LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

5 March 2020

US to become leading LNG exporter by 2025

The US will become the third largest LNG exporting country with a total capacity of 8.9 bill cu ft per day (bcfd) by the end of this year, claimed data and analytics company, GlobalData.

Adrian Lara, GlobalData's Senior Analyst Upstream Americas, added: "By the year 2025, the additional capacity from new trains in existing plants, as well as from newly constructed plants, will reach an estimated 14.3 bcfd.

"However, several approved LNG plants could start production as early as 2023, if they are able to move ahead with a final investment decision (FID). At the moment there is too much uncertainty, not only because of the existing oversupply of LNG but also due to a potential decrease in demand and a shift towards more flexible and short term contracts," he said.

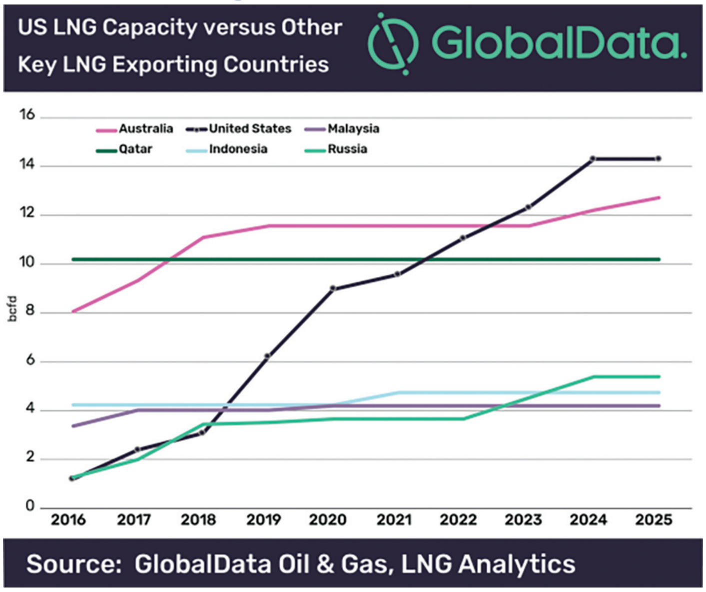
The second wave of LNG projects include plants, which have been approved by the US Federal Energy Regulatory Commission (FERC) but are not yet under construction. Most of these are expected to reach FID during the current year, but this could be over-optimistic given the current global LNG market.

LNG developers are currently feeling pressure from potential buyers to offer more flexible terms in their selling contracts. As a result, developers decide to wait for viable customers that accept some trade-off between pricing terms and volume, commit to buy.

Arguably, there is also an incentive for pushing first production to after 2025 as industry players foresee a change in the cycle resulting in LNG demand surpassing supply.

Lara concluded: "The US currently has a total of 32 projects on different stages from feasibility to commissioning and their total capacity adds up to almost 42 bcfd, which is almost the current LNG worldwide trade of approximately 45 bcfd.

"Overall, it is this high number of projects that increases the chance of having the US become the leading LNG exporting country in this decade regardless of the timing for FIDs in individual projects," he added.



Indonesia downturn

Turning to Indonesia, GlobalData said that natural gas production from its legacy fields, which supply the major LNG plants, will decline through 2030. Gas supply may pick up from 2026 but this depends on the progression of two announced mega natural gas and LNG projects – Gendalo-Gehem and Abadi.

Cao Chai, GlobalData's Oil and Gas Analyst, said: "Several projects are scheduled to come online. Construction is progressing on the BP-operated Tangguh expansion, which will add a liquefaction unit of 3.8 mill tonnes per annum of production capacity to the existing Tangguh LNG plant, bringing the total capacity up by 50% to 11.4 mill tonnes per annum. Feed gas to the plant will rise from 3Q21 and reach production plateau in 2022."

Abadi field's new development plan was approved in 2019 having been stalled for several years. Operator INPEX and partner Royal Dutch Shell are now facing challenges with the remoteness of the onshore Abadi LNG facility and the layout of the infrastructure. However INPEX has expressed confidence in the project economics and is aiming to reach FID in the early 2020s. First gas is expected by 2028, which will see a jump in Indonesia's LNG supply if the project moves forward.

Later it was revealed that INPEX, through its subsidiary INPEX Masela Ltd, and on behalf of its joint venture partner Shell Upstream Overseas, had signed a memorandums of understanding (MOUs) with PT PLN (Persero) (PLN) and with PT Pupuk Indonesia (Persero), on 19th February, regarding Abadi's long-term domestic LNG and pipeline natural gas supply.

Discussions will now start on sales and purchase agreements (SPAs) for LNG and natural gas supply from the project. ■

SHIPPING NEWS AGENDA

Asia to absorb LNG supply growth

Despite the mild winter weather and the Covid-19 outbreak, Asia will be able to absorb most of the LNG supply growth from the second half of 2020, Royal Dutch Shell has claimed.

Excess cargoes were sent to Europe in the past year, as global LNG supply soared, in particular from US and Australian projects. However, Europe ceased to be a balancing market.

Mild weather and the Chinese coronavirus outbreak helped reduce LNG demand in Asia this winter. Asian LNG prices fell to record lows, and European gas prices hit an over 10-year low.

"Over the last five quarters, we've seen particularly strong supply growth and Europe having to act as the balancing market to absorb those volumes," Steve Hill, Executive Vice President, Shell Energy, said in a webcast after Shell presented its LNG outlook.

"But as you look forward from 2020, particularly from the middle of 2020, you see a material reduction in the growth of supply and you see Europe no longer being called upon to provide the role as the balancing markets, and Asia absorbing most of the supply growth going forward," he said.

Supply to slow

After almost 30 mill tonnes of new liquefaction capacity was added in 2019, the growth in new supply is expected to slow down this year to below 20 mill tonnes.

European LNG imports soared by more than 30 mill tonnes to around 85 mill tonnes in 2019, compared to 2018, as demand fell in Japan and South Korea and rose more slowly than previously expected in China, Refinitiv data showed.

Gas was also more competitive to burn than coal in European power generation.

"While we see weak market conditions today, due to record new supply coming in, two successive mild winters and the coronavirus situation, we expect equilibrium to return," Maarten Wetselaar, Shell's integrated gas and new energies director, said.

Shell expected the virus outbreak in China to be transitory for the country's demand, but added that consumption was affected in February, which is likely to extend into this month.

China's LNG demand is estimated to grow by 4-6 mill tonnes this year.

Last year, China's LNG imports increased by 14%, due to efforts to improve air quality. LNG imports also grew in Bangladesh, India and Pakistan, Shell's outlook said.

Commenting on the possibility of production shut-ins, due to low prices, Shell said that there is a possibility of these happening in the US, as export economics "is very marginal."

