LNG Shipping News

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23 November 2017

Total to take over Engie's LNG assets

Total is to acquire Engie's upstream LNG assets for $1.49 bill, including 10 LNGCs.

This portfolio includes participating interests in liquefaction plants, notably the interest in the Cameron LNG project in the US, long term LNG sales and purchase agreements, an LNGC fleet, as well as access to regasification capacities in Europe.

Additional payments of up to $550 mill could be payable by Total if an improvement in the oil markets is seen in the coming years.

"The acquisition of Engie's upstream LNG business enables Total to accelerate the implementation of its strategy to integrate along the full gas value chain, in an LNG market growing strongly at 5% to 6% per year.

"The combination of these two complementary portfolios will allow the Group to manage an overall volume of around 40 mill tonnes of LNG per year by 2020, making Total the second largest global player among the majors with a worldwide market share of 10%,"explained Patrick Pouyanné, Total's Chairman & CEO."With the equity stake in the Cameron LNG project, Total will also become an integrated player in the US LNG market, where the Group is already a gas producer."

Total will takeover the charter of the FSRU 'Neptune'

Approvals sought

The proposed transaction is subject to the applicable legally required consultation and notification processes with employee representatives, as well as approvals by the relevant regulatory authorities and partners on certain contracts.

The transaction is expected to close by mid-2018 and will have an effective date of 1st January, 2018.

Following the transaction, Total will take over the teams in charge of the LNG activities at Engie, which represents around 180 employees.

This transaction will include:

- 2.5 mill tonnes per annum of liquefaction capacity to bring Total's existing portfolio up to 23 mill tonnes per annum by 2020, with a 16.6% equity stake in the Cameron LNG liquefaction plant with three trains currently under construction in Louisiana and the potential to expand by adding two further trains. In addition, a 5% equity stake in the first train of the Idku LNG project in Egypt.
- A portfolio of long-term LNG purchase and sale contracts, enabling the Group in increase its overall portfolio to 28 mill tonnes per annum by 2020, with a diversified supply from Algeria, Nigeria, Norway, Russia, Qatar and the US, and outlets balanced between Europe and Asia.
- The access to regasification capacities of 14 mill tonnes per annum in Europe, which, combined with the existing 4 mill tonnes per annum of Total, allows the Group to balance its consolidated purchase and sales portfolio.
- A fleet of 10 LNGCs, which will be consolidated with Total's three LNGCs. ■

Atlas Copco signs LNGC equipment contract

Cologne-based Atlas Copco has won an order for four centrifugal gas compressors, four gas-screws compressors and heating equipment and vapourisers from Samsung Heavy Industries (SHI).

SHI will install the compressors on two small-scale LNGCs to be chartered to South Korean utility company Kogas. In April, Korea Line ordered two small-scale, 7,500 cu m LNGCs, one to serve coastal routes, the other to deliver gas as marine fuel.

Atlas Copco said its compressors were designed for smaller vessels' cargo-handling systems, while the vapour-return compressors will control tank pressure during loading. The fuel-gas compressors will feed excess boil-off gas to the engines while the ships are operating.

President of Atlas Copco's gas and process, Robert Radimeczy, said the order was "a very important step for Atlas Copco in the Asian LNG market." ■

SHIPPING NEWS AGENDA

Trafigura to develop second Pakistan FSRU project

Trafigura has confirmed that it plans to develop a second LNG import terminal project at Port Qasim, Pakistan.

The company said it will partner with Pakistan GasPort (PGPL) in developing a new FSRU project.

This move was announced during the inauguration of PGPL's new FSRU import terminal at Port Qasim.

Trafigura is a minority investor in the new terminal, which will more than double Pakistan's current LNG regasification capacity, and be able to supply 90 mill cu ft of gas to private buyers in Pakistan per day.

However, even after the new terminal reaches full capacity, a significant supply shortfall of the order of 19 mill tonnes of LNG per annum is expected, Trafigura said.

The joint venture for the second terminal will sell gas to private sector end-users without direct government involvement.

The project will include a new jetty, berth and a second FSRU, benefiting from cost synergies with the existing facility.

Trafigura claimed to have an increasingly important footprint in Pakistan, importing coal and exporting refined petroleum products. Downstream investment Puma Energy, in which Trafigura has a 49.6% holding, recently acquired a 51% percent interest in Ardmore Gas, a leading independent oil marketing company. ■

Höegh on FSRU market

During the first nine months of 2017, global LNG trade reached 217 mill tonnes, up 12% from the same period in 2016, Höegh LNG said.

The largest contributors to growth have been China (up 7 mill tonnes), South Korea (up 4.5 mill tonnes), Mexico (up 3 mill tonnes), Italy (up 2.6 mill tonnes) and Japan (up 2.1 mill tonnes), with the incremental volume coming from Australia, the US, Malaysia, Angola and Nigeria.

Thus far in 2017, LNG export facilities with a nameplate capacity of 17.5 mill tonnes have produced their first cargoes, with another 85 mill tonnes to follow in coming years. Plans to increase Qatari production by 30%, or close to 24 mill tonnes annually, adds further to future volume growth potential.

Assuming full usage of existing export facilities and those under construction, the upside for LNG volumes is as high as 80%, compared with the 2016 trade figures, Höegh said.

The LNG market has shifted from a seller's to a buyer's market, due to the elevated growth in LNG supply. This trend is reflected in LNG contract terms, which are becoming more flexible. Given the opportunity to buy LNG for shorter periods of time, in smaller quantities and at attractive prices, more consumers can access LNG markets and thereby support demand for LNG and ultimately for FSRUs.

