

# LNG Shipping News

An LNG JOURNAL TITLE ON LNG CARRIERS

19 March 2020

## Natural gas price forecasts lowered

Oslo based consultancy Rystad Energy lowered its forecasts for natural gas prices in Europe and Asian spot LNG last week amid concerns about the spread of the coronavirus.

The latest forecast for the European benchmark price, the Dutch TTF, is \$3.95/mmBtu, down 29% from a previous estimate in January.

Asian spot LNG prices are predicted to average \$4.63/mmBtu this year, \$1.69 lower than the previous forecast, while the average LNG price for April delivery into northeast Asia was estimated to be at around \$3/mmBtu.

"Europe is reaching a limit on how large additional gas volumes it can take, as Russian volumes remain high, storages are full, and temperatures stay mild," said Carlos Torres-Diaz, Rystad Energy's head of gas and power markets.

In another report, Bloomberg warned that more than a dozen proposed LNG export projects from the US to Mozambique are at risk of being delayed or scrapped, due to the drop in crude prices to levels that would make most of them unprofitable.

If fewer projects come to fruition, that would ease a widening LNG supply glut forecast for later this decade and potentially lift prices amid rapid demand growth in Asia.

Almost 20 proposed export plants are vying for a shrinking capital pool after a record number of terminals reached final investment decisions (FIDs) last year. Before the crude price drop, developers were under pressure from a slump in global gas prices, milder winter temperatures and demand restraints from the coronavirus.

"With significant downward pressure on spot LNG prices and oil prices, it could be the double-whammy that really starts to make some projects seem uneconomic," Jeff Moore, a S&P Global Platts analyst, said in an email to the newswire. "If oil prices stay low for much of this year, I would imagine it could have a material impact on supply projects looking to reach FID this year."

Before oil's recent price crash, BloombergNEF had earmarked four projects as highly likely to reach FID in 2020, while another 15 were seen as potential candidates or 'wildcards,' according to a report published last month.

Most developers are looking to sell LNG at \$8/mmBtu, which has become difficult under today's market prices, analysts said.

On the other hand, fewer LNG projects taking a FID in 2020 and 2021 will likely translate into lower global supply between 2024 and 2027, Giles Farrer, research director at WoodMac, said last week in another report.

### Tough call

For example, it will be 'tougher' for US LNG terminal developer Cheniere Energy to finalise contracts for expansion of its Texas export terminal, CEO, Jack Fusco said on a call with analysts last month. Cheniere will not give its next project the green light until contracts are in place, he said.

Meanwhile, shares of another



Cheniere's Jack Fusco is facing tough decisions

US developer, Tellurian, have crashed after the company failed to finalise a key supply deal with Indian interests late last month for its \$29 bill Driftwood export project (see page 3).

The company was forced to cut almost 40% of its workforce and FID could be delayed by at least a year.

US LNG exporters are thus far not reporting any slowdown in business, but Canada LNG has cut its workforce by half at its Kitimat, BC project.

Futures for the Japan-Korea Marker, a benchmark for LNG delivered to northern Asia, were down about 50% over the last year to \$3.14/mmBtu. An LNG contract with a 12% slope to Brent crude is currently at about \$3.93, compared with \$8.27 in early January.

Meanwhile, Nigeria recently confirmed that 12 LNG cargoes have yet to find buyers.

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# India to import record LNG volumes

India was set to import record volumes of LNG last month in an effort to take advantage of its price hitting all-time lows, due to the virus outbreak dampening demand in China.

The country was expected to import about 2.36 mill tonnes in February, shiptracking data from Refinitiv Eikon showed, which would exceed India's LNG imports in October of about 2.3 mill tonnes, the previous highest monthly total.

India's annual LNG imports were expected to rise by 10-15% this year, said Poorna Rajendran of consultancy firm FGE, talking with Reuters.

"The low spot prices are creating some downstream demand especially from the city-gas sector," one source told Reuters.

Asian spot LNG prices have fallen to a record low after China's top LNG buyer, PetroChina, declared *force majeure* on some LNG deliveries following the



Indian imports will rise still further when Jaigarh comes on stream

coronavirus outbreak.

