonghua	01/06/2021	174000	CSSC
Bw Helios	GTT 96 GW	MEGI	DSME	01/06/2021	174000	BWGas
Energy Intelligence	GTT 96 GW	MEGI	DSME	01/06/2021	174000	Alpha Gas
Gaslog Wellington	GTT MK III Flex+	XDF	Samsung	01/06/2021	180000	GasLog
Isabella	GTT 96 GW	XDF	DSME	01/06/2021	174000	Maran Gas Maritime
Aristarchos	GTT MK III Flex	XDF	Hyundai	01/06/2021	174000	Capital Gas
Mol Hestia	Unknown	MEGI	DSME	01/07/2021	174000	MOL
Minerva Chios	GTT MK III Flex+	XDF	Samsung	01/07/2021	174000	Minerva Marine
Minerva Limnos	GTT 96 GW	MEGI	DSME	01/07/2021	173400	Minerva Marine
Adamastos	GTT MK III Flex	XDF	Hyundai	01/08/2021	174000	Capital Gas
Samsung 2314	Unknown	XDF	Samsung	01/08/2021	180000	Celsius Shipping
Gaslog Winchester	GTT MK III Flex+	XDF	Samsung	01/08/2021	180000	GasLog
Attalos	GTT MK III Flex	XDF	Hyundai	01/08/2021	174000	Capital Gas
Asklipios	GTT MK III Flex	XDF	Hyundai	01/09/2021	174000	Capital Gas
Daewoo 2504	GTT 96	XDF	DSME	01/09/2021	174000	Maran Gas Maritime
Global Sea Spirit	GTT 96 GW	XDF	DSME	01/09/2021	173400	Nakilat
Samsung 2306	GTT MK III Flex	XDF	Samsung	01/09/2021	174000	NYK
Diamond Gas Victoria	GTT MK III Flex	XDF	Hyundai	01/09/2021	174000	NYK
Hellas Athina	GTT MK III Flex	XDF	Hyundai	01/09/2021	174000	Latsco Shipping
Samsung 2355	GTT MK III Flex	XDF	Samsung	01/10/2021	174000	NYK
Daewoo 2507	GTT 96 GW	XDF	DSME	01/10/2021	174000	Maran Gas Maritime
Hyundai Ulsan 2939	GTT MK III Flex	XDF	Hyundai	01/10/2021	180000	SK Shipping
Daewoo 2506	GTT 96	MEGI	DSME	01/11/2021	174000	Maran Gas Maritime
Hyundai Samho 8025		XDF	Hyundai	01/12/2021	174000	H-Line
Tenergy	GTT MK III Flex	XDF	Hyundai	01/12/2021	174000	Tsakos Energy Navigation
Samsung 2336	GTT MK III Flex	XDF	Samsung	01/12/2021	174000	JP Morgan
Global Sealine	GTT 96 GW	XDF	DSME	01/12/2021	173400	Nakilat
Samsung 2307	GTT MK III Flex	XDF	Samsung	01/12/2021	174000	NYK
Hyundai Samho 8032	GTT MK III Flex	XDF	Hyundai	01/01/2022	174000	NYK
Gui Ying	GTT 96 L03+	XDF	Hudong-Zhonghua	01/01/2022	174000	CSSC
Daewoo 2508	Unknown	XDF	DSME	01/03/2022	174000	Maran Gas Maritime

