

LNG Shipping News

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26 November 2020

First 2020 FID declared

The first final investment decision (FID) of 2020 was reached on 17th November when Sempra LNG and IEnova sanctioned the building Energía Costa Azul LNG Phase 1.

This project will add an LNG export facility with a nameplate capacity of 3.25 mill tonnes per annum to the existing regasification terminal located at Baja California, Mexico, using a compact and high efficiency mid-scale LNG design.

In addition to the \$2 bill in capital expenditures on ECA LNG Phase 1, about \$400 mill was earmarked for a new pipeline in Mexico to be developed and owned by IEnova.

It is expected to be the first LNG export terminal on the Pacific coast to connect the US Western states gas supplies to markets in Mexico and countries across the Pacific Basin.

ECA LNG has secured definitive 20-year sales and purchase agreements with Mitsui & Co and an affiliate of Total for the purchase of around 2.5 mill tonnes per annum of LNG from ECA LNG Phase 1.

A TechnipFMC company was selected earlier this year to perform the engineering, procurement and construction (EPC) for Phase 1.

TechnipFMC confirmed that it had received a notice to proceed for the EPC contract worth over \$1 bill by Sempra LNG and IEnova.

The engineering firm has been involved in this project since 2017, including the delivery of the front-end engineering design (FEED).



FID has been taken on Sempra's Mexican export project

According to Poten & Partners' figures another two FIDs were due to be announced by the end of this year- Cheniere's Corpus Christi Phase 3 and Venture Global's Plaquemines.

However, it was recently announced that Plaquemines FID had slipped back to next year.

More FIDs next year

Out of the 230 mill tonnes per annum FIDs originally due to be declared last year and this, 14 could now be on the cards next year with one each in mid-2022 and mid-2023, respectively. Two more were said to be 'delayed'.

Poten's Kristen Holmquist said that although the pandemic had an impact on the FIDs, many operators had struggled to attract bankable customers. "Signing up customers will continue to be the choke point for FIDs," she explained.

Holmquist also said that the US/China tensions had prevented Chinese buyers from signing long term contracts with US exporters. This situation could improve under the Biden administration, she thought.

As for project financing, this year proved to be an all time high, mainly driven by the \$14.9 bill earmarked for the Mozambique LNG project and Nigeria LNG's \$3 bill for its Train 7 project.

However, Holmquist said that it must be remembered that they were both delayed to this year.

Large refinancing deals have also been seen, which contributed to this year's high total. These included Ichthys, Cheniere and Freeport LNG.

Next year could see less activity, although Russia's \$21.3 bill Arctic LNG 2 project might close \$11 bill of funding in early 2021. ■

contract as lead contractor for Phase 1 of the Plaquemines LNG export project.

KBR will integrate modularised, owner-furnished equipment for the 10 mill tonnes per annum nameplate facility, identical to the systems being delivered and installed at Venture

Global LNG's Calcasieu Pass project.

Plaquemines has received all the required regulatory approvals and has already signed binding 20-year offtake agreements with PGNiG (2.5 mill tonnes per annum) and EDF (1 mill tonnes). ■

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NEWS NUDGE

KBR gets Plaquemines EPC contract

Venture Global LNG has awarded KBR the engineering, procurement and construction (EPC)

US to drive North American liquefaction growth

The US is expected to lead LNG liquefaction capacity rise in North America by 2024, accounting for around 92.6% of the region's total growth.

About 144.6 mill tonnes per annum is likely to be added by the US by 2024, according to GlobalData.

GlobalData's report, 'LNG Liquefaction Industry Outlook in North America to 2024', revealed that liquefaction capacity in North America is expected to increase by 156.2 mill tonnes, from 69.9 mill in 2020 to 205.1 mill tonnes per annum by 2024, registering an average annual growth rate (AAGR) of 26.9%.

Of the total capacity additions in the region, 125.5 mill barrels per day is expected to come from planned projects, while the remaining 30.7 mill barrels is likely to come from the expansions of active/operational projects.

Adithya Rekha, Oil and Gas Analyst at GlobalData, commented: "In North America, the US is likely to witness capacity additions mainly through the commencement of 11 planned and announced liquefaction terminals during 2020

Total liquefaction capacity additions by country in North America, 2019–2020



Source: GlobalData Oil and Gas Intelligence Center

GlobalData.

and 2024.

"Of these, Rio Grande liquefaction terminal in Texas is one of the largest newbuild projects with a capacity of 16.2 mill tonnes per annum. It aims to monetise abundant, low-cost unconventional gas in Permian Basin and Eagle Ford shale as exports," Rekha said.

Mexico is forecast to occupy second position in terms of liquefaction capacity additions in the region by 2024. It is expected to add around 10.9 mill tonnes per annum through four upcoming terminals by 2024.

Among these, ECA Mid-Scale and Amigo Floating are the major terminals likely to add a combined liquefaction capacity of 6.4 mill tonnes per annum by 2024. The remaining additions are from the announced terminals, Sonora and Salina Cruz Floating, which are expected to start operations in 2024 and 2023, respectively.

Rekha concluded: "The expansion of the only active terminal in Canada, Tilbury, is expected to add roughly 0.7 mill tonnes per annum of liquefaction capacity in the country by 2024."

Tokyo Gas and Marubeni to build Vietnamese LNG plant

Japanese utility Tokyo Gas and trading house Marubeni are to build an LNG-fired power plant and a discharge terminal in Vietnam.

The Japanese companies have signed a memorandum of understanding (MOU) with Petrovietnam Power – owned by state-run Vietnam Oil and Gas Group (Petrovietnam) – and a local construction company for the project.

The companies will begin a feasibility study and negotiations on power pricing, with the aim of

bringing the plant online in 2026.

To be located in the coastal province of Quang Ninh about 200 km from Hanoi, the LNG power station complex will include an LNGC receiving terminal, as well as a pipeline to the plant.

Vietnam is moving forward with LNG-fueled power plants, many of which are expected to begin operating in the mid-2020s, Nikkei

said. Gas-fired power generation is projected to grow to 158.1 billion KW/h in 2030 from 44 bill in 2020, according to government data.

The LNG plant in Quang Ninh will mark the first overseas one-stop-shop project for Tokyo Gas, which is eager to export its LNG knowhow to markets beyond Japan.

Awilco agrees a financial covenant extension

Awilco LNG has come to an agreement with CCB Financial Leasing (CCBFL) to extend the temporary amendments to financial covenants attached to the sale/leaseback of 'Wil-Force' and 'WilPride'.

The required minimum consolidated cash and cash equivalents financial covenant of \$10 mill has been reduced to \$2 mill and the required consolidated positive working capital financial covenant has been waived, originally to 31st December, 2020, but now extended for a further six-month period to 30th June, 2021.

As a condition, the company is restricted from declaring or paying dividends if the consolidated cash position of the Awilco LNG Group is lower than \$20 mill.

The anticipated colder winter, caused by a 'La Nina' weather pattern, is expected to support a strong LNG shipping market in the next few months until LNG demand is expected to resume its growth trajectory.

As a result, the company's results are expected to improve, Awilco said.

Jon Skule Storheill, Awilco LNG CEO, said: "We are very pleased with the continued support CCBFL has shown the company in this extraordinary and temporary situation underlining the excellent co-operation and positive relationship between the parties."

