

LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

28 May 2020

US July LNG cargo cancellations mount

About 45 LNG cargoes due to be loaded in July at US export terminals were believed to have been cancelled, due to low demand being exacerbated by the COVID-19 pandemic.

According to a Platts report, at least half were scheduled to be exported from Cheniere Energy's two Gulf Coast export facilities.

Asian and European buyers were ignoring US suppliers as summer approaches, sources told Platts. US liquefaction facility feedgas flows fell last week to the lowest level since October, 2019.

The reported July cancellations, roughly double the number earmarked for June, represents nearly two-thirds of the average US LNG volume that was produced monthly when the coronavirus began to spread in January, according to S&P Global Platts Analytics data.

These contracts often call for offtakers to pay a fixed fee when cancelling cargoes. However, the clauses could prove complicated if customers declare *force majeure*, which may be possible if the pandemic continues or deepens. However, Cheniere recently said that it didn't believe the market disruptions from the virus would provide a valid legal basis for an FM claim by one of its counterparties.

As for prices, North Asian spot LNG continued its downward trend last week, as cargo availability



Cheniere could suffer due to US LNG cargo cancellations

was ample, despite Chinese buying activity regaining momentum. Last week, the Platts JKM for July was assessed down 4.8 cents/MMBtu day-on-day at \$2.125/MMBtu, on lower pricing indications.

In the Atlantic region, a plunging Eurogas market resulted in delivered LNG prices reaching record lows. Platts assessed the DES NWE/MED markets at \$1.371/MMBtu, down \$0.134/MMBtu day-on-day, the lowest level since Platts began assessing the markets in 2010.

At the same time, Platts Gulf Coast Marker was assessed at \$1.283/MMBtu, dropping on bearish sentiment in the northeast Asian market, which currently provides the most lucrative market for US cargoes.

As indicated, Cheniere's production could be hit the hardest by the cargo cancellations. Shell, Naturgy and commodity trader Trafigura were thought to be among the offtakers to have

cancelled July cargoes from the two export terminals.

Shell is also the only offtaker at Kinder Morgan's Elba liquefaction facility, the smallest of the six major US LNG export terminals. A Kinder Morgan spokeswoman told Platts that the facility planned to produce LNG in July, although she would not comment on cancellations.

Japan cancels cargoes

Amid lower demand and high inventories, Japanese buyers Osaka Gas and JERA cancelled three July cargoes from Freeport LNG in Texas, market sources said. BP and Total also have offtake commitments at the facility.

Total was said to have cancelled at least two US LNG cargoes for July, though it was unclear from which terminals. It has commitments at Cameron LNG in Louisiana and at Cheniere's Sabine Pass.

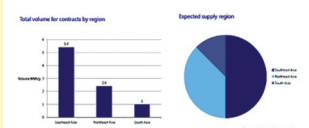
Platts said that the market sources did not report any July cancellations from Maryland's Dominion Energy's Cove Point export terminal.

For LNGC owners/operators, some chartered vessels may slow steam or have their voyages cancelled this summer, a market source said.

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“The reported July cancellations...represents nearly two-thirds of the average US LNG volume that was produced monthly when the coronavirus began to spread in January”

- S&P Global Platts Analytics data.

Long term demand on the horizon

LNG buyers have returned to the market to take advantage of low prices, which could result in healthy long term demand, Poten and Partners said at a webinar held last week.

Looking at the Asia/Pacific region, Kit Ling Wong, Poten's Head of South Asia and Middle East, Business Intelligence, said that Asian buyers were also demanding more flexibility and optionality when negotiating new long term contracts.

However, she said that not all sellers will concede to their demands but will price in buyers' requests where possible.

Demand growth will be led by China and southeast Asia. Both Bangladesh and Pakistan are expected to increase imports and new markets could be seen in Vietnam, Sri Lanka, Myanmar and Cambodia.

Taking the major importing countries, she said that China will be the source of opportunistic buying from the so called second tier players, such as Shandong,

while South Korea has high inventories in place but the government has decreed that coal-fired power plants will be replaced by gas-fired units with some closing by 2034, which should increase LNG demand slightly.

Weak demand

Mostly weak demand was forecast from Japan, while Taiwan's CPC was buying regularly on JKM or on a fixed price basis. Indonesia was also experiencing weak demand, mainly due to a partial lockdown, however, India was expected to recover as the lockdown eases, especially if the price remains below \$3 per mmbtu. Finally, Thailand's PTT was expected to remain active in the spot market.

On the supply side, production

cutbacks are expected in the US, Malaysia and Qatar, while Australia will only see a slight reduction. Other areas will increase, such as Nigeria, which saw many cargoes on the water during April, some for up to 60 days.

In general, she expected the markets to tighten later this year, as project delays and the slower building of new exports facilities, combined with seasonality, will lead to market volatility continuing to grow.

Due to growing buying interest for mid to long-term contracts this year, growth is predicted, especially as some buyers are looking for deliveries post 2023 and even as early as next year.

She also revealed that in early May, Poten had calculated that at least 57 US cargoes were due to be cancelled in June - it was later revealed that another 45 or so were due to be cancelled for July (see lead story). In Europe, storage space was becoming full and as a result, some cargoes were being shipped from Europe to Asia.

Last week, the spot market remained low at around \$30,000 per day on average (see table on page 9).

Baltic Exchange addresses gas carrier OPEX

London's Baltic Exchange has added quarterly assessments (GOPEX) of the cost of operating LNG and LPG carriers to its portfolio of shipping investor tools.

Data will be provided by independent third-party ship-management companies, Anglo-Eastern and AEX LNG Management, Fleet Management and V.Group.

CEO, Mark Jackson, explained: "Adding OPEX indices for gas carriers brings transparency to the market place about how much it costs to run an LNG or LPG carrier and complements our data for the spot earnings of these vessels.

"They assist investors assess health of earnings using independent and reliable information from a credible provider of benchmarks for the shipping industry," he added.

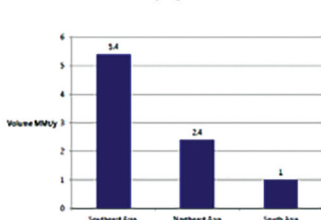
All values are expressed in USD per day and the published OPEX value includes the cost of crew, technical, insurance and fees. Drydock costs do not contribute to the OPEX, but are published for both types.