Shell's Maarten Wetselaar

With multi-year low European gas prices and LNG trading in the region at deep discounts, some US cargo sellers may already deem deliveries to Europe as unprofitable.

Production could also be reduced in Australia, Egypt and Malaysia, as these countries have options to re-direct gas to domestic markets, Shell said.

Global demand for LNG is expected to double to 700 mill tonnes by 2040, with gas continuing to play a key role in a lower-carbon energy system. By comparison, Global LNG demand grew by 12.5% to 359 mill tonnes last year.

Damietta to restart exports

Last week, Italian energy giant, Eni signed a series of agreements, which will lead to the restarting of Egypt's Damietta liquefaction plant by June, 2020.

The agreements were signed with the Egyptian authorities, Egyptian General Petroleum Corp (EGPC), Egyptian Natural Gas Holding Co (EGAS) and Spanish-based Naturgy.

Damietta's owner, SEGAS, is 40% owned by Eni through Union Fenosa Gas (50% Eni and 50% Naturgy). The plant has a capacity of 7.56 bill cu m per year and has been idle since November, 2012.

In addition, Eni's new natural gas discoveries, especially in the Zohr and Nooros fields, were developed quickly, thus enabling Egypt to regain full capacity to meet its domestic gas demand.

As a result, the country will be able to allocate surplus production for export.

The agreements will also lead to an amicable resolution of pending disputes involving Union Fenosa Gas and SEGAS with EGAS and the Egyptian authorities, and the subsequent corporate restructuring of Union Fenosa Gas, whose assets will be divided between Eni and Naturgy.

In particular, Union Fenosa Gas' participation in the Damietta plant (80%) will be transferred. Some 50% will go to Eni and 30% to EGAS. SEGAS shareholdings will therefore become Eni 50%, EGAS 40% and EGPC 10%.

Eni will also take over the contract to purchase the plant's natural gas and will receive corresponding liquefaction rights, thus increasing the volumes of LNG in its portfolio by 3.78 bill cu m per year.

The LNG will be available on an FOB basis, with no destination restrictions.

Regarding Union Fenosa Gas' assets outside Egypt, Eni will take over the natural gas commercial activities in Spain, thus strengthening its presence in the European gas market, the company confirmed.

This move also strengthens Eni's presence in the Eastern Mediterranean, a key region for the supply of natural gas. It reinforces Eni's strategic objectives in terms of its LNG portfolio growth, in particular in Egypt, where the company is the main gas producer, the company said.

These agreements are still subject to certain conditions.

LNG Shipping News
2 Prospect Road
St Albans AL1 2AX
United Kingdom
www.lngjournal.com
Tel: +44 (0)20 7253 2700

Publisher
Stuart Fryer

Editor
Ian Cochran
+44 (0)7748 144265
Iancochran74@gmail.com

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

Subscriptions
Stephan Venter
Tel: +44 (0) 20 7253 2700
venter@lngjournal.com

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

LNG sector in a 'perfect storm'

In recent results presentations, leading LNGC players summed up the current market predicament.

For example, in its fourth quarter report, Awilco LNG summed up the current state of play by saying that LNG production grew strongly in 2019 but demand is now unable to keep up.

As a result, global gas prices are under pressure and in addition to being at all-time lows, have also converged between the main basins, thus reducing tonne-mile demand.

Although increasing LNG volumes are expected to continue to drive tonnage demand, shipowners may find it challenging to secure work and earn higher charter rates in the near term, due to the current muted end-user demand, which has been exacerbated by the Covid-19 outbreak.

Gas demand from China's industry and power utilities, the world's second largest LNG importer last year, has reportedly been reduced by 10-14% thus far in 2020.

During the middle of February, natural gas was priced at around 25% of oil on an energy equivalent basis. In the longer term, low prices and the growing supply of molecules is expected to support growth in demand for natural gas, compared to other fossil alternatives.

More than 110 mill tonnes per annum of new LNG production capacity under construction is expected to come onstream in the next five years.

Tonnage demand and supply appear balanced going forward, as about 50% of the new production capacity is being built in the US, which depending on shipping distances, will underpin demand for LNGCs above the current fleet and orderbook, Awilco said.

Over the same time period, about 75 smaller and less economical steam LNGCs are expected to come off long term charters, as modern vessels will have an economic advantage as replacement tonnage.

Volatility forecast

However, periods of volatility and seasonality should be expected, the LNGC owner concluded.

In another earnings statement, GTT lowered its forecast for new FSRU orders over the coming decade.

GTT now predicts that containment system orders for new FSRUs will total between 10-20 units during 2020/29, down from earlier forecasts in July last year of 30-40.

This reduction is based on a greater likelihood of older steam driven LNGCs being converted into FSRUs, as they come off charter.

Due to limited vessel scrapping, there could be ample availability for conversions, GTT said.

Höegh LNG said that given the strong increase in liquefaction capacity coming online in the coming years, LNG prices are expected to stay low for the foreseeable future.

As Covid-19 seems to have temporarily reduced volumes of LNG imported to China and coupled with higher Asian winter temperatures, and low LNG prices closing the inter-basin arbitrage, LNGC market rates have felt a downward pressure, the company said.

Øystein Kalleklev, Flex LNG Management CEO, commented: "Due to the uncertainty and disruptions created by the coronavirus and associated low gas prices, we have elected to be cautious by maintaining a $0.10 dividend for the fourth quarter, and for the time being rather preserve liquidity, which stood at close to $130 mill at year-end.

"This gives us a comfortable financial position to handle the current market situation. While the freight and gas markets are currently challenging, LNG continues to be a long term story with expected annual growth of around 3 - 4% for the next two decades, as natural gas, and to greater extent LNG, is the transition fuel for a cleaner and more sustainable future," he said. ■

Spanish LNG imports to fall

Spanish LNG importers are to slow their gas intake in March and April, according to nominations published by Enagas and analysed by S&P Platts.

Three cargoes have been cancelled for March, reducing incoming volumes by 11% from initial nominations, which had been at a 12-year high of 4.65 mill cu m.

Thirty deliveries are now scheduled for this month, totalling 4.15 mill cu m, according to Enagas.

Three cargoes have been cancelled at Cartagena, on 16th March, 17th and 31st March of 436,000 cu m in total and one added for 5th March at 109,500 cu m, while another cargo was cancelled at Barcelona on 2nd March for 161,000 cu m, among other minor changes, the data showed.

For April, LNG intake volumes will be cut back to 19 LNGCs importing a total of 2.73 mill cu m, according to initial nominations, as the winter season ends.

Enagas said it saw gas demand of 33.6 TWh for this month, which was revised down from 34.2 TWh. Demand in April is set to fall to 28.2 TWh, due to seasonality. ■

NEWS NUDGE

Jaigarh FSRU arrives

According to vessel tracking data, the 145,000 cu m FSRU 'GDF Suez Cape Ann' has arrived offshore India's Mashrata state.