As a result, some of the cargoes bound for China were diverted to India and also some Indian buyers issued tenders for spot cargoes, traders said. Some were even looking for cargoes for several months.

For instance, Reliance

Industries issued a tender for five cargoes for April to June delivery, while Gujarat State Petroleum Corp (GSPC) sought nine cargoes for February to April, traders said.

The potential spike in demand also likely prompted Emirates National Oil Company (ENOC) to issue a tender seeking

eight cargoes for delivery into India between April to November, traders said.

However, infrastructure constraints will limit Indian buyers' LNG purchases, FGE's Rajendran said. "This remained a key bottleneck in 2019 when low spot prices struggled to boost India's LNG demand significantly. The start-up of Mundra LNG terminal and H-Energy's Jaigarh terminal and the completion of GAIL's Kochi-Mangaluru pipeline will determine Indian LNG demand growth in 2020," he stressed.

India wants to raise the proportion of gas used in its energy mix as it battles against high levels of pollution in many big cities and is working to expand the country's pipeline network and build new terminals. ■

## First Gen in LNG terminal permit request

FGEN LNG Corp is seeking the Philippines Department of Energy's (DOE) approval to allow it to start the construction of its planned LNG terminal.

The wholly owned subsidiary of First Gen Corp filed an application for a permit to construct, expand, rehabilitate and modify (PCERM) an interim offshore LNG terminal within the First Gen Clean Energy Complex in Batangas City on 5th March.

When issued, the permit will allow the company to modify an existing fuel jetty that will enable it to become a multi-use facility, allowing the handling of large and

small-scale LNGCs, as well as fuel tankers, and build an adjacent onshore gas receiving facility.

"FGEN LNG anticipates that, if the PCERM is granted by the DOE, it will be able to commence construction as early as May of this year, in order to be able to receive LNG as early as the third quarter of 2022," the company said.

The plan is to modify First Gen's existing jetty to enable LNG to be discharged via an FSRU

on an interim basis and, thus, accelerate FGEN LNG's ability to introduce LNG to the Philippines.

"FGEN LNG believes that the project, and the early entry of LNG, will play a critical role in ensuring the energy security of the Luzon Grid and the Philippines, particularly as the indigenous Malampaya gas resource is expected to be less reliable in producing and providing sufficient fuel supply

for the country's existing gas fired power plants, and even less so for additional gas fired power plants," First Gen explained.

"The entry of LNG will encourage new gas fired power plant developments, as well as industrial and transport industries to consider it as a replacement to more costly and polluting fuels," it added.

The company has completed pre-development work to make the site construction ready. ■

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## NEWS NUDGES

### Port Arthur LNG liquefaction terminal expansion

The US Federal Energy Regulatory Commission (FERC) has issued a notice saying that it had received an application from the Port Arthur LNG Phase II, LLC and PALNG Common Facilities Company, LLC requesting authorisation to expand the Port Arthur LNG liquefaction terminal.

Comments must be received by 25th March.

### GasLog declares dividend

GasLog Ltd's Board has declared a dividend of \$0.546875 per share on its 8.75% Series A Cumulative Redeemable Perpetual Preference Shares, payable on 1st April, 2020 for all shareholders of record as of 31st March, 2020.

GasLog Ltd and GasLog Partners plans to host an investor day on 7th May in New York City has been postponed.

A new date will be announced in due course.

### Taiwan receives LNG shipment

State-owned CPC Corp reportedly said that it had received a 64,000 tonne gas cargo at the Yung-An LNG receiving terminal in Kaohsiung.

This cargo was part of an ongoing deal between CPC and the Singapore-based Shell Eastern Trading Pvt Ltd.

Vice President Shell LNG Marketing & Trading, Slavko Preočanin, said "We are very happy to be partnering with CPC to further extend our carbon neutral LNG offer. Using nature-based offsets in conjunction with LNG will help CPC to address their own emissions today and support the needs of their end customers looking to de-carbonise their energy use."

# Tellurian beefs up leadership team - tightens belt

Tellurian has appointed two new executive leadership team members following an announcements regarding cutbacks.