The index includes -

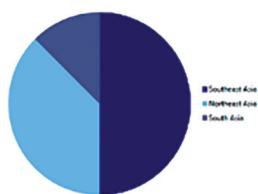
- LNGC Operating Expense Index LNGOPEX \$/day
- LNGC Crew Cost LNGCC \$/day
- LNGC Technical Cost LNGTC \$/day
- LNGC Insurance Cost LNGIC \$/day
- LNGC Drydock Cost LNGDC \$/day

Southeast and Northeast Asia leads 2020 buying interest

Total volume for contracts by region



Expected supply region



Source: Poten & Partners data

NEWS NUDGE

Bahri drops plans for LNGCs

Saudi Aramco's shipping arm, Bahri, was said to have shelved plans to operate up to 12 LNGCs. This was due to Semptra Energy delaying its decision on whether

to proceed with its Port Arthur LNG export project in Texas, sources told Reuters.

Bahri issued an Expression of Interest (EOI) last year to charter the vessels from 2025. This would have marked Saudi Aramco's first entry into LNG, as part of oil giant's plan to become a major global player

in the gas markets.

In May last year, Aramco signed a 20-year agreement to buy LNG from the planned Port Arthur export terminal and also agreed to buy a 25% equity stake in the first phase of the multi-billion dollar project and later, issued the Expression of Interest (EOI) to charter the vessels.

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Wilhelmshaven FSRU contract signed

Mitsui OSK Lines (MOL) and LNG Terminal Wilhelmshaven (LTW) have signed a contract with Daewoo Shipbuilding Marine Engineering (DSME) to build an FSRU.

The FSRU will be used as a floating LNG terminal at Wilhelmshaven

LTW is the project developer and operator behind the planned Wilhelmshaven terminal and is a fully owned subsidiary of Uniper.

The FSRU will be built by DSME and then chartered by LTW for 20 years and has been planned and custom designed by the two contracting parties in accordance with the local and environmental requirements for the German market and the Wilhelmshaven site.

The unit will be moored off the coast near Wilhelmshaven and will handle incoming LNGCs. The regasified gas will then be pumped from the FSRU via a short connecting pipeline under the sea to the port facilities and fed into the German gas transmission network.

Uniper Board member and COO,

David Bryson, said: "The agreement to build and charter this FSRU is an important milestone for both parties on the journey to establishing an LNG terminal in Wilhelmshaven; it underlines the joint desire for collaboration on this ambitious project.

"This new agreement will build on the successful and trusting collaboration with MOL on previous major projects in the LNG ship market. The LNG terminal in Wilhelmshaven is a long-term project based on the prediction that demand for imported natural gas on the German and European energy markets will increase significantly over the coming years.

"Based on Uniper's many years of experience in the European gas business and project management, LTW is pushing ahead with the ter-

minal project in Wilhelmshaven to give companies from all over the world optimal access to customers in Europe - and, vice versa, to open up a new supply channel for customers," he said.

MOL Executive Officer, Hiroyuki Nakano, added: "We are excited to move one step further to materialise Germany's first LNG receiving project. Our FSRU of some 263,000 cu m storage capacity is of a unique tailored design to meet all customer requirements to provide economical regasification service and comply with German Environmental Regulations.

"Our mission is to execute the project and deliver the unit on time. MOL has expanded its global FSRU business over the past few years. We are confident that our operational and technical experi-



Uniper COO David Bryson

ence gained will enhance the project in Germany and provide a seamless, safe and efficient service to LTW," he concluded.

It is expected that a competitive tender process will be instigated in the summer of this year to check the binding interest expressed by potential customers.

Once the approval process for the project is completed, the final investment decision (FID) will be made subject to economic viability. ■

Qatar - no production cuts

Qatari Energy Minister, Saad al-Kaabi stressed last week that LNG production will not be cut, despite reduced demand and low global gas prices.

Speaking during a US/Qatar Business Council webinar, Kaabi said if Qatar stopped selling LNG because of cost, "that means there is something drastically wrong in the LNG market."

Global gas prices have plunged to record lows in the past weeks, on the back of an oversupplied market and reduced demand, due in part to the coronavirus pandemic.

Kaabi said it would be the most expensive producers that would be forced out of the market first. He said a lot of other producers would have to rein in their LNG

production before Qatar, given its low-cost production.

"We are the cheapest LNG producer -- from an efficiency point of view and from a cost of production point of view - in the world," Kaabi said. "If a lot of people stopped their production, we'd probably get a better price boost. There is absolutely no way we would be reducing production."

"Prices have been at a level that is too low for anybody," he added. But Qatar would be "very low in the pecking order" for feeling the price pain.

Kaabi even acknowledged that cutting prices to defend market share was possible.

He confirmed that plans to expand the country's LNG production capacity from 77 mill tonnes per year to 110 mill tonnes by 2025 and to 126 mill tonnes by 2027 were moving "full steam ahead."

"There is room to go above 126 (mill tonnes)," he said. "You might hear us in a few years go higher, we have plenty of gas to do that."

Bids delayed

Kaabi said technical bids had been received for the main contractor for the expansion project, but commercial bids, which had been expected in April, had been pushed back by three to four months after bidders asked for delays.

Bids should be submitted in September or October, he said, adding that Qatar was "on schedule" to award all of the contracts by the end of this year.

Kaabi added that he was not concerned about the impact of the current low prices on the Golden Pass LNG export plant Qatar is developing with ExxonMobil in Texas.

"The way we have structured Golden Pass and our portfolio, we're not worried at all," he said. "More gas out of the US is going to be good for us."

He thought that single US LNG export developments by single players would be most at risk. "In rough markets they're not going to make it," he said. Instead, it would be players with a global portfolio and an integrated gas business that would benefit from exporting US gas.

