LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS — 31 August 2017

Cheniere reports business as usual after ‘Harvey’

Following Hurricane ‘Harvey’, which caused havoc to much of the US Gulf, Cheniere Energy conducted initial assessments of the impact on its LNG loading terminals.

No damage was reported at Cheniere's Sabine Pass facility

At Sabine Pass, LNG production operations continued throughout the storm. Early assessments of the Corpus Christi construction site by Cheniere and its EPC partner Bechtel showed only minor cosmetic impacts.

Cheniere said that it was still trying to contact all employees to ensure they are safe and assess their needs.

"Now that the storm has passed through our Corpus Christi construction site, we are pleased to report that Corpus Christi saw no major impacts, and no interruption of LNG production at Sabine Pass has been experienced," said Jack Fusco, President and CEO of Cheniere. "Moving forward, Cheniere will focus on helping our hometown of Houston recover and the communities around Corpus Christi rebuild."

As the storm is expected to continue to impact the Houston area for a few days, Cheniere has activated its emergency office location in Dallas to support its gas supply and trading division and other essential functions to ensure obligations are met to continue producing LNG at Sabine Pass.

Cheniere's severe weather and safety teams remain activated and continue to monitor the remnants of Hurricane Harvey, the company said.

"Our thoughts and prayers are with all of our neighbours and communities here in Texas and Louisiana that have been impacted by this devastating and continuing storm," said Fusco. "While Cheniere has been lucky to avoid any major impacts from Harvey, many in our communities have a long road ahead to assess the damage and recover from this storm. To help in the relief efforts, Cheniere will donate $1 mill to the Red Cross Harvey relief efforts."

Meanwhile, Cheniere Energy is also setting up an office in Beijing to help it gain long-term supply deals with Chinese buyers, the company said in its recent earnings call.

Cheniere recently hired Chris Li, who was previously with China National Offshore Oil Co (CNOOC) and with China's energy policy-setting agency, the National Energy Administration. ■

Sovcomflot’s Arc7 sets new NSR record

On 17th August 2017, the Sovcomflot-owned icebreaking LNGC ‘Christophe de Margerie’ successfully completed her first commercial voyage, transporting liquefied natural gas (LNG) through the Northern Sea Route (NSR) from Norway to South Korea (see LNG SN 17th August, page 3).

During the voyage, the vessel set a new record for an NSR transit of just six days 12 hours and 15 minutes. In addition, the Arc7 LNGC also became the world’s first commercial vessel to travel the full length of the NSR without any icebreaker escort, SCF claimed.

The LNGC covered 2,193 nautical miles from Cape Zhelaniya of the Novaya Zemlya archipelago to Cape Dezhnev at Chukotka, Russia’s easternmost continental point.

Her average speed during the passage exceeded 14 knots, despite the fact that in some areas she had to sail through ice fields 1.2 m thick.

The total time of the voyage from Hammerfest in Norway to Boryeong in South Korea was 19 days, about 30% faster than the regular southern route through the Suez Canal. ■

SHIPPING NEWS AGENDA

Gunvor wins Fortuna FLNG offtake contract

The Ministry of Mines and Hydrocarbons (MMH), Ophir Equatorial Guinea (Block R) Ltd, OneLNG SA and La Compania Nacional De Petroleos De Guinea Ecuatorial ("GEPetrol") have confirmed that they have nominated Gunvor Group as a preferred LNG Buyer for offtake from the Fortuna FLNG project.

All parties have agreed the principal commercial terms subject to finalising a Sale and Purchase Agreement (SPA) for the offtake ahead of the Final Investment Decision (FID) for the project.

Gunvor is committed to take the full contract capacity of the 'Gandria' FLNG 'of 2.2 mill tonnes per annum, which will be purchased on a Brent-linked, Free on Board (FOB) basis for 10 years.

The contract structure allows flexibility for up to 1.1 mill tonnes per annum of the Fortuna capacity to be marketed on an alternate basis. Consequently, the agreement gives the Fortuna partners with the State of Equatorial Guinea, the potential to sell volumes to higher priced gas markets in Africa and beyond, whilst retaining a share in the profits.

With the identification of a preferred LNG buyer now achieved, the last significant milestone prior to the project's FID is the completion of the funding. FID remains on track for this year.

HE Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Mines and Hydrocarbons, commented: "The selection of Gunvor sets a landmark moment in the development of the Fortuna Project. The partnership with Gunvor also paves the way for the government's objective to deliver important projects that monetise our gas, promotes local content and brings world-class petroleum technology to Equatorial Guinea. The Fortuna Project will target becoming the first choice supplier of LNG for the LNG to Africa initiative, furthering Equatorial Guinea's leadership position in Africa as an LNG exporter."

Nick Cooper, Ophir CEO, said: "We thank those parties that participated in the competitive tender process for the offtake and welcome Gunvor to the Fortuna FLNG project. Gunvor's involvement is a further addition to a strong partnership along the Fortuna value chain. Our focus is now on completing the financing package and debt facility. With Golar's sister vessel, the 'Hilli Episeyo', nearing completion and with Petronas FLNG having recently delivered commercial cargoes, FLNG is now entering the mainstream."

Jeff Goodrich, CEO OneLNG, said: "OneLNG, along with the State of Equatorial Guinea and Ophir, would like to take the opportunity to welcome Gunvor to the Fortuna family. We look forward to working together to set the new performance benchmark in FLNG." ■

S-Oil signs long term LNG contract with Petronas

South Korea's third-largest refiner, S-Oil Corp, has signed a 15-year LNG supply contract with Malaysia's Petronas, starting next year, the company confirmed.

S-Oil said in a stock exchange filing that it expects to buy 700,000 tonnes of LNG per year from Petronas from March, 2018 through March, 2033.

The refiner, whose main shareholder is Saudi Aramco, plans to use LNG as a fuel to run the plants and as a feedstock for petrochemical products.

S-Oil also said that it will take fuel oil it had previously used to power its plants to produce more expensive fuels, such as gasoline, thus increasing profitability when its expanded facilities start operations in 2018, according to the statement.

Under the project, the company is constructing a residual fuel oil upgrading system to produce higher quality oils and an olefin production system that will produce 405,000 tonnes of polypropylene a year, along with other high-value products.

S-Oil runs a 669,000 barrels per day refinery in Ulsan, southeast of Seoul. ■

Global LNG liquefaction capacity set to grow

Global LNG liquefaction capacity is expected to grow by 94% during 2017–2021, from 386.6 mill tonnes per annum in 2017 to 750.5 mill tonnes per annum by 2021, according to GlobalData's latest report - Global Capacity and Capital Expenditure Outlook for LNG Liquefaction Terminals.

Among the regions, North America leads in terms of planned liquefaction capacity growth, contributing 77% of the total global growth. This region is expected to add 288 mill tonnes per annum of liquefaction capacity by 2021.