Kian Granmayeh, formerly Director of Investor Relations, is now Tellurian's CFO, responsible for financial strategy and liquidity, replacing Antoine Lafargue who will join the marketing group as Senior Vice President of LNG Marketing to advance commercialisation of the Driftwood project.

Before joining Tellurian in January, 2019, Granmayeh worked at Apache Corp for four years in various roles. Previously, he was a Vice President at Lazard Freres & Co.

Amos Hochstein, formerly Senior Vice President of LNG Marketing, is now Tellurian's Executive Vice President of LNG Marketing, leading the LNG marketing and partnership interests from Driftwood LNG.

Prior to joining Tellurian in 2017, he served as the US Special Envoy for International Energy Affairs and led the US Department of State's Bureau of Energy Resources, where he oversaw global energy foreign policy engagement and advised the US Secretary of State and the Vice President on global energy markets.



Tellurian's CEO is overseeing cutbacks

Earlier, Tellurian had unveiled plans to reduce corporate spending and reorganise financing for its 2019 term loan, as it prepares for uncertain market conditions.

President and CEO, Meg Gentle, explained, "Given current global financial market conditions and increasing restrictions on travel caused by the onset of Coronavirus, we are taking the steps necessary to focus on preserving the value we have created at Tellurian and Driftwood LNG."

"To this end we will reduce our corporate overhead to

approximately \$6 mill per month and have initiated discussions with our lender to extend the maturity of our 2019 term loan due in May, 2020," she said.

Tellurian's core business continues to rely on low-cost US natural gas and a premier location on the Gulf Coast that can be built by Bechtel for \$560 per tonne, making it possible for Tellurian to load LNG on the water for \$3 - \$4 per mmBtu.

Gentle added, "We have just returned from a visit to India, where we continued discussions with Petronet and agreed to extend our MOU to 31st May, 2020. We continue to see very strong growth in LNG demand from Asia in general, and India in particular, in spite of world conditions."

"We are highly confident that when travel restrictions are eased, we will be able to finalise several negotiations to complement the Petronet agreement and allow us to reach final investment decision (FID). With the new corporate overhead structure, we have a long runway to execute on our business model," she concluded. ■

## Myanmar's receiving terminal on track

The terminal to dock LNGCs to supply gas for 350 MW LNG power plant in Myanmar's Thilawa Special Economic Zone is about 40% complete.

It is one of the electric power projects implemented by Myanmar to fulfill the electricity requirement for the summer of this year.

V-Power Co Ltd is building the power plant and the inspection team led by Khin Maung Win,

Deputy Minister for Electricity and Energy, checked its progress during the first week of March.

About 15% of the regasification installation process unit, 85% of the foundation to install high and medium speed generators, up

to 90% of the installation of a 20 inch natural gas pipeline and 35% of the sub-power station construction, were finished, the ministry said.

In addition, contracts were awarded for five gas-fired power plants in Myanmar. ■

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# Isle of Grain reaches milestone

On 12th March, Grain LNG welcomed its 500th LNGC since it opened for business 14 years ago.

The vessel involved was the 'LNG Merak', which berthed at the River Medway facility in Kent, UK.

Simon Culkin, National Grid Grain LNG Importation Terminal Manager, said: "We're delighted to confirm that on Thursday 12th March,

2020, we welcomed the 500th ship at our LNG importation terminal on the Isle of Grain.

"The 'LNG Merak' berthed today delivering cargo from Zeebrugge, and is the 22nd ship to arrive at Grain this year.

"Since commissioning our terminal in 2005, we

have taken delivery of LNG from 13 countries, further strengthening the diversity and security of UK gas supplies.

"LNG imports into the UK increased by about 64% in 2019 versus 2018, contributing to a decrease in the wholesale (NBP) gas price of approximately 55%.

"LNG delivers much needed flexibility and energy reliability, enabling the integration of intermittent renewable energy and provides access to affordable energy.

"We're very proud that LNG, supported by our extensive infrastructure at Grain, will play a key role in enabling the UK to reach net zero carbon by 2050 by reducing carbon intensity across all segments of the energy system," he concluded. ■



'LNG Merak' helped the Isle of Grain to a record

# Golar Power's Suape LNG terminal moves closer

On 13th March, Golar Power Limited signed a Protocol of Intentions with the Pernambuco State Government to develop an LNG import terminal at Suape, located in the northeast of Brazil.