During the webinar, Kaabi also downplayed the role of LNG in the European gas market, saying it was just a drop, compared to gas supplies from Russia and other pipeline exporters. "[LNG] is a very small amount," he said, explaining that storing LNG was very expensive compared to pipeline gas. ■



Ras Laffan will not face any cuts

OLT issues environmental report

OLT Offshore LNG Toscana has published its integrated 'Report 2019 - Safety, Environment, Territory', on data taken for 2019.

Last year, the company implemented a consultation project involving internal and external stakeholders, aimed at receiving detailed feedback regarding the significance of the three fundamental areas covered in the report - economic, environmental and social.

This preliminary work will culminate in the preparation of OLT's first sustainability balance sheet.

"When preparing this report," said Monica Giannetti, HSEQ Manager, "reference was made to the GRI Standards and it also takes into consideration - by means of specific references - the provisions of the United Nations 2030 Agenda for Sustainable Development with the related 17 SDGs (Sustainable Development Goals), broken down in turn into 169 specific targets."

In the three-year period analysed (2017-2019), the terminal maximised its operational use and reached its full capacity in the gas year 2019/2020. OLT said it

invests constantly in improving safety and noted that it achieved 'Zero Injury' and 'Zero Accident' goals in 2019.

The report also highlighted a gasoil consumption reduction (-42.7% in 2019, compared to 2017) and in the production of waste (-48.3% in 2019, compared to 2017), as well as the improvement of the emission performance both in air and water.

Finally, the results of the 'Environment Monitoring Plan' for the marine environment around the 'FSRU Toscana' FSRU terminal demonstrated that there were no significant effects on the marine bio-diversity, due to the terminal's activities.

Giovanni Giorgi, OLT Managing Director, added: "Thanks to the excellent operating performance of 2019, that confirmed the role of the terminal on the national and European scene, we look to the future with optimism, although in this moment of great difficulty for the entire interna-



OLT gives sustainability update

tional community.

"Thanks to the professionalism of the resources, OLT has achieved excellent results, not only for the company as such but also for the country's gas system, bearing in mind OLT's contribution to the security and diversification of energy supply and the forthcoming energy transition.

"The integrated Report 2019 confirms the full awareness of the strategic nature of our terminal, which gave us the necessary insight to steer our actions towards

sustainability, respecting the territory and the community that host us," he said.

OLT's Maurizio Zangrandi, added: "The spread of pandemic brought new challenges for the company: first, to guarantee the safety of all workers, ensuring the operations of the terminal, second, to support the community offering a contribution to the local health system and non-profit associations. This is thanks to the work and professionalism of our employees and stakeholders." ■

NLNG Train 7 gets FID - EPC contracts awarded

All the conditions for Shell Gas BV's Final Investment Decision (FID) to build a new LNG processing unit at Nigeria LNG (NLNG) have now been met.

These included formal commitments from the financing organisations involved in the project.

As a result of taking the FID, NLNG has awarded engineering, procurement and construction (EPC) contracts, which were awarded to Saipem, as the joint venture leader involving Daewoo E&C and Chiyoda Corp, following the signing of a Letter of Intent last year.

The overall value of the contracts is \$4 bill plus and Saipem's share amounts to around \$2.7 bill.

Once operational, NLNG's new Train 7, will add around 8 mill tonnes per annum of capacity to the Bonny Island facility, taking its total to around 30 mill tonnes.

Currently operating six trains, the decision to build a seventh will bolster NLNG's contribution to the development of the country through generating revenues for the Nigerian government and delivering key natural gas products for domestic use, Shell said.

NLNG is owned by the Nigerian National Petroleum Corp (NNPC - 49%), Shell (25.6%), Total (15%) and ENI (10.4%). All the shareholders have supported the EPC awards and construction schedules will be finalised once the COVID-19 situation has stabilised.

"While remaining mindful of prevailing macro-economic challenges, Shell continues to see NLNG as a great resource that can

deliver value to the people of Nigeria and investors alike. This decision is consistent with our long-term strategy and our disciplined approach to capital investment," said Maarten Wetselaar, Shell's Integrated Gas and New Energies Director.

"Natural gas is a core component of our strategy to provide more and cleaner energy solutions. With global LNG demand expected to double by 2040, the expansion of the NLNG Bonny Island facility is crucial in helping Shell meet the world's growing energy needs," he added.

"We are happy with the progress NLNG has made over the years and its enormous contribu-

tions to the Nigerian economy. The EPC awards for Train 7 is good news for Nigeria with the potential to bring more export revenues, unlock new projects, and attract foreign direct investments, in addition to transforming the economy of the Niger Delta and Nigeria as whole," said Osagie Okunbor, Country Chair, Shell Companies in Nigeria and Managing Director, The Shell Petroleum Development Company of Nigeria. "Shell is positioned to support NLNG's expansion by working with our government and other partners to develop new gas resources to sustain this growth and enhance both domestic and export gas supplies." ■

Nakilat in fleet management transition second phase

Nakilat has started the second phase of its fleet management transition from Shell.

The Q-Max LNGC 'Al Mayeda' became the first vessel transitioned in this phase. Several vessels are to be transitioned as part of the management changeover deal.

"This will see us expanding our shipmanagement capabilities and become a strong, fully-fledged shipping and maritime company. The management of our vessels centrally from Qatar will allow Nakilat to capitalise on existing synergies with our main charterer, realise operational efficiencies

and optimise costs," said Nakilat CEO, Abdullah Fadhalah al-Sulaiti.

"With a decade of experience managing LNG and LPG carriers, we are committed to upholding the highest standards of safety and quality to ensure the integrity of cargo from Qatar to the rest of the world, as evidenced from the LTI-free year achieved by the NSQL-managed fleet in 2019," he added.

The Q-Max's technical management will be undertaken by Naki-

lat's in-house shipmanagement arm, Nakilat Shipping Qatar (NSQL) and brings NSQL's managed fleet size by the end of the current year to 25 vessels once the transition is completed - 21 LNGCs and four LPG carriers.

'Al Mayeda' is wholly-owned by Nakilat and chartered by Qatargas and was delivered in February, 2009.

Newbuilding delivered

In addition, Nakilat has taken delivery of the newbuilding LNGC, 'Global Energy', which will also be commercially and technically managed in-house.