Former Soviet Union (FSU) and Oceania follow with expected capacity additions of 38 mill and 27 mill tonnes per annum, respectively. Capital expenditure (capex) region wise, North America again leads with proposed capex of $326.8 bill. Oceania has the second highest capex of $57.6 bill, followed by FSU with $44.6 bill.

The US leads in the country statistics with 173 mill tonnes per annum of liquefaction capacity additions by 2021. Canada and Russia follow, with 115 mill and 38 mill tonnes per annum, respectively.

Canada, the US, and Australia lead globally among countries in terms of capex during the outlook period, with $162.2 bill, $157.2 bill, and $46.1 bill, respectively.

Among companies, Orca LNG, Cheniere Energy and Kitsault Energy will have the most LNG liquefaction capacity additions globally by 2021, with capacities of 24 mill, 22.5 mill, and 20 mill tonnes per annum, respectively.

According to GlobalData's midstream research, among the global companies, Gazprom has the highest proposed capex of $23.1 bill to be spent on newbuild liquefaction projects in the outlook period. Woodside Petroleum and Shell follow with $21 bill and $20.1 bill, respectively.

As for terminals, Orca Floating, Cameron II, and Corpus Christi lead in terms of global liquefaction capacity additions by 2021 with 24 mill, 23.5 mill, and 22.5 mill tonnes per annum, respectively.

In terms of capex, Canada, Sarita, and Ichthys terminals lead with $30 bill, $22.5 bill, and $18.5 bill, respectively, during 2017-2021. ■

LNG Shipping News
1st Floor, 30 Warner Street
London EC1R 5EX
United Kingdom
www.lngjournal.com
Tel: +44 (0)20 7253 2700

Publisher
Stuart Fryer

Editor
Ian Cochran
+44 (0) 7748144265
cochran@tankeroperator.com

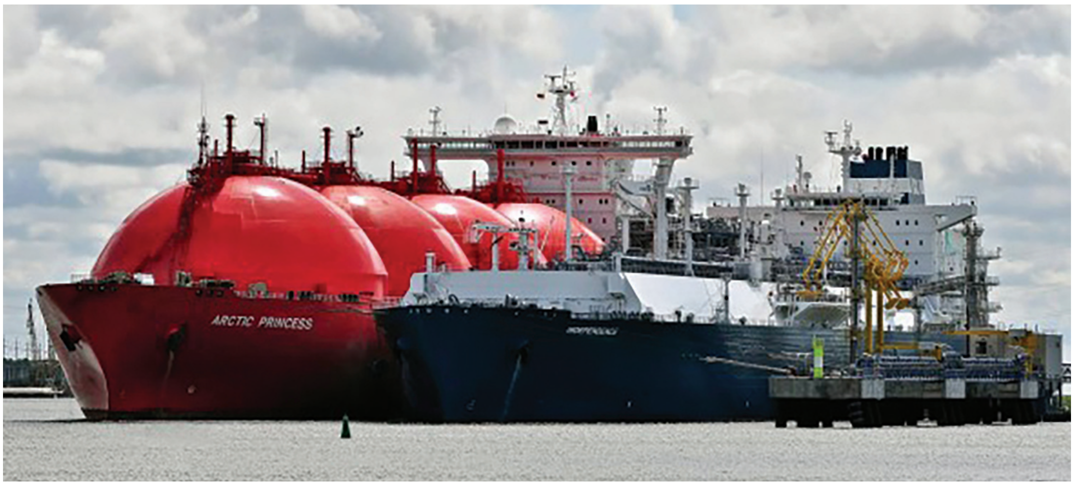
Ad sales enquiries
Narges Jodeyri
+44 (0)20 7017 3406
narges@lngjournal.com

Subscriptions
Elena Fuertes
Tel: +44 (0) 20 7253 2700
elena@lngjournal.com

Production
Vivian Chee
Tel: +44 (0) 20 8995 5540
chee@btconnect.com

Höegh's take on the market

Total LNG trade reached 144 mill tonnes in the first half of this year, a rise of 17 mill tonnes (or 13%) from the first half of 2016.



More of these please!!

The largest contributors to the LNG consumption increase were China, Japan, South Korea, France and Turkey, driven by increased supplies and lower prices, as well as expanded regasification capacity. Thirty-six countries imported LNG in the first half of the year, more than twice as many as seen 10 years ago.

Thirteen million tonnes of LNG production commenced in 1H17, and as much as 90 mill tonnes of incremental production is scheduled to come on stream by 2020. The largest exporter in 2016 was Qatar, with foreign sales of 79 mill tonnes of LNG. Qatar has plans to further boost production from the North Field.

This decision ends a self-imposed ban on additional gas production from the field and Qatar could increase its LNG production to more than 100 mill tonnes annually.

With these volumes on top of gas liquefaction expansion elsewhere, the LNG market is likely to remain long and keep prices competitive, Höegh said in its second quarter result roundup (see page 5).

The shift from a short to a long LNG market has resulted in a structure where LNG buyers have acquired greater bargaining power. Consequently, contracts are tending to become shorter and smaller, requiring LNG producers to play a more active role in marketing their volumes.

Consequently, potential buyers enjoy producer support for flexibility, both commercially and financially, since producers are also tending to play a more active role in the downstream part of the value chain.

New markets

In order to boost LNG uptake, producers have embraced the FSRU concept to open up new markets – as illustrated by Nakilat's decision to team up with Höegh LNG.

As a result of becoming the preferred alternative for new market entrants, FSRU tendering activity remained high, with unabated interest in most geographical markets.

High activity levels also generates interest among potential new entrants and competition is therefore likely to increase. However, newbuilding and conversion projects said to be under consideration have yet to come to fruition, leaving Höegh LNG as the largest owner in the FSRU sector with seven units in operation and three units under construction.

Höegh LNG said that it planned to continue expanding its newbuilding portfolio on the basis of further contract awards and will maintain its strategy of always having one uncommitted FSRU newbuilding in its portfolio to meet the timeline for future FSRU projects.

With a solid operational and financial platform in place, and backed by a positive market environment, Höegh LNG said that it is continuing to pursue additional business opportunities and was confident of reaching its goal of a fleet of 12 units in operation or under construction by 2019.

Höegh LNG is also focusing on preparing for the three long-term FSRU contracts awarded in Ghana, Pakistan and Chile, and for optimising interim employment periods. ■

Cove Point awaits FERC agreement to start testing

Earlier this month, Dominion asked the US Federal Energy Regulatory Commission (FERC) for authorisation to test its Cove Point LNG export terminal in Maryland by introducing gas into the pre-treatment and liquefaction areas.

Cove Point is claimed to be on track to become the second major operating LNG export terminal in the contiguous US.

Cove Point is awaiting FERC permission to start testing

"These activities will support production of LNG in the fourth quarter of 2017," Dominion said. "This request is part of the commissioning process for the export project that is scheduled for completion in the fourth quarter of this year."

The $3.8 bill Cove Point export project aims to have peak capacity of 5.75 mill tonnes per year delivered from one liquefaction train.