With operations scheduled to start in the second half of this year, the project includes infrastructure for the supply of natural gas and LNG to generate electricity.

To this end, Golar Power will work in partnership with the local gas distribution company, Companhia Pernambucana de Gás Natural (Copergás) to bring natural gas to areas of the State that are not yet served by traditional pipeline networks. The project is expected to use the existing port infrastructure owned by the State Government.

Pernambuco State has an estimated population of 9.6 mill people. If successfully developed, the terminal is expected to benefit the economy of cities in the state's interior, in regions not served by pipeline, where natural gas will be delivered by road using LNG ISO containers.

Golar Power plans to provide LNG to the interior of the country through a plan that

contemplates the Northeast being a priority region for small-scale distribution.

Suape is already Brazil's largest hub for liquid bulk and gases and it is to become one of the main LNG distribution hubs in the Northeast, with full integration of sea and land transport.

The terminal intends to use an existing LNGC, probably the 'Golar Mizo' permanently berthed at Suape Port. The vessel will act as a supplier to truck mounted LNG ISO containers. LNG will also be distributed from Suape to other states in Brazil, through cabotage using small-scale LNGCs that will tranship gas and transport LNG to other ports in the region.

Capex for the project is expected to be funded from Golar Power's internal resources and operating cash flow.

The project's final development remains dependent upon regulatory approvals and conclusion of commercial agreements. ■

## NEWS NUDGES

### IMO deliberations

The 7th session of IMO's Sub-Committee on Ship Systems and Equipment (SSE) was held in London from 2 to 6 March 2020.

Among the many items addressed was LNC dry chemical powder fire extinguishing systems.

SSE 7 discussed draft amendments to the 'Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquefied gases in bulk' (MSC.1/Circ.1315).

The meeting agreed to use currently available ISO standards to conduct fire tests of the dry chemical powder, including a small-scale fire test. The permitted type of dry chemical powder will be further discussed at SSE 8 (March, 2021).

All meetings at the IMO have now been postponed due to COVID-19.

### ASYAD consolidates LNC owner and shipyard

ASYAD Group has integrated LNC shipowner Oman Shipping Company (OSC) with repairer Oman Drydock Company (ODC).

This move is in alignment with the Group's strategy to offer integrated and highly efficient services, it said.

Engineer Abdulrahman Salim Al Hatmi, ASYAD Group CEO, said: "This move towards integration aims to raise the Group's efficiency and boost its economic and financial performance; ensuring its commercial sustainability and agility, while contributing to the national economy. We strive to advance the Government's diversification plans-increasing economic prosperity while supporting the private sector in the Sultanate.

"Our Group's main objective is to fortify the Sultanate's position as a logistic gateway to MENA markets, placing ASYAD Group as the first choice for customers requiring globally-proven, integrated and trusted services. The Group is constantly reviewing its operational, commercial and financial performance to remain adaptive to macro developments and keep pace with industrial trends nationally, regionally and globally," Al Hatmi concluded.

# Dynagas reports higher income

Dynagas LNG Partners has reported fourth quarter 2019 net income of \$5.5 mill, compared to a net loss of \$0.9 mill in the corresponding period of 2018.

This represents an increase of \$6.4 mill, or 711.1%, which was mainly attributable to the rise in voyage revenues, as well as the decrease in drydocking and special survey costs and finance costs for the quarter.

Adjusted net income and distributable cash flow for the quarter were \$5.6 mill and \$10.2 mill, respectively, compared to \$1.3 mill and \$5.5 mill, respectively, in 4Q18, which represents a net increase of \$4.3 mill or 330.8% and a net increase of \$4.7 mill or 85.5%, respectively.

Voyage revenues for 4Q19 were \$34.3 mill, compared to \$31 mill for the corresponding period of 2018, which represents an increase of \$3.3 mill, mainly as a result of the higher revenues earned on 'Lena River' as a result of its delivery to a multi-year contract with Yamal Trade Pte in July, 2019.

Dynagas also reported average daily hire gross of commissions of around \$62,200 per day per vessel in the three-month period, compared to about \$57,500 per day per vessel in 4Q18.