Supply and demand

With global LNG supply set to increase significantly, additional markets and pockets of demand will need to be identified and developed. Egypt, Colombia and Pakistan are examples of markets which have been opened up over the past two years, and additional entrants could potentially be Hong Kong and Croatia. The common denominator for all these markets is that FSRUs have been used as the instrument for providing quick access to LNG markets.

The traditional leasing model, where FSRU charterers turn to FSRU providers to secure terminals on fixed terms for a pre-defined period remains the backbone of the market. However, certain integrated LNG developments prefer to own their own FSRUs, and these add to the already healthy and growing demand for leased units.

Overall, tendering activity remains high, and new projects continue to come to market with requests for FSRUs. While some of these tenders are at an advanced stage with a predictable timeline to the final investment decision (FID), other FSRU projects need to overcome more obstacles before coming to fruition, Höegh said.

The FSRU fleet stands at 28 units, while the orderbook consists of 12 units, of which four have been ordered directly by projects, and these will therefore not be available to the general market. In addition, regasification equipment has been ordered by various parties for converting LNGCs to FSRUs. ■

Multigas pool opens for business

Teekay LNG Partners has launched the Teekay Multigas Pool, an in-house commercial management operation for ethylene-capable LPG and small-scale LNGCs.

The Partnership's seven directly-owned ethylene-capable LPG carriers, some of which are also capable of carrying small-scale LNG, are expected to join the new management structure. The pool fleet is expected to reach at least 12 vessels by the end of this year, including third party partner vessels.

The seven LPG carriers were part of the Norgas Carriers Pool, operated by IM Skaugen. Their transition into the Teekay Multigas Pool will start immediately.

"This is the right time for Teekay LNG to bring commercial management of our seven ethylene-capable LPG carrier fleet in-house," said Mark Kremin, President and CEO of Teekay Gas Group. "We believe there are opportunities to consolidate the ethylene and small-scale LNG shipping sectors.

"We see this as fundamentally separate from our successful existing LPG joint venture with Exmar in the fully-refrigerated sector. The semi-refrigerated sector is at a low point in the cycle and we are establishing the Teekay Multigas Pool in readiness for the potential market upturn. The Teekay Multigas Pool is open for business," he said. ■

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AWILCO sees an improving market

Due to the new production capacity added in 2016 and 2017, worldwide LNG trade continued to increase - up by 12 % in the first nine months of 2017, compared to same period last year, AWILCO said in its third quarter results presentation.

Around 17 LNGCs were delivered in the first nine months of this year, and a further 10 are scheduled for delivery in 4Q17. During 3Q17, the scheduled delivery of six vessels was delayed from 2017 to 2018.

Six LNGCs were ordered in 2016, and with eight vessels ordered thus far this year, ordering activity remained restrained. According to shipbrokers, the orderbook at the end of 3Q17 for LNGCs of above 100,000 cu m (excluding FSRUs and FLNGs) was 98 vessels, of which only 10 are potentially available on the open market.

Following a very weak first half of 2017, the market firmed both in terms of utilisation and rates. In 4Q17, headline rates moved above $50,000 per day for the first time since 1Q15, due to increased LNG production, an open arbitrage and fewer available vessels. The current spot charter rate for December loading in the Atlantic has increased to more than $60,000 per day, according to Fearnleys.

Newbuilding activity was low in 2016 and 2017. As a further 79 mill tonnes per annum of additional LNG production is scheduled to come on stream from 2018 to 2020 the market is set for further improvements, and the long-term outlook for LNG shipping remains promising, AWILCO said.

However, in the shorter term, volatility and seasonality must be expected, the company said. ■

Höegh gives FSRU position update

In its 3Q17 results presentation, Höegh LNG gave an update of the status of its FSRUs.

A consortium, involving Höegh LNG, put together to operate an FSRU for GEI in Pakistan has been disbanded.

In December, 2016, Höegh LNG signed a 20-year FSRU contract with GEI, which among other things was conditional on GEI putting in place the associated infrastructure.

The consortium consisting of Qatar Petroleum, ExxonMobil, Total, Mitsubishi and Höegh LNG was formed to build, finance and operate the infrastructure, based on an agreement with GEI. However, by mid-November, it was concluded that no agreement would be forthcoming, the company explained.

Höegh LNG said it was pursuing alternative opportunities for the FSRU.

Elsewhere, the Quantum Power/Höegh LNG FSRU project in Ghana is still subject to government approval. In 3Q17, the Ghanaian Government reached an agreement with Gazprom over long-term gas supply.

Start-up under the FSRU contract is expected nine to 12 months after construction begins.

Another project is the GNL Penco FSRU terminal in Chile. Here, the revised environmental impact study (EIS) process for the terminal is proceeding.

Provided that no recourse is made against it, the project will make further progress towards FID, however, until the FID is made there will still be uncertainties regarding the project's timeline, Höegh LNG said.

Project discussions

As for Nakilat, following the announcement that a strategic alliance had been formed for the FSRU market. The parties have started discussions on several FSRU projects and intend to select the first joint project soon, they said.

In addition, Höegh LNG has entered into a timecharter agreement with Gas Natural, under which Höegh will provide an FSRU. Höegh LNG will earn a LNGC spot-market-linked day rate until GNF puts the FSRU into regasification operations, after which it will earn a pre-defined FSRU day rate.

The timecharter commences in early 2018 and has an initial term of three years, or longer if on FSRU terms. The FSRU 'Höegh Giant' will initially be assigned to the contract.