Cove Point has received an average of about 30 mill cu ft per day of gas since 1st May to test other parts of the facility. This intake would increase significantly after FERC approves the introduction of gas into the liquefaction unit, Dominion said.

Dominion has signed two 20-year take-or-pay liquefaction capacity deals totalling 4.6 mill tonnes per year. Japanese trading house Sumitomo and Indian state-owned gas utility Gail each signed a deal for 2.3 mill tonnes per year.

Sumitomo has signed 20-year deals to sell most of its Cove Point offtake to Japanese utilities, with 1.4 mill tonnes per year going to Tokyo Gas and 0.8 mill tonnes per year to Kansai Electric. ■

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Höegh LNG reports stable revenues

Höegh LNG Holdings and its subsidiaries reported EBITDA of $37.7 mill for the second quarter of this year, compared with $36.7 mill for the previous quarter.

Støhle presented what he called stable results

The increase is mainly attributable to reimbursement for accrued costs related to the Pakistan infrastructure project, lower administrative expenses, plus timecharter income from 'Höegh Giant' since its delivery on 27th April, 2017.

Operating costs for 'Höegh Giant' and off-hire for 'Höegh Gallant', due to planned maintenance, had a negative impact on EBITDA, the company said.

Depreciation totalled $10.6 mill, up from $9.3 mill in 1Q17, due to the delivery of 'Höegh Giant'. Höegh LNG also recorded $0.4 mill in impairments during 2Q17 related to the write-down of certain equipment.

Höegh LNG declared a profit before tax of $10.2 mill, down from $13.4 mill in the first quarter. Profit after tax was $8.5 mill for 2Q17, down from $11.4 mill in 1Q17.

Operating cash flows increased by $5.4 mill in the second quarter to $33.2 mill. Other sources comprised proceeds of $190.6 mill from borrowings and $20 mill from the sale of marketable securities. Outgoings during 2Q17, consisted primarily of capital expenditures of $237.6 mill, debt service of $32.7 mill, dividend payments of $17.1 mill, comprising dividends paid to shareholders of the parent company and non-controlling interest in Höegh LNG Partners and net other investing and financing items $2 mill.

Negative cash flows

Net cash flows for the quarter were negative at $45.6 mill, compared with a negative $45 mill for the first quarter of this year.

As at 30th June, 2017, Höegh LNG had $303.2 mill in current cash and marketable securities (31st March, 2017: $364.6 mill) and net interest-bearing debt of $947.2 mill (31st March, 2017: $705.5 mill). Book equity as at 30th June this year, after adjusting for the mark-to-market of interest rate swaps, was $664.3 mill (31st March, 2017: $672.3 mill), equivalent to an adjusted book equity ratio of 33.3% (36.6%).

For the first half of the year, Höegh LNG reported EBITDA of $74.3 mill and net profit of $20 mill, compared with $53.6 mill and $9.9 mill, respectively for 1H16. The improvement primarily reflects the commencement of operations by 'Höegh Grace' in Colombia during December, 2016.

The company said that its revenues and EBITDA remained stable at record levels in 2Q17, supporting a quarterly dividend of $0.125 per share. Operating performance remained strong, with technical availability of 100% during the quarter. As at 30th June, Höegh LNG's revenue backlog was $6.1 bill, with an average remaining contract term of around 13.5 years across 10 different counterparties.

Subsequent to the end of 2Q17, Höegh LNG diversified its funding sources and secured a flexible $230 mill in debt financing for FSRU No 8, scheduled for delivery in the first quarter of 2018.

Höegh LNG Partners also acquired a 23.5% share in the joint ventures that own the FSRUs 'GDF Suez Cape Ann' and 'Neptune' (see page 6). ■

Golar's losses continue, despite small T/C rate rise

Golar LNG Ltd reported an operating loss of $24 mill for the second quarter of this year, compared to a 1Q17 loss of $41.4 mill.

EBITDA for 2Q17 was $6.6 mill, compared to $16.2 mill in the previous quarter.

As expected, the shipping market remained relatively flat for most of the period. A pick-up in utilisation toward the end of the quarter did, however, contribute to a small rise in timecharter revenues, which increased from $20.1 mill in 1Q17 to $24 mill in 2Q17.

Voyage expenses declined from $16.9 mill to $11.8 mill in 2Q17, the first quarter having been inflated by a non-cash accounting provision triggered by the February execution of a new charter for the chartered-in 'Golar Grand'. Golar's obligation to charter-in the 'Golar Grand' will expire in October, this year. Thereafter, Golar Partners will receive hire payments from the vessel's new charterer.

Vessel operating expenses decreased $0.8 mill to $12.1 mill in 2Q17. Administration costs at $11.1 mill were in line with 1Q17. Second quarter depreciation and amortisation of $17.4 mill was $7.8 mill lower than 1Q17. Again 1Q17 was inflated by a 15 month catch-up charge in respect of the FSRU 'Golar Tundra', which was not depreciated whilst accounted for as an asset held-for-sale.

In 2Q17, Golar LNG Ltd generated a net loss of $73.8 mill. Notable contributors to this were:

- An $1.2 mill increase in interest expense primarily due to the cost of servicing additional debt assumed in conjunction with a February, 2017 issued $402.5 mill convertible bond that refinanced the balance of a $250 mill March, 2017 maturing convertible bond together with a $150 mill margin loan drawn down in early March, 2017.
- Other financial items reported, included a 2Q17 expense of $22.4 mill, most of which was derived from a mark-to-market loss on the three million Total Return Swap (TRS) shares following a $5.68 quarter-on-quarter decrease in the company's share price. Swap rates also decreased resulting in non-cash mark-to-market interest rate swap losses.
- The $0.7 mill 2Q17 equity in net earnings of affiliates is primarily comprised of the following:
- a $3.3 mill loss in respect of Golar's 50% share in Golar Power;
- a $1.9 mill loss in respect of Golar's 51% share in OneLNG;
- income of $5.8 mill in respect of Golar's stake in Golar Partners.

Although Golar Partners reported a higher than normal net income, primarily due to recognition of the 'Golar Spirit' termination fee, equity in net earnings of the Partnership reported by Golar is reduced by the amortisation of a 2012 fair value gain on deconsolidation.

Quarterly amortisation of this non-cash gain will vary in response to events including, amongst others, charter terminations, curtailments and dilution of Golar's stake in the Partnership after follow-on equity offerings. However, at $12.9 mill, the quarterly cash distribution received from the Partnership is in line with prior quarters. ■

FLEX LNG still in the red

FLEX LNG reported a loss before tax of $6.7 mill for the second quarter of this year, or $0.03 per share and $7.6 mill, or $0.03 per share, for the first six months of 2017.

During the period, the company entered into timecharters for four LNGCs for 180 days with options to extend for further 180 days in order to establish a market presence and build an operational track record.

FLEX LNG also agreed to acquire four MEGI LNGCs currently under construction at Daewoo Shipbuilding and Marine Engineering (DSME), increasing the newbuilding fleet to six vessels.