Adjusted EBITDA for 4Q19 was \$24 mill, compared to \$21.6 mill for the corresponding period of 2018. This increase was mainly due to the net effect of the rise in revenues and increase in the vessel's operating expenses.

During the three month period, the Partnership generated net cash from operating activities of \$13.5 mill, compared to \$9



'Arctic Aurora's' charter is due to expire next year

mill in the corresponding period of 2018, which represents an increase of \$4.5 mill, or 50%.

As of 31st December, the Partnership reported total cash of \$66.2 mill, including \$50 mill of restricted cash.

## Repaid notes

During 4Q19, Dynagas repaid the \$250 mill aggregate principal amount of its 6.25% senior unsecured notes at their maturity. The Partnership's outstanding debt at the end of the year under the credit facility, amounted to \$663 mill, gross of unamortised deferred loan fees and including \$48 mill, which was repayable within a year.

CEO Tony Lauritzen said; "Upon the delivery of our vessel 'Lena River' to Yamal LNG on 1st July,

2019 pursuant to her multi-year charter, each of our six LNGCs are operating under their respective term charters with international gas producers with an average remaining contract term of 8.6 years.

"The earliest possible re-chartering availability in our fleet is in the third quarter of 2021, which is the earliest contracted re-delivery date for one of our six LNGCs ('Arctic Aurora') with the next carrier ('Clean Energy') becoming available at the earliest in the first quarter of 2026.

"The fleet performed well during the fourth quarter with a utilisation of 100%. We reported net income of \$5.5 mill for the fourth quarter and adjusted EBITDA of about \$24 mill, the latter of which is in line with our previous estimate of an annualised EBITDA of approximately \$95 mill

and which assumed that all of our vessels had been delivered pursuant to their respective long-term charters (ie, from 1st July, 2019).

"We have in place term charter contracts with international energy companies for each of our vessels that generate cash flows that may be used towards the increased amortisation requirements of our syndicated \$675 mill senior secured term loan, or the credit facility, which is expected to build equity value over time.

"As a result of our financial profile, which is intended to deleverage our debt over time, we expect to be better positioned for future growth initiatives as we expect global LNG markets to continue their robust development," he concluded. ■

# GTT signs service agreement with Excelerate

GTT SA's subsidiary, GTT North America, has signed a five-year global technical services agreement with Excelerate Energy.

GTT will support Excelerate Technical Management (ETM) with the maintenance and operation of nine FSRUs equipped with GTT's NO96 technology.

The agreement includes GTT

on-site technical assistance for inspection, maintenance, repairs, operations and engineering, as well as access to the HEARS emergency hotline, which enables shipowners and their

crews to contact GTT 24/7 to respond to operational issues.

Edward Scott, Excelerate Energy COO, said: "Excelerate Energy looks forward to continuing a nearly two decades

long relationship with GTT in direct support of our mission of providing safe and reliable world-class LNG services to our global customer base." ■

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# Air Products wins Mozambique contract

Air Products is to supply two LNG heat exchangers for the Mozambique LNG Project.

The contract was signed with the joint venture company comprising affiliates of Saipem, McDermott and Chiyoda.

The joint venture is the engineering, procurement and construction (EPC) consortium working for project sponsor, Total E&P Mozambique Area 1.

“Our LNG heat exchangers are in operation around the world, and when this project goes onstream, we can add Mozambique to the growing list of countries where we play a key

role in meeting the world’s clean energy needs through the production of LNG,” Air Products Executive Vice President, Dr Samir Serhan commented. “Our LNG business is encouraged by the activity in the market and customers should know that Air Products’ expanded manufacturing facility is capable of addressing their LNG technological needs anywhere in the world.”

Air Products will manufacture two proprietary coil wound main cryogenic heat exchangers (MCHE)

at its manufacturing plant in Port Manatee, Fla, subsequently shipping them to the project site on the Afungi Peninsula in Cabo Delgado, Mozambique.

The MCHEs will be fitted to two LNG production trains at Mozambique LNG. The liquefaction facility will be designed to produce around 13 mill tonnes of LNG per year from the Golfinho/Atum gas fields in Mozambique.

