LNG Shipping News

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Teekay LNG joint venture hit by US sanctions

Due to the sanctions recently announced by the US against Chinese tanker companies, Teekay Corp postponed an investor and analyst meeting, which was scheduled to take place in New York on Wednesday of this week.

Teekay's Arc7 'Vladimir Voronin' looks to be caught up in US santions against Chinese entities

Teekay explained that while it was looking forward to providing an extensive strategic and market update to the investment community, in order to fully focus on avoiding undue disruption to Teekay LNG's business from certain complex issues that have recently emerged, it has determined that it would be prudent to postpone the New York event at this time.

Teekay LNG also said that it was working with its joint venture partner to resolve the issue and will provide further updates on the situation as and when appropriate.

On 25th September, 2019, the US Government, by an Executive Office of Foreign Assets Control (OFAC) Order, imposed sanctions on two subsidiaries of leading Chinese state-owned shipping and logistics company COSCO, including COSCO Dalian, for allegedly trading oil with Iran using owned vessels.

COSCO Dalian is a direct 50% shareholder in China LNG Shipping (Holdings). CLNG was not listed on the recent OFAC order or otherwise directly implicated in any sanctioned activity, but by virtue of being 50% owned by COSCO Dalian, CLNG qualified as a 'Blocked Person' under OFAC rules.

In turn, CLNG owns a 50% interest in Teekay LNG's Yamal LNG joint venture, which owns four Arc7 LNGCs plus two more newbuildings, which are now on their way to Sabetta. As a result of CLNG's interest, the Yamal LNG joint venture also currently qualifies as a 'Blocked Person' under OFAC rules.

For clarity, the Teekay Group stressed that it has not traded and will not trade with Iran and will not act in contravention of any trading sanctions.

Four Arc7s

Yamal LNG operator, NOVATEK confirmed that Teekay LNG, through its affiliates and joint ventures, owns four Arc7s conducting LNG shipments for the Yamal LNG project.

These specific LNG shipments are not related to the sanctions imposed on COSCO Shipping Tanker (Dalian) and COSCO Shipping Tanker (Dalian) Seaman & Ship Management. The issue to resolve this situation is a business relations matter between Teekay LNG and China LNG Shipping (Holdings) Limited, NOVATEK stressed.

The Yamal LNG project has the necessary capacity to ensure LNG is supplied to customers in accordance with contractual obligations within the agreed timelines, the company claimed.

NOVATEK has also announced that during the third quarter of this year, 15 LNG cargoes from the Yamal LNG project were shipped eastbound to Asia/Pacific directly via the Northern Sea Route (NSR).

The eastbound shipments represented about 25% of all LNG dispatched from Yamal LNG during the quarter. Planned 2019 LNG volumes delivered eastbound to Asia/Pacific markets via the NSR will amount to more than four times as many, compared to last year.

A current fleet 13 Arc7s, along with lower Ice Class LNGCs, support the Yamal LNG project. The final two Arc7s are expected to be in operation by end of 2019, which will increase the number of direct LNG deliveries eastbound via the NSR (see page 7).

"The increase of LNG delivered eastbound via the NSR confirms the commercial priority of the Asia/Pacific region as a strategic direction for future deliveries of NOVATEK's LNG," said Lev Feodosyev, NOVATEK's First Deputy Chairman of the Management Board. "Developing further the navigational efficiency via the NSR, combined with the construction of LNG transhipment complexes in Kamchatka and Murmansk will optimise the company's logistics chain" (see page 7). ■

SHIPPING NEWS AGENDA

Centrica ships Cheniere LNG

Centrica has loaded its first LNG cargo from the fifth LNG train at the Sabine Pass liquefaction plant in Louisiana.

This cargo was loaded under an agreement signed in 2013 with Cheniere Energy Partners.

The gas was loaded onto the chartered GasLog Ltd's 'Gaslog Skagen' last the weekend and is due to arrive in Europe in early October.

Jonathan Westby, Co-Managing Director of Centrica Energy Marketing & Trading and Global Head of LNG, said; "This cargo represents a significant milestone in Centrica's involvement with LNG, which goes back 60 years to the world's first seaborne cargo of LNG that demonstrated how large quantities of gas could be transported safely across the oceans.

"Since that pioneering journey, also originating from Louisiana, we have established our capabilities to become a global LNG business trading, optimising and operating vessels that now carry over 30 times more gas and take half the time to transit the Atlantic to Europe," he said.

Under the terms of the agreement, Centrica will purchase LNG for an initial 20-year period, with the option for a 10-year extension. LNG will be shipped on a 'Free on Board' (FOB) basis, thus giving it destination rights for the cargoes.

This amounts to around 1.75 mill tonnes per annum. ■

Centrica has shipped its first cargo from Sabine Pass

NEWS NUDGE

Golar in management changes

Golar LNG Limited has announced that, after almost 20 years of service with the Golar group, Graham Robjohns is to step down from his position as CFO.

In order to facilitate a smooth transition, Robjohns will remain in his current position until 30th April, 2020 while the search for his replacement proceeds.

In addition, Golar LNG Partners' Brian Tienzo will step down as CEO to focus fully on Golar group financing. In turn, Robjohns will take on the role of Golar Partners CEO until 30th April, 2020.

In the next six months, as CEO for Golar MLP, Rabjohns will look at structural opportunities to optimise the value of assets and the large order backlog in Golar MLP. ■

Malaysian pilots concerned over planned LNG terminal

Maritime Pilots Malaysia (MPM) has expressed concern over the possible violation of public and port safety by the planned construction and operation of an LNG terminal at Pulau Indah, Port Klang.

According to the President and Chairman of MPM, Capt Martin Lim; "MPM is not against the Government's effort in drawing foreign investment into the country as in the development of new LNG terminal and storage facility at Port Klang. However, with due regards and consideration the dangerous properties of LNG, the location of the terminal and gas storage facilities are not suitable.

"Instead, it must be located in a well defined and safe location that does not raise potential hazards to public safety, including safety of navigation/pilotage and the environment," he said.