Built by Daewoo Shipbuilding & Marine Engineering (DSME), she was the first of four LNGC new-buildings to be delivered to Global Shipping Co Ltd, a joint venture between Nakilat (60%) and Maran Ventures Inc (40%).

The four newbuildings, due to be delivered by the end-2021, will bring Nakilat's fleet to 74 vessels, which is just under 12% of current global LNG fleet by

carrying capacity.

Maran Ventures Chairman, John Angelicoussis, said, "Nakilat has been a strategic partner for many years and we are pleased to be taking delivery of this first LNG vessel under our new Global Shipping joint venture. We are confident these high specification vessels, built by DSME, and now managed technically and commercially by Nakilat, will provide charterers with a first-class LNG shipping service." ■



Nakilat has started the second phase of its shipmanagement transition

YPF ditches plan to increase LNG exports

Argentina's state-controlled energy concern, YPF has shelved LNG export expansion plans.

"Very few investment ideas survive in this context that we're going through now," YPF Chairman, Guillermo Nielsen, said last week. "Certainly in LNG...we don't see room for that to fly."

Flush with shale gas reserves but hamstrung by domestic bottlenecks, YPF had been exploring the idea of installing a 20 mill cu m per day liquefaction complex at Bahia Blanca, following the start

up of small-scale exports last year through the 2.5 mill cu m per day FLNG 'Tango'. YPF has exported five LNG cargoes from 'Tango' since mid-2019.

Argentina is expected to remain an LNG importer, particularly during the southern hemisphere winter when heating demand surges.

Addressing the Institute of the Americas La Jolla energy confer-

ence on 19th May, Nielsen said LNG imports and pipeline exports will remain the preferred model for now. "It's easier to get to our neighbour's markets through pipelines," he said.

In addition to the pandemic-related slowdown, Argentina is currently locked in debt negotiations and appears to be heading towards its ninth sovereign debt default. ■

Rio Grande LNG FID delayed

NextDecade Corp said in its quarterly results presentation that a final investment decision (FID) on its Rio Grande LNG project (RGLNG) is not now expected until 2021, due to the virus pandemic.

Considering this change in FID's expected timing, NextDecade said that it had implemented measures to manage costs, which the company said will ensure that it has sufficient pre-FID liquidity to operate through year-end 2021.

Currently, RGLNG has a 2 mill tonnes per annum, 20-year sale and purchase agreement with Shell. NextDecade claimed that it believed it could achieve FID with another 9 mill tonnes sold under long-term contracts.

"Our balance sheet is strong, we have no debt outstanding, and the long-term fundamentals for our Rio Grande LNG project remain firmly intact," said Matt Schatzman, NextDecade's Chairman and CEO. "This solid foundation, together with our sustained regulatory, engineering and commercial progress, positions the company and our Rio Grande LNG project extremely well for when global market conditions improve." ■

NEWS NUDGE

Shipbuilding

Greek shipping company, TMS Cardiff Gas, has taken delivery of a third LNGC from Hyundai Heavy Industries.

The 174,000 cu m 'Bonito LNG' follows the recently delivered LNGCs 'La Seine' and 'Amberjack LNG'.

TMS Cardiff Gas said it deliv-

ered 'Bonito LNG' to her charterer, a major gas company, on 13th May.

She is fitted with GTT's Mark III Flex containment system and a 2-stroke, low-pressure WinGD X-DF main engine. ■

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North Slope project gets FERC approval

The US Federal Energy Regulatory Commission (FERC) has authorised the Alaska Gasline Development Corp. (AGDC) to liquefy and export LNG produced from Alaska's North Slope.

FERC granted a Section 3 Natural Gas Act authorisation, with conditions, to the AGDC - an Alaskan independent, public corporation - to site, construct and operate the Alaska LNG project.

The project consists of liquefaction facilities on the Kenai Peninsula designed to produce up to 20 mill tonnes per annum of LNG for export.

It would include an around 807 mile long, 42 inch diameter pipeline capable of transporting up to 3.9 bill cu ft of gas per day to the liquefaction facilities, a gas

treatment plant that would be located at Prudhoe Bay and two additional natural gas pipelines connecting production units to the gas treatment plant.

The US Department of Energy (DOE) had already authorised the project to export LNG to nations with which the US has a Free Trade Agreement (FTA). DOE also granted conditional authorisation for the exportation of 20 mill tonnes per annum of natural gas to nations that do not have an FTA.

This is the last remaining LNG project before FERC, which is cov-

ered by the Fixing America's Surface Transportation Act (FAST-41 Act). The commission took action ahead of the scheduled 4th June, 2020, final decision set by the statute.

FERC has acted on two other FAST-41 Act projects: Venture Global's Calcasieu LNG Project, approved last year, and Jordan Cove LNG project, approved this March.

New LNG division

In another move, FERC has appointed Andrew Kohout to run the

commission's LNG division, which was created last year.

Kohout, currently LNG Branch 1 head, will become FERC's first director of the Division of LNG Facility Reviews and Inspections (DLNG).

FERC created DLNG last July to focus on LNG, with staff to be based in Houston and in Washington (DC). Initially, the division was to be staffed with 20 current employees who worked on LNG projects in the DC headquarters, as well as eight other full-time employees based in a Houston regional office.

Pointe LNG appoints financial advisor

Pointe LNG has appointed Whitehall & Company as its exclusive financial advisor.

This move was made to help raise investment capital for the development and construction of a 6 mill tonnes per annum LNG export terminal project in Plaquemines Parish (La), the company explained.

The project is expected to require up to \$4 bill of capital for development and construction, including around \$56 mill of development capital.

The company said that this marks the return of the Pointe LNG team, composed of co-founders Tom Burgess and Jim Lindsay, to LNG development on this site. They had previously started developing an LNG project in the same location, named Louisiana LNG Energy, which in 2015, was sold to a joint venture involving Cheniere and Parallax.

When Cheniere and Parallax failed to complete the development, due to internal disputes, the company returned to the site and resumed LNG development under the name of Pointe LNG.

This project will be the lowest-cost greenfield LNG project built in the US at less than \$600 per tonne, due to its excellent gas supply with less than seven miles of pipeline buildout to connect to

two major haul gas pipelines (TGPL and SONAT), stable foundation requiring no dredging or soil remediation, and minimal wetlands mitigation costs, Pointe LNG claimed.