She is due to operate as the 4 mill tonnes per year Jaigarh LNG import terminal.

Indian independent H-Energy's Jaigarh import facility will use the FSRU in conjunction with a 60 km pipeline linking Jaigarh to the national grid at Dabhol.

The project was initially expected to start commercial operations by the end of last year, but an extended monsoon season delayed the completion of the pipeline.

Once in operation, Jaigarh will be India's fifth west coast terminal and the first of H-Energy's planned terminals to come on line.

Yamal exceeds 30 mill tonnes

Yamal LNG has shipped 30 mill tonnes of LNG since it started operations.

The Arc7 'Nikolay Yevgenov' recently loaded the 411th cargo to reach this milestone since the start-up of Train 1 in December, 2017.

The project is currently exceeding its design capacity of 16.5 mill tonnes per annum.

For example, in 2019, the first full year of simultaneous operation of all three liquefaction trains, Yamal LNG produced 18.4 mill tonnes of LNG, exceeding the plant's design capacity by 11% or 1.9 mill tonnes. ■

On-site or Factory Built Storage Tanks, Intermodal ISO Tank-Containers, Railroad Tank Wagons, & more..

Corban Energy Group (CEG) has been creating highly engineered products required by the natural gas supply chain, from upstream to downstream. CEG has established natural gas terminals throughout the world, provided quality LNG/CNG equipment for the American market, and built storage tanks as large as 200,000 CM in capacity, with its worldwide network of engineering & manufacturing partners.

Call or e-mail us to find out how your company can benefit from our comprehensive natural gas products and services today.

www.CorbanEnergyGroup.com

CORBAN ENERGY GROUP

Your Solution for LNG/LPG

T. **201.509.8555** info@corbanenergygroup.com

418 Falmouth Avenue, Elmwood Park, NJ 07407, USA

Venture Global agrees SPA with EDF

Venture Global Plaquemines LNG and Électricité de France (EDF) have signed a 20-year Sales and Purchase Agreement (SPA) for the supply of 1 mill tonnes per annum of LNG.

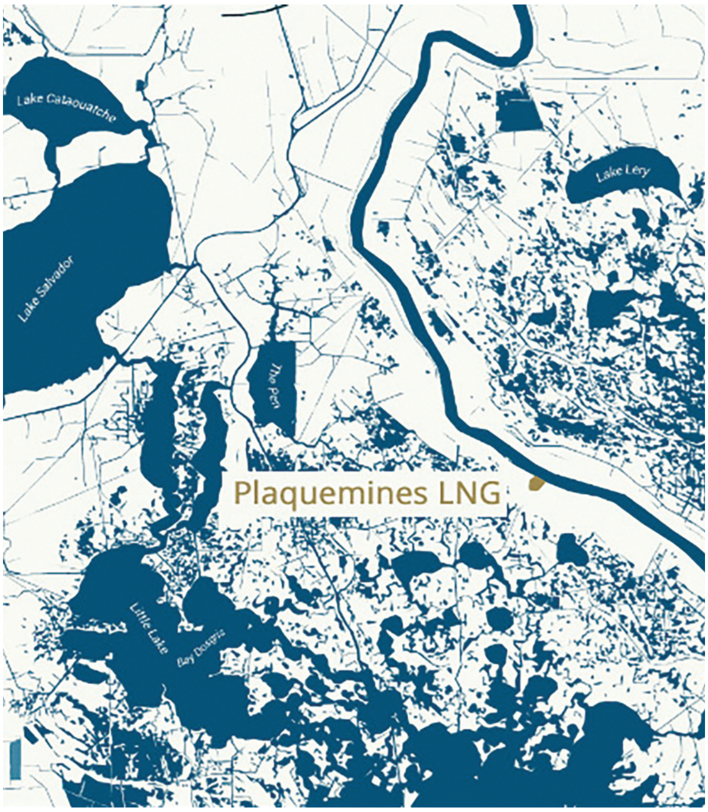
The gas will come from Plaquemines LNG export facility in Louisiana.

Under the agreement, EDF will purchase LNG on a free on board basis (FOB) for 20-years starting from Plaquemines commercial operation start up date.

The 20 mill tonnes per annum Plaquemines facility uses an identical configuration to the company's Calcasieu Pass LNG project, currently also under construction in Louisiana.

Plaquemines LNG had previously sold 2.5 mill tonnes per annum under a 20-year SPA to PGNiG.

The project has received its final authorisations from both the US Federal Energy Regulatory Commission (FERC) and the Department of Energy (DoE). ■



Plaquemines to benefit from SPAs

NEWS NUDGE

LNG export plant reaches milestone

EG LNG, the LNG liquefaction and export terminal located on Equatorial Guinea's Bioko Island, loaded its 700th gas cargo last week.

The terminal has now been in operation for 13 years.

Operated by Marathon Oil Corp with shareholders Marubeni, Mitsui & Co and state-owned Sociedad Nacional de Gas (SONAGAS), the plant, which allowed for the monetisation of the Alba gas field, delivered its first cargo on 24th May, 2007. ■

Qataris move into Montoir

Qatar Petroleum's subsidiary, Qatar Terminal Ltd (QTL), has signed a long-term agreement with Elengy to handle LNG receiving, storage and regasification services at the French Montoir-de-Bretagne terminal.

Under the terms of the agreement, QTL will be responsible for the equivalent of nearly 3 mill tonnes per annum of the terminal's throughput capacity until 2035.

According to QTL, Montoir-de-Bretagne LNG will become a new LNG import terminal for QP in Europe, facilitating the supply of Qatari and internationally sourced LNG to European customers.

This agreement is a result of a formal 'open subscription period' process that was executed in 2H19 under the French Energy Regulatory Commission's (CRE) rules.

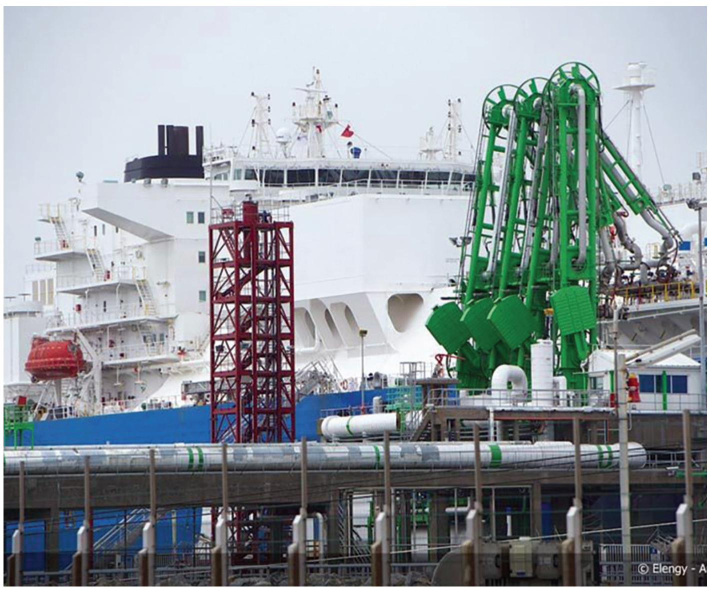
Saad Sherida Al-Kaabi, the Qatari Minister of State for Energy Affairs, and the President and CEO of Qatar Petroleum, said: "By signing this agreement, we are providing France, and Europe as a whole, reliable energy supplies, as well as increased utilisation of gas as a cleaner and more environmentally friendly source of energy.