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Golar and B&V to further collaborate

Golar LNG Limited and Black & Veatch Corp (B&V) have entered into a collaboration agreement to advance floating ammonia production, carbon capture, green LNG and hydrogen.

Golar said that it will bring its experience of delivering and operating low cost FLNG infrastructure, while B&V, as a provider of LNG technology, will bring its expertise in green technologies.

By the end of this year, Golar and B&V intend to publish a joint paper on the first area of interest for collaboration, floating ammonia production with carbon capture and storage ('Floating Blue Ammonia').

In subsequent months, Golar and B&V will continue to jointly publish ideas, focusing on the technical and commercial viability of the most prospective green and blue technologies floating applica-

tions and areas of interest that will be investigated.

Any project development and implementation that follows the initial research and investigation stages will be subject to a separate commercial agreement between the two companies.

Golar CEO, Iain Ross, commented; "Replacement of coal, fuel oil and diesel with cleaner burning LNG represents one of the easiest and most cost-effective near-term steps to de-carbonise the world's energy mix.

"Golar and Hygo Energy Transition are extremely well positioned to drive this with their low-cost quick delivery infrastructure solu-

tions and emerging use of Bio-LNG. The next step is to plan for a net zero carbon energy mix.

"As a company with an established history of championing and delivering disruptive solutions to problems in its industry, and a serious and continuous commitment to its ESG agenda, Golar looks forward to working with a like-minded and equally capable partner, in the field of floating ammonia and hydrogen production, carbon capture, and other decarbonisation initiatives," he said.

"This collaboration builds on years of delivering commercial and technology innovation with



Golar LNG's head Iain Ross

Golar, a visionary in monetising natural gas reserves," said Hoe Wai Cheong president of Black & Veatch's oil and gas business.

"Given hydrogen and ammonia's use in many energy-intensive industries we can make meaningful progress in lowering the carbon footprint and help these industries meet new sustainability commitments," he concluded. ■

Port Kembla gas terminal work to start

Australian Industrial Energy (AIE) has signed a lease for up to 25 years with New South Wales Ports for the Port Kembla Gas Terminal (PKG-T).

This lease agreement includes a 10-year initial term with options to extend up to a maximum 25-year term.

AIE, part of Squadron Energy Group, is also pursuing the associated development of a dual fuel - LNG - Hydrogen 800 MW power station in the Illawarra area to be initially fuelled by gas from PKGT.

With a predicted capital cost of \$250 mill, construction of Australia's first gas terminal could see sub-contracts worth around \$76 mill awarded to local businesses in the Illawarra.

AIE will immediately start a site handover process, paving the way for work on the new gas terminal to start. Construction is

forecast to take only 18-20 months, putting the project on track to supply more than 75% of NSW's gas needs by the end of 2022.

This cements the PKGT as the only project in Australia's eastern states with a potential time frame to help the NSW State Government to meet the terms of its recent MOU with the Commonwealth to inject an additional 70 petajoules of gas into the east coast market to meet predicted shortfalls.

Squadron Energy CEO Stuart Johnston said the agreement with NSW Ports further clears the way for agreements between AIE and future gas supply customers to be completed in the coming months. "We have long recognised Port Kembla as the best site for this critical gas project and with the lease for the terminal now agreed, commercial arrangements around future supply contracts can be accelerated with confidence," he said.

AIE Chairman, Michael Masterman, added. "Our commitment to delivering Australia's first gas terminal is about reinforcing grid reliability today and investing in carbon-free technologies that support a more rapid de-carbonisation of the economy."

PKG-T is strategically located in an existing industrial port, which has experience in handling hydrocarbons. The terminal will be sited about 6 km from the existing Eastern Gas Pipeline (EGP), which provides a major natural gas arterial between Victoria and NSW.

NSW Ports CEO, Marika Calfas, welcomed AIE's long-term commitment to Port Kembla. "The gas terminal brings a new trade to Port Kembla and provides significant opportunity for the region. It will also address future energy needs in NSW and other states. We commend AIE and Squadron Energy's commitment to using local businesses to create value and jobs throughout the Illawarra region." ■



Work is to start on Port Kembla's receiving terminal. Photo credit...C Douch

ADNOC signs multiple LNG supply agreements

ADNOC LNG has signed up to a six-year supply agreement with Vitol.

This calls for the sale of 1.8 mill tonnes per annum of post-2022 LNG volumes.

In addition, the Kuwait-based company signed a two-year supply agreement with Total for 0.75 mill tonnes of 2021 and 2022 LNG volumes.

Speaking at the recent Abu Dhabi International Petroleum Exhibition and Convention (ADIPEC), Fatema Al Nuaimi, ADNOC LNG CEO, said: "We are pleased to partner with both Vitol and Total on these major deals as they will create reliable, long-term benefits for our company and shareholders.

"Through collaboration and by adopting a partnership approach, we are driving new growth opportunities for ADNOC and are max-

imising the value of our nation's resources.

"These agreements demonstrate the success of our commercial strategy in unprecedented times and confirm the market's growing confidence in demand for natural gas. LNG is a fuel that can support the transition to clean energy, especially in many Asian markets where switching to gas will result in significant environmental gains.

"As a customer-focused business, we will continue to meet the growing demand for LNG as a key fuel in both today's energy mix and looking ahead to the future," he concluded.

Pablo Galante Escobar, Vitol's Head of LNG, said: "We are proud

to conclude another significant milestone with ADNOC, an important partner across key business areas. For Vitol LNG, this most recent development strengthens our ability to ensure diverse and secure supply to our customers around the world."

Thomas Maurisse, Total's Senior Vice President LNG, added: "This new supply agreement contributes to the growth and flexibility of Total's LNG portfolio and strengthens our long-standing relationship with ADNOC LNG."

Multiple customers

As well as developing new markets, ADNOC LNG has moved from supplying one customer to multiple customers. The agreements

with Vitol and Total continue the transition to a multi-customer strategy that began in 2019, the company said.

Since then, ADNOC LNG has shifted from supplying 90% of its LNG to a single customer in Japan, which remains an important client, to supplying 90% of its LNG to a range of buyers, and in more than eight countries from across Southern and Southeast Asia.

ADNOC LNG produces about 6 mill tonnes per annum of LNG from its facilities on Das Island off the coast of Abu Dhabi.

The company is owned by ADNOC (70%), with Mitsui & Co (15%), BP (10%), and Total (5%) comprising the remaining shareholders. ■

NEWS NUDGE

Zvezda cuts steel for first LNGC

On 20th November, 2020, a steel cutting ceremony took place for the first of 15 ice-breaking LNGCs.

These were ordered by SCF Group from Zvezda Shipbuilding Complex to serve the Arctic LNG 2 project.

Shipbuilding, financing, lease, and timecharter contracts were signed by SCF, NOVATEK, Zvezda and VEB.RF Group last year.

The first of the new Arc7s is scheduled for delivery in the first quarter of 2023.

In total, SCF was involved with the ordering of 15 vessels in this series - the lead LNGC was ordered directly by SCF, while the other 14 vessels were ordered by SMART LNG, a joint venture between SCF and NOVATEK.