The newly planned LNG terminal will be located along the Klang Straits, in close proximity and adjacent to the Boustead Cruise Terminal, which is an important terminal in Malaysia that handles large cruise ships with a capacity exceeding 8,000 crew and passengers at any one time. Annually, Boustead Cruise Terminal handles more than 500,000 passengers plus 10,000 or more crew from international warships that frequently berth at the terminal.

Capt Martin Lim reiterated that any potential development at Port Klang should not violate public safety, especially the passengers and crew at the cruise terminal and other port users. In addition, any plan must not jeopardise, hamper or endanger existing business and service entities.

If the plans for the LNG terminal persists, it will undeniably affect the operation of the cruise terminal and eventually the Malaysian cruise industry, he claimed.

He urged the port authority and the Malaysian Ministry of Transport to review the plans and come up with an alternative location for the terminal and storage area that is safe and not detrimental to public and pilotage safety. ■

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First Baltic Exchange LNG freight swap completed

LNG traders, JERA Global Markets and Vitol, recently executed the first Atlantic LNG freight swap against The Baltic Exchange's BLNG3 assessment in a bilateral trade arranged by Affinity Financial Products.

BLNG3 provides a freight rate benchmark for LNG shipments between Sabine Pass and Tokyo and is calculated on a timecharter equivalent (TCE) basis with a panel of independent shipbrokers providing timecharter rates and a ballast bonus and/or position fee assessment to give an effective rate paid by a charterer on round voyage terms.

"Following on from our initial trade in July when the Baltic's BLNG1 assessment went live, we are very pleased to have been able to arrange a bilateral trade against the BLNG3 route," said Benjamin Gibson, Affinity's Head of LNG Derivatives. "Interest in BLNG3 has been off the charts as this trade lane links an increasingly liquid spot market in the Atlantic and the key demand centre for LNG in Japan.

"As the LNG market continues to commoditise, freight is now catching up with the cargo in terms of transparency and the ability to trade BLNG3 will become an important tool along with JKM and Henry Hub," he added.

Baltic Exchange CEO, Mark Jackson commented: "Our BLNG3 route only went live in mid-August and we're delighted to see the first trade settled against it. The Baltic's LNG assessments are being quickly adopted by this developing market as an accurate and reliable benchmark."

Sarah Behbehani, JERA Global Markets Senior Vice President LNG, said: "As part of JERAGM's efforts to increase the transparency of the LNG market, we are very happy to confirm that we have concluded the first LNG freight swap against the Baltic Exchange's Sabine Pass to Tokyo index.

"The management of LNG freight price exposure is a key element of portfolio optimisation and risk management, however LNG freight derivatives have been slower to develop compared to LNG and gas-linked financial products.

"Freight exposure arising from US LNG is of particular importance for the development of the market, given the US Gulf Coast's position as a marginal source of supply across the Atlantic and Pacific basins," she explained.

Over-the-counter

Affinity confirmed that the trade was done over-the-counter (OTC) and executed bilaterally using an ISDA contract.

Gibson added, "Further bilateral trades will help develop the understanding and adoption of freight benchmarks within the industry. We are delighted to have supportive counterparties such as JERA and Vitol who will transact on this basis and, furthermore, the market is engaged with several exchanges who have expressed an interest in listing contracts priced against the Baltic routes." ■

Qatargas delivers first Q-Flex cargo to Petrobangla

Qatargas has delivered the first Q-Flex LNG cargo to the 'Excellence' FSRU, now known as Moheshkali LNG Terminal (MLNG), located offshore Bangladesh.

The cargo was loaded at Ras Laffan on 4th September, on board the Qatargas-chartered 216,000 cu m 'Al Thumama', and delivered to MLNG on 20th September, 2019.

This delivery is also claimed to be the first commercial open water ship-to-ship transfer involving a Q-Flex vessel.

MLNG is a project jointly developed by Excelerate Energy and the Bangladesh Oil, Gas and Mineral Corp (Petrobangla) on a build, own and operate basis. The FSRU 'Excellence' is under a 15-year charter to Petrobangla and shipped the inaugural LNG cargo from Qatar in April, 2018.

The deliveries to Petrobangla are made under a long-term Sale and Purchase agreement (SPA) signed in September, 2017 between Qatargas and Petrobangla to supply up to 2.5 mill tonnes of LNG per annum for 15 years. ■

Bangladesh FSRU has received its first Q-Flex cargo

Tellurian and Petronet sign Driftwood MOU

Tellurian and Petronet LNG Limited INDIA (PLL) have signed a Memorandum of Understanding (MOU) whereby Petronet and its affiliates intend to purchase up to 5 mill tonnes per annum of LNG from Driftwood.

The contract was signed in the presence of Indian Prime Minister Modi

This will form part of an equity investment, which remains subject to further due diligence and approval of its board of directors.

Tellurian and Petronet said that they will endeavour to finalise the transaction agreements by 31st March, 2020.

President and CEO, Meg Gentle, said, "Petronet, India's largest LNG importer, will be able to deliver clean, low-cost,and reliable natural gas to India from Driftwood. Increasing natural gas use will enable India to fuel its impressive economic growth to achieve Prime Minister Modi's goal of a $5 trill economy while contributing to a cleaner environment.

"It is an honour to sign the MOU with Petronet in the presence of HE Prime Minister Narendra Modi. At Tellurian, we look forward to a long and prosperous partnership with Petronet in the Driftwood project," she said.

In April, the US Federal Energy Regulatory Commission (FERC) issued the order granting authorisation for Driftwood LNG and the 96-mile Driftwood Pipeline, which will inter-connect the LNG terminal to the US natural gas market.

H-Line, Vitol in LNGC newbuilding charter deal

South Korean shipping company H-Line Shipping and Dutch energy and commodities giant Vitol have agreed a 10-year timecharter agreement for a newbuilding LNGC.

The 174,000 cu m vessel will be fitted with X-DF propulsion and is to be built at Hyundai Samho Heavy Industries (HSHI) for delivery in late 2021.

Vitol also holds extension options on additional LNGCs to support its further growth in the LNG industry through this partnership with H-Line.