As for finance, the company completed a $125 mill private placement in 2Q17, following the $100 mill placement in the first quarter.

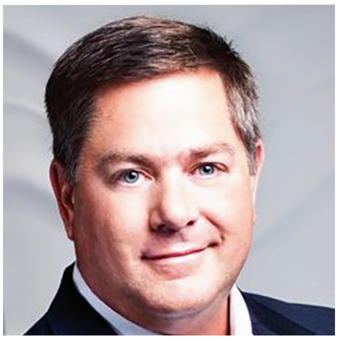
FLEX LNG said it was actively working with NextDecade Global Solutions to provide customers with fully-integrated LNG import solutions, including the Port of Cork FSRU project.

Subsequent to the end of 2Q17, the company transferred its primary share listing from the Oslo Axess to Oslo Børs.

Also after the reporting period, FLEX LNG advised that two of the timecharter vessels will be redelivered at the end of their initial charter period, but options were declared to extend the remaining two timecharter vessels for another 180 days.

These vessels have been fixed for the majority of the option period, starting in September, 2017 with redelivery in the first quarter 2018. These fixtures are expected to have a positive earnings contribution, the company claimed.

CEO Jonathan Cook, said: "We have made significant progress over the past six months as we execute on our strategy of becoming a market leader in LNG transportation and LNG infrastructure services. Our newbuilding fleet of state of the art LNGCs will be among the most efficient in the global fleet, which will provide FLEX LNG with significant competitive advantages. The first two vessels are expected to be delivered in the first quarter of next year, and we have been operating four vessels chartered-in on short term contracts to establish our presence in the market and develop best-in-class operations ahead of these deliveries.



Cook resided over another loss period

"Separately, we have been making good progress developing floating storage and regasification opportunities globally. These are important first steps towards building FLEX into a leading participant in the rapidly expanding LNG market. We continue to focus our efforts on several attractive growth opportunities within LNG shipping and floating storage and regasification segments," he said.

Höegh increases stake in FSRUs

Höegh LNG Partners has entered into a term sheet with its joint venture partner Mitsui OSK Lines (MOL) to acquire a 23.5% equity interest in the two joint venture companies that own the FSRUs 'Neptune' and 'GDF Suez Cape Ann' for $27.3 mill.

This included a 23.5% interest in outstanding shareholder loans equivalent to $1.5 mill.

At the end of 2Q17, the third party net interest bearing debt attributable to the 23.5% ownership was $101 mill.

This transaction brings Höegh LNG Partners' interest in the joint venture companies up to 73.5% and the latest acquisition is expected to close by 30th September, 2017, pending MOL and Höegh LNG Partners' board approvals.

Both FSRUs are on charter to ENGIE and have about 13 years of remaining contract length with annual EBITDA contribution of $33 mill per unit on a 100% basis.

Golar LNG Partners to indirectly own 'Hilli Episeyo'

Golar LNG Limited and affiliates of Keppel Shipyard and Black and Veatch (B&V) have entered into a purchase and sale agreement (PSA) for the sale of equity interests in Golar Hilli LLC to Golar LNG Partners.

On the closing of the sale, Golar LNG Partners will indirectly own the 'Hilli Episeyo' a soon to be delivered FLNG conversion.

The acquired interests represent around 50% of the two liquefaction trains, out of a total of four, that have been contracted to Perenco Cameroon and Societe Nationale Des Hydrocarbures for an eight-year term.

The sale price is $658 mill less net lease obligations under the financing facility for the 'Hilli' that are expected to be between $468 and $480 mill. Concurrent with the execution of the PSA, the Partnership paid a $70 mill deposit to Golar, on which the Partnership will receive interest at a rate of 5% per annum.

Certain conditions

The closing of the sale is subject to certain closing conditions, which include, among others, receiving the consent of the lenders under the Hilli facility, the closing of the previously announced put-sale closing with respect to the 'Golar Tundra', the delivery to and acceptance by the customer of the 'Hilli', the commencement of commercial operations under the liquefaction tolling agreement (LTA) and the formation of Golar Hilli LLC and the related pre-closing contributions.

Prior to the closing, Golar, Keppel and B&V will contribute their equity interests in Golar Hilli Corp, the entity that owns the 'Hilli', to the newly formed Golar Hilli LLC in return for equity interests in Golar Hilli LLC.

Membership interests in Golar Hilli LLC will be represented by three classes of units: common units; Series A special units; and Series B special units.

Upon the closing, which is expected to occur on or before 30th April, 2018, Golar, Keppel and B&V will sell 50% of the common units to the Partnership in return for the payment of the net purchase price of between $178 and $190 mill. The Partnership will apply the $107 mill deferred purchase price receivable from Golar in connection with the 'Tundra' Put Sale and the $70 mill deposit referred to above against the net purchase price and will pay the balance with cash on hand.

The 'Hilli' conversion is nearing completion and no major issues have been identified, Golar said. All equipment has been installed and pre-commissioning work is well underway. Golar is currently focused on doing as much testing as possible in the yard and at anchorage in order to minimise the risk of issues being encountered in Cameroon.

'Hilli' is scheduled to leave Singapore for Cameroon at the end of September or beginning of October. LNG bunkering has been booked for mid-September. The mooring system has been installed in Cameroon and is ready for hook up.

'Prelude' classed by LR- Trelleborg supplies equipment

Shell's giant FLNG 'Prelude' has officially been classed with Lloyd's Register (LR).

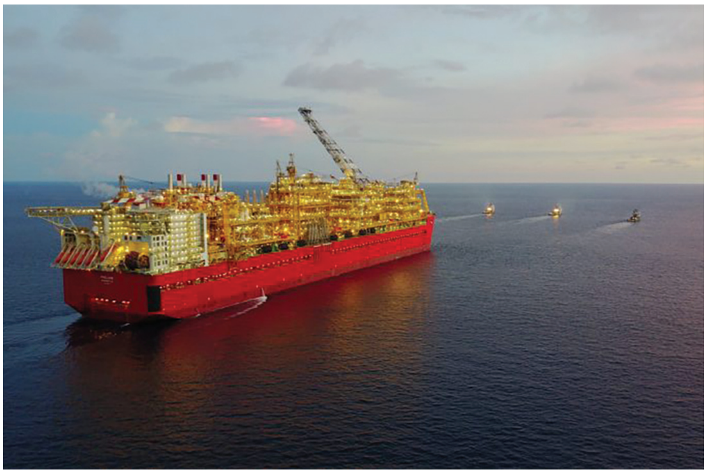
At 488 m, 74 m wide and with a displacement of about 600,000 tonnes, 'Prelude' is claimed to be the world's largest floating offshore facility.

Last month, 'Prelude' arrived at its operating location in the Browse Basin, offshore northwest Australia. It will be moored at a depth of 250 m and will not be drydocked for the first 25 years of its expected 50-year operational life.

The facility required around 260,000 tonnes of steel to build and its turret is the largest ever built. It has been designed to withstand category five cyclones and its technology has generated over 150 patents.