On 8th November, 2017, Total announced that it was acquiring the bulk of Engie's LNG assets, including the two FSRUs 'Neptune' and 'GDF Suez Cape Ann', which are on charter to Engie and partly owned by Höegh LNG Partners.

Following on from this transaction the number of units chartered to Total by Höegh will increase to three.

Currently, Höegh LNG has three FSRUs under construction at Hyundai and Samsung with scheduled delivery dates in 1Q18, 4Q18 and 2Q19, respectively. ■

The newly delivered FSRU 'Hoegh Giant' has been chartered to Gas Natural

Putin hints at Russian 'Jones Act'

Last week, Russian President Vladimir Putin met with a group of shipping executives to try to persuade them to use the Russian flag and direct their vessel orders to Russian shipyards.

The group included senior executives from Rosneft, Gazprom, Novatek and the United Shipbuilding Corp, according to reports from Russia.

President Putin had previously asked Russian shipowners to order newbuilds at the new Zvezda shipyard in the Russian Far East. "As we have already said, for the successful operation of [Zvezda] it is necessary to ensure the effective loading of its capacities, to form a stable, long-term demand for the products. I know that the prospective plan for [orders] until 2035 has been approved," he reportedly said. "And this plan, of course, must be strictly followed, not only by Rosneft, but also by other customers."

He asked for news of how the shipowners' orders at Zvezda were progressing and whether they were giving the yard the technical requirements for their ships in a timely manner. Putin also called on Russian shipyards to give "distinct financial guarantees" for the quality of their product.

In addition, he warned the owners that the Duma may pass a law requiring oil and gas vessels to fly the Russian flag if they wish to trade at ports along Russia's Northern Sea Route.

This bill would probably include Sabetta in the Kara Sea, Novatek's terminal for Yamal LNG, which would affect the foreign flag Arc7 LNGCs currently under construction (see page 7). ■

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AWILCO LNG narrows losses

AWILCO LNG reported freight income for the third quarter was $5.7 mill, up from $2.6 mill in 2Q17.

AWILCO is benefiting from firming rates

The 3Q17 loss for the period was $6.8 mill, compared to $10.1 mill in 2Q17.

Fleet utilisation for the quarter ended at 88%, compared to 83% in 2Q17. Both of AWILCO's vessels were operating in the spot market this year.

Voyage related expenses amounted to $1.3 mill, down from $1.6 mill in 2Q17. Operating expenses were $2.2 mill in the quarter, up from $1.9 mill in the previous quarter, due to fluctuations in timing of purchases of spares, consumables and stores.

Book value of vessels was $366.3 mill as at 30th September, 2017, compared with $368.6 mill for the previous quarter. The decrease reflected ordinary depreciation during the quarter, offset by minor vessel upgrades.

Total current assets were $35.9 mill as at 30th September this year, compared with $39.7 mill in 2Q17. Total equity was $131.6 mill, reflecting the loss for the period and net proceeds of $1.3 mill from the repair offering completed in July.

Total current liabilities were $3.5 mill as at the end of 3Q17, compared with $3.2 mill in the previous quarter. Total non-current liabilities were $267.2 mill as at 30th September, 2017, compared with $268.2 mill in 2Q17, of which the long-term portion of the 'WilForce' and 'WilPride' financial leases was $264.9 mill, compared to $265.9 mill in 2Q17.

Improving prices

Gas prices trended upwards throughout the third quarter, reflecting the normal seasonal pattern heading into the winter season in the Northern hemisphere. In 4Q17, gas prices for forward delivery continued to improve in both Europe and Far East, while spot prices in the US are unchanged, creating arbitrage opportunities leading to increased fixing activity, AWILCO said.

Following increasing production volumes from new plants and the open arbitrage, LNG shipping rates increased 3Q17. The quarter started with day rates reported at $41,000 and $33,000 West and East of Suez, respectively, and ended at $47,000 and $39,000, according to Fearnleys.

At the end of the quarter, eight vessels were available in the spot market across all basins, a reduction of two from the start of 3Q17. Average fixture duration in September was 49 days, compared to 26 in the first half of 2017, according to Poten.

Some 30 mill tonnes per annum of new LNG capacity is scheduled to come on stream this year.

AWILCO said it was fully financed until 2020 and is well positioned for the improving market. The improving market fundamentals suggest this is not the right time to commit to long term employment, the company explained. ■

NEWS NUDGE

Gazprom in talks for third Sakhalin-2 production train

Gazprom has held talks with Japan's Mitsubishi Corp about co-operation at the Russian gas giant's Sakhalin-2 LNG plant.

The St Petersburg talks were held between Gazprom head, Alexei Miller and Takehiko Kakiuchi, the president and CEO of Mitsubishi Corp, Gazprom said in a statement.

Gazprom said that the talks focused on the planned construction of a third production train at the Sakhalin-2 LNG plant.

Höegh LNG experiences FSRU setbacks

Höegh LNG reported EBITDA of $31.6 mill for the third quarter of 2017, down from the previous quarter's $37.7 mill.

The decrease was due to a provision made regarding performance guarantees on 'Neptune' and 'GDF Suez Cape Ann' relating to the initial years when they were operated as LNGCs, partly offset by a reversal of provisions for certain sales-tax-related accruals.

Adjusted for these non-recurring items, EBITDA was $40.6 mill for 3Q17, allowing for another quarter of $0.125 per share in dividend payments.

In October, Höegh LNG Partners raised net proceeds of $111.4 mill in perpetual preferred equity. The proceeds enables the dropdown of the remaining 49% of 'Höegh Grace' to Höegh LNG Partners, the company claimed.