"We are very excited to have concluded this contract with H-Line … which represents Vitol's second long-term charter of a modern 174,000 cu m LNGC. This allows us to optimise our LNG portfolio that includes increasing FOB volumes from different areas," Pablo Galante Escobar, Vitol's head of LNG, commented.

"We will put our best efforts in every stage from shipbuilding to shipping operations under our contract with Vitol. We will also make full use of our capabilities for successful contract execution based on the company's fundamental principles, 'safety-first' and 'eco-friendly' policies," Myung Deuk Seo, H-Line CEO, added. ■

Total closes Mozambique LNG stake acquisition

Total has finalised the acquisition of Anadarko's 26.5% operated interest in the Mozambique LNG project for a purchase price of $3.9 bill.

The closing came after Total reached a binding agreement with Occidental on 3rd May, 2019, to acquire Anadarko's assets in Africa (Mozambique, Algeria, Ghana and South Africa). The subsequent Sale and Purchase agreement (SPA) was signed on 3rd August, 2019.

This final transaction follows receipt of all requisite approvals by the relevant authorities and partners.

"Mozambique LNG is one of a kind asset that perfectly fits with our strategy and expands our position in liquefied natural gas," said Patrick Pouyanné, Total Chairman & CEO. "As the new operator, we are fully committed to the Mozambique LNG project and we will bring the best of our human, technical, marketing and financial capacities to further strengthen its execution.

"Total will of course work on the strong foundations established by the previous operator and its partners, in order to implement the project in the best interest of all those involved, including the government and the people of Mozambique," he added.

Closing operations are still ongoing in relation to Anadarko's assets in other countries - Algeria, Ghana, and South Africa. ■

BP to supply LNG to KOGAS

South Korea's state-run Korea Gas Corp (KOGAS) has signed a contract with BP to buy 1.58 mill tonnes of US LNG for 15 years starting 2025, according to South Korea's energy ministry.

The LNG will be shipped either from Freeport LNG terminal or Calcasieu Pass. The deal could be extended for another three years at a seller's option and is estimated to be worth up to $9.61 bill for 18 years, the ministry said.

According to Reuters, in the first eight months of the year, South Korea imported 4.82 mill tonnes of LNG from the US, up 5.5% from 4.57 mill tonnes during the same period in 2018, according to customs data.

The ministry reportedly said the deal would strengthen bilateral energy co-operation and help South Korea diversify its LNG import sources.

KOGAS currently imports 2.8 mill tonnes a year of US LNG processed by Cheniere under a 20-year supply deal, which started in 2017. ■

JERA renegotiates LNG contracts - drops destination clauses

Japanese LNG importer JERA has renegotiated some of its contracts with suppliers to drop clauses that restrict where the cargoes can be sold to gain more flexibility.

In 2017, Japan's Fair Trade Commission (JFTC) ruled that destination restrictions that prevent the reselling of contracted LNG cargoes breach competition rules.

"We have been asking sellers to scrap the destination clauses from the current contracts and some of them have accepted our request," Sunao Nakamura, JERA's managing executive officer, told Reuters in a recent interview.

Buyers have gained the upper hand, as growth in new supplies, mainly from Australia and the US, has exceeded demand.

"Since the supply/demand balance has relaxed compared with five or six years ago, buyers have better chances to get what they want," Nakamura said.

Although Japanese buyers receive LNG mostly through long-term contracts, JERA, a joint venture between Tokyo Electric Power and Chubu Electric Power, has increased spot purchases and short-term contracts covering less than four years.

> **"With growing uncertainty of energy demand in Japan … we can't make commitment without flexibility"**
>
> *- Sunao Nakamura, managing executive officer, JERA*

New term contracts also use different types of price formula, including a LNG spot price index or a gas price index in Europe, he explained.

"With growing uncertainty of energy demand in Japan, due to unexpected weather patterns and increasing use of renewable energy, we can't make commitment without flexibility," he said.

A decline in spot market prices for LNG this year has pushed Japanese utilities to be more aggressive in price reviews built into traditional long-term contracts linked to oil prices.

According to other sources, Japan's second largest city gas company, Osaka Gas, is in arbitration with ExxonMobil's PNG LNG project in Papua New Guinea after failing to get a reduction in prices during a price review.

JERA, which buys about 20% of its LNG from Qatar and UAE, has not been directly affected by the rise in tensions in the Middle East after the attacks on Saudi Arabia's oil facilities, Nakamura claimed. "But we will need to carefully watch oil prices as LNG prices in a big portion of our contracts are linked to oil indices," he warned. ■

Excelerate takes another FSRU

Excelerate Energy and Maran Gas Maritime (MGM) have signed a five-year bareboat charter agreement (BBC) for the newbuilding FSRU - Hull 2477.

During the five-year charter, Excelerate will have the option to purchase the unit.

MGM's Hull 2477 is currently under construction at Daewoo Shipbuilding and Marine Engineering (DSME) and is scheduled for delivery in April, 2020, when the charter will start.

She will have a storage capacity of 173,400 cu m and will be capable of operating as both an FSRU and as a fully operational LNGC.

Hull 2477 will join Excelerate's existing fleet of nine FSRUs, all built by DSME, and will serve Excelerate's portfolio of regasification customers. Excelerate Technical Management, a wholly-owned subsidiary of Excelerate, will provide shipmanagement for the unit.

Excelerate's owner George Kaiser, said, "We are pleased for Excelerate to enter into this transaction with MGM, a leading provider in LNG world shipping. MGM's growing fleet is a testament to John Angelicoussis' vision and commitment to the LNG industry."

MGM's John Angelicoussis added, "We believe this transaction leverages the strengths of both our companies. Excelerate are market leaders in the FSRU space and we are delighted to have this opportunity to collaborate thereby securing a productive future for this state-of-the-art FSRU."

MGM's John Angelicoussis (left) seen signing the contract with Excelerate's Steven Kobos (right)

Philippine permits

In addition, Excelerate has received approval from the Philippines government to go ahead with permitting for a floating LNG import terminal project in Batangas Bay, about 50 miles south of Manila.

If permitted, financed and built, the new project would supply natural gas to power plants serving Luzon island, including new power generation facilities. It would offset declining gas volumes from the Philippines' Malampaya offshore field, which was first developed in 2001.