The 600 acre site along the Mississippi River has over 9,200 ft of river frontage, allowing for potential future expansion from 6 mill tonnes per year to 12 mill tonnes and above. The marine terminal and deepwater port will have over 50 ft of water depth, able to accommodate Q-Max LNGCs.

With over 2,000 ft of river width, the waterway ensures two-way traffic, no congestion limits or need for tug escort, and is only six hours sailing from open water. The site is well-protected from flooding by 17 ft levees on all sides maintained by the US Army Corps of Engineers.

Well-positioned

Pointe LNG said that with its low capital cost and strong site advan-



The planned terminal is ideally located on the Mississippi River

tages, the project will be well-positioned to provide oftakers competitively priced LNG supply beginning in the mid-2020s as the 'second wave' of global LNG demand outstrips the existing LNG supply driven by the continued global move towards gas-fired generation.

Burgess said, "The project has the best greenfield LNG site in the US, and we are very excited to kick off this process."

"Whitehall is honoured to have been selected by the Pointe LNG team as a partner and advisor", said Jonathan Cody, co-founder

and head of investment banking at Whitehall. "In addition to being one of the most competitive projects in the market from a build cost and delivered LNG price perspective, Pointe LNG represents the best combination of project size, delivery timeframe, and execution certainty to both investors and LNG purchasers."

Financial closure of the development capital part of the transaction is targeted for 3Q20, with a final investment decision (FID) earmarked for mid-2022 and the startup of commercial operations in 2026.

Mozambique LNG gets funding

Total is believed to be about to receive \$15 bill of financing for the \$23 bill Mozambique LNG project.

This first phase of the financing commitment involves about 20 banks, according to sources.

These include Rand Merchant Bank, Standard Bank Group and Societe Generale, which is acting as the financial adviser.

Dele Kuti, Standard Bank's global head of oil and gas, talking with Reuters, said the company was "...pleased to see the progress" on achieving final credit approvals for the Mozambique LNG project, without confirming details of the financing.

"We have also approved large participations in Mozambique LNG's ECIC and commercial tranches. We look forward to signing the facilities in the next few weeks," Kuti said.

A Mozambique LNG project spokeswoman said work was due to resume next month after a coronavirus outbreak at the site, but didn't respond to questions on its financing.

First production is scheduled for 2024.

The US Export-Import Bank had approved a \$4.7 bill loan to back US suppliers involved in the project, while Japan Bank for International Co-operation will provide \$3 bill, Mozambique state-owned newspaper Jornal Noticias reported last week.

Area 1 LNG will generate about \$38 bill in revenue for Mozambique's Government over its lifetime, according to a Finance Ministry forecast.

This will be supplemented by sales from a larger project led by ExxonMobil and planned in the neighbouring Area 4 offshore block. ■

Golar releases first sustainability report

Golar has published its Sustainability Report on its website.

This move was made to enhance Golar LNG's sustainability disclosures and to permit the development of environment, social and governance ratings (ESG) targets, the company explained.

After consulting with investors and internal focus groups to develop the right KPIs, Golar identified five priority focus areas and reported key facts and figures about the 2019 ESG performance for each one, thus -

- **Health, Safety, & Security:** Golar's number one priority is maintaining safety through learning and co-operation, fostering a sense of community, and minimising risk. In 2019, Golar reported zero serious marine incidents or fatalities and a lost-time injury frequency (LTIF) of .86 per mill exposure hours.
- **Environmental Impact:** Golar operates responsibly and prioritises working with charterers to make commercial decisions that limit the environmental footprint, including operating vessels predominantly on LNG. In 2019, Scope 1 emissions for the entire fleet totalled 1.89 mill tonnes.
- **Energy Efficiency & Innovation:** Golar maximises energy efficiency by re-purposing its

vessels, which extend their life and prevents recyclings, by incorporating new technology, including the use of heat recovery steam generators on FLNGs to recover energy from liquefaction trains, by conducting trim optimisation studies on its carrier fleet, and by developing a seawater discharge turbine for FSRUs that produces clean energy to improve system efficiency.

Through the 50% owned subsidiary, Golar Power, the company is also working to develop modern and efficient LNG fuelled power and transportation solutions for industrial and public use that significantly lower global energy and transportation costs and materially reduce their environmental footprint.

- **People & Communities:** Golar follows fair hiring practices and encourages learning and development across its diverse workforce. In 2019, a high retention rate was achieved of more than 95% for offshore crew.
- **Governance & Ethics:** Golar is committed to transparency, human rights, anti-bribery, and anti-corruption. To supplement the oversight efforts of the management team and the

Board, the company has established a dedicated Safety, Environment and Ethics Committee to oversee the ESG performance, reporting, and key initiatives.

For each of the five areas, Golar is also undertaking an exercise to set appropriate long-term ESG reporting targets by 2021 in consultation with shareholders, charterers, and other key stakeholders.

Iain Ross, Golar LNG CEO, commented: "Sustainability is at the core of Golar's mission to champion LNG as a key transition fuel to a cleaner energy future. Introducing ESG disclosures and prioritising five ESG focus areas for future development reflects our commitment to meeting investors' expectations for measurable performance data.

"We have always worked closely with our stakeholders to minimise our environmental impact, keep people safe, improve quality of life, and uphold the strictest ethical standards. (This) announcement is the next step in providing transparency for the world to assess our performance. Looking ahead we will announce formal medium and long-term targets in 2021," he said. ■

RS unveils service for membrane LNG tanks

Russian Maritime Register of Shipping (RS) has introduced a General Approval for Ship Application (GASA) service for membrane LNG cargo containment systems.

Under this new service, RS will consider the structure and strength of the membrane system elements, methods of structure's temperature and sloshing loads calculations plus the approval of new structural design solutions.

At the design concept stage, GASA lays the groundwork for further smooth and efficient classification, RS said.

"Membrane gas storage and transportation tanks are LNG technologies' most demanded area of

development. We are now providing new opportunities for prompt decisions on technical issues, as early as at the membrane system design stage. The new service enables our customers to team up with RS experts and integrate new technical solutions," said RS LNG Technologies Department head, Maksim Boyko.