Their construction is being supervised by the Russian Maritime Register of Shipping. ■

First Calcasieu Pass trains arrive

The first two liquefaction trains of Venture Global's Calcasieu Pass LNG export facility in Cameron Parish, Louisiana arrived earlier this month.

Their delivery was executed less than 15 months after the project's final investment decision (FID) and represented not only a major project milestone but also a step-change in LNG construction, the company claimed.

The two midscale, modular liquefaction trains and mixed refrigerant compressor skids were shipped to Louisiana from Baker Hughes's manufacturing facility in Avenza, Italy more than two months ahead of the contractual delivery date.

Each optimised 0.6 mill tonnes per year train was delivered complete and ready to install. They were unloaded, transported onto the Calcasieu Pass site and positioned on their foundations in less than a day.

The first and second of the project's 18 identical trains will be connected to their respective Chart brazed aluminium heat exchangers, or cold boxes, eight of which were already installed on site.

Mike Sabel, Executive Co-Chairman and CEO stated, "Venture Global LNG is proud to demonstrate continued execution of the strategy we pioneered. Our factory-fabricated, modular liquefaction trains enable us to deliver the fastest construction schedule in the LNG industry while driving dramatic risk reductions across the entire project. We look forward to the successful delivery of Calcasieu Pass trains 3 through 18 and then 36 identical trains for Plaquemines LNG."

Executive Co-Chairman, Bob Pender, added, "The completion and delivery of our first two liquefaction modules demonstrates the first-class execution and collaboration inherent in our long-term relationship with Baker Hughes.

"Despite the effects of COVID-19 and multiple Gulf Coast hurricanes, we will now begin installing these trains ahead of the contracted schedule. This is a leap forward in LNG infrastructure development," he claimed. ■



Equipment seen arriving at Calcasieu Pass

Höegh LNG chasing projects

Höegh LNG said in its third quarter results presentation (see page 7) that it was actively pursuing projects that are subject to a number of conditions, outside its control, which could impact their timing and ability to move forward.

HLP may have the opportunity in the future to acquire the FSRUs listed below, when operating under a charter of five years or more, if one of the following projects is fulfilled:

- On 21st December, 2018,

Höegh LNG announced that it had entered a contract with AGL Shipping (AGL), a subsidiary of AGL Energy, to provide an FSRU to service AGL's proposed import facility in Victoria, Australia.

This contract is for a period of 10 years and is subject to AGL's final investment decision (FID) and obtaining the necessary regulatory and environmental approvals.

- Höegh LNG has also won the exclusive rights to provide an FSRU for potential projects for Australian Industrial Energy (AIE) at Port Kembla, Australia and for another company in the

Asian market.

Both projects are dependent on a variety of regulatory approvals or permits as well as final investment decisions.

Höegh LNG has four operating FSRUs - 'Höegh Giant', contracted

to Naturgy, 'Höegh Esperanza', contracted to CNOOC, 'Höegh Gannet', serving on a 12-month LNGC contract, and the 'Höegh Galleon', which is operating on an interim LNGC contract with Cheniere.



Höegh LNG is seeking more FSRU projects

NEWS NUDGE

Great Lakes to dredge Brownsville ship channel

NextDecade Corp has contracted Great Lakes Dredge & Dock Corp (Great Lakes) to perform essential improvements to the Brownsville Ship Channel.

These improvements, which include deepening the Channel, will enhance commercial navigation into and out of the Port of Brownsville, to help ensure the safe and reliable access of LNGCs to NextDecade's Rio Grande LNG facility and optimising the ability of shallower draft traffic to pass LNGCs in either direction in accordance with US Coast Guard guidelines.

NextDecade, in co-ordination with the Port of Brownsville, has completed the permitting process for the project activities within the scope of the Dredge and Disposal Construction Agreement (DDCA).

Norton Rose Fulbright advises on LNG SPA

Law firm Norton Rose Fulbright has advised Pavilion Energy Trading & Supply regarding the world's first LNG sale & purchase agreement (SPA) with carbon neutral ambitions.

Temasek subsidiary Pavilion Energy and QP Trading (Qatar Petroleum) announced a 10-year LNG SPA for the supply of up to 1.8 mill tonnes per annum of LNG to Singapore from 2023.

Each LNG cargo delivered under this agreement will be accompanied by a statement of its greenhouse gas (GHG) emissions measured from well to discharge port.

In 2019, Norton Rose Fulbright advised Pavilion on its acquisition of Iberdrola's LNG and natural assets.

Partners Ben Smith (Singapore) and Andrew Hedges (London) led the team advising Pavilion Energy and were supported in Singapore by associate William Holmden and the firm's legal process and the

technology team in Newcastle.

The firm provided advice on the structuring and terms of the procurement exercise and supported the negotiation of the LNG SPA once Qatar Petroleum was short listed. The procurement process utilised an online IT platform through which potential bidders were asked to bid on a term sheet, noting the key terms of their bid and any divergences from the bid documentation online.

This platform kept all the bidders' submissions secure, and kept a full record of all documentation that was submitted. Any access to the documentation was also secured, giving greater integrity to the procurement process, which enabled Norton Rose Fulbright to provide Pavilion Energy

with analysis of bidders' proposals in a more efficient and data-led way.

Ben Smith commented: "At a time when the global pandemic was causing many to rethink long term projections, Pavilion Energy was looking for a new way to procure LNG that accurately accounted for GHG emissions associated with the production of the LNG and its delivery to Pavilion Energy. We were happy to support this innovation with a new way of managing the bid process online."

Andrew Hedges, a climate change and clean energy lawyer, added: "We are pleased to have assisted Pavilion Energy on this landmark agreement. Working on this complex transaction required

us to work with the parties to develop new methodologies to measure, report and offset carbon emissions.

"As the low carbon LNG market evolves, it is hoped that the emissions accounting structures that have been developed for this deal may become a widely accepted industry standard, enabling a liquid trading market to develop in the future," he said.

Norton Rose Fulbright's Global Co-Head of Energy, Anne Lapierre, said: "Building a sustainable energy future requires more transparency of emissions across the board including in the gas value chain. Green LNG has the potential to play an integral role in the transition to a low carbon future."

AN UNRIVALLED VIRTUAL GATHERING OF THE WORLD'S LNG LEADERS

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Finance and interest costs fall buoy Dynagas

Dynagas LNG Partners reported third quarter 2020 net income of \$10 mill, compared to \$4.7 mill in the corresponding period of 2019.

This represents an increase of \$14.7 mill, or 312.8%.

This increase was mainly attributable to a decrease in interest and finance costs in the third quarter of this year.

Adjusted net income was \$10.2 mill, compared to \$2.8 mill in 3Q19, representing a net increase of \$7.4 mill, or 264.3%.

Voyage revenues for 3Q20 and 2019 were \$34.3 mill and \$34.4 mill, respectively.

Dynagas said its average daily hire gross of commissions was around \$62,500 per vessel in the third quarter, compared to about \$62,200 per day per vessel in 3Q19.

Vessel operating expenses were \$7.2 mill, which corresponds to a daily rate per vessel of \$13,074 in the third quarter, compared to \$7.5 mill, or a daily rate per vessel of \$13,531 in the corresponding period of 2019.