Excelerate's involvement will include - the LNG terminal, the purchasing of LNG to supply the terminal, the distribution of the gas on shore, and all associated permitting, financing, construction and terminal operations.

"Excelerate is the only company with the experience to deliver all that is required for this complex project – this will not be our first time," said Excelerate Energy CCO, Daniel Bustos. "We are in the unique position to offer the most industry experience to the Philippines to deliver a safe, efficient, and reliable project."

Longer term, Philippine power plant operator First Gen Corp wants to build an onshore LNG import terminal in Batangas City, with operations beginning in 2024. In a competing measure, it plans to bring in an FSRU as a near-term option while planning and construction proceed. ■

NEWS NUDGE

First Chinese built conventional LNGCs for Yamal named

On 24th September, a naming ceremony was held by Mitsui OSK Lines (MOL) for a conventional LNGC jointly ordered with China COSCO Shipping Corp at Hudong-Zhonghua Shipbuilding.

She was named 'LNG Dubhe' and is the first of four newbuildings for the Yamal LNG project announced at the end of June, 2017. She is scheduled to enter service following her delivery at the end of this month.

MOL delivered three Arc7s for the project between 2018 and 2019 and each are currently engaged in LNG shipments using the Northern Sea Route (NSR).

Upon her delivery, the 174,000 cu m 'LNG Dubhe' will ship Yamal's LNG from transhipment terminals in Europe or by ship-to-ship transfer operations. ■

Yamal's conventional LNGC is named at Hudong

MISC to co-own new LNGCs

Through a subsidiary, MISC Berhad (MISC) has signed an agreement with Mitsubishi Corp and Nippon Yusen Kabushiki Kaisha (NYK) to co-own two newbuilding LNGCs.

They are being built primarily for the LNG Canada project.

Both LNGCs will have a capacity of 174,000 cu m and are currently being built by Hyundai Samho Heavy Industries (HSHI).

They will feature X-DF propulsion and partial re-liquefaction facilities for higher efficiency and to meet the demand for worldwide trading.

Each of the LNG carriers will serve Diamond Gas International (DGI) needs on an 18-year charter contract, once delivered in 2021.

DGI is a wholly owned subsidiary of Mitsubishi Corp that manages the sales and marketing of Mitsubishi Corp's equity off-take of LNG volumes from US and Canada, as well as from other worldwide countries.

MISC's President/Group CEO, Yee Yang Chien, said "MISC is proud to be part of this significant milestone together with Mitsubishi Corp and NYK in this strategic partnership to meet the needs of the evolving LNG industry.

"This tri-party partnership is in line with MISC's strategy of diversifying our business ventures to support the expansion of our third-party business portfolios and further broaden our revenue sources. We are very pleased to enter into this maiden collaboration with Mitsubishi Corp and at the same time extend our long-standing partnership with NYK, which dates to the times as co-owners of the 'Aman' class vessels," he said. ■

Slight improvement in Dynagas Partners' fortunes

Dynagas LNG Partners reported that net income for the three months ended 30th June, 2019 was $0.9 mill, compared to net income of $0.4 mill in the corresponding period of 2018

The increase was due to no drydocking and special survey costs being incurred, whereas in 2Q18, $2.2 mill of drydocking and special survey expenditures were incurred on the 'Arctic Aurora'.

However, this increase was partially offset by an increase in operating expenses during the quarter, compared to the same period in 2018, and the increase in US dollar LIBOR interest rate, which correspondingly, increased the Partnership's interest cost on the $480 mill senior secured term loan in 2Q19, in comparison to 2Q18.

Adjusted net income for 2Q19 was $0.8 mill, compared to $4.5 mill in the corresponding period of 2018, which was a decrease of $3.7 mill, or 82.2%. This decrease was mainly due to the lower revenues earned on some of the vessels, as well as the increased operating and financing costs.

Adjusted EBITDA and distributable cash flow for the period were $20.9 mill and $4.9 mill, respectively, compared to $24.4 mill and $8.7 mill, respectively, for 2Q18. The decreases were mainly due to the lower revenues earned on some of the ships and the increase in operating expenses.

Utilisation down

The Partnership reported a gross average daily hire of about $55,100 per day per vessel during the quarter, compared to around $61,500 per day per vessel in 2Q18. During 2Q19, the vessels operated at 94% utilisation, compared to 97% in the same period of 2018.

CEO Tony Lauritzen, commented: "Our underlying charter business remains healthy with our fleet of six LNGCs all contracted on charters to international gas producers with an average remaining contract term of nine years.

"The 'Lena River' commenced employment under its long term charter with Yamal LNG on 1st July, 2019. In order to deliver the 'Lena River' into the new charter the vessel incurred a repositioning voyage which took about 30 days and which reduced the fleet's utilisation to about 94%.

"All of our six LNGCs are now fully delivered and operating under their existing charters. The fleet's earliest possible re-chartering availability is in the third quarter of 2021, which is the earliest contracted re-delivery date for one of our six LNGCs with the next earliest redelivery not before the first quarter of 2026.

"On 25th September, 2019, the company closed a syndicated $675 mill senior secured term loan. Since the beginning of the year, we have engaged in an active dialogue with all of our relationship banks to procure this credit facility. Its terms provide the Partnership with reduced cost of debt relative to the existing one and a simplified debt structure with a clear and viable path towards deleveraging through a significant increase in debt amortisation, while restricting the payment of distributions to common unitholders.

"The Partnership has in place long term charter contracts with international energy companies, generating cash flows that will be channelled towards the increased amortisation requirements of the credit facility, building equity value over time.

"As a result of this global refinancing and the broader strategic realignment, the Partnership will be better positioned for future growth initiatives as we expect global LNG markets to continue their robust development," he concluded. ■

NEWS NUDGE

Anthony Veder in small scale LNGC order

Brokers have reported that Anthony Veder has ordered a 30,000 cu m LNGC at Jiangnan, China.

She is said to be due for delivery in 2022.

MOL takes delivery of second Cameron LNGC

Mitsui OSK Lines (MOL) has taken delivery of the LNGC 'Marvel Heron'.

