LNG Shipping News

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LNGC orders hot up

December last year saw a raft of LNGC orders reported with South Korean yards Daewoo and Samsung being the beneficiaries.

For instance, on 24th December, Samsung Heavy Industries (SHI) said it had received orders for another two LNGCs worth Won426 bill ($378 mill).

They were later confirmed to be declared GasLog options.

In addition, on 31st December, the company said it had won another order to build an LNGC valued at around Won209 bill ($188 mill).

SHI said the LNGC is to be built for a European owner, said by broking sources to be Danish investment vehicle Navigare Capital, and is scheduled to be delivered on 31st March, 2021.

This latest contract brings SHI's LNGC orderbook to 18, of which six were contracted in December.

These included an LNGC from an undisclosed owner from Oceania valued at Won209 bill ($186 mill), which followed a contract for two out of four 174,000 cu m LNGCs signed by TMS Cardiff Gas.

The other two were ordered from Hyundai Heavy Industries (HHI).

Last month, TMS Cardiff Gas confirmed it had signed four long-term timecharter contracts with Shell and at the same time, placed newbuilding orders for the vessels.

The four 174,000 cu m LNGCs will be fitted with WinGD X-DF propulsion units.

This order is the latest in the company's 'X Carrier Series' taking the tally to 11 in the series. The vessels are scheduled for delivery in 2020/2021, when they will enter into timecharters with Shell.

GasLog has confirmed it has firmed up at least two options

Christos Economou, TMS Cardiff Gas founder, said: "We are delighted to have agreed the charter of four new X Carrier series of LNG ships to Shell. Shell is a very important customer in our expanding LNG Shipping business. We look forward to providing them with first class LNG shipping services."

Shell had also timechartered two Sovcomflot LNGCs.

Cheniere contracts

As for GasLog, the company confirmed that Cheniere Marketing International had exercised its option for two new seven-year charterparty agreements. To fulfil the charters, two LNGCs were ordered from SHI.

Daewoo also announced its 18th LNGC order last month from an undisclosed shipowner from Oceania.

The 174,000 cu m ship will feature MEGI engines and a full re-liquefaction system, the shipbuilder said. She is scheduled for delivery in 2021.

In December, DSME won orders for two LNGCs from BW LNG, one from Maran Gas and three from undisclosed owners.

Elsewhere, Keppel Offshore & Marine (Keppel O&M) subsidiary, Keppel Singmarine has won a contract from Shturman Koshelev for the design and construction of an Ice Class LNG bunker vessel.

When completed in the fourth quarter of 2020, she will be chartered to Gazpromneft Marine Bunker for Baltic Sea operations.

To be built to Keppel's proprietary MTD 5800V LNG design, from ship design and development arm, Marine Technology Development (MTD), the vessel will have an Ice Class Arc4 notation and a cargo capacity of 5,800 cu m. ■

> "Shell is a very important customer in our expanding LNG Shipping business"
>
> *- Christos Economou, TMS Cardiff Gas founder*

SHIPPING NEWS AGENDA

Small-scale projects begin to emerge

Low prices, abundant supply and an aggressive shift towards cleaner gas for energy generation are creating strong demand for LNG, not just from large buyers, but also from smaller importers.

Small-scale LNG projects (production and regasification capacity of less than 500,000 tonnes per annum) have reduced capex and are suitable for countries with low LNG consumption, Drewry Maritime Research said in a note.

For example Gibraltar has set up a small LNG import terminal with a total storage capacity of 5,000 cu m, which will provide fuel directly to the power plant located adjacent to the port.

Another factor is that it is becoming increasingly difficult to secure investment for mega LNG export projects by fixing cargoes on long term contracts.

Due to the increasing number of LNG suppliers, importers are opting for shorter term volume contracts, which makes small scale LNG projects attractive, as they are cheaper to build and provide less risk.

Emerging projects

Although the number of small LNG export projects is currently limited, new facilities are beginning to emerge. In the US for example, a small-LNG export project in Florida with three trains of 0.33 mill tonnes per annum capacity has already been approved by FERC.

Asian countries, such as Indonesia, Philippines and China, along with some European countries, will also see growth in the number of small-scale LNG imports terminals and in turn this will create demand for small LNGGs, Drewry said.

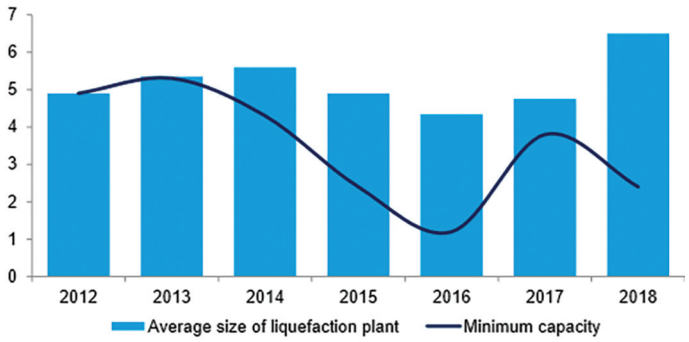
On the export side, the LNG exporters list will continue to diversify going forward, as countries with moderate gas reserves develop opportunities to export LNG.

In the near term, we expect African countries to follow the lead set by the US by investing in small-scale LNG export projects. In turn, this will generate demand for small-scale shipping capacity.