LR has been actively involved with the project from the start, by classification, equipment certification, validation and verification against performance standards.

Daryl Attwood, LR's 'Prelude' project director, commented: "It has been a great honour for us all to participate in this world class project, collaborating with an excellent group of clients represented by the best managers and technical experts from Shell, Technip, SBM, and SHI. LR project managers, design appraisal specialists and surveyors from Aberdeen, London, Dubai, Perth and Korea have contributed significantly to getting the facility to this stage, ably supported by colleagues certifying equipment packages literally around the world."



'Prelude' is now classed with LR

Trelleborg equipment

In addition, Trelleborg's marine systems operation has supplied a suite of products to the 'Prelude', including gas transfer technology and SafePilot navigational and piloting systems.

Richard Hepworth, President of Trelleborg's marine systems operation, said: "We're delighted that our SafePilot solution, SSL, ESL and radio ESD for tandem condensate offload have been used on Shell's 'Prelude' FLNG. A project of this size and prestige is one we're extremely proud to be a part of. The products supplied fall under our SmartPort product range: they represent industry leading technology that enables real time communications and information sharing during vessel approach and the LNG, LPG and natural gas condensate transfer operations."

In support of 'Prelude's' process operations, Trelleborg supplied its Ship Shore Link (SSL) system for the transfer of LNG from the platform to LNGCs. To achieve this, a full shore SSL system was supplied.

In addition, Trelleborg also provided an Electrical Shutdown Link (ESL), known more commonly as the SIGTTO link, for LPG transfer and a new radio ESD link developed with Shell used in conjunction with floating hoses for the tandem transfer of natural gas condensate produced as part of the LNG production process.

In support of the FLNG's marine operations, Trelleborg supplied the navigational system. The system is designed to closely monitor the relative motion of the FLNG and the LNGC during approach, and the sideways berthing/mooring phase, as well as a tandem berthing/mooring phase.

The motion and position data of the carrier are measured by the Differential Global Positioning System (DGPS)/Globalnaya Navigazionnaya Sputnikovaya Sistema (GLONASS) RTK based Portable Pilot Units (PPU) installed on the bridge wing of the LNGC. ■

GE to maintain TMS Cardiff's LNG Fleet

GE's Marine Solutions and TMS Cardiff Gas have signed a service agreement to provide support and maintenance of four TMS LNGCs - 'Corcovado LNG', 'Kita LNG', 'Palu LNG' amd 'Yari LNG'—for the next 10 years.

GE will provide maintenance services to TMS LNGC's electric propulsion system, including providing parts for the propulsion motors, medium-voltage drives, generators and switchboard. It will also upgrade the vessels' propulsion automation systems to enhance their remote and diagnostic capabilities.

In the LNGC market, long-term service agreements coupled with the latest remote and diagnostic capabilities are key to optimising vessel performances.

"Our vision is to be one of the world's leading LNG and LPG operators with the highest standards of excellence in terms of performance, reliability and safety," said Alexandros Politis-Kalenteris, deputy COO, TMS. "The maintenance and upgrade services of such sophisticated equipment are technically challenging and require a professional and capable partner to ensure the vessels' operability. Through our partnership with GE for the next decade, we are confident that our fleet will continue to be a premium choice of our customers for their cargo needs."

"We relentlessly work closely with customers to provide the right technology, digital solutions and long-term services to ensure their performances to meet today's competitive standards. We are experts at managing projects with complexity. We thank TMS for their trust, and we will continue to provide TMS with operating advantages over the lifetime of their LNG vessels," said Tim Schweikert, president & CEO, GE's Marine Solutions.

The four vessels are equipped with electric propulsion system provided by GE. The service agreement will also provide training for personnel operating its equipment.

TMS' fleet will also be fitted with a Visor* remote monitoring system, which can provide operators with vessel health status and help identify potential issues that will affect the ability to provide the diagnostic service.

This digital software is claimed to be fundamental in assisting GE's field service engineers to quickly assess the potential root cause of the failure and recovery paths options to execute fast and effective repairs. ■

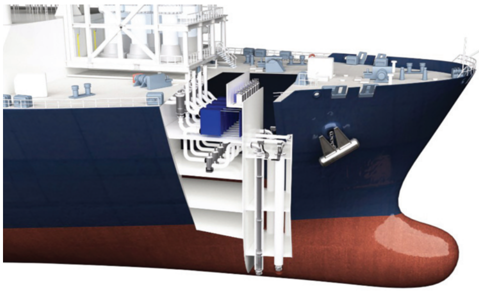
Framo to supply pumps to GasLog FSRU

Framo has won the contract to deliver sea water lift pump systems for an FSRU for GasLog building at Samsung Heavy Industries.

The order was placed shortly after Framo signed a supply agreement for similar pump systems for an FSRU under construction at the same South Korean yard for Höegh LNG.

"This represents acknowledgement of our ultra-compact pump concept that is now gaining a solid position on the FSRU market," said Thorbjørn Vågenes, Framo's Director Oil and Gas pumping systems.

The pump systems are based on tested and recognised Framo technology. In comparison with conventional pump systems, Framo's pumps provide significant savings on space and eliminate the need for a separate pump room on board the ship, the company claimed.



Framo has won a pump system contract from GasLog

Delivery is scheduled for August, 2018.

Sadler takes over from Westgarth at GasLog

Former Lloyd's Register CEO Richard Sadler has been appointed COO of GasLog Ltd and GasLog Partners replacing Graham Westgarth who is retiring.

Sadler will take up his new role in September, 2017. Westgarth was appointed to the GasLog board the annual general meeting in May, 2017, and will work with Sadler to ensure a smooth transition.

Sadler brings a wealth of shipping experience to GasLog having served as LR Group's CEO from 2007 to 2015.

Prior to his time at LR, he worked as a Director of Asset Management for the Royal Bank of Scotland in the Shipping and Offshore Energy Division. Before that, he held a number of positions at LR, including in Kuwait, Bahrain, Oman and Japan.

Whilst in Japan he oversaw, the construction of LNGC newbuildings for the North West Shelf project and was the LR liaison for the Shell LNGCs operating from Brunei.

Paul Wogan, GasLog CEO, said, "On behalf of the boards of GasLog and GasLog Partners, and the management team, I am pleased to welcome Richard to GasLog as COO. His deep understanding of the shipping sector and his years of relevant operational experience will make him a huge asset to the company. I would also like to take this opportunity to thank Graham for his contribution to GasLog during the past few years of growth and I look forward to being able to continue to access his experience and wisdom as a board member."

Sadler commented, "I am delighted to be joining GasLog at such an exciting time in the company's evolution. The LNG and LNG shipping markets are experiencing a period of considerable growth with significant opportunities and I believe that GasLog is well placed to take advantage of these opportunities. I look forward to working with the team to continue to develop GasLog into a world-class player in the LNG value chain."