Höegh LNG admitted that this year, the company experienced setbacks on three projects under development involving FSRUs, owing to factors beyond its control (see page 3).

Operating cash flows increased by $2.5 mill to $35.7 mill in 3Q17. Other income sources were $170 mill from the sale of marketable securities and $0.8 mill in net other investing and financing items. Outgoings during the quarter consisted primarily of $36.6 mill in debt service. Net cash flows for the quarter were positive at $152.8 mill, compared with a negative $45.6 mill for 2Q17.

As at 30th September 2017, Höegh LNG had $285 mill in current cash and marketable securities and net interest-bearing debt of $961.9 mill.

On 16th November, 2017, Höegh LNG Holdings agreed to sell the remaining 49% equity interest in Höegh LNG Colombia Holding, the owner of the entities which owns and operates 'Höegh Grace', to Höegh LNG Partners for $172.5 mill, less $86.6 mill in pro rata debt estimated to be outstanding under the credit facility related to the vessel at the closing date of the transaction, which is expected to be in the start of January, 2018.

Höegh LNG Partners announced the public offering and pricing of 4 mill cumulative redeemable preferred units, plus 600,000 units in over-allotment options, on 28th September, 2017, which was oversubscribed and, after the exercise of over-allotment options, net proceeds to Höegh LNG Partners were $111.4 mill.

The proceeds will be used to repay the $34.4 mill seller's credit, as well as to partly fund the acquisition of the remaining 49% ownership interest of 'Höegh Grace'.

In July, 2017, Höegh LNG received commitment letters for a debt financing of up to $230 mill for FSRU No 8, which is scheduled for delivery from Hyundai Heavy Industries in 1Q18. On 13th November, 2017, the final documentation was signed. ■

Flex LNG increases revenue

Flex LNG reported revenues of $9.8 mill in the third quarter of this year, compared to $8 mill in the previous quarter.

The company reported a loss before tax of $4 mill in 3Q17, or $0.01 per share and $11.7 mill, or $0.04 per share, for the nine months ending 30th September, 2017.

The operating loss before depreciation was $4.1 mill for 3Q17, compared to $7.4 mill in 2Q17.

During the quarter, Flex LNG operated four chartered-in LNGCs in order to establish a market presence and build an operational track record.

At the end of 3Q17, two chartered-in vessels were redelivered while the remaining two were subsequently extended for an additional 180 days on a profitable charter.

On 14th November, the company received a firm offer for a $315 mill term loan facility secured by the three newbuildings with the delivery in first half of 2018.

The debt available under the term loan was agreed to be drawn in connection with the delivery of newbuildings and the financing is subject to the execution of definitive documentation and satisfaction of customary closing conditions.

CEO Jonathan Cook, commented: "Over the past months, there has been upward pressure on charter rates, as the LNG shipping market has tightened considerably, and we continue to see a trend towards a three-tier market with modern gas injection LNG carriers commanding a premium.

“As our fleet of state of the art newbuildings begins to deliver in the first quarter of 2018, we believe that a continued strengthening of structural fundamentals in the LNG sector will improve the rate environment further and provide us with various attractive employment options for our vessels."

CFO Øystein Kalleklev, added: "We are pleased to have reached agreements to finance the first three of our LNG newbuildings that are scheduled to be delivered in the first half of 2018. The financing structure allows us to adjust the facility size depending on how we elect to employ our vessels and to substitute pledged vessels.

“This structure provides us significant balance sheet and operational flexibility as we grow our business," he said. ■

Mitsui to acquire stake in Pakistan FSRU project

BW Group and Mitsui & Co have formed of a joint venture to own the FSRU ‘BW Integrity’.

Mitsui has joined BW to jointly own the FSRU 'BW Integrity'

Mitsui has purchased a 49% share in the FSRU, while BW will continue to own a 51% share in the vessel. BW will also continue to provide commercial and technical management services for the FSRU.

‘BW Integrity’ is currently at Port Qasim on a 15-year charter to PGP Consortium (PGPC) to provide LNG regasification services at Pakistan’s second LNG import terminal.

BW Group’s CEO, Carsten Mortensen, said: "BW and Mitsui have a long history of close co-operation in many business areas and having Mitsui as a JV partner is a special relationship on which we hope to build for many years to come. It is our privilege to have such a well-established name in the energy and maritime investment spheres take an interest in one of our vessels.”

BW LNG’s managing director, Yngvil Åsheim, added: “’BW Integrity’ represents BW’s commitment to provide customers with high quality floating solutions for LNG and we are proud to team up with Mitsui to further enhance our delivery. ‘BW Integrity’ is ready to serve Pakistan’s energy needs for the next 15 years.”

Mitsui & Co’s COO, Integrated Transportation Systems Business Unit II, Takeshi Setozaki, said: “Mitsui and BW have enjoyed a good relationship for many years in various shipping areas. The opportunity for us to enter the FSRU business is a very big step forward for our future business strategy.

“As an LNG receiving/regasification base project is an extension of the LNG shipping business area, it is important to acquire knowhow of the FSRU business and to maintain effective relationships with partners like BW. I am convinced that this partnership will also greatly contribute to Mitsui &Co’s gas sales strategy. I would like to continue to expand this business area firmly in the future,” he said. ■

Latest Shell LNGC celebrates 125 years in shipping

Shell International Trading and Shipping Co (Shell) marked 125 years in shipping by naming its latest LNGC ‘Murex’ after its first oil tanker.

‘Murex’ joined Shell’s technically managed fleet early this month. She is one of five new LNGCs that Shell will manage for their owners, subsidiaries of Teekay LNG Partners, by mid-2018.