"We are also taking another step into the future by establishing a long-term partnership with Elengy well into the next decade. And, we look forward to further strengthen this relationship in the future.

"Qatar Petroleum has long invested in and anchored LNG receiving terminal capacity in Europe. We have also played a key role in supporting the development of vital energy network infrastructure in Europe. As the largest LNG producer, we are committed to supporting the advancement of EU energy policy and to strengthening the security, reliability and flexibility of gas supplies into Europe," he concluded.

Sandra Roche-Vu Quang, Elengy CEO, added: "(This) is a key milestone for Elengy. As pioneers in the LNG industry, we are extremely proud of this agreement with our Qatari partners, a major step which hopefully will result in an even closer co-operation in the coming years.

"This contract secures long-term activity at the Montoir-de-Bretagne terminal. Our LNG hub for Northwest Europe offers customers optimum flexibility and an evolving range of services, from historical LNG regasification to small scale LNG, to meet the energy transition needs," she said. ■



Montoir is to be supplied by Qatar

Cameron's second train comes onstream

Sempra's Cameron LNG's second train began commercial operations under tolling agreements on 2nd March.

"We are excited that our first liquefaction project is nearing completion and we couldn't be more pleased that Cameron LNG is already contributing to position the US as one of the top LNG-producing countries in the world," said Lisa Glatch, Sempra LNG COO and board chair for Cameron LNG. "We are looking forward to achieving commercial operations of the third and final train of Phase 1, while maintaining the same remarkable safety record the project has achieved thus far."

Train 3 remains on track to start initial LNG production in 2Q20 and to commence commercial operations in the third quarter. The facility's first liquefaction train started commercial operations in August, 2019.

Phase 1 includes the first three liquefaction trains that will enable the export of around 12 mill tonnes per annum of LNG, or about 1.7 bill cu ft per day, the company said.

Sempra Energy's share of full-year run-rate earnings from the Phase 1 project are anticipated to be between $400 mill and $450 mill annually starting in 2021 when all three trains achieve commercial operations under Cameron LNG's tolling agreements.

Sempra Energy is also developing four other LNG export projects in North America, including Cameron LNG Phase 2, which could include up to two additional liquefaction trains and up to two additional LNG storage tanks; Port Arthur LNG in Texas; and Energía Costa Azul LNG Phase 1 and Phase 2 in Mexico.

Cargo cancellations and new tenders

Cheniere Energy has claimed that it does not expect any significant or prolonged curtailment of US LNG production, due to cancelled cargoes.

"While we acknowledge that some LNG on the margin may not be lifted from the US this year, we do not view significant or prolonged curtailment of US LNG production as a likely scenario," said Anatol Feygin, Cheniere's Executive Vice President and CCO.

Cheniere CEO, Jack Fusco, confirmed that two customers cancelled cargoes for April – one from Sabine Pass and the other from Corpus Christi.

"Out of the 40 cargoes that we are forecast to produce (in April), it's a pretty insignificant number," Fusco told Reuters on a call with analysts, following the release of the company's fourth quarter earnings.

Meanwhile, three LNG cargoes from Indonesia's Tangguh LNG Plant to China's Fujian province have been delayed because of Covid-19 outbreak, Indonesia's upstream oil and gas regulator, SKK Migas said.

The cargoes were due to be shipped in the third week of February but they were rescheduled to an unspecified later time, Arief Setiawan Handoko, SKK Migas' deputy for finance and monetisation told Reuters by text.

Shipments to other destinations, such as Japan and Singapore, are thus far not affected by the outbreak.

Handoko said that should the shipments be cancelled, Indonesia would prefer to sell the cargoes to a domestic buyer.

Indian news

In India, Petronet LNG, the country's largest importer LNG, is seeking to buy gas through a long term contract, according to a document seen by Reuters.

It has issued a Request for Information (RFI) indicating its plan to buy about 1 mill tonnes per annum of LNG for 10 years starting from 2024, with a possible extension, according to the document dated 19th February.

In addition, India's Gujarat State Petroleum Corp (GSPC) is negotiating two LNG cargoes for delivery in March and April.

It sought cargoes on a delivered ex-ship (DES) basis in a tender that closed on 26th February.

Gail (India) has issued a swap tender offering three LNG cargoes for loading in the US and is seeking three for delivery to India.

It offered cargoes from Cove Point on a free-on-board (FOB) basis loading on 20-22nd March, 25-27th April and 25-27th May.

Gail is looking to buy two cargoes for delivery to Dabhol between 28th February and 15th March, plus 1-8th May, as well as one cargo for delivery to Hazira between 10-15th September.

This tender was due to close on 20th February.

Elsewhere, South Korea's GS Energy is seeking an LNG cargo for delivery in the first half of April.

The cargo is believed to be planned on a bilateral basis, with no tender issued.

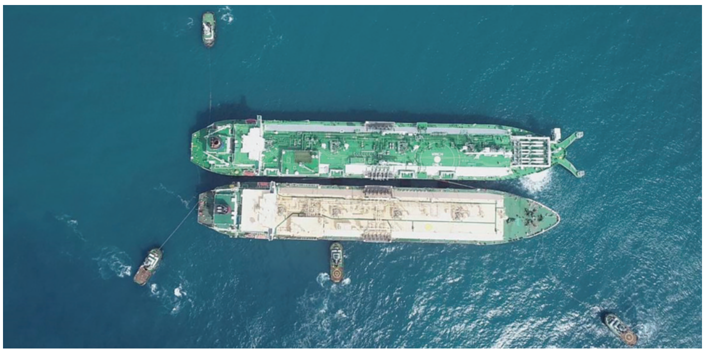
Posco and Prism Energy International are also in the market for spot cargoes, according to various sources talking with newswires.

Russia's Sakhalin 2 plant has offered an LNG cargo for loading in April.

The cargo is being offered for loading on 7th April. Bids were due on 27th February.