Adjusted EBITDA for 3Q20 was \$24.2 mill, compared to \$23.8 mill for the corresponding period of 2019, which corresponds to an increase of \$0.4 mill, or 1.7%.

Operating cash rise

During the 3Q20, the Partnership generated net cash from operating activities of \$27.6 mill, compared to \$13.6 mill in the corresponding period of 2019, which represents an increase of \$14 mill, or 102.9%.

As of 30th September, 2020, the Partnership reported total cash of \$76 mill, including \$50 mill of restricted cash. The Partnership's outstanding debt under the \$675 mill credit facility amounted to \$627 mill, gross of unamortised deferred loan fees and including \$48 mill, which is repayable within a year.

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 7.9 years. Our estimated contracted revenue backlog is approximately \$1.15 bill.

"Absent any unforeseen events or unscheduled drydockings, our fleet is contracted to be employed 100% for 2020, 92% for 2021 and 83% for 2022 through and including 2025. The earliest contracted re-delivery date for 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 at the earliest.

"For the third quarter of 2020, we reported net income of \$10 mill and adjusted EBITDA of \$24.2 mill. This improved performance is attributable to an increase in voyage revenues and a decrease in interest and finance costs compared to the

corresponding period in 2019, coupled with stable vessel operating expenses during this period.

"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 third 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.

"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 said. ■

Höegh wins FSRU contract - reports increased income

Höegh LNG Holdings has entered into a binding commitment to supply H-Energy with an FSRU in the first quarter of next year.

The unit will be moored at Jaigarh, south of Mumbai in Maharashtra state, India.

The final agreement will be for 10 years with annual termination options after year five. Höegh LNG will allocate one of its available FSRUs currently trading as an LNGC for the project.

Meanwhile Höegh LNG Partners (HLP) reported total timecharter revenues of \$35.9 mill for the third quarter of 2020, compared to \$37 mill in 3Q19.

In addition, the company generated operating income of \$28.1 mill, net income of \$19.5 mill and limited partners' interest in net income of \$15.8 mill for 3Q20, compared to operating income of \$23.4 mill, net income of \$13.7

mill and limited partners' interest in net income of \$10.2 mill for the same quarter of 2019.

Derivative gains

The 3Q20 incomes were impacted by unrealised gains on derivative instruments, compared with unrealised losses for 3Q19, mainly on the Partnership's share of equity in earnings of joint ventures.

HLP generated segment EBITDA of \$36.4 mill for both 3Q20 and 3Q19.

CEO Sveinung Støhle, stated: "In the third quarter, we are very pleased to have once again delivered a high level of safe and reliable operating and financial performance, despite the continuing challenges presented by

COVID-19.

"The Partnership's ability to achieve a full quarter of 100% availability for our fleet of high-quality, modern FSRUs enabled us to maximise the value of our long-term, fixed-rate contracts and to demonstrate the robust distribution coverage inherent in our more than 8.5 years of average remaining contract cover.

"Liquid natural gas is readily available and highly cost competitive globally, and it is clear that LNG will play a leading role in driving the energy transition for decades to come," he said.

As of 30th September, 2020, HLP had cash and cash equivalents of \$25 mill. Current restricted cash for operating

obligations of the 'PGN FSRU Lampung' was \$6.5 mill and long-term restricted cash required under the Lampung facility was \$12.2 mill.

As at 19th November, 2020, HLP had an undrawn balance of \$14.7 mill on the \$63 mill revolving credit tranche of the \$385 mill facility and an undrawn balance of \$63 mill on the \$85 mill revolving credit facility from Höegh LNG.

Höegh LNG has indemnified HLP for the joint ventures' boil-off settlement, leased the 'Höegh Gallant' under lease and maintenance agreement with a subsidiary of Höegh LNG and provided the Partnership the \$85 mill revolving credit facility. ■

SCF concludes LNGC project financing

Joint venture companies belonging to Sovcomflot (SCF Group), NYK Line and Samudera, have signed a \$155 mill non-recourse credit facility.

This credit facility is valid for up to eight years and was signed with two leading international banks - MUFG Bank and Development Bank of Japan.

The facility will be used towards refinancing two LNGCs servicing the Indonesian Tangguh LNG plant, 'Tangguh Towuti' and her sistership 'Tangguh Batur', which are jointly owned and operated by SCF Group, NYK Line and Samudera.

Tangguh is managed by the Tangguh Production Sharing Contractors (TPSC), an international consortium. It is operated by BP and began LNG exports in 2009.

The designated annual output of extracted gas is 7.6 mill tonnes, which is exported to China, South Korea and the US, as well as being used domestically.

SCF has also released its results. For the nine months ending 30th September, the timecharter equivalent (TCE) revenue increased by 22.1% year-on-year to \$1,069.8 mill, EBITDA was up 37.5% to \$741.4 mill, maintaining LTM EBITDA at above \$1 bill. Net profit more than doubled to \$249.5 mill.

Positive dynamics were driven by continued and sustainable growth of the industrial business segments, as well as a strong performance of the conventional tanker fleet in the first half of the year.

For 3Q20, TCE revenue was up

1.6% to \$287.1 mill, with EBITDA declining 1.6% to \$162.8 mill and a decline in net profit of 10.9% to \$23.1 mill, compared to 3Q19, reflecting a weaker conventional tanker market over the quarter and some one-off maintenance expenses.

SCF Group's industrial business portfolio, which provides a long-term fixed income revenue stream, contributed \$501.3 mill to the nine month TCE revenue, delivering 7.5% year-on-year growth.

This came as a result of two new LNGCs being employed under long-term contracts with international energy majors.

During 2020, SCF has, either directly or through its SMART LNG joint venture with NOVATEK, timechartered 17 icebreaking LNGCs to Arctic LNG 2, the project's operator.

Some 14 were timechartered through SMART LNG during the nine months - four in January and 10 in September, 2020. A further three vessels were timechartered directly by SCF in October, 2020.

Combined, these 17 timecharters added about \$14 bill of contract backlog attributable to SCF Group.

In September, 2020, SCF took delivery of 'SCF Barents', a new 174,000 cu m LNGC, which is operated by Shell under a long-term timecharter agreement. A further LNGC, 'SCF Timmerman', is scheduled to be delivered and start op-

erations under a similar long-term time-charter with Shell in 1Q21.

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 the shares on the Moscow Exchange.

The total net proceeds of the IPO, after expenses and stabilisation-related buy-back, were RUB38 bill (equivalent to \$480 mill as of the date of issue).

The IPO's proceeds will be used for general corporate purposes, including investments in new assets, with a focus on industrial projects, de-carbonisation and further deleveraging.

Bank loans

Also in October, the Group repaid secured bank loans with an outstanding balance as of the date of prepayment of \$137.7 mill with scheduled maturity within 12 months from 30th September, 2020.

Earlier this month, SCF refinanced maturing loan obligations of \$67.3 mill with existing lenders and further raised a \$155 mill, in an up to eight years project finance facility, for its joint venture companies with partners NYK and Samudera, established to own and operate two LNGCs (see above).

Dividends for the 2019 year of RUB7,181.0 mill (equivalent to

\$96.8 mill), were declared and paid in August, 2020.