The existing fleet of small LNG carriers of less than 50,000 cu m consists of 27 LNGCs and 17 LNG/LPG carriers, plus some LNG bunkering units. However, most of the LNG and LNG/LPG ships are engaged in petchem gas trades and they are not expected to service new small scale LNG export projects.

LNG bunkering vessels are a potential source of competition, but the existing fleet is dedicated to LNG bunkering operations, while all of the vessels on order in this segment are also earmarked for bunkering.

In order to achieve first mover advantage, some shipowners have already started ordering small LNGCs. For example, five small-scale LNGCs were ordered last year and in 2019 and beyond, we expect to see more orders for small LNGCs, Drewry said. ■



Small LNG export projects and average liquefaction capacity (mtpa)

Indian LNG import expansion on the cards

Petronet LNG plans to invest R2,100 crore to expand its Dahej LNG import facility, according to local sources.

The terminal's capacity will be increased from 15 mill tonnes per annum to 20 mill tonnes per annum in the next two or three years, according to officials talking with local media.

Of the total, R1,300 crore will be used to expand the Dahej terminal, while R800 crore will be spent on building LNG storage tanks.

Petronet's other terminal is located at Kochi and has a capacity of 5 mill tonnes per annum. The company is also building a third terminal, at Gangavaram, Andhra Pradesh.

An investment proposal for the Dahej expansion project was recently submitted to the Gujarat Maritime Board—the regulator for all the non-major ports and maritime activities in Gujarat, a senior Gujarati government official said.

Gujarat expansion

Last October, Indian Prime Minister Narendra Modi inaugurated an LNG terminal project promoted by GSPC LNG, a subsidiary of Gujarat State Petroleum Corp. This project will be the third LNG re-gasification project in the state after Dahej and Shell Gas' Hazira terminal.

Shapoorji Pallonji group and Swan Energy have also announced plans to set up LNG terminals in Gujarat.

While Petronet's Dahej terminal has a long-term LNG importing contact with RasGas, and with Exxon-Mobil for the Kochi Terminal, GAIL's Dhabol terminal has a 20-year contract with Cheniere Energy.

Hazira LNG has sourced cargoes from 17 liquefaction facilities worldwide. Unlike Dahej, Kochi and Dhabol, Hazira terminal is geared more towards short and mid-term contracts instead of long-term, Care Ratings said.

India is scheduled to add another 27.5 mill tonnes per annum LNG terminal capacity in the next few years, depending on the technical feasibility of the projects. The current regasification facilities are all located on the west coast of the country. With the proposed new plants which will be set up on the east coast of India, the disparity in the supply of LNG should diminish, Care Ratings said in a report.

****Indian Oil Corp is due to open its delayed Ennore LNG receiving terminal, located near Chennai, this month, local media claimed. ■

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Is 2019 going to be the year of LNG oversupply?

What will 2019 look like? And what could happen that will shape the market longer term?

In trying to answer these questions, Wood Mackenzie said in an industry note that as we enter 2019, the mood in the LNG market is mixed.

The big LNG buyers are back, and we are set for a record year for supply in terms of both production growth and new project FIDs.

Asian LNG demand growth will not keep pace with LNG supply and Europe, northwest Europe in particular, will have to absorb the surplus, especially during the summer. But Europe needs additional imports and flexibility, given its increased reliance on maxed-out Russian and Norwegian imports.

While there will be more LNG imports than required, providing competition to pipe imports and putting pressure on prices, we think this will unlikely bring the level of oversupply that some fear, the consultancy said.

Our forecast for 2019 is for title transfer facility (TTF) to average $6.9/mmbtu (from $8/mmbtu in 2018) and Asian LNG spot prices to average $8.5/mmbtu (from $10.3/mmbtu in 2018) assuming normal weather patterns. Weather is something we will watch closely in the first quarter of this year, as a mild end to winter could send more LNG into Europe and drive prices down further.

Record year

Despite a rebalancing global LNG market, 2019 will be a record year for LNG project sanctions, with in excess of 60 mill tonnes per annum of capacity likely to take FID, well above the previous 45 mill tonnes sanctioned in 2005 and a tripling of the 21 mill tonnes sanctioned last year.

Frontrunners in the race to hit FID include the $27 bill Russian Arctic LNG-2, at least one project in Mozambique and three in the US. Woodmac's picks in the US are Golden Pass, Calcasieu Pass and Sabine Pass Train 6. In addition, the small Woodfibre project in Canada may also get the green light in 2019.

Other projects in the US, Qatar, Papua New Guinea, Australia and Nigeria are also targeting FID in 2019, providing an upside to our already bullish view.

Following eight years of global economic growth, economists agree that a downturn is simply a matter of when and how deep.

A recession would bring gas/LNG demand and oil prices down, delay FIDs and push the global LNG market back a few years. But there could be a worse scenario for the gas market: a major economic downturn happening in 2020 or 2021, just after 60-100 mill tonnes per year of LNG has taken FID. That would wipe out our forecast price recovery post-2020 and make our forecast that prices soften a little around 2025 look a lot worse, Woodmac warned.

Economic slowdown, a more considered approach on coal-to-gas switching and increased domestic infrastructure availability, will mean LNG demand will slow in 2019, from the 40-45% growth we have seen in 2017 and 2018. But China will still grow at around 20%, by far the largest source of LNG demand growth in the global market.

However, China announced a series of gas policies in 2018, aimed at relieving supply tightness and import dependency.