First Brazilian private import terminal operational

Centrica plc and Centrais Elétricas de Sergipe SA (CELSE) have jointly commissioned Brazil's first private LNG import terminal.



Centrica's chartered LNGC 'Singapore Energy' has delivered the first cargo

On 4th February, the Centrica-chartered LNGC, 'Singapore Energy', delivered 95,000 cu m of gas by a ship-to-ship transfer operation to the FSRU 'Golar Nanook', located 8.5 km off the Brazilian coast.

The FRSU is connected by pipeline to CELSE's Usina Termoelétrica (UTE) Porto de Sergipe I combined-cycle gas-fired power plant, the largest in Latin America.

"We are happy to start this collaboration with Golar and CELSE and pleased to have safely completed the ship-to-ship transfer. This cargo represents another milestone for the Brazil LNG market and demonstrates Centrica's growing global LNG trading, optimisation and operations capability," said Jonathan Westby, Co-Managing Director of Centrica Energy Marketing & Trading and Global Head of LNG.

Majors report increased revenues

There were several LNGC company results published in the past couple of weeks.

LNG SN has condensed the reports in alphabetical order, as they were published before the effects of Covid-19 were known. No doubt the impact of low gas prices, increased supply over demand and the virus will be seen in the 1Q20 results presentations in a couple of months.

Starting with **Awilco LNG**, for 4Q19, net freight income was $16.3 mill, compared to $6.3 mill in the previous quarter.

EBITDA was $13 mill, ($7.4 mill in 3Q19) and profit for the fourth quarter amounted to $4.7 mill, compared with a loss of $1.1 mill in 3Q19.

Highlights for last year included net freight income of $33.7 mill, compared with $34.8 mill in 2018.

EBITDA was $25.2 mill, compared to $22.4 mill , while a loss was recorded of $8.3 mill for the 12 months, compared with a loss of $11.4 mill in 2018.

Flex LNG reported revenues of $52 mill for 4Q19, compared to $29.8 mill for the previous quarter.

Net income was $23.9 mill, compared to $0.5 mill for 3Q19.

Adjusted EBITDA was $41.9 mill for 4Q19, compared with $21.8 mill for the third quarter.

In October, 2019, Flex LNG Fleet Management received a Document of Compliance (DoC) qualifying the company for in-house technical shipmanagement services.

Golar LNG reported 4Q19 operating income of $68.9 mill, compared to a loss of $13.7 mill in the previous quarter.

Total operating revenues increased from $98.7 mill in 3Q19 to $139 mill in 4Q19, while voyage, charterhire and commission expenses decreased from $5.6 mill to $2.3 mill.

In 4Q19, the group generated net income of $24.8 mill, compared to a 3Q19 net loss of $82.3 mill.

Höegh's income rises

Meanwhile, **Höegh LNG Holdings** reported total income of $94.2 mill for 4Q19, compared with $82.2 mill in the preceding quarter.

EBITDA for 4Q19 was $59.8 mill, up from $55.9 mill in the third quarter and the company recorded a net profit after tax of $4 mill for the fourth quarter, up from $3.2 mill in 3Q19.

For the full year ended 31st December, 2019, the group reported $336.1 mill in total revenues, compared with $352.7 mill for the previous year.

EBITDA for the year increased from $207.7 mill to $217.3 mill. Net profit fell to $8 mill from $72 mill.

In 4Q19, operating cash flows rose by $27.8 mill to $77.7 mill.

Finally, **Teekay LNG Partners** reported a GAAP net income of $67.4 mill and GAAP net income per common unit of $0.77 in 4Q19; and $152.8 mill and $1.59 per common unit, respectively, for fiscal 2019.

Adjusted net income was $50.3 mill and adjusted net income per common unit of $0.56 in the fourth quarter and $168.7 mill and $1.79 per common unit, respectively, for fiscal 2019.

Fiscal 2019 adjusted net income per common unit is up 136% from fiscal 2018; fiscal 2020 adjusted net income per common unit is expected to be 45 - 73% higher than fiscal 2019.

Total adjusted EBITDA was $184.2 mill and $684.7 mill for fiscal 2019. ■

Pakistan slashes LNG imports

The Pakistan Government has cut LNG imports to avoid excessive pressure on public utility pipelines.

This move was as a result of low demand and the reluctance of the power sector to consume expensive gas, local reports said.

Pakistan has two LNG terminals with a total import capacity of 1.2 bill cu ft per day. The government has LNG supply contracts for 800 mill cu ft per day, which includes 500 mill from Qatar, 200 mill from Gunvor and 100 mill cu ft per day from Eni. The other gas is brought via the spot market.

The LNG terminals were set up on a take-or-pay basis, which means the government would have to pay capacity charges even if the terminals are not operating at full capacity. The previous government had also opened three LNG-based power plants with a take-or-pay clause.

"We were afraid of gas pipelines that may rupture due to high pressure as customers were not ready to lift gas," officials told the Pakistani newspaper, The Express Tribune, adding that over 700 mill cu ft per day of LNG was being supplied, which was slashed to 550 mill on 25th February. The power sector lifted only 147 mill. ■

Höegh LNG settles Total dispute

Höegh LNG has reached an agreement with Total to settle a boil-off dispute on two chartered vessels.

These involve the two LNG regas vessels 'Neptune' and 'Cape Ann'.

Two joint venture companies, involving Höegh LNG, will pay $23.7 mill in instalments this year.

This amount is in line with the provision made in 2017 and is subject to executing final binding agreements between the parties, Höegh LNG said in its fourth quarter results presentation.

Höegh LNG Holdings will indemnify Höegh LNG Partners for its 50% share of the settlement amount.

Under the two vessels' timecharters, the joint ventures failed to ensure that the vessels met specified performance standards during the charters.

These standards include the vessels not exceeding a maximum average daily boil-off of LNG. ■

The FSRU 'Neptune' was the subject of a dispute with Total

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**
- **Port power applications**

www.ChartLNG.com
LNG@ChartIndustries.com

CHART®

Innovation. Experience. Performance.®

GTT sees record new orders

GTT (Gaztransport & Technigaz) President and CEO Philippe Berterottière, has commented on the company's record year.

"In addition to receiving 57 orders for LNGCs, a new annual record for our core business, our 2019 Gravity Based Structures (GBS) and VLEC orders demonstrated our ability to cover the entire value chain for liquefied gas transport and storage.

"The year was also notable for the many investment decisions taken for gas liquefaction projects. This was another record, with over 70 mill tonnes per year under construction last year. These decisions are a sign of confidence on the part of the major gas companies over the long-term prospects of the LNG market. They will generate orders for LNGCs in the next three years.

"This year, GTT announced the acquisition of Marorka, an Icelandic company specialising in Smart Shipping, which is another milestone in the implementation of our digital strategy" he said.