The sisters are powered by M-type, electronically controlled, gas injection (MEGI) engines.

Dr Grahaeme Henderson, Vice President, Shell Shipping & Maritime said: “Welcoming the ‘Murex’ and her four state-of-the-art sister vessels to our managed fleet is the perfect way to celebrate 125 years of delivering energy around the world. We are extremely proud of our long maritime history and continue to drive innovation in the industry.

“Shell operates one of the largest LNG fleets in the world and delivers flexible LNG supply to customers globally. This new tonnage further positions Shell as a worldwide leader in LNG,” he said.

The original coal-powered ‘Murex’ was launched in 1892 and was the first oil tanker to pass through the Suez Canal. She was named after a sea shell, a practice that Shell continues to this day. ■

Shell has named its latest LNGC 'Murex' in honour of its first tanker

Tellurian signs Driftwood EPC agreement

Tellurian and Bechtel have entered into four fixed price, lumpsum turnkey agreements totalling $15.2 bill for the engineering, procurement and construction (EPC) of Driftwood LNG.

Driftwood is a proposed LNG export facility to be located near Lake Charles, Louisiana.

The project includes:

* Twenty liquefaction units, each expected to produce up to 1.38 mill tonnes per annum of LNG;
* Liquefaction technology from Chart Industries' proprietary Integrated pre-cooled single mixed refrigerant (IPSMR) process;
* Twenty GE refrigeration compressors, each driven by GE aero-derivative natural gas turbines;
* Three 235,000 cu m, full containment LNG storage tanks.
* Three LNGC loading berths.

Driftwood LNG will be constructed in four phases, with each phase beginning operations on a staggered basis:

* Phase 1: Up to 11 mill tonnes per annum of LNG from eight units, storage tanks Nos 1 & 2, loading berth No 1 and related utilities.
* Phase 2: Up to 5.5 mill tonnes per annum of LNG from four units, loading berth No 2 and related utilities.
* Phase 3: Up to 5.5 mill tonnes per annum of LNG from four units, storage tank No 3, loading berth No 3 and related facilities.
* Phase 4: Up to 5.5 mill tonnes of LNG from four units and related facilities.

Tellurian President and CEO, Meg Gentle, said, "The agreements with Bechtel guarantee performance and secure the EPC cost of Driftwood LNG at $550 per tonne, one of the lowest-cost liquefaction construction projects worldwide. Execution of the lumpsum, turnkey EPC agreements concludes 18 months of open collaboration among Bechtel, Chart Industries, GE and Tellurian.

"We have worked as a team to reduce construction costs and improve operating reliability and efficiency. Bechtel is a global leader in engineering, procurement and construction of LNG facilities, having delivered 42 LNG trains on 17 projects in 10 countries. Today, production on Bechtel-built facilities accounts for 30% of global LNG capacity. We are proud to work together on the next generation of US LNG exports," Gentle said. ■

Tellurian and Bechtel have announced the EPC for Driftwood

GTT to design two FSRU LNG tanks

GTT has received an order from Hudong-Zhonghua Shipbuilding to supply LNG containment systems for two dual-purpose vessels capable of operating as LNGCs and FSRUs.

These vessels will be built at Shanghai for Dynagas in cooperation with CSSC. Their delivery is scheduled for 2021.

GTT will design the LNG tanks for both units, each representing a capacity of 174,000 cu m. The membrane cryogenic containment system NO96 GW, with glass wool insulation, will be used for the LNG storage on board. Currently, 14 vessels in operation and 42 on order have or will use this technology.

"We are pleased to once again accompany the shipowner Dynagas in its continued development in the LNG industry and to contribute to the very first FSRUs built by our Chinese partner Hudong-Zhonghua.

"This new order highlights the trusting relationships GTT maintains with this shipyard, which is part of the biggest shipbuilding group in China," said Philippe Berterottière, GTT Chairman and CEO. ■

More Yamal LNGCs delivered

Teekay's first Arc7 LNGC, 'Eduard Toll', recently completed gas trials off the South Korean coast.

This vessel is the first of Teekay LNG Partners' six 172,000 cu m ARC7 LNGC newbuildings being constructed at Daewoo (DSME) for the Yamal LNG project.

The Russian Maritime Register of Shipping (RS) has also confirmed that the Arc7 LNGCs 'Boris Vilkitsky' and 'Fedor Litke' were delivered this month.

In addition, the keel of another Arc7 was laid (hull No. 2427) at DSME.

These deliveries were the first two of a five-ship order placed by Dynagas on the back of long term charters for the Yamal LNG project.

In total, a series of 15 LNGCs is being built, to serve the Yamal LNG production project at DSME.

The new gas carriers are capable of all year round operation at temperatures down to – 50 deg C. High ice class- Arc7 - allows them to navigate independently in the ice of up to 2.1 m thick when moving astern.

The ships are equipped with three Azipod propulsion units of 45 MW total capacity each, which is comparable to the capacity of a nuclear icebreaker.

A new membrane-type gas containment system GT NO96 GW is being installed and each vessel will have a capacity of 172,600 cu m.

The RS class notation is - KM(*) Arc7 AUT1-ICS OMBO EPP ANTI-ICE LI CCO ECO-S BWM(S) BWM(T) WINTERIZATION(-50) gas carrier type 2G (methane) (Arc7 at d<=12.0 m).

The two ships are named after Boris Andreyevich Vilkitsky (1885 - 1961) and Fedor Petrovich Litke (1797 - 1882), the Russian navigators who explored the Arctic. ■

The Arc7 'Eduard Toll' seen on trials off South Korea

Wison in Shanghai Electric tie-up

Wison Offshore & Marine has signed a Memorandum of Understanding (MOU) with Shanghai Electric Power Generation Group.