She is the second of the three newbuilding LNGCs that will sail under charter contracts signed with Mitsui & Co in September, 2014 and January, 2015.

The vessels will mainly transport LNG from the Mitsui & Co-backed Cameron LNG project in Louisiana.

'Marvel Heron' is powered by a hybrid dual-shaft steam turbine and gas engine (STaGE) propulsion system, which is claimed to be an environment-friendly, economically superior design, which achieves further reduction in fuel costs while minimising CO2 emissions, MOL said.

Two more Arc7s head for Sabetta

Refinitiv Eikon shipping data showed that the MOL managed 'Nikolay Urvantsev' and 'Georgiy Ushakov' had left the Daewoo Shipbuilding and Marine Engineering (DSME) Okpo shipyard in South Korea and are indicating Sabetta as their destinations.

Recently they were tracked approaching the Bering Strait and will reach Yamal via the Northern Sea Route (NSR).

The final Arc7 in the 15-strong series, the Teekay managed 'Yakov Gakkel', was undergoing sea trials off Okpo last week.

Russian LNG transhipment projects agreed

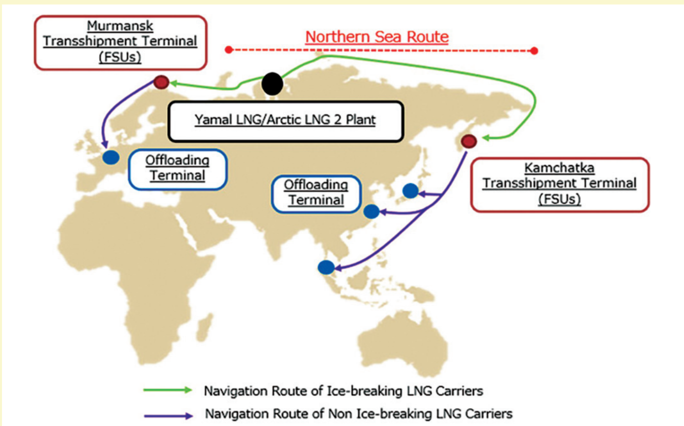
Mitsui OSK Lines (MOL), Japan Bank for International Cooperation (JBIC) and PAO NOVATEK have signed a co-operation agreement for LNG transhipment projects in both Kamchatka and Murmansk.

These projects include the construction of FSUs to tranship LNG cargoes from icebreaking LNGCs to conventional LNGCs.

The FSUs will be located in Kamchatka and in Murmansk and will be used for the transhipment of LNG cargoes produced by NOVATEK's Yamal LNG and Arctic LNG 2 projects, MOL said.

By using transhipment hubs in Kamchatka and Murmansk, LNG shipping costs transiting the Northern Sea Route (NSR) will be optimised.

Furthermore, they will enable timely and stable delivery of LNG cargoes to gas consumer countries, MOL claimed. ■



Trading routes with Russian LNG projects

GTT's Mark III Flex gets AiP for icebreaking LNG applications

GTT received an Approval in Principle (AiP) for its Mark III Flex system at Gastech 2019 in Houston.

This membrane cargo containment system (CCS) is an evolution of the GTT Mark III Flex technology specifically designed and modified for Arctic operations.

A certificate was presented to Philippe Berterottière, GTT's Chairman and CEO by Matthieu de Tugny, the President of Bureau Veritas, Marine & Offshore at a ceremony on the BV exhibition stand at the recent expo.Speaking in Houston, de Tugny commented: 'It is always a pleasure to hand over such a certificate and with GTT it is a regular occurrence as their systems continue to evolve and develop to meet the performance requirements of today's market. We are proud to continue helping the development of their containment systems and of Arctic related technologies and their application.'

Berterottière, added: 'We are very happy to be granted this approval by Bureau Veritas. We are proud to be able to adapt our technologies to meet the Arctic maritime challenges.'

The new CCS was tested extensively at the Krilov technology facility in Russia to demonstrate the suitability of Mark III Flex for use in ice covered waters. This follows similar testing for GTT's NO96 used for the first 15 Yamal Arc7s – all of which were BV classed.

BV approved the system for the Arctic application following the results of the vibration and acceleration tests performed by the Russian institute at the request of GTT. The vibration/acceleration calculations are undertaken to simulate the behaviour of the system when the ship is involved in icebreaking operations. ■

Smit Lamnalco wins Coral FLNG services contract

Smit Lamnalco has signed a 10-year fixed term contract, plus several long term options, with Coral FLNG to provide integrated marine services to the first Mozambique and worldwide deepwater FLNG.

The 'Coral Sul' FLNG, is now under construction within the framework of the Eni led Coral South project.

Smit Lamnalco will deploy three 95 tonne bollard pull newbuilding tugs to provide escort, berthing and unberthing of LNGCs at the FLNG. A fourth vessel, a newbuilding OSV, will be used to provide logistical and marine services support.

"We are looking forward to working in partnership with Coral FLNG to deliver safe and reliable marine services. We are proud that our in-depth knowledge of providing marine service to LNG facilities in on- and offshore as well as over five decades of local content development expertise all around the world has been recognised by our client. We would like to thank them for demonstrating their faith in Smit Lamnalco by awarding the marine services contract to our company," said Robert Jan van Acker, Smit Lamnalco CEO.

Coral FLNG is a special purpose entity established by Eni and Area 4 Partners - ExxonMobil, CNPC, KOGAS, Galp Energia and ENH.

'Coral Sul' FLNG will operate offshore north Mozambique in a water depth of 2,000 m. ■

NEWS NUDGE

TMS Cardiff Gas charters another LNGC to Total

TMS Cardiff Gas has signed a minimum seven year timecharter contract with Total Gas & Power Limited, for one of its 11 newbuilding 'X' carrier series.

The 174,000 cu m vessel, fitted with an X-DF propulsion and a sub-cooling system, is being built at Samsung Heavy Industries (SHI).

Christos Economou, TMS Cardiff Gas founder, commented: "We are grateful for the repeat business that Total Gas & Power Limited, one of the leading global energy companies, continues to show our company and we look forward to providing first class LNG shipping services.