In 2019, there will be more clarity on the level of ambition of Chinese domestic supply growth and the ramp-up of Siberia. We are bullish about both and the competition they will provide for LNG growth potential post-2020. ■

First 'Market Test' for GASTRADE's FSRU

The first phase of marketing trials for the reservation of regasification capacity at the FSRU terminal in Alexandroupolis, was completed on 31st December, 2018.

This terminal is being developed by the Greek utility GASTRADE.

Twenty companies submitted an 'Expression of Interest' for up to 12.2 bill cu m per annum in total of regasification capacity reservation at the floating terminal and for delivery to the Greek National Natural Gas Transmission System.

It is the intention to send the gas to the wider Southeastern European region markets. The total 'Expression of Interests' surpassed the technical capacity of the project, which is designed for 5.5 bill cu m per year.

Companies that have expressed interest in the trials cover a wide geographical range. Apart from the SEE region, a large number of major international gas traders also expressed interest in the project.

"The highly successful outcome of the first phase of the Market Test and the great interest expressed for the Alexandroupolis LNG project by many important regional and international gas players is an essential step for the implementation of the project and ultimately for the upgrade of the energy position and the energy supply diversification of Greece, Bulgaria and the SE Europe as a whole," explained Konstantinos Spyropoulos, GASTRADE managing director.

The first phase of the marketing trial was started on 30th October, 2018 and was conducted under the guidance and supervision of the Regulatory Authority for Energy of Greece (RAE) and in accordance with the Guidelines for Management and Allocation of Capacity approved by RAE in line with the provisions of paragraph 6 of Article 36 of the European Directive 2009/73/EC.

The project will proceed to the next 'Binding Phase' of the marketing trials, once the relevant new Guidelines and notice to the companies that will participate in this phase are approved by RAE. ■

GASTRADE has completed offtake marketing trials for its Alexandropoulos FSRU

US DOE streamlines LNG export requirements

Last month, the US Department of Energy (DOE) announced a change of rules regarding US LNG exports.

Under the new rules, US LNG exporters will be required to report the country or countries of LNG deliveries, not country of end-use, to satisfy the DOE's destination reporting requirement.

Furthermore, DOE announced additional efforts to streamline the reporting requirements for LNG export supply sales and contracts.

"With the US now being the world's top producer of oil and natural gas, it is imperative that US LNG companies have all the tools they need to get their American product into the international market," said US Secretary of Energy, Rick Perry. "By streamlining the destination reporting requirements, the Department of Energy is taking an important deregulatory step forward in order to better provide reliable US LNG to our friends and allies abroad."

"Increasing US LNG exports to the world market brings great benefits to Americans here at home and our allies abroad from cleaner air to increased job growth and energy security," said Assistant Secretary for Fossil Energy, Steven Winberg. "Right now, the US is growing its position as a global leader in LNG exports and is projected to be the third largest in the world behind Australia and Qatar by the end of 2019. Today's action is another way the Trump Administration is working to advance American energy dominance."

The policy change will address the reporting of LNG delivery destinations and the types of supply and sales agreements LNG exporters must file with DOE, the department said.

Currently, DOE requires some LNG export authorisation holders to report the final country of end-use for LNG exports, which can differ from the country receiving the initial physical delivery of LNG.

Given the complexity of some LNG export transactions, and the challenges associated with tracking LNG exports all the way to their point of end-use, DOE is indicating via a new policy statement that reporting the country or countries of LNG deliveries (not country of end-use) will satisfy the destination reporting requirement. With this change in reporting requirements, LNG exporters are still required to continue the current ban on LNG exports to sanctioned countries.

In addition, the DOE is seeking to clarify via a proposed interpretative rule which types of supply and sales contract agreements need to be reported and when they must be filed. As per DOE's current regulations, it is required of all long-term LNG export authorisation holders to report all supply and sales contracts of greater than two years. ■

Offtake commitments secured for Mozambique project

Mozambique's Area 4 joint venture participants have secured LNG offtake commitments for the project from affiliated buyer entities of the partners.

According to partner ExxonMobil, this is a key milestone enabling the participants to rapidly move toward a final investment decision (FID) this year on the first phase of the Mozambique Rovuma Venture LNG project.

Area 4 participants are ExxonMobil, Eni, China National Petroleum Corp (CNPC), Empresa Nacional de Hidrocarbonetos, KOGAS and Galp.

The commitments are subject to the conclusion of fully-termed agreements, which will be finalised and signed in the coming weeks, plus the approval of the Mozambique Government.

"The Rovuma LNG marketing team has worked at an accelerated pace to reach this important milestone, a tremendous achievement made possible by the strength of the Area 4 co-venture parties and the support of the government of Mozambique," said Peter Clarke, president of ExxonMobil Gas and Power Marketing Co.

Massimo Mantovani, Eni chief gas and LNG marketing and power officer, said, "These commitments are an important step forward for the Rovuma LNG project and provide a solid foundation for securing project financing. This achievement highlights the strength of our partnership and commitment to developing Mozambique's natural resources."

Development plan

In July 2018, the joint venture submitted a development plan to the government for the first phase of the Rovuma LNG project. The project will produce, liquefy and market natural gas from the Mamba fields located in the Area 4 block in the Rovuma Basin offshore Mozambique.

ExxonMobil will lead construction and operation of natural gas liquefaction and related facilities on behalf of the Area 4 joint venture, and Eni will lead construction and operation of the upstream facilities.

The development plan for the first phase of the Rovuma LNG project specifies the proposed design and construction of two LNG trains, which will each produce 7.6 mill tonnes per year.