Today, RS co-operates with the largest shipbuilding yards in the Asia/Pacific region, as well as with leading companies involved in LNG cargo storage and sea transporta-

tion systems.

"Through our close co-operation with shipyards, design offices and shipowners, we consistently improve RS Rules with due account for new technologies, materials and equipment. Currently, our documents include a full range of up-to-date class notations and the relevant requirements for Arctic gas carriers, including cargo containment systems, propulsion and hull," said RS Director General, Konstantin Palnikov. ■

Teekay LNG reports strong operating results

Teekay LNG Partners suffered a GAAP net loss of \$33 mill and GAAP net loss per common unit of \$0.50 in the first quarter of this year.

Adjusted net income was \$52.2 mill and adjusted net income per common unit was \$0.58, excluding a \$45 mill non-cash vessel write-down, plus other items.

Total adjusted EBITDA was \$188.4 mill in 1Q20, representing another quarterly record-high and up nearly 20% from the same quarter of 2019, the company said.

With the recent charter of the 52%-owned 'Marib Spirit', the Partnership's LNG fleet is now 100% chartered on fixed-rate contracts for the remainder of 2020; and a 94% charter coverage for 2021.

"Teekay LNG continues to record strong operating results with the completion of our growth programme and our assets operating as expected, earning reliable cash flows for the Partnership," commented Mark Kremin, Teekay Gas Group President and CEO. "While the unprecedented recent global events are clearly a major area of focus for us, our long-term

contract cover has ensured that they have had a minimal impact on Teekay LNG's operations and cash flows so far in 2020, and we expect this to continue.

"We are very proud of how our dedicated seafarers and onshore colleagues have responded to COVID-19, implementing new standards which focus on the health and well-being of everyone involved in our organisation, especially our colleagues at sea, while maintaining consistently safe and efficient vessel operation for our customers.

"I am pleased with the steps taken this quarter to strengthen our commercial position with three new fixed-term LNG charters and to increase our financial flexibility with the refinancing of our unsecured revolver at the same size and pricing despite the volatility in our markets.

"Our LNG fleet is now 100% fixed on 'take-or-pay' charters

with high-quality customers and with over \$370 mill in total liquidity as of 31st March, 2020, we believe we are well-positioned to meet our upcoming debt maturities without the need to access the public capital markets until later next year, while maintaining a strong financial foundation.

"Given the long-term stability of our business model, we are today reaffirming our fiscal 2020 financial guidance which projects an increase in adjusted net income of approximately 48% over 2019," he concluded.

As of 31st March, 2020, the Partnership had total liquidity of \$372.7 mill, comprised of \$312.7 mill in cash and cash equivalents and \$60.0 mill in undrawn credit facilities, up from \$326.4 mill as of 31st December, 2019.

***Both Golar LNG and Hoegh LNG are due to announced their 1Q20 results on 28th May after LNG SN has gone to press. ■

COSCO Shipping Heavy Industry enhances LNGC technology

COSCO Shipping Heavy Industry (CHI) and GTT have enhanced their strategic co-operation agreement signed several years ago.

CHI, through its shipyard Cosco Zhoushan, was already qualified by GTT as an approved repair yard, and this year plans to qualify another shipyard in the group.

With the support of GTT, in 2017 the shipyard upgraded the first Mark III LNGC, which was claimed to be a breakthrough for Chinese shipyards in this field. Since then it has continued to market its LNG related projects capabilities.

In another move, CHI and CSSC Hudong-Zhonghua Shipbuilding have signed an LNGC construction and repair co-operation framework agreement.

This aims to promote the two parties' co-operation in the shipbuilding and shiprepair sectors, which is claimed to be helpful in establishing a large size LNGC shiprepair base and to promote the advancement of shiprepair technology.

"Hudong-Zhonghua Shipbuilding has been providing shiprepair services to Cosco Shipping Heavy Industry and its subsidiaries for a long time. The co-operation has a significant meaning to us to enhance market competitiveness," said Liang Yanfeng, CHI general manager. ■

NEWS NUDGE

France LNG Shipping takes delivery of first LNGC

On 15th May, 2020, Hyundai Samho delivered the 174,000 cu m LNGC 'Elisa Larus' to France LNG Shipping.

This marks France LNG Shipping's, jointly owned by NYK and Geogas LNG, first long-term LNGC charter to EDF LNG Shipping, which is due to last for up to 20 years.

Flying the French flag, she is fitted with a GTT Mark III Flex cargo containment system and a dual-fuel slow-speed engine - WinGD X-DF.

In addition, the vessel has been awarded Bureau Veritas' (BV) cyber security notation, which is claimed to be the first such notation awarded to an LNGC.

The BV cyber notations pro-

vide procedures and methodologies to address design and operational requirements for cyber security in compliance with IMO 2021 requirements, as well as the new IACS recommendation 166.

Grain LNG launches open season second phase

UK National Grid's Grain LNG import terminal has launched the second phase of its ongoing open season.

Bids have been invited for up to 7.2 mill tonnes per annum of redelivery capacity and 380,000 cu m of associated storage, to be made available from mid-2025.

The capacity on offer is a combination of new and existing capacity, which is out of contract in 2025. This expansion will



France LNG has taken delivery of its first newbuilding

increase the size of the River Medway LNG terminal to about 1.2 mill cu m.

Nicola Duffin, Grain LNG Commercial Manager, said that final and binding bids are required by 15th June, 2020. ■

LNG rate assessments

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

Region	This week	Change*
East of Suez	\$30,000	-\$1,000
West of Suez	\$32,000	-\$3,000
12 mos T/C	\$43,000	-\$1,000

*Since last report (14/05/20)

Source: Fearnleys (27/05/20)

The background is a photograph of a large white and blue LNG carrier ship docked at a terminal. The ship is connected to a complex network of pipes and structures. In the foreground, there is a large blue triangular graphic containing a white technical drawing of a circular component, likely a compressor or expander, with various dimensions and labels. The scene is set against a backdrop of mountains and a body of water under a hazy sky.