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 = 3rd March 2021

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Hudong-zhonghua H1829a	GTT 96 L03+	XDF	Hudong-Zhonghua	01/03/2022	170520	CSSC
Samsung 2319	GTT MK III Flex	XDF	Samsung	01/03/2022	174000	JP Morgan
Elisa Aquila	GTT MK III Flex	XDF	Hyundai	01/03/2022	174000	NYK
Clean Cajun	Unknown	XDF	Hyundai	01/04/2022	200000	Dynagas
Hyundai Samho 8033	GTT MK III Flex	XDF	Hyundai	01/06/2022	173000	NYK
Hyundai Samho 8026	GTT MK III Flex	XDF	Hyundai	01/06/2022	174000	H-Line
Hudong-zhonghua H1830a	GTT 96 L03+	XDF	Hudong-Zhonghua	01/06/2022	170520	CSSC
Samsung 2337	GTT MK III Flex	XDF	Samsung	01/07/2022	174000	JP Morgan
Clean Copano	Unknown	XDF	Hyundai	01/07/2022	200000	Dynagas
Hyundai Samho 8091	Unknown	XDF	Hyundai	01/08/2022	174000	Knutzen
Hyundai Ulsan 3185		XDF	Hyundai	01/08/2022	174000	Korea Line
Daewoo 2509	Unknown	MEGI	DSME	01/08/2022	174000	BWGas
Daewoo 2510	Unknown	MEGI	DSME	01/09/2022	174000	BWGas
Prism Diversity	Unknown	XDF	Hyundai	01/09/2022	180000	SK Shipping
United Prosperity	Not Applicable	XDF	Hudong-Zhonghua	01/10/2022	174000	China LNG Shipping
Hyundai Samho 8092	Unknown	XDF	Hyundai	01/10/2022	174000	Knutzen
Hyundai Ulsan 3186		XDF	Hyundai	01/10/2022	174000	Korea Line
Hyundai Ulsan 3187		XDF	Hyundai	01/11/2022	174000	JP Morgan
Hyundai Samho 8093	Unknown	XDF	Hyundai	01/11/2022	174000	Knutzen
Minerva Amorgos	GTT MK III Flex+	XDF	Samsung	01/11/2022	174000	Minerva Marine
Hyundai Ulsan 3243	Unknown	XDF	Hyundai	01/12/2022	174000	Knutzen
Daewoo 2514	Unknown	TFDE - Azipod	DSME	01/12/2022	172500	Sovcomflot
Hyundai Ulsan 3188		XDF	Hyundai	01/12/2022	174000	JP Morgan
Hyundai Samho 8094	Unknown	XDF	Hyundai	01/12/2022	174000	Knutzen
United Glory	Unknown	XDF	Hudong-Zhonghua	01/01/2023	174000	China LNG Shipping
Samsung 2364	GTT MK III Flex+	XDF	Samsung	01/01/2023	174000	MISC
Hyundai Ulsan 3111	GTT MK III Flex	XDF	Hyundai	01/01/2023	174000	Capital Gas
Hyundai Ulsan 3244	Unknown	XDF	Hyundai	01/02/2023	174000	Knutzen
Samsung 2365	GTT MK III Flex+	XDF	Samsung	01/02/2023	174000	MISC
Samsung 2426	Unknown	XDF	Samsung	01/03/2023	174000	Pan Ocean
Hyundai Ulsan 3189	Unknown	XDF	Hyundai	01/03/2023	174000	JP Morgan
Zvezda 041	GTT MK III	TFDE - Azipod	Zvezda SSK	01/03/2023	172600	Smart LNG
Daewoo 2515	Unknown	TFDE - Azipod	DSME	01/04/2023	172500	MOL
United Fortune	Unknown	XDF	Hudong-Zhonghua	01/04/2023	174000	China LNG Shipping
Hyundai Samho 8095	Unknown	XDF	Hyundai	01/05/2023	174000	Knutzen
Hyundai Ulsan 3190	Unknown	XDF	Hyundai	01/05/2023	174000	JP Morgan
Hyundai Samho 8096	Unknown	XDF	Hyundai	01/06/2023	174000	Knutzen
Samsung 2425	Unknown	XDF	Samsung	01/07/2023	174000	Maran Gas Maritime
Daewoo 2516	Unknown	TFDE - Azipod	DSME	01/07/2023	172500	Sovcomflot
Hyundai Samho 8105		XDF	Hyundai	01/08/2023	174000	Sovcomflot
Hyundai Ulsan 3191	Unknown	XDF	Hyundai	01/09/2023	174000	Korea Line
Daewoo 2517	Unknown	TFDE - Azipod	DSME	01/09/2023	172500	Sovcomflot
Zvezda 042	GTT MK III	TFDE - Azipod	Zvezda SSK	01/09/2023	172600	Smart LNG
Hyundai Ulsan 3198	Unknown	XDF	Hyundai	01/10/2023	174000	Korea Line