The joint venture participants are currently holding discussions with the Mozambican government on development plan details.

Mozambique Rovuma Venture is an incorporated joint venture owned by ExxonMobil, Eni and CNPC. It holds a 70% stake in the Area 4 exploration and production concession contract alongside Empresa Nacional de Hidrocarbonetos, Galp and KOGAS, each of which hold a 10% interest. ■

RWE signs LNG import deal with Woodside

Woodside Energy has signed a mid-term LNG supply agreement with German-based utility RWE Supply and Trading.

The primary source of LNG will come from the Corpus Christi LNG project in Texas, contracted by Woodside.

LNG will be supplied on an FOB basis, starting from October/December, 2020 until December, 2022.

This binding deal builds on an existing mid-term sale arrangement both companies signed in October, 2017, for the delivery of up to 12 cargoes between April, 2018 and March, 2020, Woodside's Executive Vice President for marketing trading and shipping, Reinhardt Matisons, said.

In 2015, Woodside secured 0.85 mill tonnes per annum of LNG from Cheniere Energy's Corpus Christi recently opened export facility. LNG will be secured from the facility's second train, which is scheduled to be completed in the second half of 2019, Platts reported. ■

PGNiG signs SPA for Port Arthur LNG

Sempra Energy subsidiary, Port Arthur LNG and the Polish Oil & Gas Company (PGNiG) have signed a 20-year sale and purchase agreement (SPA) for LNG from the Port Arthur LNG liquefaction export facility under development in Jefferson County, Texas.

"This agreement marks an important step toward Poland's energy independence and security," said US Secretary of Energy, Rick Perry. "As demonstrated with the launch of the Strategic Dialogue on Energy in Poland in November, the Trump Administration remains committed to increasing energy diversity, advancing energy security, strengthening national security, and creating a future of prosperity and opportunity in Poland and throughout the region."

"This agreement with PGNiG represents an important expansion of our portfolio of contracts for LNG exports and major step forward in the development of our Port Arthur LNG project," said Jeffrey Martin, Chairman and CEO of Sempra Energy. "Last month (November), we began the commissioning phase of our Cameron LNG liquefaction-export facility in Louisiana. This agreement, along with the great progress on Cameron LNG, continue to validate our growth strategy as we advance our vision to become North America's premier energy infrastructure company."

"Our activities show that we consistently implement our strategy," said Piotr Woźniak, president of PGNiG's management board. "Another long-term contract not only allows us to develop LNG portfolio with a view to delivering to Poland, but it gives us, in the near future, the possibility of trading in LNG purchased on a global scale. I am glad that Sempra Energy is among our American partners. I am convinced that we will have good long-term cooperation."

While financial terms were not disclosed, the agreement is for the purchase of 2 mill tonnes per annum, or about 2.7 bill cu m per year (after regasification) – enough natural gas to meet about 15% of Poland's daily needs.

Poland has signed an SpA with Sempra's Port Arthur LNG project.

This agreement is subject to certain conditions, including Port Arthur LNG making a final investment decision (FID).

In addition, Sempra Energy signed a Memorandum of Understanding (MOU) with Korea Gas Corp last year for potential participation in the Port Arthur LNG project.

The Port Arthur liquefaction-export facility was designed to include two natural gas liquefaction trains capable of processing around 11 mill tonnes of LNG; up to three LNG storage tanks; two marine berths, and associated facilities. ■

FID for West African gas project agreed

The final investment decision (FID) for Phase 1 of the West African cross-border Greater Tortue Ahmeyim development has been agreed.

According to BP, this decision to go ahead was made following an agreement between the Mauritanian and Senegalese governments and partners BP, Kosmos Energy and National Oil Companies Petrosen and SMHPM.

"Achieving sanction for the ground-breaking Greater Tortue Ahmeyim development, and at such a fast pace, is testament to the dynamic partnership working together to bring this innovative project onstream and establish a new deepwater gas value chain," said Bernard Looney, BP's Upstream CEO.

"It represents the beginning of a multi-phase project that is expected to deliver LNG revenues and gas to Africa and beyond for decades to come. We see this as the start of a new chapter for Africa's energy story and are honoured to work alongside our partners and the governments of Mauritania and Senegal," he said.

The Greater Tortue Ahmeyim project will produce gas from an ultra-deepwater subsea system and a mid-water FPSO, which will process the gas.

The gas will then be transferred to an FLNG at a near shore hub located on the Mauritania and Senegal maritime border. The FLNG will be designed to provide about 2.5 mill tonnes of LNG per annum. The total gas resources in the field are estimated to be around 15 trill cu ft.

LNG exports

The project, the first major gas project to reach FID in the basin, will see LNG exported worldwide, as well as making gas available for domestic use in both Mauritania and Senegal.

Emma Delaney, BP's regional president for West Africa, added: "We're committed to working with the two nations to make this development a success for both countries, the local communities who live near the project and the investor partners. We see a great deal of potential in the wider basin and Phase 1 of the Greater Tortue Ahmeyim project is the first step in unlocking that for the future."

All the stakeholders will continue to finalise agreements and obtain final regulatory and contract approvals, following which the development's Phase 1 will move into a detailed design and construction phase, with award of engineering, procurement, construction and installation (EPCI) contracts.