The key figures for 2019 were a consolidated revenue of €288.2 mill, a consolidated EBITDA of €174.3 mill and a proposed dividend of €3.25 per share, compared to €3.12 per share in 2018.

Last year, GTT received orders to fit 57 LNGCs with its containment equipment designs. They will all be equipped with GTT's recent technologies - Mark III Flex+, Mark III Flex and NO96 GW. Deliveries are scheduled between end-2020 and early 2023.

In December, 2019, GTT signed a Technical Assistance and License Agreement (TALA) with Wison Offshore & Marine (WOM) based in China to equip FLNGs, FSRUs, FSRPs and LNGCs using GTT membrane containment systems.

Turning to the current year, given the current healthy orderbook and the Group's preparations for the future, Berterottière believed that the 2020 consolidated revenues would be within a range of €375-405 mill, consolidated EBITDA between €235-255 mill, and the commitment for the 2020 and 2021 financial years to pay out dividends of at least 80% of net income, will be maintained.

Earlier this year, GTT acquired 100% of the share capital of Marorka from its owners and management team.

Based in Iceland and specialising in Smart Shipping, the company designs maritime energy monitoring and optimisation systems for vessels, allowing them to reduce their environmental footprint. The company's systems have been installed on more than 600 vessels.

Marorka will complement Ascenz, GTT's Singapore-based subsidiary.

In addition, last month, GTT received an order from Hudong-Zhonghua Shipbuilding for the tank design of two new LNGCs on behalf of the Japanese shipowner 'K' Line.

Each vessel will have a capacity of 79,960 cu m and they are to be delivered during 2Q22.

GTT will design the vessels' tanks, which will be fitted with the NO96 L03+ membrane containment system. ■

Burckhardt awarded long-term LNGC service agreement

Burckhardt Compression has signed a five-year service agreement covering nine LNGCs fitted with the patented Laby-GI compressors on board.

Building on their close and long-term partnership, the two companies have jointly developed a lifecycle concept based on the operational experience gained.

This marks a major milestone in Burckhardt's push to offer lifecycle solutions tailored to customer needs, the company said. The new long-term service agreement (LTSA) will bring considerable added value to the customer's operation, such as improved lifecycle costs, operational efficiency and accurate preventive maintenance.

"This LTSA is a clear expression of our customer's long-term confidence in our ability to deliver reliable, tangible value to their business. We look forward to deepening our partnership over time," said Rainer Dübi, President, Burckhardt Compression Services Division.

The scope of the LTSA covers scheduled compressor parts maintenance, dedicated supervision, preventive maintenance via remote diagnostics, field services, and project management over a period of five years. Compressor maintenance will be carried out during vessel operation for maximum efficiency.

All nine LNGCs are ME-GI powered and equipped with Laby-GI compressors for BOG management. ■

> "This LTSA is a clear expression of our customer's long-term confidence in our ability to deliver reliable, tangible value to their business."
>
> *- Rainer Dübi, President, Burckhardt Compression Services Division*

NEWS NUDGE

GasLog introduces Argentine terminals training

GasLog has signed an annual contract to train its LNGC officers in Siport21 Ship Simulation Centre. The company said that this continues its crews' safety focus.

This agreement includes the development of real-time ship manoeuvring simulation training programmes in which the attendees will improve their knowledge of the Argentine LNG terminals of Bahia Blanca and Escobar.

Following training, GasLog claimed that its navigating officers will have improved their knowledge of the most complicated navigation areas and, therefore, the safety of the manoeuvres, contributing to facilitate the communication and co-operation between pilots and bridge staff.

GasLog said that specific vessel models will be used in the training programmes, and will include transiting the access channels and manoeuvring areas to the FSRU and FLNG units moored at Escobar and Bahia Blanca, respectively.

In addition, attendees will carry out emergency manoeuvres in order to improve their reactions to unforeseen sudden events. ■

LNG rate assessments

Spot market (155,000-165,000 cu m)

Region	This week	Change*
East of Suez	$35,000	-$5,000
West of Suez	$36,000	-$6,000
12 mos T/C	$61,500	-$6,500

*Since last report (20/02/20)

Source: Fearnleys (04/03/20)

FSRUs impact to be reduced

Mitsui OSK Lines (MOL) and Daewoo Shipbuilding & Marine Engineering (DSME) are to jointly develop a new technology to reduce FSRUs' environmental impact.

New technology, named Cryo-Powered Regas, will enable the usage of LNG cold energy, which was disposed of as power generation energy by adopting the Organic Rankine Cycle in the FSRU regasification process.

Cryo-Powered Regas technology is expected to reduce FSRUs' fuel consumption and CO2 emissions significantly.

MOL and DSME plan to test this technology in a small-scale pilot facility this year.

FSRUs are drawing attention as a solution for flexibility and mobility in both the LNG and electricity supply chain. MOL said it will promote the FSRU business and its associated services, which meets customer needs for diversified energy procurement and SDGs achievement (ie, environmental condition and stable development), as the leading company of FSRU business in Asia.

In addition, Bureau Veritas Marine & Offshore (BV) has issued the first approval in principle (AiP) for Cryo-Powered Regas for use in FSRUs.

Seen at the AiP signing ceremony are - HG Son, DSME Tokyo Representative; Kazuo Yamashita, Country Chief Executive, Bureau Veritas Marine & Offshore, Japan; Yoshikazu Kawagoe, Senior Managing Executive Officer and Chief Technical Officer, Mitsui OSK Lines; and Hiroyuki Nakano, Executive Officer, Energy Transport Business, Mitsui OSK Lines

The approval was issued to both MOL and DSME.

Claude Maillot, BV's Senior Vice President, North Asia Zone, said: "We are always looking to support innovation. Gas is a particular area of focus and expertise for BV. Floating gas terminals are well supported both by our rules for FSRUs and FSUs and by working closely with important stakeholders like MOL and DSME to promote safety, sustainability and efficiency in FSRU/FU design, construction and operations."

MOL and DSME have also agreed to jointly develop technologies and solutions for FSRU digitalisation.

Detailed operational data will be collected from an FSRU and stored in a cloud-based platform to develop applications for advanced remote operations monitoring and optimisation, etc.

This project will enhance safe and efficient operation, which will further deepen co-operation between the FSRU and shore-based facilities, MOL claimed. ■

NEWS NUDGE

Bechtel signs Port Arthur EPC agreement

Sempra Energy's Port Arthur LNG and Bechtel Oil, Gas, and Chemicals, have signed a fixed-price engineering, procurement and construction (EPC) contract for the Port Arthur LNG liquefaction project.

Under the terms of the EPC, Bechtel will carry out the detailed engineering, procurement, construction, commissioning, startup, performance testing and operator training activities for the project.