“We have been tasked with building the first onshore LNG

export facility in Mozambique and one of the most efficient facilities in the LNG space,” said Roberto Uberti, chairman of the CCS JV. “We are carefully selecting reliable and experienced technology providers and under this perspective the benefits of Air Products involvement are clearly consistent.”

Air Products said that it is also involved with Eni’s ultra-deepwater Coral South FLNG project offshore Mozambique, which is due to start production in two years. ■

# FERC issues final EIS for Alaska LNG project

The US Federal Energy Regulatory Commission (FERC) has prepared a final environmental impact statement (EIS).

This assesses the impacts of constructing and operating the Alaska LNG project proposed by the Alaska Gasline Development Corporation (AGDC).

FERC explained that the project’s purpose is to commercialise the natural gas resources of Alaska’s North Slope by converting the existing gas supply to LNG for export and providing gas for Alaskan users.

AGDC is seeking permission to build, own, and operate the following facilities in Alaska: a new gas treatment plant; a 1 mile, 60 inch diameter Prudhoe Bay unit gas transmission line; a 62.5 mile long, 32 inch diameter Point Thomson unit gas transmission line; an 806.9 mile, 42 inch diameter natural gas pipeline (mainline pipeline) and associated above ground facilities, including eight compressor stations and a heater station; and a 20 mill tonne per annum liquefaction facility, including an LNG plant and marine terminal facilities.

The mainline pipeline would terminate at the liquefaction

facilities, which would be sited on the eastern shore of Cook Inlet in the Nikiski area of the Kenai Peninsula.

Following the issuing of the final EIS, the co-operating agencies will issue subsequent decisions, determinations, permits, or authorisations for the project in accordance with each individual agency’s regulatory requirements, FERC said.

Because the project would result in significant impacts on permafrost, wetlands, forest, and caribou and since other current or reasonably foreseeable projects in the study area would similarly affect these resources, FERC said that it found that cumulative impacts on these resources would be significant.

## Freeport LNG

In another ruling, the commission said that Dock 2 at the Freeport LNG facility can enter into service.

FERC said that Freeport LNG had demonstrated that the facilities have been constructed in accordance with commission

approval and applicable standards and can be expected to operate safely as designed.

Further, based on commission staff inspections, it has been noted that the rehabilitation and restoration of the areas affected by the approved facilities are proceeding satisfactorily.

Earlier this month, FERC gave Kinder Morgan permission to begin commercial operations at Elba

Island LNG’s Train 5, following a filing on 25th February for permission to begin operations.

Last December, Kinder Morgan shipped its first LNG cargo from the delayed export plant near Savannah, Georgia.

When complete, Elba Island will be able to export 2.5 mill tonnes per year of LNG, the company said, backed by a 20-year contract with Royal Dutch Shell. ■

## LNG rate assessments

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

| Region        | This week | Change*   |
|---------------|-----------|-----------|
| East of Suez  | \$39,000  | +\$4,000  |
| West of Suez  | \$47,000  | +\$11,000 |
| 12 months t/c | \$51,000  | -\$10,500 |

\*Since last report (05/03/20)

Source: Fearnleys (18/03/20)

# Pavilion to use SLNG storage

Pavilion Energy Pte Ltd and Singapore LNG Corp Pte Ltd (SLNG) have signed a five-year agreement for LNG storage and reload services at the SLNG Terminal on Jurong Island.

This is the first such agreement signed for a term longer than two years, following a competitive bid process and further strengthens the two companies co-operation.

Under the agreement, Pavilion Energy will have access to tank capacity of 180,000 cu m on a segregated basis at the SLNG

terminal over the next five years. This capacity will support a higher volume of LNG trading activities, including LNG breakbulk and vessel cool-down services, SLNG said.

The contract's longer tenure allows Pavilion Energy greater flexibility in managing its LNG portfolio, market fluctuations and

demand dynamics, it claimed.

"Pavilion Energy is pleased to renew the partnership with SLNG. Tank capacity in Singapore presents greater opportunities for LNG optimisation and trading in the Asia/Pacific Basin. It complements well our LNG/gas trading activities in the Atlantic Basin," explained Frédéric Barnaud, Pavilion Energy Group CEO, "Pavilion Energy has held true to our commitment to facilitate wide access to the SLNG Terminal, contributing to the vibrancy of Singapore's LNG market."