The two companies have agreed to develop, market and technically service a medium to large-scale floating LNG power generation barge project.

They will promote the commercialisation of this new electric energy solution, while initiating further co-operative ventures in the power sector.

This strategic tie-up builds on Wison's experience and integration capability in floating LNG facilities combined with Shanghai Electric's expertise in core gas power equipment and EPC services for international power projects, the companies said.

Based on the floating LNG storage regasification and power generation (FSRP) solution developed by Wison, both parties will join forces to increase their capabilities throughout an FSRP project life cycle from product development, marketing, project financing, facility construction, to operation and maintenance, including the commercialisation of the project.

The parties will focus on developing a medium/large-scale FSRP and study the application of Shanghai Electric's gas turbine technology and integrated power generation sets for the FSRPs, to enhance the project's economy and reliability. In July, Wison received Approval in Principle for its 50 MW FSRP from Bureau Veritas.

CUI Ying, Wison Offshore & Marine CEO, said, "Wison is greatly honoured to join hands with Shanghai Electric, a worldwide market leader, to develop FSRP products. It is no doubt the complimentary strengths and resources of the two companies can facilitate our path forward in commercialising floating LNG power, which in turn will solidify a leading position in this emerging market."

Shanghai Electric said that its gas turbine portfolio is strengthened by a long-term co-operation with Italian Ansaldo Energia, a heavy duty gas turbine manufacturer. "Co-operation with Wison on floating LNG power station coincides with our effort to accelerate developing gas turbine business. Such innovative concept is a new attempt for marine application of heavy duty gas turbines. I very much look forward to the win-win co-operation on international markets," CAO Min, Shanghai Electric Power Generation Group President, commented.

Both parties have a positive view over power demands fuelled by the global economy, which is largely driven by growth in developing countries. Clean power in particular has promising long-term prospects, they said. ■

Egypt to end LNG imports next year

Egypt is to stop importing LNG next year.

The country may eventually export gas after production starts this year at the giant Eni-operated Zohr field off the country's Mediterranean coast, Oil Minister Tarek El-Molla said, reported Bloomberg.

Gas from Zohr will mostly supply the domestic market, and the nation's two existing gas-liquefaction facilities are large enough to process any available surplus into LNG for international sale in 2019, El-Molla told the news agency.

He also said that if Zohr and other gas fields generate enough supplies, Egypt may consider acquiring a third LNG export terminal.

Zohr could spell an end to the tenders that traders have won in past years. The field will also help ease pressure on the economy of the most populous Arab nation, which has been hit by a shortage of foreign currency since the 2011 uprising.

Egypt currently imports LNG at high costs to meet its energy needs. However, Eni's discovery of Zohr in August, 2015 could satisfy much of this local demand and may even transform the country back into a gas supplier in the eastern Mediterranean region, El-Molla reportedly said.

Zohr is expected to start producing about 350,000 cu ft per day this year, he said. The Egyptian government will issue another LNG tender in early 2018 to cover needs for the second quarter, and it plans to stop importing gas by the end of next year, he added.

The first phase of Zohr's development is almost finished, with drilling operations of the phase's wells completed, the oil ministry said in a 29th October statement. Russia's state-owned producer Rosneft had agreed a deal to acquire 30% of the field in October, while BP bought a 10% stake last year.

Under a law that President Abdel-Fattah El-Sisi signed in August, the government is setting up a regulatory authority to devise a plan to open Egypt's gas market to competition. The new law will allow private businesses to ship, transport, store, market and trade gas using the country's pipeline network and infrastructure, according to the law, as published in Egypt's Official Gazette.

"The executive regulations of the law will be ratified within the coming days," El-Molla confirmed to Bloomberg. ■

NEWS NUDGE

Poten announces next training course

Poten & Partners is running another in its series of LNG Business Training courses next January.

This course will be held in Houston between 24th and 26th January and will cover an American Focus on LNG liquefaction projects.

It will include an introduction to LNG, Global Markets, the LNG Value Chain, LNG economics, LNG contracts and the business environment.

The course tutors are all practising experts, advising clients on billions of dollars of LNG investments, the company said and will draw from their own real life experience to illustrate the course.

OLT Offshore LNG Toscana launches another tender

OLT Offshore LNG Toscana has launched a tender for its peak shaving needs for a fifth consecutive year.

The winner of the tender will need to supply an LNGC with a capacity of between 80.000 cu m and 125.000 cu m to discharge at the OLT terminal between 1st December and 31st December, 2017.

WFW advises Teekay LNG on newbuild financing

Law firm, Watson Farley & Williams (WFW), has advised Teekay LNG Partners on a $327 mill long-term financing to fund an FSU for the Bahrain regasification project, and one MEGI LNGC newbuilding.

The deal was signed this month. The FSU will be built for the Bahrain regasification project and will be chartered for 20 years from the third quarter of 2018. The MEGI LNGC has a 13-year charter contract with BP, starting in early 2019.

The WFW maritime team advising Teekay LNG was led by Partner and firm Chairman, Nigel Thomas, assisted by Senior Associate, Patrick Smith and Associate, Joanna Sissens.

Thomas commented: "We are delighted to have assisted our valued long standing client Teekay LNG in concluding further significant long-term financings for its exciting newbuilding programme in the LNG sector. Teekay LNG expects to take delivery of a further eight LNGC newbuidlings during 2018."