In addition, the agreement also covers continuing pre-final investment decision (pre-FID) engineering to better ensure project cost and schedule certainty.

Port Arthur LNG's project will initially include two liquefaction trains, two LNG storage tanks, a marine berth and associated loading facilities, and related infrastructure necessary to provide liquefaction services, with a nameplate capacity of around 13.5 mill tonnes per annum of LNG. ■

Excelerate to technically manage FSRUs

The Republic of the Marshall Islands and the Belgian Government have issued Interim Documents of Compliance (DoC) under the International Safety Management (ISM) Code to Excelerate Technical Management (ETM), a wholly-owned subsidiary of Excelerate Energy.

An ISM DoC allows ETM to operate as a technical shipmanager for Excelerate's FSRU fleet. The interim DoC was issued as a result of an audit of ETM's safety management system (SMS), confirming compliance with ISM standards, which ensure the safe operation of its crew and vessels.

"Excelerate has achieved a company milestone with the successful launch of our shipmanagement services. The Compliance certification is tangible evidence of the forward-thinking, dedicated effort of our team. We are pleased to offer our clients the advantages of integrated service as a fully independent provider of floating LNG solutions," said Excelerate President and Managing Director, Steven Kobos.

"As the largest and most reliable provider of FSRU-based services in the world, Excelerate has built a track record of delivering creative and timely energy solutions for over 15 years. We have endeavoured over the past several years to integrate the components of our business that have the greatest impact on our ability to provide flexible and seamless service to our clients," he added.

Excelerate's FSRU 'Experience' was the first vessel to come under ETM shipmanagement. The vessel left Navantia drydocks in Fene-Ferrol, Spain, on 6th February,

Excelerate can now technically manage its fleet in-house

2020, where she underwent scheduled maintenance and upgrades.

While in drydock, the FSRU was also painted in Excelerate's brand colours and design. Excelerate will transition its entire fleet to ETM shipmanagement by the end of this year.

"The physical re-branding of the fleet in our own colours reinforces that the Excelerate fleet as part of one effort and one culture committed to our core values," Kobos explained. "The new livery identifies our assets across the world as uniquely Excelerate."

The fleet will be repainted in their new colours as part of their scheduled maintenance programmes. ■

WORLD LNG CARRIER ORDERBOOK

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Marvel Pelican	Moss	Kawasaki	TFDE	155,000	15/12/2019	MOL
BW Magnolia	GT NO 96	DSME	MEGI	173,400	15/12/2019	BWGas
HHI / Total	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/01/2020	Cardiff Marine
HHI / Cardiff #1	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/02/2020	Cardiff Marine
HHI / Total / Sovc	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	28/02/2020	Sovcomflot
LNG Merak	GT NO 96	Hudong-Zhonghua	MEGI	174,000	01/03/2020	MOL
Elisa Larus	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	30/03/2020	NYK
Maran Gas Psara	GT NO 96	DSME	MEGI	173,400	01/04/2020	Maran Gas Maritime
Gaslog Windsor	GTT Mark III Flex	Samsung	XDF	180,000	15/04/2020	GasLog
HHI / Cardiff #2	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/04/2020	Cardiff Marine
SHI Gaslog #1	GTT Mark III Flex	Samsung	XDF	180,000	15/04/2020	GasLog
Samsung 2271	GTT Mark III Flex	Samsung	XDF	174,000	15/04/2020	Cardiff Marine
Daewoo 2478	GT NO 96	DSME	MEGI	173,400	15/05/2020	Nakilat
Flex Aurora	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/05/2020	Flex LNG
Bw Pavilion Aramhera	GT NO 96	DSME	MEGI	173,400	01/06/2020	BWGas
Traiano Knutsen	GTT Mark III Flex	Hyundai Heavy	MEGI	180,000	01/06/2020	Knutsen
Flex Reliance	GT NO 96	DSME	MEGI	173,400	01/07/2020	Flex LNG
Flex Amber	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	01/07/2020	Flex LNG
MOL HUDONG-ZHONGHUA 3/4	GT NO 96	Hudong-Zhonghua	MEGI	174,000	15/07/2020	MOL
SHI Gaslog #2	GTT Mark III Flex	Samsung	XDF	180,000	15/07/2020	GasLog
SHI #1	GTT Mark III Flex	Samsung	XDF	174,000	15/07/2020	Cardiff Marine
Flex Resolute	GT NO 96	DSME	MEGI	173,400	01/08/2020	Flex LNG
Energy Pacific	GT NO 96	DSME	MEGI	173,400	01/08/2020	Alpha Gas
HHI Sovcom #1	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	30/08/2020	Sovcomflot
Cool Discoverer	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	01/09/2020	Thenamaris
HHI 3037	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/09/2020	Cardiff Marine
HHI NYK DG #1	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/09/2020	NYK
MOL HUDONG-ZHONGHUA 4/4	GT NO 96	Hudong-Zhonghua	MEGI	174,000	01/10/2020	MOL
Samsung 2300	GTT Mark III Flex	Samsung	XDF	174,000	01/10/2020	GasLog
Maran Gas DSME	GT NO 96	DSME	MEGI	173,400	15/10/2020	Maran Gas Maritime
Flex Freedom	GT NO 96	DSME	MEGI	173,400	15/10/2020	Flex LNG
Aristos I	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/10/2020	Capital Gas
Celcius #1	GTT Mark III Flex	Samsung	XDF	180,000	15/10/2020	Celcius Shipping
SHI #17	GTT Mark III Flex	Samsung	XDF	174,000	15/10/2020	Cardiff Marine
Aristidis I	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	01/11/2020	Capital Gas
Flex Volunteer	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/11/2020	Flex LNG
HHI 3038	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/11/2020	Cardiff Marine
DSME 2484	GT NO 96	DSME	MEGI	173,400	01/12/2020	Alpha Gas
Samsung 2301	GTT Mark III Flex	Samsung	XDF	174,000	01/12/2020	GasLog
Celcius #2	GTT Mark III Flex	Samsung	XDF	180,000	15/12/2020	Celcius Shipping