"This is another long term deal in this series of sister vessels with efficient X-DF propulsion and sets the stage for the company's further growth with significant long term coverage and backlog," he said.

Avenir's first small-scale LNGC fixed to Petronas

The UK-based small-scale LNG supplier Avenir LNG Limited has partnered up with Malaysia's shipping group MISC Berhad to timecharter the first 7,500 cu m LNGC to Petronas LNG Sdn Bhd.

She will provide bunkering to LNG-fuelled vessels across Malaysia, in addition to transporting natural gas for small scale terminals in the region.

Avenir and MISC will form a joint venture company to manage the LNGC's commercial operations whereas shipmanagement services will be provided by Eaglestar Shipmanagement, part of MISC.

Andrew Pickering, Avenir LNG Limited CEO, said:"We are delighted to have partnered with MISC to provide our first 7,500 cu m LNG ship to PLSB to help start the bunkering activities in Malaysia and nearby areas.

"The wider co-operation with Petronas on bunkering and small scale development is what we consider very strategic in opening up this new and exciting market," he added.

Avenir currently has a total of six vessels under construction comprising four 7,500 and two 20,000 cu m LNGCs. ■

German LNG shortlists EPC contractors

German LNG Terminal, the joint venture behind the LNG terminal project in Brunsbuettel, Northern Germany, has completed the EPC (Engineering, Procurement and Construction) contractor pre-qualification process.

Following a careful selection process, four international EPC contractors were shortlisted.

Essential qualifications included: Safety track record, experience in design and construction of similar projects, awareness of German codes and practices and financial strength.

The shortlisted companies were - Cobra Instalaciones y Servicios –Sener Ingeniería y Sistemas; Hyundai Engineering.-Korea Gas Corp; Sacyr Fluor -Entrepose Contracting/ VINCI; Construction Grands Projets -Sacyr Somague and Tecnicas Reunidas-Heitkamp HIKB.

The tender will close on 5th December, 2019, with the subsequent EPC contract award planned before the end of April, 2020.

The project contains a jetty with two LNGC berths for vessels ranging from 1,000 up to 265,000 cu m, both with LNG unloading and loading capabilities; LNG storage tanks; LNG vaporisation and distribution facilities to handle up to 8 bill cu m per annum.

Commercial interest in the LNG terminal project was illustrated by Heads of Agreements (HOA), signed by major European and non-European LNG players. ■

WORLD LNG CARRIER ORDERBOOK

Name	Delivery	Capacity	Propulsion	Containment	Primary Owner	Yard	Ordered
Energy Universe	01/08/2019	165000	TFDE	SPB	MOL	Japan Marine United	01/02/2014
Georgiy Ushakov	11/09/2019	172000	TFDE - Azipod	GT NO 96	Teekay LNG	DSME	01/07/2014
Nikolay Urvantsev	15/07/2019	172410	TFDE - Azipod	GT NO 96	MOL	DSME	01/07/2014
Yakov Gakkel	25/10/2019	172000	TFDE - Azipod	GT NO 96	Teekay LNG	DSME	01/07/2014
Marvel Pelican	15/12/2019	155000	TFDE	Moss	MOL	Kawasaki	01/09/2014
Marvel Heron	20/09/2019	177000	STaGE	Moss	MOL	Mitsubishi H.I.	01/01/2015
Marvel Swan	15/10/2021	178000	MEGI		K-Line	Imabari	15/05/2015
BW Pavilion Aranda	10/09/2019	173400	MEGI	GT NO 96	BWGas	DSME	01/09/2015
Daewoo 2466	15/10/2019	173400	MEGI	GT NO 96	Maran Gas Maritime	DSME	01/06/2016
Daewoo 2467	15/10/2019	173400	MEGI	GT NO 96	Maran Gas Maritime	DSME	01/06/2016
Gaslog Windsor	15/04/2020	180000	XDF	GTT Mark III Flex	GasLog	Samsung	01/09/2016
Daewoo 2469	01/04/2020	173400	MEGI	GT NO 96	Maran Gas Maritime	DSME	16/12/2016
Rias Baixas Knutsen	15/07/2019	180000	MEGI	GTT Mark III Flex	Knutsen	Hyundai	01/03/2017
Flex Courageous	15/08/2019	173400	MEGI	GT NO 96	Flex LNG	DSME	02/03/2017
MOL Hudong-Zhonghua 1/4	15/12/2019	174000	MEGI	GT NO 96	MOL	Hudong-Zhonghua	01/07/2017
MOL Hudong-Zhonghua 2/4	01/03/2020	174000	MEGI	GT NO 96	MOL	Hudong-Zhonghua	01/07/2017
MOL Hudong-Zhonghua 3/4	15/07/2020	174000	MEGI	GT NO 96	MOL	Hudong-Zhonghua	01/07/2017
MOL Hudong-Zhonghua 4/4	01/10/2020	174000	MEGI	GT NO 96	MOL	Hudong-Zhonghua	01/07/2017
Gaslog Warsaw	15/07/2019	180000	XDF	GTT Mark III Flex	GasLog	Samsung	01/12/2017
Daewoo 2478	15/05/2020	173400	MEGI	GT NO 96	Maran Gas Maritime	DSME	06/12/2017
Elisa Larus	30/03/2020	174000	XDF	GTT Mark III Flex	NYK	Hyundai	01/01/2018
SHI #1	15/07/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Samsung	01/01/2018
SHI #17	15/10/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Samsung	01/01/2018
HHI / Total	15/01/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Hyundai	04/01/2018
HHI / Total / Sovc	28/02/2020	174000	XDF	GTT Mark III Flex	Sovcomflot	Hyundai	04/01/2018
BW Magnolia	15/12/2019	173400	MEGI	GT NO 96	BWGas	DSME	01/02/2018
BW Pavilion Aramhera	15/06/2020	173400	MEGI	GT NO 96	BWGas	DSME	01/02/2018
HHI / Cardiff #1	15/02/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Hyundai	01/02/2018
HHI / Cardiff #2	15/04/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Hyundai	01/02/2018
Flex Reliance	15/07/2020	173400	MEGI	GT NO 96	Flex LNG	DSME	28/02/2018
Flex Resolute	15/08/2020	173400	MEGI	GT NO 96	Flex LNG	DSME	28/02/2018
Flex Amber	15/07/2020	174000	XDF	GTT Mark III Flex	Flex LNG	Hyundai	01/03/2018
Flex Aurora	15/05/2020	174000	XDF	GTT Mark III Flex	Flex LNG	Hyundai	01/03/2018
SHI Gaslog #1	15/04/2020	180000	XDF	GTT Mark III Flex	GasLog	Samsung	01/03/2018
Samsung 2271	15/04/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Samsung	09/03/2018
DSME Minerva #1	15/01/2021	173400	MEGI	GT NO 96	Minerva Marine	DSME	15/03/2018
DSME Minerva #2	15/04/2021	173400	MEGI	GT NO 96	Minerva Marine	DSME	15/03/2018
Traiano Knutsen	15/06/2020	180000	MEGI	GTT Mark III Flex	Knutsen	Hyundai	23/03/2018
DSME 2483	15/08/2020	173400	MEGI	GT NO 96	Alpha Gas	DSME	28/03/2018
DSME 2484	01/12/2020	173400	MEGI	GT NO 96	Alpha Gas	DSME	28/03/2018
SHI Gaslog #2	15/07/2020	180000	XDF	GTT Mark III Flex	GasLog	Samsung	30/05/2018
DSME 2487	15/01/2021	173400	MEGI	GT NO 96	Maran Gas Maritime	DSME	05/06/2018
Maran Gas DSME	15/09/2020	173400	MEGI	GT NO 96	Maran Gas Maritime	DSME	05/06/2018
DSME 2485	15/04/2021	173400	MEGI	GT NO 96	Alpha Gas	DSME	07/06/2018