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 3rd March 2021

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Daewoo 2518	Unknown	TFDE - Azipod	DSME	01/10/2023	172500	MOL
Zvezda 043	GTT MK III	TFDE - Azipod	Zvezda SSK	01/10/2023	172600	Smart LNG
Zvezda 044	GTT MK III	TFDE - Azipod	Zvezda SSK	01/11/2023	172600	Smart LNG
Daewoo 2519	Unknown	TFDE - Azipod	DSME	01/12/2023	172500	MOL
Zvezda 045	Unknown	TFDE - Azipod	Zvezda SSK	01/12/2023	172600	Smart LNG
Samsung 2393	Unknown	XDF	Samsung	01/01/2024	174000	NYK
Samsung 2394	Unknown	XDF	Samsung	01/02/2024	174000	NYK
SHI Maran 1	GTT MK III Flex	XDF	Samsung	15/02/2024	174000	Maran Gas Maritime
SHI Maran 2	GTT MK III Flex	XDF	Samsung	15/02/2024	174000	Maran Gas Maritime
SHI #1	GTT MK III Flex	XDF	Samsung	15/02/2024	174000	Maran Gas Maritime
SHI #2	GTT MK III Flex	XDF	Samsung	15/02/2024	174000	Maran Gas Maritime
Hyundai Ulsan 3221	Unknown	XDF	Hyundai	01/07/2024	174000	Pan Ocean
Hyundai Ulsan 3222	Unknown	XDF	Hyundai	01/08/2024	174000	Pan Ocean
Samsung 2395	Unknown	XDF	Samsung	01/08/2024	174000	NYK
Zvezda 046	Unknown	TFDE - Azipod	Zvezda SSK	01/08/2024	172600	Smart LNG
Samsung 2396	Unknown	XDF	Samsung	01/09/2024	174000	NYK
Zvezda 047	Unknown	TFDE - Azipod	Zvezda SSK	01/09/2024	172600	Smart LNG
HHI 2/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	MOL
HHI 3/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	MOL
HHI 4/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	MOL
HHI 5/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	MOL
HHI 6/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	K-Line
HHI 7/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	K-Line
HHI 8/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	K-Line
HHI 9/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	K-Line
HHI 1/9	GTT MK III Flex	XDF	Hyundai	15/09/2024	174000	MOL
Hyundai Ulsan 3223	Unknown	XDF	Hyundai	01/10/2024	174000	JP Morgan
Zvezda 048	Unknown	TFDE - Azipod	Zvezda SSK	01/10/2024	172600	Smart LNG
Hyundai Samho 8100	Unknown	XDF	Hyundai	01/11/2024	174000	Knutsen
Zvezda 049	Unknown	TFDE - Azipod	Zvezda SSK	01/11/2024	172600	Smart LNG
Zvezda 050	Unknown	TFDE - Azipod	Zvezda SSK	01/12/2024	172600	Smart LNG
Zvezda 051	Unknown	TFDE - Azipod	Zvezda SSK	01/08/2025	172600	Smart LNG
Zvezda 052	Unknown	TFDE - Azipod	Zvezda SSK	01/09/2025	172600	Smart LNG
Zvezda 053	Unknown	TFDE - Azipod	Zvezda SSK	01/10/2025	172600	Smart LNG
Zvezda 054	Unknown	TFDE - Azipod	Zvezda SSK	01/11/2025	172600	Smart LNG
Zvezda 055	Unknown	TFDE - Azipod	Zvezda SSK	01/12/2025	172600	Smart LNG

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 3rd March 2021



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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	Green 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

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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	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	SM Jeju LNG1	7,500	LNG	Korea	Yes	Korea Line
2019	Gas Agility	18,600	LNG	NWE	Yes	MOL
2019	Flexfueller 001	1,480	LNG	Amsterdam	Yes	Titan LNG
2020	Avenir Advantage	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2020	Avenir Accolade	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2020	SM Jeju LNG2	7,500	LNG	Korea	Yes	Korea Line
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	Avenir Aspiration	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	FueLNG Bellina	7,500	LNG	Singapore	Yes	FueLNG
2020	Kaguya	3,500	LNG	Japan	Yes	CLS
2020	Optimus	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
2020	Ecobunker Tokyo Bay	2,500	LMG	Japan	Yes	Ecobunkers
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2021	Knutsen TBN	30,000	LNG	Mediterranean	Yes	Knutsen OAS
2021	Dmitry Mendelev	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	Clean Cañaveral	5,400	LNG	USG	Yes	PNE
2023	Cryopeak TBA	4,000	LNG	West Canada	Yes	Cryopeak
2022	Knutsen TBN	5,000	LNG	Spain	Yes	Knutsen OAS
2023	Knutsen TBN	12,500	LNG	Spain	Yes	Knutsen OAS
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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