WORLD LNG CARRIER ORDERBOOK

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Pacific Breeze	Kawasaki	Moss	180000	TFDE	30/11/2017	2013	K-Line
Eduard Toll	DSME	GT NO 96	172410	TFDE - Azipod	01/12/2017	2014	Teekay LNG
Daewoo 2424	DSME	GT NO 96	172410	TFDE - Azipod	01/12/2017	2014	MOL
Bw Tulip	DSME	GT NO 96	173000	MEGI	01/12/2017	2014	BWGas
Bishu Maru	Kawasaki	Moss	164700	TFDE	31/12/2017	2013	K-Line
Kawasaki Sakaide 1731	Kawasaki	Moss	177000	TFDE	01/01/2018	2015	MOL
Castillo De Merida	Imabari	TZ Mk. III	178000	MEGI	01/01/2018	2014	Elcano
CESI Wenzhou	Hudong-Zhonghua	Membrane	174000	TFDE	01/01/2018	2013	China LNG Shipping Holdings
Sk Serenity	Samsung	KC-1	174000	TFDE	01/01/2018	2014	SK Shipping
SK Resolute	Samsung	TZ Mk. III	182000	XDF	01/01/2018	2013	SK Shipping
Pan Americas	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/01/2018	2014	Teekay LNG
Gaslog Houston	Hyundai Heavy	TZ Mk. III	174000	XDF	01/01/2018	2014	GasLog
Patris	DSME	GT NO 96	174000	MEGI	05/01/2018	2014	Chandris
Flex Endeavour	DSME	GT NO 96	172400	MEGI	10/01/2018	2014	Flex LNG
Flex Enterprise	DSME	GT NO 96	172400	MEGI	10/01/2018	2014	Flex LNG
Seri Camar	Hyundai Heavy	Moss	150000	STRH	01/02/2018	2013	MISC
Magdala	DSME	GT NO 96	173400	MEGI	01/02/2018	2014	Teekay LNG
Samsung 2148	Samsung	GTT Mark III Flex	177000	TFDE	01/02/2018	2014	MOL
Gaslog Hong Kong	Hyundai Heavy	TZ Mk. III	174000	XDF	01/02/2018	2014	GasLog
Castillo De Caldelas	Imabari	TZ Mk. III	178000	MEGI	01/03/2018	2014	Elcano
Energy Liberty	Japan Marine United Corp	SPB	165000	TFDE	01/03/2018	2014	MOL
Sk Spica	Samsung	KC-1	174000	TFDE	01/03/2018	2014	SK Shipping
Mitsubishi Nagasaki 2316	Mitsubishi H.I.	Moss	153000	STRH	01/03/2018	2014	NYK
Gaslog Genoa	Samsung	TZ Mk. III	174000	XDF	01/03/2018	2014	GasLog
Bw Lilac	DSME	GT NO 96	173000	MEGI	01/03/2018	2014	BWGas
Oceanic Breeze	Mitsubishi H.I.	Moss	155300	STRH	31/03/2018	2013	K-Line
Myrina	DSME	GT NO 96	173400	MEGI	01/04/2018	2014	Teekay LNG
Seri Cemara	Hyundai Heavy	Moss	150000	STRH	01/04/2018	2014	MISC
Daewoo 2441	DSME	GT NO 96	173400	MEGI	01/04/2018	2014	BP
CESI Lianyungang	Hudong-Zhonghua	Membrane	174000	TFDE	01/05/2018	2012	China LNG Shipping Holdings
Samsung 2149	Samsung	GTT Mark III Flex	177000	TFDE	01/05/2018	2014	MOL
Flex Ranger	Samsung	TZ Mk. III	174000	MEGI	01/05/2018	2013	Flex LNG
Kawasaki Sakaide 1734	Kawasaki	Moss	177000	STaGE	01/06/2018	2015	MOL
Kawasaki Sakaide 1720	Kawasaki	Moss	164000	TFDE	01/06/2018	2014	K-Line
Kawasaki Sakaide 1728	Kawasaki	Moss	155000	STRH	01/06/2018	2014	MOL
Diamond Gas Orchid	Mitsubishi H.I.	Moss	165000	STaGE	01/06/2018	2015	NYK
Kawasaki Sakaide 1729	Kawasaki	Moss	155000	STRH	01/06/2018	2014	MOL
Pan Europe	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/06/2018	2014	Teekay LNG
Mitsubishi Nagasaki 2325	Mitsubishi H.I.	Moss	165000	STaGE	01/06/2018	2015	NYK
Mitsubishi Nagasaki 2326	Mitsubishi H.I.	Moss	180000	STaGE	01/06/2018	2015	NYK
Mitsubishi Nagasaki 2327	Mitsubishi H.I.	Moss	180000	STRH	01/06/2018	2015	NYK
Megara	DSME	GT NO 96	173400	MEGI	01/07/2018	2014	Teekay LNG
Flex Rainbow	Samsung	TZ Mk. III	174000	MEGI	25/07/2018	2013	Flex LNG
Jmu Tsu 5071	Japan Marine United Corp	SPB	165000	TFDE	31/07/2018	2014	NYK
Rudolf Samoylovich	DSME	GT NO 96	172410	TFDE - Azipod	01/08/2018	2014	Teekay LNG
Samsung 2150	Samsung	GTT Mark III Flex	177000	TFDE	01/08/2018	2014	MOL
Mitsubishi Nagasaki 2323	Mitsubishi H.I.	Moss	180000	STaGE	01/08/2018	2015	MOL
Kawasaki Sakaide 1735	Kawasaki	Moss	177000	STaGE	01/09/2018	2015	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 = 26 October 2017