Project execution activities are expected to commence in the first quarter of this year, while first gas is expected in 2022. Following a competitive process involving all partners, BP Gas Marketing has been selected as the sole buyer for the investor partners' LNG offtake for the project. ■

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Teekay LNG now a corporation

Teekay GP, the general partner of Teekay LNG Partners, recently authorised a common unit repurchase programme to buy up to $100 mill of Teekay LNG's common units.

These common units may be repurchased in the open market or privately-negotiated transactions or otherwise at times and prices considered appropriate by the Partnership. The timing of any purchases and the exact number of common units to be purchased under the programme will be dependent on market conditions and other factors.

The Partnership also revealed the outcome of the special meeting of common unitholders held in mid-December. All proposals, including the proposal to allow Teekay LNG to elect to be treated as a corporation, instead of a partnership, for US federal income tax purposes, were approved by unitholders.

As a result, from 1st January, 2019, Teekay LNG is now treated as a corporation for and common and preferred unitholders will receive Form 1099s instead of Schedule K-1s relating to distributions taxable as dividends commencing this year.

Teekay LNG remains a master limited partnership, and all other provisions of the Partnership's limited partnership agreement are still in effect.

Mark Kremin, President and CEO of Teekay Gas Group, said at the time. "We are pleased that unitholders voted in favour of the amendment to our US tax structure effective for the 2019 taxation year, as we continue to believe that this will make Teekay LNG a more attractive investment, particularly for larger institutional investors."

Teekay GP also announced that it had declared cash distributions of $0.5625 per unit on the Series A preferred units and $0.5313 per unit on the Series B preferred units for the period from 1st October, 2018 to 31st December, 2018.

The cash distributions are payable on 15th January, 2019 to all unitholders of record as at 31st December, 2018.

In early January, Teekay declared a cash distribution of $0.14 per common unit for the quarter ended 31st December, 2018, which will be a 2019 reportable event for US tax purposes, and will be subject to Form 1099 reporting, instead of a Schedule K-1.

It is payable on 8th February, 2019 to all common unitholders of record on 1st February, 2019.

The Partnership expects to increase its quarterly common unit distribution by 36% to $0.19 per unit, commencing with the first quarter of 2019 distribution to be paid in May, 2019.

All future common unit distributions are expected to be reported on Form 1099 for US tax purposes in line with the company's new status. ■

Iino buys shares in two LNGCs

Iino Kaiun Kaisha has acquired additional shares in two special purpose companies formed to own two LNGCs.

The shares were bought from Mitsui & Co and involve the owning companies of the LNGCs 'Arctic Discoverer' and 'Arctic Voyager' .

In 2006, Iino formed a joint business with Kawasaki Kisen Kaisha ('K' Line), Mitsui, and Equinor for the purpose of owning two LNGCs, which were chartered by Equinor under a long-term charter contract.

As a result, Iino now owns 37% of 'Arctic Discoverer's' owning company with 'K' Line retaining 49% and Equinor 14%. As for the 'Arctic Voyager's' owning company the split is now - Equinor (50%), 'K' Line (36%) and Iino with 14%. ■

Wikborg Rein appoints new shipping and energy partners

Law firm Wikborg Rein has appointed two new partners and a senior lawyer to its Shipping, Trade, Energy & Infrastructure team in London.

Renaud Barbier-Emery, who joined Wikborg Rein as a partner from Ince & Co, focuses on the development and financing of offshore energy projects, most frequently for the publicly listed owners of large fleets of drilling units, FPSOs and LNGCs.

He recently participated as part of the Wikborg Rein team which advised Exmar on its agreement with Argentina's YPF for the long-term deployment at Bahia Blanca of the 'Caribbean FLNG', since renamed 'Tango FLNG', to produce and export LNG from Argentina (see page 8).

Jonathan Goldfarb, who also joined as a partner from Ince & Co advises on project tendering, vessel construction and conversion, and financing, sale and purchase and leasing arrangements for FPSOs, FSOs, FSRUs, LNGCs, FLNG, drilling units and drillships.

Goldfarb has been particularly active with FSRU projects in the LNG sector.

Senior lawyer Ina Lutchmiah has also joined Wikborg Rein from Ince & Co. She has particular expertise in LNG projects and other offshore energy transactions, and her experience includes advising on the long-term charters for FSRU projects. ■

Renaud Barbier Emery (left) and Jonathan Godfarb (right) have been recruited to boost Wikborg Rein's energy sector

NEWS NUDGE

Höegh LNG to provide FSRU for Crib Point

Höegh LNG Holdings has signed a timecharter party with AGL Shipping Pty Ltd (AGL), a wholly owned subsidiary of AGL Energy Ltd.

Under the terms of the contract, Höegh will provide an FSRU for the proposed gas import jetty project at Crib Point, Victoria, Australia that is due to start up in 2020/2021.

The charter is for a period of 10 years and is conditional on the board of directors of AGL Energy taking a final investment decision (FID) for the project and the charterer receiving key environmental project approvals.

The FSRU assigned to the project is expected to generate annual EBITDA of between $29 mill and $31 mill, depending on planned technical modifications that may be specified by AGL. ■

Cheniere in SPA with PETRONAS

Cheniere Energy Partners' subsidiary, Sabine Pass Liquefaction signed an LNG sale and purchase agreement (SPA) with PETRONAS LNG (PLL), a subsidiary of Malaysian state-owned oil and gas company, PETRONAS, in mid-December.

PLL has agreed to purchase around 1.1 mill tonnes per annum of LNG from Sabine Pass Liquefaction on a free on board (FOB) basis for 20 years following the date of first commercial delivery from Train 6 at Sabine Pass.