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WORLD LNG CARRIER ORDERBOOK

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Amberjack Lng	GTT Mark III Flex	Hyundai	XDF	174000	01/04/2020	Cardiff Marine
Gaslog Wales	GTT Mark III Flex	Samsung	XDF	180000	01/04/2020	GasLog
Qogir	GTT Mark III Flex	Samsung	XDF	174000	01/04/2020	Cardiff Marine
Elisa Larus	GTT Mark III Flex	Hyundai	XDF	174000	01/04/2020	NYK
Bonito Lng	GTT Mark III Flex	Hyundai	XDF	174000	01/04/2020	Cardiff Marine
Maran Gas Psara	GT NO 96	DSME	MEGI	173400	01/04/2020	Maran Gas Maritime
Gaslog Windsor	GTT Mark III Flex	Samsung	XDF	180000	15/04/2020	GasLog
Global Energy	GT NO 96	DSME	MEGI	173400	01/05/2020	Nakilat
Traiano Knutsen	GTT Mark III Flex	Hyundai	MEGI	180000	01/06/2020	Knutsen
Flex Aurora	GTT Mark III Flex	Hyundai	XDF	174000	01/06/2020	Flex LNG
Bw Pavilion Aramhera	GT NO 96	DSME	MEGI	173400	01/06/2020	BWGas
Flex Amber	GTT Mark III Flex	Hyundai	XDF	174000	01/07/2020	Flex LNG
Lng Phecda	GT NO 96	Hudong-Zhonghua	MEGI	174000	01/07/2020	MOL
SHI Gaslog #2	GTT Mark III Flex	Samsung	XDF	180000	15/07/2020	GasLog
SHI #1	GTT Mark III Flex	Samsung	XDF	174000	15/07/2020	Cardiff Marine
Scf Barents	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2020	Sovcomflot
Energy Pacific	GT NO 96	DSME	MEGI	173400	01/08/2020	Alpha Gas
Flex Artemis	GT NO 96	DSME	MEGI	173400	01/08/2020	Flex LNG
Flex Resolute	GT NO 96	DSME	MEGI	173400	01/08/2020	Flex LNG
Vivit Americas Lng	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2020	Cardiff Marine
Diamond Gas Metropolis	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2020	NYK
Flex Freedom	GT NO 96	DSME	MEGI	173400	01/09/2020	Flex LNG
Cool Discoverer	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2020	Thenamaris
Samsung 2297	GTT Mark III Flex	Samsung	XDF	180000	01/10/2020	Celcius Shipping
Samsung 2300	GTT Mark III Flex	Samsung	XDF	174000	01/10/2020	GasLog
Aristos I	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2020	Capital Gas
Yiannis	GT NO 96	DSME	MEGI	173400	01/10/2020	Maran Gas Maritime
Samsung 2276	GTT Mark III Flex	Samsung	XDF	174000	01/10/2020	Cardiff Marine
LNG Megnez	GT NO 96	Hudong-Zhonghua	MEGI	174000	01/10/2020	MOL
Aristidis I	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2020	Capital Gas
Global Star	GT NO 96	DSME	MEGI	173400	01/11/2020	Nakilat
Flex Volunteer	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2020	Flex LNG
Daewoo 2498	GT NO 96	DSME	MEGI	180000	01/12/2020	MOL
Hyundai Samho 8008	GTT Mark III Flex	Hyundai	XDF	174000	01/12/2020	Sovcomflot
Samsung 2301	GTT Mark III Flex	Samsung	XDF	174000	01/12/2020	GasLog
Energy Endeavour	GT NO 96	DSME	MEGI	173400	01/12/2020	Alpha Gas
Daewoo 2481	GT NO 96	DSME	MEGI	173400	01/12/2020	Minerva Marine
Celcius #2	GTT Mark III Flex	Samsung	XDF	180000	15/12/2020	Celcius Shipping
Lngships Athena	GTT Mark III Flex	Hyundai	XDF	174000	01/01/2021	Cardiff Marine
Cool Racer	GTT Mark III Flex	Hyundai	XDF	174000	01/01/2021	Thenamaris
Samsung 2304	GTT Mark III Flex	Samsung	XDF	174000	01/01/2021	Minerva Marine
Samsung 2313	GTT Mark III Flex	Samsung	XDF	180000	01/02/2021	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 = 1st April 2020