SCF targets paying dividends of 50% of its IFRS net profit, and reconfirmed its dividend guidance for the year ended 31st December, 2020 of \$225 mill, subject to the Board of Directors and shareholders' approval.

Commenting on the results, Igor Tonkovidov, SCF President and CEO, said: "SCF demonstrated an exceptionally strong performance with nine months net profit doubling, compared with last year. Furthermore, the Group was able to secure new industrial business with an additional \$14 bill of future contracted revenues, booked in the LNG segment just over the past couple of months, fully in line with the Group's strategy.

"This clearly shows the resilience of Sovcomflot's business model to the pandemic-related operational challenges and to adverse and volatile market conditions. We are on track to achieve the budgetary targets for the full year 2020 and are well equipped to grow the business going forward, with the proceeds from the recent IPO of Sovcomflot shares, maintaining our strong focus on de-carbonisation and innovations.

I am deeply grateful to the whole of Sovcomflot team at sea and on shore for their efforts and perseverance during these challenging times," he concluded. ■

Haisla Nation approves Cedar LNG project partnership

On 30th October, the Canadian Haisla Nation Council voted to approve a partnership agreement for the Cedar LNG project with Pacific Traverse Energy (PTE) and Delfin Midstream.

Council's decision on the project advances this unprecedented opportunity both for the Nation and for the region.

Cedar LNG will be an FLNG facility and is aiming to be the first majority indigenous-owned LNG export facility in Canada, with its majority stake owned by Haisla Nation.

"A benefit from our LNG Canada project agreement means that the Haisla Nation can exercise an option for capacity on the

Coastal GasLink pipeline, which feeds the LNG Canada project. Our Economic Development department have worked hard to secure that capacity to maximise benefits for the Haisla territory," Chief Councillor, Crystal Smith, said.

Up to 50 LNGCs a year will berth alongside the FLNG to export gas to Asian markets. Cedar LNG has been granted a natural gas export licence by the National Energy Board (now Canadian

Energy Regulator).

Zachary Steele, Vancouver-based PTE CEO, added; "We are honoured and humbled to partner with Haisla Nation on this historic project. We are excited, through our partnership, to progress the Cedar LNG Project which will create positive generational impacts for the Haisla Nation and the region as a whole."

LNG Canada CEO, Peter Zebedee, said; "(Today's) agreement between PTE, Delfin and the

Haisla is an exciting opportunity for the Haisla Nation and their partners. These partnerships position the province well to provide security of supply for global markets that need natural gas to fuel their economies, reduce global GHG emissions when natural gas replaces the use of coal, and will help usher in strong economic growth and stability to northern British Columbia communities and all of Canada." ■

Drydockings hit Teekay LNG's income

Teekay LNG Partners has reported a GAAP net income of \$40.3 mill and GAAP net income per common unit of \$0.38 for the third quarter of this year.

This compares with \$47.4 mill recorded for 3Q19.

Adjusted net income of \$58.9 mill and adjusted net income per common unit of \$0.59 was down slightly from the previous quarter, due to a higher than normal number of drydockings.

However, this was higher than the \$50.5 mill reported for the same period of 2019.

The total adjusted EBITDA was \$186.9 mill for 3Q20, compared with \$180.2 mill for 3Q19.

In October, 2020, the Partnership extended the charter of the 52% owned LNGC 'Marib Spirit' to early 2022. As a result, the Partnership's LNG fleet is now 100% fixed for 2020 and 96% fixed for 2021.

Drydockings

GAAP net income and non-GAAP adjusted net income were lower in the third quarter, compared to the second quarter, primarily due to more scheduled drydockings and higher planned repairs and maintenance expenses.

In addition, lower earnings from the redeployment of three,

52% owned LNGCs at lower charter rates, one of which was re-chartered at a higher rate in October, 2020, also made a dent in the net income.

These decreases were partially offset by lower net interest expense and a decrease in general and administrative expenses.

"We generated strong earnings and cash flow again this quarter, despite a higher than usual number of scheduled drydockings," commented Mark Kremin, President and CEO of Teekay Gas Group. "We expect our earnings and cash flows to increase in the fourth quarter of 2020 and we continue to be on track to meeting the 2020 financial guidance we provided earlier this year."

"I'm also pleased to report that we are delivering on a number of our strategic priorities. During the third quarter of 2020, Teekay LNG reduced its total net debt by nearly \$95 mill, or 8% on an annualised basis, and reduced total net interest expense by over \$6 mill, or nearly 9%, compared with the second quarter of 2020.

"Importantly, we expect this



Drydockings have hit Teekay LNG earnings

trend of debt reduction and declining interest expense to continue while simultaneously paying an annual distribution of \$1 per common unit, which is well-covered by our stable earnings and cash flows. In addition, during the recent market surge in demand for LNG carriers, we locked-in the 52% owned 'Marib Spirit' on a new fixed-rate contract to early-2022 at an improved rate.

"We approach the end of the year with the confidence that we have already secured fixed-rate contracts for our LNG fleet covering 96% of 2021, providing the Partnership with high fleet utilisation and stable cash flows," he said.

He added; "I want to thank our seafarers and onshore colleagues

for their continued dedication to providing safe and uninterrupted service to our customers during this COVID-19 pandemic. I am pleased to report that, with the reopening of many jurisdictions during the summer months, we were able to successfully transition nearly all of our crew members across the fleet."

In August, 2020, Teekay LNG issued the equivalent of \$112 mill of unsecured, five year notes in the Norwegian Bond market at an all-in fixed coupon rate of 5.74%.

The net proceeds were used to repay drawings on the Partnership's revolving credit facilities and as a result, the new bond issuance did not increase the Partnership's financial leverage. ■

FLEX LNG benefits from increased revenues

Flex LNG has announced revenues of \$33.1 mill for the third quarter 2020, compared to \$25.8 mill in the previous quarter.

Net income was \$3.8 million and earnings per share \$0.07 for 3Q20, compared to a net loss of \$6.7 mill and loss per share of \$0.12 for the second quarter.

The average TCE rate of \$46,569 per day for the third quarter, compared to \$46,588 per day for 2Q20.

Adjusted EBITDA was \$21.9 mill, compared to \$17.4 mill for the second quarter, while the adjusted net income of \$1.2 mill, compared to adjusted net loss of \$0.7 mill for 2Q20.

In October, 2020, the company took delivery of its 10th newbuild-

ing LNGC, 'Flex Amber', which commenced a 12 month firm charter with options to extend by an additional two years.

The Board of Directors declared a cash dividend for the third quarter of \$0.10 per share.

Øystein Kalleklev, Flex LNG Management CEO, commented: "The third quarter was a very eventful quarter for Flex LNG. We took delivery of 'Flex Aurora' in July, 'Flex Artemis' in August, 'Flex Resolute' in September and subsequent to quarter-end we took delivery of 'Flex Amber' in October.

"With these additions, our

fleet now consists of 10 state-of-the-art large LNG carriers. All these newbuildings have been secured on fixed and variable charters, evidencing the attractiveness of our modern efficient vessels.

"Our trading results were in line with the second quarter and our guidance. We have thus been able to trade our vessels at cash break-even levels during very challenging market conditions, despite significant spot exposure and operational restrictions caused by Covid-19.

"We are pleased that our vessels have been operating with

100% up-time, and that we have managed to minimise extended stays on our vessels for our seafarers with 32 crew changes conducted in the period May to October.