The purchase price for LNG is indexed to the monthly Henry Hub price, plus a fee.

"PETRONAS is one of the largest and most experienced participants in the global LNG market, and we are pleased to have it as our newest foundation customer at Sabine Pass, supporting Train 6," said Jack Fusco, Cheniere Partners Chairman, President and CEO.

"This 20-year agreement with Sabine Pass Liquefaction continues our momentum on Train 6, where early engineering, procurement, and site preparation activities have recently commenced ahead of a final investment decision (FID). We expect this SPA to support our continued progress toward a FID in 2019," he added.

PETRONAS Vice President of LNG Marketing & Trading, Ahmad Adly Alias, said, "PETRONAS is pleased to enter into this long-term relationship with Cheniere Partners. With the addition of this new volume, it will enhance PETRONAS' supply portfolio and further strengthen our position as a reliable global LNG portfolio player."

The SPA is subject to certain conditions, including Sabine Pass Liquefaction taking an FID to construct Train 6. ■

NEWS NUDGE

'Prelude' starts production

Shell's 'Prelude FLNG' commenced production offshore Western Australia last month.

'Prelude FLNG' will separate and liquefy the gas produced from the well to produce LNG, LPG and condensate, which will then be loaded on gas carriers and tankers from the FLNG in sequence.

The giant 488 m long FLNG was built at Samsung Heavy Industries' Geoje shipyard and arrived in Australia in September, 2017.

She received her first gas in June last year from the LNGC 'Gallina' to test the FLNG, including the offloading arms.

NOVATEK signs MOU with Hibiki

PAO NOVATEK and Saibu Gas Co of Japan have signed a Memorandum of Understanding (MOU), to consider potential co-operation.

This agreement is aimed at entering the end-customer market and optimising NOVATEK's LNG portfolio supplies to the Asia/Pacific region by using the Hibiki LNG terminal in Japan.

NOVATEK's First Deputy Chairman of the Management Board, Lev Feodosyev, said: "The Asia/Pacific region is a priority destination for NOVATEK's LNG projects. Our ability to use the Hibiki terminal will help diversify our customer base and increase the flexibility of deliveries to the premium LNG markets."

EXMAR'S FLNG on her way to Argentina

EXMAR 's FLNG, to be renamed 'Tango FLNG', has left China for Bahia Blanca, Argentina where she will operate.

She is being transported on the 2012-built Boskalis/Dockwise semi-submersible heavy load carrier 'Forte' and the voyage to Argentina is expected to take around 45 days.

Upon her arrival in Argentina, she will be operated by YPF and is expected to start LNG production in the second quarter of this year.

'Tango FLNG' has been designed for a liquefaction capacity of about 0.5 mill tonnes of LNG per year and is to play a central role in YPF's efforts to export the Vaca Muerta gas reserves to the international markets, EXMAR said. ■

'Tango FLNG' is being transported to Argentina on board a semi-submersible heavy lift ship

ROSATOM to manage NSR

Russia's atomic energy concern, ROSATOM has been appointed the country's management authority for the NSR, which is being increasingly used by Ice Class LNGCs, plus other ships.

President Vladimir Putin signed a law defining ROSATOM's powers in developing and operating the NSR and adjacent territories at the end of December last year.

ROSATOM together with other authorised bodies will make navigation viable and safe and accurate in the NSR offshore areas. This work may include hydrographic and topographic surveys, the company confirmed.

In addition, the law delegates ROSATOM as the chief controller and receiver of budget funds, chief administer of budget revenues and the NSR Public State Programme for developing and operating NSR port infrastructure, and ensuring the navigation and year-round towage of ships transiting the NSR.

According to the new law, ROSATOM has to define a subordinate enterprise, which will be authorised to issue permits to sail via the NSR.

The state-owned corporation will also agree Russia's concessions and sign agreements related to port infrastructure located along the NSR, and design and construct the essential buildings needed. ■

LNG Solutions for the Marine Industry

Chart's maritime LNG solutions reduce operating costs while dramatically improving emissions for compliance with today's stringent requirements in the marine industry.

Cryogenic Solutions for:

- **LNG ship fueling systems**
- **FLNG**
- **FSRUs**
- **Bunkering vessels**
- **Bunkering stations**
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WORLD LNG CARRIER ORDERBOOK