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 = 12th December 2019

Fearnley LNG

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
DSME Dec #1	GT NO 96	DSME	MEGI	180,000	15/12/2020	MOL
HHI Sovcom #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/12/2020	Sovcomflot
Global Star	GT NO 96	DSME	MEGI	173,400	01/01/2021	Nakilat
DSME Minerva #1	GT NO 96	DSME	MEGI	173,400	15/01/2021	Minerva Marine
Cool Racer	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/01/2021	Thenamaris
SHI Minerva #1	GTT Mark III Flex	Samsung	XDF	174,000	15/01/2021	Minerva Marine
HHI 3112	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/01/2021	Cardiff Marine
Samsung 2313	GTT Mark III Flex	Samsung	XDF	180,000	01/02/2021	Celcius Shipping
DSME Minerva #2	GT NO 96	DSME	MEGI	173,400	15/02/2021	Minerva Marine
HHI Latsco #1	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/02/2021	Latsco Shipping
DSME 2496	GT NO 96	DSME	MEGI	174,000	15/02/2021	BWGas
DSME Dec #2	GT NO 96	DSME	MEGI	180,000	15/02/2021	MOL
Marvel Swan	GTT Mark III Flex	Samsung	XDF	173,400	01/03/2021	Navigare
Aristarchos	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/03/2021	Capital Gas
Flex Vigilant	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/03/2021	Flex LNG
HHI 3039	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/03/2021	Cardiff Marine
SHI #18	GTT Mark III Flex	Samsung	XDF	174,000	15/03/2021	Cardiff Marine
DSME 2485	GT NO 96	DSME	MEGI	173,400	15/04/2021	Alpha Gas
SHI NYK	GTT Mark III Flex	Samsung	XDF	174,000	15/04/2021	NYK
Celcius #4	GTT Mark III Flex	Samsung	XDF	180,000	15/04/2021	Celcius Shipping
DSME 2495	GT NO 96	DSME	XDF	174,000	15/05/2021	Maran Gas Maritime
HHI NYK DG #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/05/2021	NYK
Attalos	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/06/2021	Capital Gas
DSME 2497	GT NO 96	DSME	MEGI	174,000	15/06/2021	BWGas
HHI NYK DG #3	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/06/2021	NYK
SHI Gaslog CE #1	GTT Mark III Flex	Samsung	XDF	180,000	15/06/2021	GasLog
Alpha Gas	GT NO 96	DSME	MEGI	174,000	15/06/2021	Alpha Gas
CSSC #1	GT NO 96	Hudong-Zhonghua	XDF	174,000	15/06/2021	CSSC
Capital Gas #5	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/07/2021	Capital Gas
DSME MOL #3	GT NO 96	DSME	MEGI	173,400	15/07/2021	MOL
HHI Latsco #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/08/2021	Latsco Shipping
SHI Gaslog CE #2	GTT Mark III Flex	Samsung	XDF	180,000	15/08/2021	GasLog
DSME Maran	GTT Mark III Flex	DSME	MEGI	174,000	15/08/2021	Maran Gas Maritime
DSME Maran #2	GTT Mark III Flex	DSME	XDF	173,400	15/08/2021	Nakilat
Samsung 2305	GTT Mark III Flex	Samsung	XDF	174,000	01/09/2021	Minerva Marine
SHI 2306	GTT Mark III Flex	Samsung	XDF	174,000	15/09/2021	NYK
Capital Gas #6	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/09/2021	Capital Gas
HHI SK E&S	GTT Mark III Flex	Hyundai Heavy	XDF	180,000	15/09/2021	SK Shipping
DSME Maran #3	GTT Mark III Flex	DSME	XDF	173,400	15/10/2021	Nakilat
Samsung #11	GTT Mark III Flex	Samsung	XDF	174,000	15/10/2021	NYK
SHI 2307	GTT Mark III Flex	Samsung	XDF	174,000	15/11/2021	NYK

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 = 12th December 2019

Fearnley LNG

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
HHI TEN	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/11/2021	Tsakos Energy Navigation
DSME Maran 2504	GT NO 96	DSME	XDF	174,000	15/12/2021	Maran Gas Maritime
HHI Capital Gas #7	GTT Mark III Flex	Hyundai Heavy	XDF	174,000	15/12/2021	Capital Gas
DSME 2507	GT NO 96	DSME	XDF	174,000	15/12/2021	Maran Gas Maritime
HSHI	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/12/2021	Hanjin Shipping
CSSC #2	GT NO 96	Hudong-Zhonghua	XDF	174,000	15/01/2022	CSSC
HHI Samho Edison	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/01/2022	NYK
Samsung N/A	GTT Mark III Flex	Samsung	XDF	174,000	15/01/2022	Minerva Marine
Samsung 2019 #9	GTT Mark III Flex	Samsung	XDF	174,000	15/01/2022	JP Morgan
SHI Mar19	GTT Mark III Flex	Samsung	XDF	174,000	15/03/2022	Nisshin Shipping
H Samho NYK	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/03/2022	NYK
Hyundai European #1	GTT Mark III Flex	Hyundai Heavy	XDF	180,000	15/03/2022	Dynagas
Maran gas dec19	GT NO 96	DSME	XDF	174,000	15/03/2022	Maran Gas Maritime
H-Line #2	GTT Mark III Flex	Hyundai Samho	XDF	174,000	15/04/2022	Hanjin Shipping
DSME May19	GT NO 96	DSME	MEGI	174,000	15/05/2022	Maran Gas Maritime
Hyundai European #2	GTT Mark III Flex	Hyundai Heavy	XDF	180,000	15/06/2022	Dynagas
BW oct 2019 #1	GT NO 96	DSME	MEGI	174,000	15/06/2022	BWGas
Samsung 2019 #10	GTT Mark III Flex	Samsung	XDF	174,000	15/07/2022	JP Morgan
BW oct 2019 #2	GT NO 96	DSME	MEGI	174,000	15/09/2022	BWGas
Samsung 2364	GTT Mark III Flex	Samsung	XDF	174,000	01/01/2023	MISC
Samsung 2365	GTT Mark III Flex	Samsung	XDF	174,000	01/02/2023	MISC

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 12th December 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
2015	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	JS Ineos Ingenuity	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Insight	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Intrepid	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
2016	JS Ineos Indepence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos 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)
2017	Oizmendi	600	LNG	Bilbao	Yes	Itsas Gas
2017	ENGIE Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	Anthony Veder
2017	Cardissa	6,500	LNG	Northwest Europe	Yes	Shell

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 February 2020

Small-LNG.com

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	Coral EnergICE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	JS Ineos Invention	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	JS Ineos Intuition	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	Coral Encanto	30,000	LNG	China	Yes	Anthony Veder
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2018	LNG London	3,000	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2018	Kairos	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	Qi Yuan	28,000	LNG	China	Yes	Dalian Inteh Group
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
2019	Gas Agility	18,600	LNG	NWE	Yes	MOL
2019	Flexfueller 001	1,480	LNG	Amsterdam	Yes	Titan LNG
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	FuelLNG TBN	7,500	LNG	Singapore	Yes	FuelLNG
2020	CLS TBN	3,500	LNG	Japan	Yes	CLS
2020	Elenger TBN	6,000	LNG	NWE	Yes	Elenger
2020	ENN TBN	8,500	LNG	China	Yes	ENN
2020	Flexfueller 002	1,480	LNG	Antwerp	Yes	Titan LNG
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 = 10th February 2020

Small-LNG.com