"During the autumn, both gas and freight markets have recovered, and we are thus expecting our TCE to increase to \$70-75,000 per day for the fourth quarter. Improved trading results together with a strong financial position, which includes financing for the three remaining newbuildings, also enables us to reinstate the dividend," he said. ■

Petroleum and LNG segments impact MISC results

MISC Berhad reported revenue for the third quarter of this year of RM2,059.5 mill, which was 4.1% lower than the corresponding quarter's revenue of RM2,147.8 mill in 3Q19.

This was due to lower contributions from the Petroleum segment following lower freight rates and fewer number of operating vessels in the current quarter.

LNG segment also recorded lower revenue from lower earning days, due to drydockings and offhire of certain vessels in the current quarter.

This reduction however, was softened by higher revenue in Heavy Engineering segment mainly due to higher contribution from on-going heavy engineering projects.

Group operating profit for the quarter was RM330 mill, which was 12.3% lower than the corresponding quarter's operating profit of RM376.4 mill, mainly due to the lower revenue for the LNG and Offshore segments.

Group profit before tax for

the quarter was RM281.2 mill, 2.2% lower than the corresponding quarter's profit before tax of RM287.5 mill, mainly due to the lower operating profit. The decrease was further caused by lower share of profit of joint ventures offset by lower impairment loss on ships, offshore floating assets and other property, plant and equipment, as well as lower finance costs in the current quarter.

Group revenue for the first nine months of 2020 was RM6,759.6 mill, 2.6% higher than the corresponding nine month period revenue of RM6,587.2 mill.

This rise came from higher contributions from all segments except for the Offshore segment. Higher earning days brought about by fewer drydocking activities in the current period con-

tributed to an increase in LNG's revenue.

Group operating profit for the nine month period was RM1,698 mill, some 16.9% higher than the corresponding nine month period of 2019. This was mainly due to higher margins on freight rates in the Petroleum segment and higher earning days in the LNG segment.

Loss before tax

The Group reported loss before tax of RM678.2 mill, compared to profit before tax of RM1,248.6 mill in the corresponding period. The loss was mainly due to the recognition of provision for litigation claims amounting to RM1,049.2 mill, as well as a write off of trade receivables and loss on re-measurement of finance lease receivables of RM935.2 mill, following the decision by the Arbitration Tri-

bunal on the Group's arbitration proceeding against SSPC.

In addition, the Group also recorded an impairment loss of RM315.6 mill in the current period mainly on its Heavy Engineering's asset in light of the current oil and gas downturn, COVID-19 pandemic and the expected prolonged recovery of the industry.

The Group's cash flow generated from operating activities for the period ended 30th September, 2020 was RM4,491.5 mill, an increase of 8.4% from the corresponding period mainly from higher net inflows in the LNG and Petroleum segments from the improved operating performance.

Furthermore, the healthy cash balance is supported by the steady cash flow generated from the Offshore and LNG segments' portfolio of long-term contracts. ■

NEWS NUDGE

Delfin snaps up Spieler

Experienced shipping veteran, Oscar Spieler, has joined Delfin Midstream as Executive Chairman.

Spieler has had spells as CEO of Golar LNG, Frontline and Sea Production, and as Chairman of Quantafuel.

While at Golar, he successfully led the development and execution of the first FLNG, delivering FLNG 'Hilli Episeyo' under budget and putting her into commercial operation. Delfin recently announced the completion of a FEED for a newbuilding FLNG.

Ship deliveries

Capital Gas has taken delivery of the newbuilding LNGC 'Aristos I', from Hyundai Heavy Industries.

With cargo capacity of 174,000 cu m, the vessel is powered by X-DF engines and equipped with an air lubrication system and increased filling

limits (more than 99%).

She is the first of seven sister-ships to be delivered between 2020-2023 and has been chartered to BP Shipping for a period up to 12 years.

Elsewhere, the first of 12 Very Large Ethane Carriers (VLECs) being built to ABS Class with an LNG Cargo Ready notation has been delivered to Zhejiang Satellite Petrochemical (STL) by Samsung Heavy Industries (SHI).

ABS' notation provides assurance that the VLEC can be upgraded to trade LNG cargoes in the future.

The 'Seri Everest', the largest VLEC built thus far with more than 98,000 cu m capacity, is the first of a phase-one order by STL, which was subsequently sold to MISC Berhad (MISC).

A second phase of the order includes six vessels, bringing the total to 12, scheduled to operate from the US to China to support STL's ethane cracker facility in Jiangsu province.

In the charter market, it has been reported that Awilco's LNGC 'WilForce' has been chartered at \$80,000 per day.

Nakilat fleet management transition second phase

Nakilat has completed the second phase of its fleet management transition from Shell International Trading and Shipping Co.

This involved seven LNGCs

transitioned to its in-house technical and operational management.

The Q-Max LNGC 'Lijmiliya' became the seventh and final vessel to transition from Shell to Nakilat Shipping Qatar Limited (NSQL).

The first phase involved 10 LNGCs and began in late 2016 and was completed in August, 2017.

Shell will continue to manage eight LNGCs for Nakilat until the final phase of transition. ■



Nakilat has finished another phase of its vessel transfer plan

Koreans find against GTT

The Korea Fair Trade Commission (KFTC) has declared that since 2016, some of GTT's commercial practices had not complied with its competition regulations and imposed a fine.

This follows an investigation into GTT's commercial practices with South Korean shipyards regarding LNGC construction.

As a result, KFTC asked GTT to allow the South Korean yards to perform all or part of the technical assistance services currently included under the company's technology license.

KFTC also imposed an administrative fine of around €9.5 mill.

In response, GTT emphasised that the technology and technical assistance license constituted an inseparable offering, which guarantees the integrity of its technologies and that any separation could be detrimental to the entire LNGC industry.

The company added that it challenged the rationale of this decision and, upon receipt of the

KFTC's written notification, will appeal against it before the Seoul High Court.

GTT also said that it did not anticipate any significant financial or industrial impact in the short or mid-term. Depending on the conclusions of the appeal procedure, it will reassess the consequences of its activities.

Philippe Berterottière, GTT Chairman and CEO, said: "We are convinced that our commercial practices comply with the Korean competition rules and that the structuring of our offer, which has contributed for decades to the safe development of LNG maritime transport, makes it possible to provide our shipyard partners with ever more innovative, safe and efficient technologies, for the benefit of the entire industry." ■

NEWS NUDGE

Gorgon's Train 2 back online

Chevron's Gorgon LNG Train 2's production has restarted following welding issues discovered earlier this year.

Train 2 went offline for scheduled maintenance on 23rd May and weld quality issues were subsequently found in heat exchangers in July.

"Insights gained from Train 2 repairs will contribute to more efficient inspections and potential repairs on Trains 1 and 3," a company spokesman said in an email to S&P Global Platts.

Inspections and potential work will take place on Train 1 and then on Train 3, Chevron said.

Meanwhile, Santos plans to shut one of its production trains at its Gladstone Liquefied Natural Gas (GLNG) project in January.

According to a notice posted on the AEMO website, one train will be offline between 2nd and

7th January for scheduled maintenance. The plant's two production trains have combined nameplate capacity of 7.8 mill tonnes per annum on Curtis Island.