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 = 6th August 2019

Fearnley LNG

Name	Delivery	Capacity	Propulsion	Containment	Primary Owner	Yard	Ordered
Cool Discoverer	15/08/2020	174000	XDF	GTT Mark III Flex	Thenamaris	Hyundai	19/06/2018
Flex Vigilant	15/03/2021	174000	XDF	GTT Mark III Flex	Flex LNG	Hyundai	30/06/2018
Flex Volunteer	15/11/2020	174000	XDF	GTT Mark III Flex	Flex LNG	Hyundai	30/06/2018
Aristarchos	15/03/2021	174000	XDF	GTT Mark III Flex	Capital Gas	Hyundai	01/07/2018
Aristidis I	15/11/2020	174000	XDF	GTT Mark III Flex	Capital Gas	Hyundai	01/07/2018
Aristos I	15/10/2020	174000	XDF	GTT Mark III Flex	Capital Gas	Hyundai	01/07/2018
Attalos	15/06/2021	174000	XDF	GTT Mark III Flex	Capital Gas	Hyundai	01/07/2018
Flex Freedom	15/10/2020	173400	MEGI	GT NO 96	Flex LNG	DSME	05/07/2018
Celcius #1	15/10/2020	180000	XDF	GTT Mark III Flex	Celcius Shipping	Samsung	01/08/2018
Celcius #2	15/12/2020	180000	XDF	GTT Mark III Flex	Celcius Shipping	Samsung	01/08/2018
HHI 3037	15/09/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Hyundai	15/08/2018
SHI 2300	15/10/2020	174000	XDF	GTT Mark III Flex	GasLog	Samsung	15/08/2018
SHI 2301	15/12/2020	174000	XDF	GTT Mark III Flex	GasLog	Samsung	15/08/2018
HHI 3038	15/11/2020	174000	XDF	GTT Mark III Flex	Cardiff Marine	Hyundai	15/09/2018
Cool Racer	15/01/2021	174000	XDF	GTT Mark III Flex	Thenamaris	Hyundai	27/09/2018
SHI NYK	15/04/2021	174000	XDF	GTT Mark III Flex	NYK	Samsung	28/09/2018
SHI Minerva #1	15/01/2021	174000	XDF	GTT Mark III Flex	Minerva Marine	Samsung	15/10/2018
HHI 3039	15/03/2021	174000	XDF	GTT Mark III Flex	Cardiff Marine	Hyundai	15/11/2018
HHI 3112	15/01/2021	174000	XDF	GTT Mark III Flex	Cardiff Marine	Hyundai	15/11/2018
HHI Latsco #1	15/02/2021	174000	XDF	GTT Mark III Flex	Latsco Shipping	Hyundai	25/11/2018
HHI Latsco #2	15/08/2021	174000	XDF	GTT Mark III Flex	Latsco Shipping	Hyundai	25/11/2018
SHI 2306	15/09/2021	174000	XDF	GTT Mark III Flex	NYK	Samsung	03/12/2018
SHI 2307	15/11/2021	174000	XDF	GTT Mark III Flex	NYK	Samsung	03/12/2018
DSME 2496	15/02/2021	174000	MEGI	GT NO 96	BWGas	DSME	05/12/2018
DSME 2497	15/06/2021	174000	MEGI	GT NO 96	BWGas	DSME	05/12/2018
DSME 2495	15/05/2021	173400	MEGI	GT NO 96	Nakilat	DSME	10/12/2018
HHI NYK DG #1	15/09/2020	174000	XDF	GTT Mark III Flex	NYK	Hyundai	11/12/2018
HHI NYK DG #2	15/05/2021	174000	XDF	GTT Mark III Flex	NYK	Hyundai	11/12/2018
HHI NYK DG #3	15/06/2021	174000	XDF	GTT Mark III Flex	NYK	Hyundai	11/12/2018
DSME Dec #1	15/12/2020	180000	MEGI	GT NO 96	MOL	DSME	15/12/2018
DSME Dec #2	15/02/2021	180000	MEGI	GT NO 96	MOL	DSME	15/12/2018
SHI Navigare	15/03/2021	173400	XDF	GTT Mark III Flex	Navigare	Samsung	15/12/2018
HHI Sovcom #1	30/08/2020	174000	XDF	GTT Mark III Flex	Sovcomflot	Hyundai	19/12/2018
HHI Sovcom #2	15/12/2020	174000	XDF	GTT Mark III Flex	Sovcomflot	Hyundai	19/12/2018
Alpha Gas	15/06/2021	174000	MEGI	GT NO 96	Alpha Gas	DSME	27/12/2018
SHI Gaslog CE #1	15/06/2021	180000	XDF	GTT Mark III Flex	GasLog	Samsung	27/12/2018
SHI Gaslog CE #2	15/08/2021	180000	XDF	GTT Mark III Flex	GasLog	Samsung	27/12/2018
SHI #18	15/03/2021	174000	XDF	GTT Mark III Flex	Cardiff Marine	Samsung	31/12/2018
Celcius #3	15/02/2021	180000	XDF	GTT Mark III Flex	Celcius Shipping	Samsung	15/01/2019
Celcius #4	15/04/2021	180000	XDF	GTT Mark III Flex	Celcius Shipping	Samsung	15/01/2019
SHI Minerva #2	15/09/2021	174000	XDF	GTT Mark III Flex	Minerva Marine	Samsung	15/01/2019
CSSC #1	15/09/2021	178000	XDF	GT NO 96	CSSC	Hudong-Zhonghua	30/01/2019
CSSC #2	15/02/2022	178000	XDF	GT NO 96	CSSC	Hudong-Zhonghua	30/01/2019
DSME Maran	15/05/2021	174000	MEGI	GTT Mark III Flex	Nakilat	DSME	15/02/2019
Samsung Feb #1	15/03/2022	174000	XDF	GTT Mark III Flex		Samsung	15/02/2019