Tan Soo Koong, SLNG CEO, added, "SLNG is happy to extend our co-operation with Pavilion Energy through this longer term

storage and reload services agreement. SLNG has taken bold steps to develop infrastructure and create new service offerings to meet the needs of the industry, and we will continue to do so.

We are primed to play our part in helping Singapore achieve its ambition of becoming an LNG hub, through catalysing LNG-related businesses such as LNG trading, small-scale LNG distribution, LNG bunkering, and more," he said.

Given its strategic geographic position along key shipping routes and being home to over 40 LNG companies, Singapore is well-positioned to become one of the leading LNG hubs in the region, the company said. ■



Pavilion is to use SLNG's storage facilities

## FEED contract for Mexican LNG project goes to Technip

Mexico Pacific Limited (MPL) has awarded a Front End Engineering Design (FEED) contract to Technip USA.

This represents one of the final milestones to moving the project into construction and operation mode, the company said.

Upon its completion, MPL will be North America's leading West Coast LNG export facility.

The combination of the shorter shipping distance to Asia from its west coast location and its access to low-cost US gas allows the project to deliver some of the lowest landed cost LNG into Asia.

Douglas Shanda, MPL President and CEO, said, "With major permits in hand and the FEED award completed, MPL is on track to take FID and establish a world-class North American LNG export facility on the West Coast of Mexico.

"With this unique project, we will address global energy needs while providing substantial cost advantages for our partners. We look forward to continuing our momentum as we work toward taking FID in early 2021 and bringing the facility into service in 2024," he said.

"We are excited to take this important step with our partners as MPL continues on its path to becoming the leading west-coast provider of US LNG," added Josh Loftus, MPL's Chief Development Officer. "We look forward to strengthening our relationships with all current and future global partners as we become a top supplier in the growing LNG market." ■

## Cargo movements

India's Gujarat State Petroleum Corp (GSPC) is seeking six LNG cargoes for delivery from March to November through two separate tenders, according to newswires.

One cargo is for delivery from 23rd March to 31st March on a delivered ex-ship (DES) basis, in a tender that closed on 3rd March.

It is also seeking five cargoes for delivery between April and November, also on a DES basis, in a separate tender that closed a day later.

Abu Dhabi National Oil Co (ADNOC) has offered five LNG cargoes for loading from its Das Island plant between May and October, according to industry sources talking with newswires.

ADNOC has offered one cargo per month for loading over May, June, July, August and October, it was reported.

The tender closed on 17th March.

Meanwhile, S&P Global Platts has reported its first Asian LNG derivatives trade.

Platts said it had facilitated a first trade for the Japan-Korea-Marker (JKM) derivatives in its pricing process also known as market-on-close (MOC).

Commodities trader Trafigura bid for five lots of April JKM at \$3.45/mmBtu to which trader Vitol eventually sold, Ciaran Roe, head of LNG pricing at S&P Global Platts, told Reuters.

"(Today's) trade follows weeks of

building interest in S&P Global Platts LNG derivatives MOC, with a growing number of named bids and offers, as well as time spreads, reported by market participants based in Singapore," he added.

Meanwhile, PetroChina has bought one out of three LNG cargoes traded on Platt's pricing process.

The cargo, which traded at \$3.05/mmBtu, is for delivery between 20th and 22nd April into the Japan, Korea, Taiwan, China region and is to be loaded from Das Island, Abu Dhabi, Platts said.

Both the buyer and seller may opt for alternate discharge or loading ports, respectively, provided they give 30 days notice before initial delivery.

PetroChina not only buy cargoes for domestic use in China but also for trading purposes but signs are emerging of improving demand from the world's second largest buyer of LNG, sources said.

In addition, Glencore bought an LNG cargo from Vitol for delivery between 6th and 8th April, while BP bought a cargo from Vitol for delivery between 14th to 16th April, the agency said.

Both cargoes traded at \$2.95/mmBtu. ■

## 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   |

| 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                |

| 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

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## LNG Unlimited



## 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 = 10th February 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  | 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