SHI wins order for block materials

Samsung Heavy Industries (SHI) has won a contract worth \$2.5 bill to supply block materials to a client in the Eurasian region.

This marked the shipbuilder's largest single ship contract, the company said in a filing.

Details were not disclosed, but SHI had joined Zvezda in the design of the new Arc7s to be built at the Russian shipyard.

In the filing, SHI said that the contract period is valid until December, 2025.

SHI also said that it expected to win additional orders related to large-scale LNG projects, such as Mozambique and Qatar, plus other ship types. ■

Wärtsilä to support Teekay LNGCs

Wärtsilä has signed support agreements for eight LNGCs owned by Teekay Gas, part of the Teekay Group.

The two agreements, for four vessels each, were signed in August and September of this year and took effect one month after their signings. They are valid for five years.

Wärtsilä had earlier supplied the LNG reliquefaction systems on board the vessels covered by the agreements.

Under the contract terms,

Wärtsilä will provide both remote support, as well as 24/7 technical support for the vessels' on board gas process plants.

In carrying out an analysis of the process plants, Wärtsilä used its digital OPERIM (Operational Performance Improvement & Monitoring) tool. This provides data to support performance improvements needed

to achieve optimal efficiency, and allows adjustments to be made taking into account changes in the operating conditions.

"Lifecycle support to our customers' installations is a central pillar in the strategy of Wärtsilä Gas Solutions. Agreements such as these are the best way for ensuring that the products, systems and

solutions that we deliver are properly maintained, and that their reliability and performance are at the optimal level," explained Rene Christian Olsen, Director Services, Gas Solutions.

Wärtsilä has a long-standing relationship with Teekay, and has supplied multiple products for the fleet. ■



Eight of Teekay Gas' fleet of LNGCs will be covered by LNG Support Agreements with Wärtsilä. Copyright: Teekay Group

LNG rate assessments Spot market (155,000-165,000 cu m)

Region	This week	Change*
East of Suez	\$112,000	-
West of Suez	\$112,000	-
12 mos T/C	\$47,000	-\$1,000

*Since last report (12/11/20)

Source: Fearnleys (25/11/20)

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WORLD LNG CARRIER ORDERBOOK

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Hyundai Ulsan 3243	Unknown	XDF	Hyundai	01/11/2022	174000	Knutsen OAS Shipping AS
Hyundai Ulsan 3244	Unknown	XDF	Hyundai	01/05/2023	174000	Knutsen OAS Shipping AS
Hyundai Ulsan 3191	Unknown	XDF	Hyundai	01/06/2023	174000	Korea Line
Hyundai Ulsan 3198	Unknown	XDF	Hyundai	01/08/2023	174000	Korea Line
Daewoo 2514	Unknown	TFDE - Azipod	DSME	01/12/2022	175000	Sovcomflot
Daewoo 2515	Unknown	TFDE - Azipod	DSME	01/04/2023	175000	MOL
Daewoo 2516	Unknown	TFDE - Azipod	DSME	01/07/2023	175000	Sovcomflot
Daewoo 2517	Unknown	TFDE - Azipod	DSME	01/09/2023	175000	Sovcomflot
Daewoo 2518	Unknown	TFDE - Azipod	DSME	01/10/2023	175000	MOL
Daewoo 2519	Unknown	TFDE - Azipod	DSME	01/12/2023	175000	MOL
Zvezda 046	Unknown	TFDE - Azipod	Zvezda SSK	01/08/2024	172600	Smart LNG
Zvezda 047	Unknown	TFDE - Azipod	Zvezda SSK	01/09/2024	172600	Smart LNG
Zvezda 048	Unknown	TFDE - Azipod	Zvezda SSK	01/10/2024	172600	Smart LNG
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
Hyundai Samho 8095	Unknown	XDF	Hyundai	01/05/2023	174000	Knutsen
Hyundai Samho 8096	Unknown	XDF	Hyundai	01/06/2023	174000	Knutsen
Hyundai Ulsan 3189	Unknown	XDF	Hyundai	01/03/2023	174000	ICBC Leasing
Hyundai Ulsan 3190	Unknown	XDF	Hyundai	01/05/2023	174000	ICBC Leasing
United Fortune	Unknown	XDF	Hudong-Zhonghua	01/04/2023	174000	China LNG Shipping
United Glory	Unknown	XDF	Hudong-Zhonghua	01/01/2023	174000	China LNG Shipping
United Prosperity	Not Applicable	XDF	Hudong-Zhonghua	01/10/2022	174000	China LNG Shipping
Hyundai Samho 8033	GTT MK III Flex	XDF	Hyundai	01/06/2022	173000	NYK
Hyundai Ulsan 3187		XDF	Hyundai	01/11/2022	174000	JP Morgan
Hyundai Ulsan 3188		XDF	Hyundai	01/12/2022	174000	JP Morgan
Hyundai Samho 8091	Unknown	XDF	Hyundai	01/08/2022	174000	Knutsen
Hyundai Samho 8092	Unknown	XDF	Hyundai	01/10/2022	174000	Knutsen
Hyundai Samho 8093	Unknown	XDF	Hyundai	01/11/2022	174000	Knutsen
Hyundai Samho 8094	Unknown	XDF	Hyundai	01/12/2022	174000	Knutsen
Hyundai Ulsan 3185		XDF	Hyundai	01/08/2022	174000	Korea Line
Hyundai Ulsan 3186		XDF	Hyundai	01/10/2022	174000	Korea Line
Daewoo 2508	Unknown	XDF	DSME	01/01/2022	174000	Maran Gas Maritime
Hyundai Samho 8026	GTT MK III Flex	XDF	Hyundai	01/06/2022	174000	H-Line
Samsung 2315	Unknown	XDF	Samsung	01/06/2022	173400	SinoKor
Samsung 2316	Unknown	XDF	Samsung	01/09/2022	173400	SinoKor
Samsung 2317	Unknown	XDF	Samsung	01/12/2022	173400	SinoKor
Samsung 2318	Unknown	XDF	Samsung	01/03/2023	173400	SinoKor
Samsung 2364	GTT MK III Flex+	XDF	Samsung	01/01/2023	174000	MISC