NEWS NUDGE

Excelerate Energy performs 100th STS LNG transfer in Pakistan

Excelerate Energy Development DMCC (Excelerate) performed the 100th LNG ship-to-ship (STS) transfer at the Engro Elengy Terminal (EETL) located in Port Qasim, Pakistan.

With this milestone, Excelerate's FSRU, 'Exquisite', has transferred more than 14 mill cu m of LNG at EETL and has discharged over 320 mill MMBTU of natural gas into the Sui Southern Gas Co's natural gas pipeline system.

On 25th July, the 'Exquisite' celebrated another milestone by receiving the 100th cargo of LNG imported into Pakistan.

To date, Excelerate has successfully completed over 1,200 STS operations worldwide, transferring over 136 mill cu m by STS.

Lithuania receives first US LNG cargo

Lithuania has received its first US LNG cargo.

While Russia is trying to undermine US shipments to Europe, Lithuania is Central and Eastern Europe's second country to have received US LNG cargo following Poland.

In June, Lithuania's state-held gas trader Lietuvos Duju Tiekimas signed a contract with Cheniere Marketing to buy LNG directly from the US.

Poland was the first country in Central and Eastern Europe to have received US LNG earlier this year.

The LNGC from Sabine Pass berthed at the Klaipeda terminal. The gas is destined for Lithuania, Latvia, and Estonia.

Nakilat and Shell complete first phase of LNGC transitions

Nakilat Shipping Qatar Limited (NSQL) a wholly owned subsidiary of Nakilat and Shell International Trading and Shipping Company (Shell), have completed the first phase of what will be the world's largest management transition of LNGCs.

The Q-Max LNGC 'Al Mafyar' became the 10th vessel to transition from Shell to NSQL management in 10 months, bringing about the completion of the first phase.

'Al Mayfar' is wholly-owned by Nakilat and chartered by Qatargas, with a cargo capacity of 266,370 cu m. The vessel built at Samsung Heavy Industries and was delivered in May, 2009.

This latest vessel transition brings the fleet size managed by NSQL to 18 vessels, comprising of 14 LNG and 4 LPG carriers.

First Qatar LNG co-loaded for two-port delivery

Qatar-based LNG suppliers Qatargas and RasGas have completed the first co-loading of LNG for split delivery.

The companies jointly loaded the cargoes at Ras Laffan on the Q-Flex LNGC 'Al Khuwair'. The cargoes were delivered to the Zeebrugge LNG terminal in Belgium and the UK's South Hook LNG terminal, respectively.

This innovative method of multi-port delivery of a single LNG cargo from two separate suppliers represents a new level of operational flexibility and supply chain efficiency in the LNG industry, Qatargas said.

Prior to this development, the established practice was to load a single cargo for delivery to a single location supplied by a single seller.

Saad Sherida Al-Kaabi, Qatar Petroleum President and CEO and Chairman of Qatargas Board of Directors, said: "We are delighted to have achieved this key industry milestone through the hard work and dedication of the Qatargas and RasGas teams, vessel operators and our LNG customers. This remarkable achievement underscores our commitment to sustaining Qatar's position as the world's premier LNG supplier."

WORLD LNG CARRIER ORDERBOOK

Name	Segment	Yard	Containment System	Propulsion	Capacity	Delivery Date	Ordered	Primary Owner
Flex Constellation	LNGC	DSME	GT NO 96	MEGI	173,400	Jun-19	2017	John Fredriksen
Flex Courageous	LNGC	DSME	GT NO 96	MEGI	173,400	Aug-19	2017	John Fredriksen
Hyundai Ulsan 2964	LNGC	Hyundai Heavy	TZ Mk. III Flex	MEGI	180,000	May-19	2017	Knutsen
Hyundai Ulsan 2963	LNGC	Hyundai Heavy	TZ Mk. III Flex	MEGI	180,000	Jun-19	2017	Knutsen OAS Shipping AS
Samsung SLNG 1	LNGC	Samsung	KC-1		7,500	May-19	2017	Korea Line
Samsung SLNG 2	LNGC	Samsung	KC-1		7,500	Dec-19	2017	Korea Line
MOL HUDONG-ZHONGHUA 1/4	LNGC	Hudong-Zhonghua	GT NO 96	MEGI	174,000	Jul-19	2017	MOL
MOL HUDONG-ZHONGHUA 2/4	LNGC	Hudong-Zhonghua	GT NO 96	MEGI	174,000	Oct-19	2017	MOL
MOL HUDONG-ZHONGHUA 3/4	LNGC	Hudong-Zhonghua	GT NO 96	MEGI	174,000	Jan-20	2017	MOL
MOL HUDONG-ZHONGHUA 4/4	LNGC	Hudong-Zhonghua	GT NO 96	MEGI	174,000	Apr-20	2017	MOL
KEPPEL NANTONG 2	LNGC	Keppel Nantong			7,500	Aug-19	2017	Stolt-Nielsen
KEPPEL NANTONG 1	LNGC	Keppel Nantong			7,500	May-19	2017	Stolt-Nielsen Gas
Hyundai Mipo 8250	LNGC				7,500	Sep-18	2016	
Samsung 2212	LNGC	Samsung	GTT Mark V	XDF	180,000	Jun-19	2016	GasLog
Samsung 2213	LNGC	Samsung	GTT Mark V	XDF	180,000	Sep-19	2016	GasLog
Daewoo 2466	LNGC	DSME	GT NO 96	MEGI	173,400	Oct-19	2016	Maran Gas Maritime
Daewoo 2467	LNGC	DSME	GT NO 96	MEGI	173,400	Nov-19	2016	Maran Gas Maritime
Hyundai Ulsan 2937	LNGC	Hyundai Heavy	TZ Mk. III Flex	XDF	180,000	Feb-19	2016	SK Shipping
Hyundai Ulsan 2938	LNGC	Hyundai Heavy	TZ Mk. III Flex	XDF	180,000	Apr-19	2016	SK Shipping
Coral Energice	LNGC				18,000	Nov-17	2015	
Daewoo 2489	LNGC	DSME	GT NO 96	MEGI	173,400	Feb-19	2015	BWGas
Kinisis	LNGC	DSME	GT NO 96	MEGI	173,400	Sep-18	2015	Chandris
China Merchants Jiangsu CMHI-188	LNGC	China Merchant	Membrane		45,000	Feb-18	2015	Landmark Capital
Daewoo 2458	LNGC	DSME	GT NO 96	MEGI	173,400	Jan-19	2015	Maran Gas Maritime
Daewoo 2456	LNGC	DSME	GT NO 96	MEGI	173,400	Jan-19	2015	Maran Gas Maritime
Daewoo 2459	LNGC	DSME	GT NO 96	MEGI	173,400	Apr-19	2015	Maran Gas Maritime
Mitsubishi Nagasaki 2332	LNGC	Mitsubishi H.I.		STaGE	165,000	Feb-19	2015	Mitsubishi
Daewoo 2462	LNGC	DSME	GT NO 96	TFDE	180,000	Jul-17	2015	MOL
Kawasaki Sakaide 1731	LNGC	Kawasaki	Moss	TFDE	177,000	Dec-17	2015	MOL
Kawasaki Sakaide 1734	LNGC	Kawasaki	Moss	STaGE	177,000	Jun-18	2015	MOL
Mitsubishi Nagasaki 2323	LNGC	Mitsubishi H.I.	Moss	STaGE	180,000	Aug-18	2015	MOL
Kawasaki Sakaide 1735	LNGC	Kawasaki	Moss	STaGE	177,000	Sep-18	2015	MOL
Mitsubishi Nagasaki 2322	LNGC	Mitsubishi H.I.	Moss	STaGE	177,000	Jun-19	2015	MOL
Diamond Gas Orchid	LNGC	Mitsubishi H.I.	Moss	STaGE	165,000	Feb-18	2015	NYK
Mitsubishi Nagasaki 2326	LNGC	Mitsubishi H.I.	Moss	STaGE	180,000	Mar-18	2015	NYK
Mitsubishi Nagasaki 2325	LNGC	Mitsubishi H.I.	Moss	STaGE	165,000	May-18	2015	NYK
Mitsubishi Nagasaki 2327	LNGC	Mitsubishi H.I.	Moss	STRH	180,000	Jun-18	2015	NYK
Mitsubishi Nagasaki 2321	LNGC	Mitsubishi H.I.	Moss	STaGE	177,000	Dec-18	2015	NYK
Hyundai Samho S856	LNGC	Hyundai Samho	TZ Mk. III	MEGI	174,000	Jan-19	2015	Teekay LNG
Hyundai Samho S857	LNGC	Hyundai Samho	TZ Mk. III	MEGI	174,000	Jan-19	2015	Teekay LNG
Imabari Saijo 8200	LNGC	Imabari		MEGI	178,000	Oct-21	2015	Trinity LNG Transport SA
Daewoo 2441	LNGC	DSME	GT NO 96	MEGI	173,400	Apr-18	2014	BP
Daewoo 2442	LNGC	DSME	GT NO 96	MEGI	173,400	Oct-18	2014	BP
Daewoo 2443	LNGC	DSME	GT NO 96	MEGI	173,400	Nov-18	2014	BP
Daewoo 2444	LNGC	DSME	GT NO 96	MEGI	173,400	Jan-19	2014	BP
Daewoo 2445	LNGC	DSME	GT NO 96	MEGI	173,400	Feb-19	2014	BP
Daewoo 2446	LNGC	DSME	GT NO 96	MEGI	173,400	Mar-19	2014	BP
Bw Tulip	LNGC	DSME	GT NO 96	MEGI	173,000	Sep-17	2014	BWGas
Bw Lilac	LNGC	DSME	GT NO 96	MEGI	173,000	Dec-17	2014	BWGas
Patris	LNGC	DSME	GT NO 96	MEGI	174,000	Jan-18	2014	Chandris
Boris Vilkitsky	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Aug-17	2014	Dynagas
Fedor Litke	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Sep-17	2014	Dynagas
Daewoo 2427	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Oct-18	2014	Dynagas
Daewoo 2428	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Nov-18	2014	Dynagas
Daewoo 2429	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Dec-18	2014	Dynagas