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Jmu Tsu 5072	JMU	SPB	165000	TFDE	Mar-19	Feb-14	MOL
Jmu Tsu 5073	JMU	SPB	165000	TFDE	Jul-19	Feb-14	MOL
Jmu Tsu 5071	JMU	SPB	165000	TFDE	Nov-18	Feb-14	NYK
Gaslog Gladstone	Samsung	TZ Mk. III	174000	XDF	Jan-19	May-14	GasLog
Maran Gas Syros	DSME	GT NO 96	173400	MEGI	Apr-19	Jun-14	Maran Gas Maritime
Pan Africa	Hudong-Zhonghua	GT NO 96	174000	TFDE	Jan-19	Jun-14	Teekay LNG
Daewoo 2430	DSME	GT NO 96	172000	TFDE - Azipod	Jul-19	Jul-14	Teekay LNG
Daewoo 2431	DSME	GT NO 96	172000	TFDE - Azipod	Aug-19	Jul-14	Teekay LNG
Daewoo 2433	DSME	GT NO 96	172000	TFDE - Azipod	Oct-19	Jul-14	Teekay LNG
Daewoo 2434	DSME	GT NO 96	172000	TFDE - Azipod	Nov-19	Jul-14	Teekay LNG
Daewoo 2432	DSME	GT NO 96	172410	TFDE - Azipod	Sep-19	Jul-14	MOL
Kawasaki Sakaide 1729	Kawasaki	Moss	155000	TFDE	Aug-19	Sep-14	MOL
Samsung 2150	Samsung	GTT Mark III Flex	174000	XDF	Jan-19	Oct-14	MOL
British Contributor	DSME	GT NO 96	173400	MEGI	Nov-18	Nov-14	BP
British Mentor	DSME	GT NO 96	173400	MEGI	Feb-19	Nov-14	BP
British Sponsor	DSME	GT NO 96	173400	MEGI	Mar-19	Nov-14	BP
Daewoo 2444	DSME	GT NO 96	173400	MEGI	Jan-19	Nov-14	BP
Nikolay Zubov	DSME	GT NO 96	172410	TFDE - Azipod	Dec-18	Dec-14	Dynagas
Mitsubishi Nagasaki 2322	Mitsubishi H.I.	Moss	177000	STaGE	Sep-19	Jan-15	MOL
Marvel Crane	Mitsubishi H.I.	Moss	177000	STaGE	Dec-18	Jan-15	NYK
Mitsubishi Nagasaki 2323	Mitsubishi H.I.	Moss	177000	STaGE	Jan-19	Mar-15	MOL
Maran Gas Chios	DSME	GT NO 96	173400	MEGI	Jan-19	Jun-15	Maran Gas Maritime
Maran Gas Hydra	DSME	GT NO 96	173400	MEGI	Jan-19	Jun-15	Maran Gas Maritime
Hyundai Samho S856	Hyundai Heavy	TZ Mk. III	174000	MEGI	Jan-19	Jun-15	Teekay LNG
Yamal Spirit	Hyundai Heavy	TZ Mk. III	174000	MEGI	Jan-19	Jun-15	Teekay LNG
Daewoo 2489	DSME	GT NO 96	173400	MEGI	Nov-19	Sep-15	BWGas
Shinshu Maru	Kawasaki	Moss	177000	STRH	Feb-19	Sep-15	MOL
Sohshu Maru	Kawasaki	Moss	177000	STRH	Jul-19	Sep-15	MOL
Diamond Gas TBN	Mitsubishi H.I.	Moss	165000	STaGE	May-19	Nov-15	Mitsubishi
Bushu Maru	Mitsubishi H.I.	Moss	180000	STaGE	Jun-19	Nov-15	NYK
Nohshu Maru	Mitsubishi H.I.	Moss	180000	STaGE	Feb-19	Nov-15	NYK
Hyundai Ulsan 2937	Hyundai Heavy	GTT Mark III Flex	180000	XDF	Apr-19	May-16	SK Shipping
Hyundai Ulsan 2938	Hyundai Heavy	GTT Mark III Flex	180000	XDF	Jul-19	May-16	SK Shipping
Daewoo 2466	DSME	GT NO 96	173400	MEGI	Oct-19	Jun-16	Maran Gas Maritime
Daewoo 2467	DSME	GT NO 96	173400	MEGI	Nov-19	Jun-16	Maran Gas Maritime
Samsung 2213	Samsung	GTT Mark III Flex	180000	XDF	Jun-20	Sep-16	GasLog
Daewoo 2469	DSME	GT NO 96	173400	MEGI	Apr-20	Dec-16	Maran Gas Maritime
Hyundai Ulsan 2964	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	May-19	Mar-17	Knutsen
Flex Constellation	DSME	GT NO 96	173400	MEGI	Jun-19	Mar-17	Flex LNG
Flex Courageous	DSME	GT NO 96	173400	MEGI	Aug-19	Mar-17	Flex LNG
Hyundai Ulsan 2963	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	Jun-19	May-17	Knutsen
MOL HUDONG-ZHONGHUA 1/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Dec-19	Jul-17	MOL
MOL HUDONG-ZHONGHUA 2/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Mar-20	Jul-17	MOL
MOL HUDONG-ZHONGHUA 3/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Jul-20	Jul-17	MOL
MOL HUDONG-ZHONGHUA 4/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Oct-20	Jul-17	MOL
Gaslog Windsor	Samsung	GTT Mark III Flex	180000	XDF	Jul-19	Dec-17	GasLog
Daewoo 2478	DSME	GT NO 96	173400	MEGI	May-20	Dec-17	Maran Gas Maritime
HHI NYK/EDF	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Apr-20	Jan-18	NYK
HHI / Total	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Jan-18	Cardiff Marine