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = 25th November 2020

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Samsung 2365	GTT MK III Flex+	XDF	Samsung	01/02/2023	174000	MISC
Daewoo 2509	Unknown	MEGI	DSME	01/08/2022	174000	BWGas
Daewoo 2510	Unknown	MEGI	DSME	01/09/2022	174000	BWGas
Hyundai Samho 8025		XDF	Hyundai	01/12/2021	174000	H-Line
Samsung 2355	GTT MK III Flex	XDF	Samsung	01/10/2021	174000	NYK
Zvezda 041	GTT MK III	TFDE - Azipod	Zvezda SSK	01/03/2023	172600	Smart LNG
Zvezda 042	GTT MK III	TFDE - Azipod	Zvezda SSK	01/09/2023	172600	Smart LNG
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
Zvezda 045	Unknown	TFDE - Azipod	Zvezda SSK	01/12/2023	172600	Smart LNG
Daewoo 2507	GTT 96 GW	XDF	DSME	01/10/2021	174000	Maran Gas Maritime
Hudong-zhonghua H1829a	GTT 96 L03+	XDF	Hudong-Zhonghua	01/03/2022	170520	CSSC
Hudong-zhonghua H1830a	GTT 96 L03+	XDF	Hudong-Zhonghua	01/06/2022	170520	CSSC
Hyundai Ulsan 3111	GTT MK III Flex	XDF	Hyundai	01/01/2023	174000	Capital Gas
Hyundai Ulsan 3157	GTT MK III Flex	XDF	Hyundai	01/12/2021	174000	Tsakos Energy Navigation
Hyundai Ulsan 3145	Unknown	XDF	Hyundai	01/09/2022	180000	SK Shipping
Hyundai Samho 8032	GTT MK III Flex	XDF	Hyundai	01/01/2022	174000	NYK
Hyundai Ulsan 2939	GTT MK III Flex	XDF	Hyundai	01/10/2021	180000	SK Shipping
Samsung 2319	GTT MK III Flex	XDF	Samsung	01/03/2022	174000	JP Morgan
Samsung 2336	GTT MK III Flex	XDF	Samsung	01/12/2021	174000	JP Morgan
Samsung 2337	GTT MK III Flex	XDF	Samsung	01/07/2022	174000	JP Morgan
Daewoo 2506	GTT 96	MEGI	DSME	01/11/2021	174000	Maran Gas Maritime
Clean Cajun	Unknown	XDF	Hyundai	01/04/2022	200000	Dynagas
Clean Copano	Unknown	XDF	Hyundai	01/07/2022	200000	Dynagas
Daewoo 2505	Unknown	MEGI	DSME	01/07/2021	174000	MOL
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
Elisa Aquila	GTT MK III Flex	XDF	Hyundai	01/03/2022	174000	NYK
Daewoo 2502	GTT 96 GW	XDF	DSME	01/09/2021	173400	Nakilat
Daewoo 2503	GTT 96 GW	XDF	DSME	01/01/2022	173400	Nakilat
Adamastos	GTT MK III Flex	XDF	Hyundai	01/08/2021	174000	Capital Gas
Yiannis	GTT 96 GW	MEGI	DSME	01/06/2021	174000	Maran Gas Maritime
Hudong-zhonghua H1828a	GTT 96 L03+	XDF	Hudong-Zhonghua	01/01/2022	174000	CSSC
Mu Lan	GTT 96 L03+	XDF	Hudong-Zhonghua	01/06/2021	174000	CSSC
Samsung 2313	Unknown	XDF	Samsung	01/05/2021	180000	Celsius Shipping
Samsung 2314	Unknown	XDF	Samsung	01/08/2021	180000	Celsius Shipping
Minerva Chios	GTT MK III Flex+	XDF	Samsung	01/07/2021	174000	Minerva Marine
Marvel Swan	Unknown	XDF	Samsung	01/03/2021	173400	Navigare
Samsung 2332	GTT MK III Flex+	XDF	Samsung	01/11/2022	174000	Minerva Marine
Bw Helios	GTT 96 GW	MEGI	DSME	01/03/2021	174000	BWGas
Bw Lesmes	GTT 96 GW	MEGI	DSME	01/02/2021	174000	BWGas
Daewoo 2495	GTT 96 GW	XDF	DSME	01/06/2021	174000	Maran Gas Maritime
Energy Intelligence	GTT 96 GW	MEGI	DSME	01/06/2021	174000	Alpha Gas

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Gail Bhuwan	GTT 96 GW	MEGI	DSME	01/02/2021	180000	MOL
Gaslog Wellington	GTT MK III Flex+	XDF	Samsung	01/06/2021	180000	GasLog
Lng Rosenrot	GTT 96 GW	MEGI	DSME	01/01/2021	180000	MOL
LNG Ships Express	GTT MK III Flex	XDF	Samsung	01/03/2021	174000	TMS Cardiff Gas
Samsung 2306	GTT MK III Flex	XDF	Samsung	01/09/2021	174000	NYK
Samsung 2307	GTT MK III Flex	XDF	Samsung	01/12/2021	174000	NYK
Samsung 2312	GTT MK III Flex+	XDF	Samsung	01/08/2021	180000	GasLog
Diamond Gas Crystal	GTT MK III Flex	XDF	Hyundai	01/05/2021	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
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
Lngship Manhattan	GTT MK III Flex	XDF	Hyundai	01/04/2021	174000	TMS Cardiff Gas
Cool Racer	GTT MK III Flex	XDF	Hyundai	01/02/2021	174000	Thenamaris
Minerva Kalymnos	GTT MK III Flex+	XDF	Samsung	01/02/2021	174000	Minerva Marine
Samsung 2302	GTT MK III Flex	XDF	Samsung	01/03/2021	174000	NYK
Cobia Lng	GTT MK III Flex	XDF	Hyundai	01/02/2021	174000	TMS Cardiff Gas
Scf Timmerman	GTT MK III Flex	XDF	Hyundai	01/02/2021	174000	Sovcomflot
Celsius Canberra	GTT MK III Flex	XDF	Samsung	01/12/2020	180000	Celsius Shipping
Gaslog Galveston	GTT MK III Flex	XDF	Samsung	01/12/2020	174000	GasLog
Aristidis I	GTT MK III Flex	XDF	Hyundai	01/11/2020	174000	Capital Gas
Global Star	GTT 96	MEGI	DSME	01/01/2021	173400	Nakilat
Aristarchos	GTT MK III Flex	XDF	Hyundai	01/03/2021	174000	Capital Gas
Attalos	GTT MK III Flex	XDF	Hyundai	01/06/2021	174000	Capital Gas
Flex Freedom	GTT 96 GW	MEGI	DSME	01/11/2020	173400	Flex LNG
Flex Vigilant	GTT MK III Flex	XDF	Hyundai	01/05/2021	174000	Flex LNG
Flex Volunteer	GTT MK III Flex	XDF	Hyundai	01/02/2021	174000	Flex LNG
Energy Integrity	GTT 96 GW	MEGI	DSME	01/05/2021	173400	Alpha Gas
Energy Endeavour	GTT 96 GW	MEGI	DSME	01/12/2020	173400	Alpha Gas
Minerva Limnos	GTT 96 GW	MEGI	DSME	01/03/2021	173400	Minerva Marine
Minerva Psara	GTT 96 GW	MEGI	DSME	01/01/2021	173400	Minerva Marine
Dorado LNG	GTT MK III	XDF	Samsung	01/11/2020	174000	TMS Cardiff Gas

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 = 25th November 2020



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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
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya

For more information please visit <http://small-lng.com>*Includes multi-gas, ethylene and LNG bunker ships with 40,000 cubic metres LNG cargo capacity or less
TBN = To Be Nominated indicates ships are still at construction/planning stage

** = project shelved † =Data to be verified Data last updated = 16th November 2020

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	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	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	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	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
2020	Ecobunker Tokyo Bay	2,500	LMG	Japan	Yes	Ecobunkers
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2021	Knutson TBN	30,000	LNG	Mediterranean	Yes	Knutson 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	Clean Cañaveral	5,400	LNG	USG	Yes	PNE
2023	Cryopeak TBA	4,000	LNG	West Canada	Yes	Cryopeak
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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