Fearnley LNG

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Daewoo 2462 MOL E.On	DSME	GT NO 96	180000	TFDE	01/09/2018	2015	MOL
Daewoo 2426	DSME	GT NO 96	172410	TFDE - Azipod	01/09/2018	2014	MOL
Kinisis	DSME	GT NO 96	173400	MEGI	30/09/2018	2015	Chandris
Daewoo 2442	DSME	GT NO 96	173400	MEGI	01/10/2018	2014	BP
Daewoo 2427	DSME	GT NO 96	172410	TFDE - Azipod	01/10/2018	2014	Dynagas
Daewoo 2443	DSME	GT NO 96	173400	MEGI	01/11/2018	2014	BP
Daewoo 2428	DSME	GT NO 96	172410	TFDE - Azipod	01/11/2018	2014	Dynagas
Jmu Tsu 5073	Japan Marine United Corp	SPB	165000	TFDE	30/11/2018	2014	MOL
Mitsubishi Nagasaki 2321	Mitsubishi H.I.	Moss	177000	STaGE	01/12/2018	2015	NYK
Daewoo 2429	DSME	GT NO 96	172410	TFDE - Azipod	01/12/2018	2014	Dynagas
Maran Gas Spetses	DSME	GT NO 96	173400	MEGI	01/01/2019	2015	Maran Gas Maritime
Daewoo 2444	DSME	GT NO 96	173400	MEGI	01/01/2019	2014	BP
Maran Gas Chios	DSME	GT NO 96	173400	MEGI	01/01/2019	2015	Maran Gas Maritime
Pan Africa	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/01/2019	2014	Teekay LNG
Maran Gas Hydra	DSME	GT NO 96	173400	MEGI	01/01/2019	2015	Maran Gas Maritime
Hyundai Samho S856	Hyundai Heavy	TZ Mk. III	174000	MEGI	01/01/2019	2015	Teekay LNG
Samsung 2131	Samsung	TZ Mk. III	174000	XDF	01/01/2019	2014	GasLog
Hyundai Samho S857	Hyundai Heavy	TZ Mk. III	174000	MEGI	01/01/2019	2015	Teekay LNG
Hyundai Ulsan 2937	Hyundai Heavy	GTT Mark III Flex	180000	XDF	01/02/2019	2016	SK Shipping
Daewoo 2445	DSME	GT NO 96	173400	MEGI	01/02/2019	2014	BP
Daewoo 2489	DSME	GT NO 96	173400	MEGI	01/02/2019	2015	BWGas
Mitsubishi Nagasaki 2332	Mitsubishi H.I.		165000	STaGE	01/02/2019	2015	Mitsubishi
Daewoo 2446	DSME	GT NO 96	173400	MEGI	01/03/2019	2014	BP
Jmu Tsu 5072	Japan Marine United Corp	SPB	165000	TFDE	31/03/2019	2014	MOL
Hyundai Ulsan 2938	Hyundai Heavy	GTT Mark III Flex	180000	XDF	01/04/2019	2016	SK Shipping
Maran Gas Syros	DSME	GT NO 96	173400	MEGI	01/04/2019	2014	Maran Gas Maritime
Hyundai Ulsan 2964	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	01/05/2019	2017	Knutsen
Mitsubishi Nagasaki 2322	Mitsubishi H.I.	Moss	177000	STaGE	01/06/2019	2015	MOL
Samsung 2212	Samsung	GTT Mark V	180000	XDF	01/06/2019	2016	GasLog
Flex Constellation	DSME	GT NO 96	173400	MEGI	01/06/2019	2017	John Fredriksen
Hyundai Ulsan 2963	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	01/06/2019	2017	Knutsen
Daewoo 2430	DSME	GT NO 96	172410	TFDE - Azipod	01/07/2019	2014	Teekay LNG
MOL Hudong-Zhonghua 1/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/07/2019	2017	MOL
Daewoo 2431	DSME	GT NO 96	172410	TFDE - Azipod	01/08/2019	2014	Teekay LNG
Flex Courageous	DSME	GT NO 96	173400	MEGI	01/08/2019	2017	John Fredriksen
Daewoo 2432	DSME	GT NO 96	172410	TFDE - Azipod	01/09/2019	2014	MOL
Samsung 2213	Samsung	GTT Mark V	180000	XDF	01/09/2019	2016	GasLog
Daewoo 2466	DSME	GT NO 96	173400	MEGI	01/10/2019	2016	Maran Gas Maritime
Daewoo 2433	DSME	GT NO 96	172410	TFDE - Azipod	01/10/2019	2014	Teekay LNG
MOL Hudong-Zhonghua 2/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/10/2019	2017	MOL
Daewoo 2467	DSME	GT NO 96	173400	MEGI	01/11/2019	2016	Maran Gas Maritime
Daewoo 2434	DSME	GT NO 96	172410	TFDE - Azipod	01/11/2019	2014	Teekay LNG
Imabari Saijo 8200	Imabari	GTT Mark III Flex	178000	MEGI	01/01/2020	2015	K-Line
MOL Hudong-Zhonghua 3/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/01/2020	2017	MOL
MOL Hudong-Zhonghua 4/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/04/2020	2017	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 = 26 October 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 Indepence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Innvovation	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Inspiration	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	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 = 9th November 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
2017	Cardissa	6,500	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	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	Shell Bunker Barge TBN 4	3,000	LNG	Northwest Europe	Yes	Shell
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
2020	Shell Bunker Barge	4,000	LNG	US Coast	Yes	Q-LNG Transport / Harvey Gulf
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas

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