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 6th August 2019

Name	Delivery	Capacity	Propulsion	Containment	Primary Owner	Yard	Ordered
Samsung Feb #2	15/03/2022	174000	XDF	GTT Mark III Flex		Samsung	15/02/2019
Samsung Feb #3	15/03/2022	174000	XDF	GTT Mark III Flex		Samsung	15/02/2019
Capital Gas #5	15/07/2021	174000	XDF	GTT Mark III Flex	Capital Gas	Hyundai	25/02/2019
DSME Maran #2	15/08/2021	173400	XDF	GTT Mark III Flex	Nakilat	DSME	25/02/2019
DSME Maran #3	15/10/2021	173400	XDF	GTT Mark III Flex	Nakilat	DSME	25/02/2019
SHI Mar19	15/03/2022	174000	XDF	GTT Mark III Flex	Nisshin Shipping	Samsung	20/03/2019
DSME Maran 2504	15/01/2022	174000	MEGI	GT NO 96	Maran Gas Maritime	DSME	01/04/2019
H Samho NYK	15/03/2022	174000	XDF	GTT Mark III Flex	NYK	Hyundai	01/04/2019
HHI Samho Edison	15/01/2022	174000	XDF	GTT Mark III Flex	NYK	Hyundai	10/04/2019
Capital Gas #6	15/09/2021	174000	XDF	GTT Mark III Flex	Capital Gas	Hyundai	15/04/2019
Samsung N/A	15/01/2022	174000	XDF	GTT Mark III Flex	Minerva Marine	Samsung	01/05/2019
DSME May19	15/05/2022	174000	MEGI	GT NO 96	Maran Gas Maritime	DSME	14/05/2019
DSME MOL #3	15/07/2021	173400	MEGI	GT NO 96	MOL	DSME	15/05/2019
Hyundai European #1	15/03/2022	180000	XDF	GTT Mark III Flex	Dynagas	Hyundai	22/05/2019
Hyundai European #2	15/06/2022	180000	XDF	GTT Mark III Flex	Dynagas	Hyundai	22/05/2019
Samsung 2019 #10	15/06/2022	174000	XDF	GTT Mark III Flex	Morgan Stanley	Samsung	08/06/2019
Samsung 2019 #9	15/01/2022	174000	XDF	GTT Mark III Flex	Morgan Stanley	Samsung	08/06/2019
HHI SK E&S	15/09/2021	180000	XDF	GTT Mark III Flex	SK Shipping	Hyundai	10/07/2019

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 6th August 2019

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	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1996	Surya Aki	19,475	LNG	Indonesia - Japan	Yes	MCGC
1997	Aman Sendai	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1998	Pelita Energy	18,800	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
2000	Triputra	23,096	LNG	Indonesia - Japan	Yes	MCGC
2003	Pioneer Knutsen	1,100	LNG	Norway	Yes	Knutsen
2003	Shinju Maru No.1	2,540	LNG	Japan	Yes	Shinwa
2005	North Pioneer	2,500	LNG	Japan	Yes	Japan Liquid Gas
2007	Sun Arrows	19,531	LNG	Malaysia - Russia - Japan	Yes	Mitsui
2008	Kakurei Maru	2,536	LNG	Japan	Yes	Hogaki Zosen
2008	Shinju Maru No.2	2,540	LNG	Japan	Yes	Shinwa
2009	Coral Methane	7,551	LNG/LPG/Ethylene	Northwest Europe/Baltics	Yes, sometimes	Anthony Veder
2010	Coral Favia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2010	Coral Fraseri	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Akebono Maru	3,556	LNG	Japan	Yes	Chuo Kaiun
2011	Coral Furcata	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Coral Fungia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Vision Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2011	Unikum Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
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
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

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 = 3rd October 2019

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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	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	Coral Encanto	30,000	LNG	China	Yes	Anthony Veder
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	LNG London	3,000	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2018	Kairos	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	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	Q-LNG 4000	4,000	LNG	US Coast	Yes	Q-LNG Transport/Harvey Gulf
2020	Stolt TBN (option) **	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	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	Elenger TBN	6,000	LNG	NWE	Yes	Elenger
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
2021	PE TBN	12,000	LNG	Singapore	Yes	MOL
2021	JMU TBN	2,500	LNG	Japan	Yes	JMU
2022	Stolt TBN	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2022	Stolt TBN	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2022	PNE TBN	5,400	LNG	USG	Yes	PNE
2024	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2024	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2026	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas
2026	Stolt TBN (option)	20,000	LNG	Worldwide	Yes	Stolt-Nielsen Gas

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 = 3rd October 2019

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