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 = 20th November 2018

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
HHI / Total / Sovc	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Jan-18	Sovcomflot
DSME 2490	DSME	GT NO 96	173400	MEGI	Feb-20	Feb-18	BWGas
DSME 2491	DSME	GT NO 96	173400	MEGI	May-20	Feb-18	BWGas
HHI / Cardiff #1	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Feb-18	Cardiff Marine
HHI / Cardiff #2	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Feb-18	Cardiff Marine
DSME 2479	DSME	GT NO 96	173400	MEGI	Aug-20	Feb-18	John Fredriksen
DSME 2480	DSME	GT NO 96	173400	MEGI	Sep-20	Feb-18	John Fredriksen
Flex America	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Aug-20	Mar-18	Flex LNG
Flex Aurora	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Mar-18	Flex LNG
SHI Gaslog #1	Samsung	GTT Mark III Flex	180000	XDF	Jun-20	Mar-18	GasLog
Samsung 2271	Samsung	GTT Mark III Flex	174000	XDF	Apr-20	Mar-18	Cardiff Marine
DSME Minerva #1	DSME	GT NO 96	173400	MEGI	Mar-21	Mar-18	Minerva Marine
DSME Minerva #2	DSME	GT NO 96	173400	MEGI	Jul-21	Mar-18	Minerva Marine
Hyundai Ulsan 3086	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	Jun-20	Mar-18	Knutsen
DSME 2483	DSME	GT NO 96	173400	MEGI	Oct-20	Mar-18	Alpha Gas
DSME 2484	DSME	GT NO 96	173400	MEGI	Dec-20	Mar-18	Alpha Gas
SHI Gaslog #2	Samsung	GTT Mark III Flex	180000	XDF	Sep-20	May-18	GasLog
Maran Gas DSME	DSME	GT NO 96	173400	MEGI	Oct-20	Jun-18	Maran Gas Maritime
DSME 2487	DSME	GT NO 96	173400	TFDE	Apr-21	Jun-18	Maran Gas Maritime
DSME 2485	DSME	GT NO 96	173400	MEGI	Mar-21	Jun-18	Alpha Gas
HHI Thenamaris #1	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Nov-20	Jun-18	Thenamaris
HH 8012	Hyundai Heavy	GTT Mark III Flex	174000		Feb-21	Jun-18	John Fredriksen
HH 8013	Hyundai Heavy	GTT Mark III Flex	174000		May-21	Jun-18	John Fredriksen
HHI Capital Gas #1	Hyundai Heavy	GTT Mark III Flex	174000		Sep-20	Jul-18	Capital Gas
HHI Capital Gas #2	Hyundai Heavy	GTT Mark III Flex	174000		Dec-20	Jul-18	Capital Gas
HHI Capital Gas #3	Hyundai Heavy	GTT Mark III Flex	174000		Mar-21	Jul-18	Capital Gas
HHI Capital Gas #4	Hyundai Heavy	GTT Mark III Flex	174000		Jun-21	Jul-18	Capital Gas
DSME 2492	DSME	GT NO 96	173400	MEGI	Nov-20	Jul-18	John Fredriksen
SHI Celcius #1	Samsung	GTT Mark III Flex	180000	XDF	Oct-20	Aug-18	Celcius Shipping
SHI Celcius #2	Samsung	GTT Mark III Flex	180000	XDF	Jan-21	Aug-18	Celcius Shipping
HHI 3037	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jul-20	Aug-18	Cardiff Marine
SHI 2300	Samsung	GTT Mark III Flex	174000	XDF	Nov-20	Aug-18	GasLog
SHI 2301	Samsung	GTT Mark III Flex	174000	XDF	Dec-20	Aug-18	GasLog

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 = 20th November 2018

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WORLD SMALL SCALE LNG FLEET*

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
1974	Seagas	187	LNG	Sweden	Yes	AGA
1988	Kayoh Maru	1,517	LNG	Japan	Yes	Daiichi
1993	Aman Bintulu / 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 Conception	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Norgas Invention	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Vision Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2011	Unikum Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2014	LNG-Oil combi**	2,000	LNG	Germany	Yes	Veka
2014	Short Sea LNG Tanker **	4,000	LNG	Germany	Yes	Veka
2015	LNG Inland bunker**	800	LNG	Germany	Yes	Veka
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 Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	10 small carriers TBN**	5,000	LNG			Bimantara Group
2015	Jahre TBN**	6,200	LNG	Norway	Yes	Donsotank/Jahre Marine
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
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	TBN 1	27,500	LNG	China?		Danyang?
2015	TBN 2	27,500	LNG	China?		Danyang?
2015	TBN 3	27,500	LNG	China?		Danyang?
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
2016	JS Ineos Indepence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos 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

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 = 10th January 2019

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Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
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
2016	Ocean Yield TBN**	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2017	Oizmendi	600	LNG	Bilbao	Yes	Itsas Gas
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	ENGIE Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	Anthony Veder
2017	Cardissa	6,500	LNG	Northwest Europe	Yes	Shell
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	Coral EnergICE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	JS Ineos Invention	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	JS Ineos Intuition	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	Yuan He 1	30,000	LNG	China	Yes	CSR
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	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2018	CME TBN†	2,200	LNG	US Coast	Yes	CME
2018	Shell Bunker Barge TBN 4	3,000	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2018	Kairos	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	Qi Yuan	28,000	LNG	China	Yes	Dalian Inteh Group
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
2018	Bunker Breeze	0	LNG	Barcelona	Yes	Suardiaz Energy Shipping
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2020	Shell Bunker Barge	4,000	LNG	US Coast	Yes	Q-LNG Transport / Harvey Gulf
2020	Stolt TBN (option) **	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Total TBN	18,600	LNG	NWE	Yes	MOL
2020	FuelLNG TBN	7,500	LNG	Singapore	Yes	FuelLNG
2020	CLS TBN	3,500	LNG	Japan	Yes	CLS
2020	Eesti Gaas TBN	6,000	LNG	NWE	Yes	Eesti Gaas
2020	ENN TBN	8,500	LNG	China	Yes	ENN
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2021	Knutsen TBN	30,000	LNG	Mediterranean	Yes	Knutsen OAS
2021	Gazprom Neft TBN	5,800	LNG	Russia	Yes	Gazprom Neft

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