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 = 16 August 2017

Fearnley LNG

Name	Segment	Yard	Containment System	Propulsion	Capacity	Delivery Date	Ordered	Primary Owner
Castillo De Caldelas	LNGC	Imabari	TZ Mk. III	MEGI	178,000	Aug-17	2014	Elcano
Castillo De Merida	LNGC	Imabari	TZ Mk. III	MEGI	178,000	Nov-17	2014	Elcano
Gaslog Houston	LNGC	Hyundai Heavy	TZ Mk. III	XDF	174,000	Jan-18	2014	GasLog
Samsung 2130	LNGC	Samsung	TZ Mk. III	XDF	174,000	Jan-18	2014	GasLog
Gaslog Hong Kong	LNGC	Hyundai Heavy	TZ Mk. III	XDF	174,000	Feb-18	2014	GasLog
Samsung 2131	LNGC	Samsung	TZ Mk. III	XDF	174,000	Jan-19	2014	GasLog
Flex Endeavour	LNGC	DSME	GT NO 96	MEGI	172,400	Jan-18	2014	John Fredriksen
Flex Enterprise	LNGC	DSME	GT NO 96	MEGI	172,400	Jan-18	2014	John Fredriksen
Kawasaki Sakaide 1720	LNGC	Kawasaki	Moss	TFDE	164,000	Mar-18	2014	K-Line
Daewoo 2457	LNGC	DSME	GT NO 96	MEGI	173,400	Apr-19	2014	Maran Gas Maritime
Seri Cemara	LNGC	Hyundai Heavy	Moss	STRH	150,000	Apr-18	2014	MISC
Jmu Tsu 5070	LNGC	Japan Marine United Corp	SPB	TFDE	165,000	Jul-17	2014	MOL
Daewoo 2424	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Dec-17	2014	MOL
Samsung 2148	LNGC	Samsung	Mark III Flex	TFDE	177,000	Feb-18	2014	MOL
Jmu Tsu 5073	LNGC	Japan Marine United Corp	SPB	TFDE	165,000	Apr-18	2014	MOL
Kawasaki Sakaide 1729	LNGC	Kawasaki	Moss	STRH	155,000	Apr-18	2014	MOL
Samsung 2149	LNGC	Samsung	Mark III Flex	TFDE	177,000	May-18	2014	MOL
Kawasaki Sakaide 1728	LNGC	Kawasaki	Moss	STRH	155,000	Jun-18	2014	MOL
Samsung 2150	LNGC	Samsung	Mark III Flex	TFDE	177,000	Aug-18	2014	MOL
Daewoo 2426	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Sep-18	2014	MOL
Jmu Tsu 5072	LNGC	Japan Marine United Corp	SPB	TFDE	165,000	Dec-18	2014	MOL
Daewoo 2432	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Sep-19	2014	MOL
Jmu Tsu 5071	LNGC	Japan Marine United Corp	SPB	TFDE	165,000	Aug-17	2014	NYK
Mitsubishi Nagasaki 2316	LNGC	Mitsubishi H.I.	Moss	STRH	153,000	Jan-18	2014	NYK
Sk Spica	LNGC	Samsung	KC-1	TFDE	174,000	Sep-17	2014	SK Shipping
Sk Serenity	LNGC	Samsung	KC-1	TFDE	174,000	Jan-18	2014	SK Shipping
Pan Asia	LNGC	Hudong-Zhonghua	GT NO 96	TFDE	174,000	Sep-17	2014	Teekay LNG
Eduard Toll	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Oct-17	2014	Teekay LNG
Magdala	LNGC	DSME	GT NO 96	MEGI	173,400	Jan-18	2014	Teekay LNG
Pan Americas	LNGC	Hudong-Zhonghua	GT NO 96	TFDE	174,000	Jan-18	2014	Teekay LNG
Myrina	LNGC	DSME	GT NO 96	MEGI	173,400	Apr-18	2014	Teekay LNG
Pan Europe	LNGC	Hudong-Zhonghua	GT NO 96	TFDE	174,000	Jun-18	2014	Teekay LNG
Megara	LNGC	DSME	GT NO 96	MEGI	173,400	Jul-18	2014	Teekay LNG
Rudolf Samoylovich	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Aug-18	2014	Teekay LNG
Pan Africa	LNGC	Hudong-Zhonghua	GT NO 96	TFDE	174,000	Jan-19	2014	Teekay LNG
Daewoo 2430	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Jul-19	2014	Teekay LNG
Daewoo 2431	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Aug-19	2014	Teekay LNG
Daewoo 2433	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Oct-19	2014	Teekay LNG
Daewoo 2434	LNGC	DSME	GT NO 96	TFDE - Azipod	172,410	Nov-19	2014	Teekay LNG
Yuan He 1	LNGC	Ningbo Xinle Shipbuilding			30,000	Aug-17	2013	
Cesi Tianjin	LNGC	Hudong-Zhonghua	Membrane	TFDE	174,000	Sep-17	2013	China LNG Shipping Holdings
Hudong-Zhonghua H1719a	LNGC	Hudong-Zhonghua	Membrane	TFDE	174,000	Jan-18	2013	China LNG Shipping Holdings
Qi Yuan	LNGC	Dalian Inteh		DFDE	28,260	Aug-17	2013	Dalian Inteh
Samsung 2107	LNGC	Samsung	TZ Mk. III	MEGI	174,000	Jan-18	2013	Flex LNG
Samsung 2108	LNGC	Samsung	TZ Mk. III	MEGI	174,000	Mar-18	2013	Flex LNG
Oceanic Breeze	LNGC	Mitsubishi H.I.	Moss	STRH	155,300	Jul-17	2013	K-Line
Kawasaki Sakaide 1718	LNGC	Kawasaki	Moss	TFDE	180,000	Aug-17	2013	K-Line
Bishu Maru	LNGC	Kawasaki	Moss	TFDE	164,700	Sep-17	2013	K-Line
Seri Camar	LNGC	Hyundai Heavy	Moss	STRH	150,000	Oct-17	2013	MISC
SK Resolute	LNGC	Samsung	TZ Mk. III	XDF	182,000	Oct-17	2013	SK Shipping
Sk Audace	LNGC	Samsung	TZ Mk. III	XDF	182,000	Jan-18	2013	SK Shipping
Macoma	LNGC	DSME	GT NO 96	MEGI	173,400	Sep-17	2013	Teekay LNG
Hudong-Zhonghua H1720a	LNGC	Hudong-Zhonghua	Membrane	TFDE	174,000	May-18	2012	China LNG Shipping Holdings
Trinity J/V (Mitsui & Co.)	LNGC	Imabari	GTT Mark III Flex	MEGI	178,000	Jan-20		K-Line
MOL E.On.	LNGC	DSME	GT NO 96	TFDE	179,900	Apr-18		MOL