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Bw Lesmes	GT NO 96	DSME	MEGI	174000	01/02/2021	BWGas
Daewoo 2499	GT NO 96	DSME	MEGI	180000	01/02/2021	MOL
Cobia Lng	GTT Mark III Flex	Hyundai	XDF	174000	15/02/2021	Cardiff Marine
DSME Minerva #2	GT NO 96	DSME	MEGI	173400	15/02/2021	Minerva Marine
Marvel Swan	GTT Mark III Flex	Samsung	XDF	173400	01/03/2021	Navigare
Bw Helios	GT NO 96	DSME	MEGI	174000	01/03/2021	BWGas
Hyundai Samho 8039	GTT Mark III Flex	Hyundai	XDF	174000	01/03/2021	Latsco Shipping
Hyundai Ulsan 3039	GTT Mark III Flex	Hyundai	XDF	174000	01/03/2021	Cardiff Marine
Flex Vigilant	GTT Mark III Flex	Hyundai	XDF	174000	01/03/2021	Flex LNG
SHI #18	GTT Mark III Flex	Samsung	XDF	174000	15/03/2021	Cardiff Marine
Aristarchos	GTT Mark III Flex	Hyundai	XDF	174000	15/03/2021	Capital Gas
Samsung 2302	GTT Mark III Flex	Samsung	XDF	174000	01/04/2021	NYK
Celcius #4	GTT Mark III Flex	Samsung	XDF	180000	15/04/2021	Celcius Shipping
DSME 2485	GT NO 96	DSME	MEGI	173400	15/04/2021	Alpha Gas
Hyundai Samho S971	GTT Mark III Flex	Hyundai	XDF	174000	01/05/2021	NYK
Diamond Gas Crystal	GTT Mark III Flex	Hyundai	XDF	174000	01/05/2021	NYK
Daewoo 2501	GTT Mark III Flex	DSME	MEGI	174000	01/06/2021	Maran Gas Maritime
Hudong-zhonghua H1827a	GT NO 96	Hudong-Zhonghua	XDF	174000	01/06/2021	CSSC
Daewoo 2495	GT NO 96	DSME	XDF	174000	01/06/2021	Maran Gas Maritime
Daewoo 2500	GT NO 96	DSME	MEGI	174000	01/06/2021	Alpha Gas
SHI Gaslog CE #1	GTT Mark III Flex	Samsung	XDF	180000	15/06/2021	GasLog
Attalos	GTT Mark III Flex	Hyundai	XDF	174000	15/06/2021	Capital Gas
Adamastos	GTT Mark III Flex	Hyundai	XDF	174000	01/07/2021	Capital Gas
DSME MOL #3	GT NO 96	DSME	MEGI	173400	15/07/2021	MOL
Asterix 1	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2021	Capital Gas
SHI Gaslog CE #2	GTT Mark III Flex	Samsung	XDF	180000	15/08/2021	GasLog
Hyundai Ulsan 2939	GTT Mark III Flex	Hyundai	XDF	180000	01/09/2021	SK Shipping
Daewoo 2504	GT NO 96	DSME	XDF	174000	01/09/2021	Maran Gas Maritime
Daewoo 2502	GTT Mark III Flex	DSME	XDF	173400	01/09/2021	Nakilat
Samsung 2305	GTT Mark III Flex	Samsung	XDF	174000	01/09/2021	Minerva Marine
Diamond Gas Victoria	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2021	NYK
Hyundai Samho 8040	GTT Mark III Flex	Hyundai	XDF	174000	01/09/2021	Latsco Shipping
Samsung 2355	GTT Mark III Flex	Samsung	XDF	174000	01/10/2021	NYK
Daewoo 2507	GT NO 96	DSME	XDF	174000	01/10/2021	Maran Gas Maritime
Hyundai Ulsan 3111	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2021	Capital Gas
Samsung 2306	GTT Mark III Flex	Samsung	XDF	174000	01/10/2021	NYK
Hyundai Ulsan 3157	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2021	Tsakos Energy Navigation
Samsung 2315		Samsung	XDF	174000	01/12/2021	
Hyundai Samho 8025	GTT Mark III Flex	Hyundai	XDF	174000	01/12/2021	Hanjin Shipping
Daewoo 2503	GTT Mark III Flex	DSME	XDF	173400	01/12/2021	Nakilat
Samsung 2307	GTT Mark III Flex	Samsung	XDF	174000	01/12/2021	NYK
Daewoo 2508	GT NO 96	DSME	XDF	174000	01/01/2022	Maran Gas Maritime
Hyundai Samho 8032	GTT Mark III Flex	Hyundai	XDF	174000	01/01/2022	NYK

Name	Containment system	Yard	Propulsion	Capacity	Delivery date	Primary Owner
Samsung 2336	GTT Mark III Flex	Samsung	XDF	174000	01/01/2022	JP Morgan
Hyundai Ulsan 3137	GTT Mark III Flex	Hyundai	XDF	200000	01/01/2022	Dynagas
Hudong-zhonghua H1828a	GT NO 96	Hudong-Zhonghua	XDF	174000	01/01/2022	CSSC
Samsung 2332	GTT Mark III Flex	Samsung	XDF	174000	01/01/2022	Minerva Marine
Hyundai Samho 8026	GTT Mark III Flex	Hyundai	XDF	174000	01/02/2022	Hanjin Shipping
Hyundai Samho 8033		Hyundai	XDF	173000	01/03/2022	NYK
Samsung 2316		Samsung	XDF	174000	01/03/2022	
Samsung 2319	GTT Mark III Flex	Samsung	XDF	174000	01/03/2022	Nisshin Shipping
Hudong-zhonghua #1	GT NO 96	Hudong-Zhonghua	XDF	80000	01/04/2022	K-Line
Hyundai Ulsan 3138	GTT Mark III Flex	Hyundai	XDF	200000	01/04/2022	Dynagas
DSME May19	GT NO 96	DSME	MEGI	174000	15/05/2022	Maran Gas Maritime
Hudong-zhonghua #2	GT NO 96	Hudong-Zhonghua	XDF	80000	01/06/2022	K-Line
Samsung 2317		Samsung	XDF	174000	01/06/2022	
Hyundai Ulsan 3145	GTT Mark III Flex	Hyundai	XDF	180000	01/07/2022	SK Shipping
Samsung 2337	GTT Mark III Flex	Samsung	XDF	174000	01/07/2022	JP Morgan
Hyundai Samho 8091	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2022	Knutsen
Hyundai Ulsan 3185	GTT Mark III Flex	Hyundai	XDF	174000	01/08/2022	Korea Line
Daewoo 2509	GT NO 96	DSME	MEGI	174000	01/08/2022	BWGas
Samsung 2318		Samsung	XDF	174000	01/09/2022	
Daewoo 2510	GT NO 96	DSME	MEGI	174000	01/09/2022	BWGas
Hyundai Ulsan 3187	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2022	JP Morgan
Hyundai Samho 8092	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2022	Knutsen
Hyundai Ulsan 3186	GTT Mark III Flex	Hyundai	XDF	174000	01/10/2022	Korea Line
Hyundai Ulsan 3188	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2022	JP Morgan
Hyundai Samho 8093	GTT Mark III Flex	Hyundai	XDF	174000	01/11/2022	Knutsen
Hyundai Samho 8094	GTT Mark III Flex	Hyundai	XDF	174000	01/12/2022	Knutsen
Samsung 2364	GTT Mark III Flex	Samsung	XDF	174000	01/01/2023	MISC
Samsung 2365	GTT Mark III Flex	Samsung	XDF	174000	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 = 1st April 2020



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LNG Unlimited Data

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 Innvation	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 = 11th May 2020

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	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	CNTIC VPOWER Global	28,000	LNG	Myanmar	Yes	Dalian Inteh Group
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	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
2021	TBN	18,600	LNG	Mediterranean	Yes	MOL
2021	TG TBN	500	LNG	Korea	Yes	Trans Gas
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 = 11th May 2020