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 = 16 August 2017

Fearnley LNG

WORLD SMALL SCALE LNG FLEET*

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
1974	Seagas	187	LNG	Sweden	Yes	AGA
1988	Kayoh Maru	1,517	LNG	Japan	Yes	Daiichi
1993	Aman Bintulu / Lucia Ambition	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1996	Surya Aki	19,475	LNG	Indonesia - Japan	Yes	MCGC
1997	Aman Sendai	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1998	Aman Hakata	18,800	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
2000	Triputra (ex Surya Satsuma)	23,096	LNG	Indonesia - Japan	Yes	MCGC
2003	Pioneer Knutsen	1,100	LNG	Norway	Yes	Knutsen
2003	Shinju Maru No.1	2,540	LNG	Japan	Yes	Shinwa
2005	North Pioneer	2,500	LNG	Japan	Yes	Japan Liquid Gas
2007	Sun Arrows	19,531	LNG	Malaysia - Russia - Japan	Yes	Mitsui
2008	Kakurei Maru	2,536	LNG	Japan	Yes	Hogaki Zosen
2008	Shinju Maru No.2	2,540	LNG	Japan	Yes	Shinwa
2009	Coral Methane	7,551	LNG/LPG/Ethylene	Northwest Europe/Baltics	Yes, sometimes	Anthony Veder
2010	Norgas Creation	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2010	Norgas Innovation	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Akebono Maru	3,556	LNG	Japan	Yes	Chuo Kaiun
2011	Norgas Bahrain Vision	12,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Norgas Conception	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Norgas Invention	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Norgas Unikum	12,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2014	LNG-Oil combi**	2,000	LNG	Germany	Yes	Veka
2014	Short Sea LNG Tanker **	4,000	LNG	Germany	Yes	Veka
2015	10 small carriers TBN**	5,000	LNG			Bimantara Group
2015	Jahre TBN**	6,200	LNG	Norway	Yes	Donsotank/Jahre Marine
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	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	LNG bunker barge 1†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG bunker barge 2†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG bunker barge 3†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG Inland bunker**	800	LNG	Germany	Yes	Veka
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2015	TBN	14,000	LNG	China	Yes	Zhejiang Huaxiang
2015	TBN 1	27,500	LNG	China?		Danyang?
2015	TBN 2	27,500	LNG	China?		Danyang?
2015	TBN 3	27,500	LNG	China?		Danyang?
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	Dalian TBN	28,000	LNG	China	Yes	Dalian Inteh Group
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
2016	JS Ineos Independence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Innvovation	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Inspiration	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
2016	Navigator Aurora	35,000	Ethane/Ethylene	Markus Hood - Stenungsund	Ethane, for Borealis	Navigator
2016	Gaschem Beluga	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2016	Gaschem Orca	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services

For more information please visit http://small-lng.com
*Includes multi-gas, ethylene and LNG bunker ships with 40,000 cubic metres LNG cargo capacity or less
TBN = To Be Nominated indicates ships are still at construction/planning stage
** = project shelved † =Data to be verified Data last updated = 24th May 2017

Small-LNG.com

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2016	Ocean Yield TBN**	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2016	Shell Bunker Barge TBN 1	6,500	LNG	Northwest Europe	Yes	Shell
2016	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2016	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2016	Shell Bunker Barge TBN 4	3,000	LNG	Northwest Europe	Yes	Shell
2017	Yuan He 1	30,000	LNG	China	Yes	CSR
2017	ENGIE Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	Coral EnergICE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	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	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	Navigator Eclipse	35,000	Ethane/Ethylene	US	Ethane	Navigator
2017	Navigator Nova	35,000	Ethane/Ethylene	US	Ethane	Navigator
2017	Navigator Prominence	35,000	Ethane/Ethylene	US	Ethane	Navigator
2018	Bernhard Schulte TBN	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	CME TBN†	2,200	LNG	US Coast	Yes	CME
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2020	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas

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 = 24th May 2017

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