LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS 20 June 2024

FERC orders Venture Global to release documents

Last week, a US regulator ordered Venture Global LNG to provide clients with documents about the alleged mechanical problems and startup of its Louisiana plant.

Venture Global LNG's Calcasieu Pass facility has been at the centre of a long-running dispute involving energy companies, including BP, Shell and others over LNG supplies from the plant.

The US Federal Energy Regulatory Commission (FERC) said that it would appoint an administrative judge to arrange details of the distribution of the commissioning documents.

Calcasieu Pass has been producing and shipping LNG for more than two years, but has not provided contract customers with supplies, alleging that the plant is not yet fully operational.

In January, BP and Shell asked FERC to force Venture Global LNG to release documents to determine why commercial operations were stalled, calling the delay 'unprecedented and inexplicable.'

The documents cover ongoing repairs to a heat recovery steam generator that had been filed under a seal, plus 124 weekly commissioning and site inspection reports "that document the significant issues impacting this critical power plant equipment," Venture Global's spokesperson said.

The spokesperson also told Reuters that FERC's order showed "no interest in any outstanding commercial disputes between Venture Global and its customers."

A Shell spokesperson called the order "a victory for transparency." The order could lead to "information about why Venture Global continues to pursue a strategy to delay declaring the end of the commissioning process and avoid delivering cargoes to the very partners who enabled its project."

BP, Shell, Edison Repsol, Galp Energia and others that originally signed long-term contracts to obtain LNG have claimed that the lengthy commissioning has deprived them of billions of dollars of business.

Venture Global had objected to the energy company requests, saying it would not provide the documents unless ordered to do so.

FERC rejected the move, saying the firm "has failed to demonstrate why the 'highly confidential' documents requested by customers cannot be adequately protected by a protective agreement governing the documents."

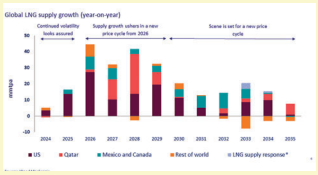
Customers' need for the information is not outweighed by Venture Global LNG's need to protect it, especially under a protective agreement, FERC said.

It ordered Venture Global to provide a copy of the requested documents to customers within five days of receiving an executed protective order. ■

SHIPPING NEWS AGENDA

MARKETING

Poten highlights 2



Pillars of wisdom 3

Sanctions hit 4

BUSINESS

Ukraine deal 4

Ruwais FID 5

CPC buys 5

Egypt cargoes 6

FINANCE

Pavilion sold 8

Hanwha invests 8

TECHNOLOGY

LR helps TMS 11

Carbon capture 12

GTT approvals 13

LNG ORDERBOOK

LNG carrier orderbook 15

LNG small scale fleet 21

Abundant LNG supply into the 2030s

One of the main themes of Poten & Partners' recent London LNG Forum was that global demand will continue to rise but questions remain about the future balances.

For example, European demand growth will peak soon. This region is divided between a few countries having a higher demand and others that are de-carbonising faster.

In addition, the largest LNG importer, China will continue to see demand growth but at a lower level than in the past.

Overall, the new supply pipeline is robust even with the US pause taking effect. Markets are likely to be abundantly supplied into the 2030s, Poten claimed.

However, the biggest question is - how strong will the demand response be to lower prices?

One problem is that the delay in US permitting means most of the country's projects will have to reapply or get extensions, which is likely to delay most by at least a couple of years.

There is also uncertainty over possible changes to permitting requirements once the pause is over. This, coupled with higher EPC costs, may affect US project economics.

If US projects are delayed, others worldwide will be the biggest beneficiaries filling the gap.

US contract prices have risen at the same time as Brent prices have declined. Long-term Brent pricing appears to be weakening given the large volumes that are available.

Driving long term demand growth will be Southeast Asia, South Asia and China.

For instance, SE Asian demand will rise from 28 mill tonnes in 2024 to 66 mill in 2034, Poten predicted, however, more than half of this growth will be due to depleting domestic gas reserves.

South Asia will also grow rapidly, from 38 mill tonnes in 2024 to 82 mill in 2034, while China's demand will rise from 76 mill to 116 mill tonnes.

Several risks

Poten warned that the downside risks were the growing support for nuclear restarts, China taking more pipeline gas than expected from Russia and Central Asia, and the area could adopt renewables quickly.

As for European countries, these are seen as sticking with their de-carbonisation targets, but more flexibility is possible, as meeting these targets appears to be tough.

German demand growth, countries using German import capacity and former Soviet client states, will support the market going forward.

European governments are also backing long-term contracts and helping to fund new import capacity.

Belgium, Poland and South and Eastern Europe will all see growth, Poten said.

The abundant supply and low prices over the next five plus years will also encourage imports, and many European end users are keeping their options open regarding Russian pipeline gas.

Overall, LNG supply will be highly concentrated and will become more so. Over the next 10 years, some 170 mill tonnes per year of net growth (3.5% CAGR) will be seen and the top 10 producers will add another 174 mill tonnes of production over the period.

In the US, methane emissions fees are due to kick in this year at $900 per tonne, rising to $1,200 per tonne by 2026.

Producers and others in the LNG value chain will have to either pay the fees or spend money to reduce their methane emissions.

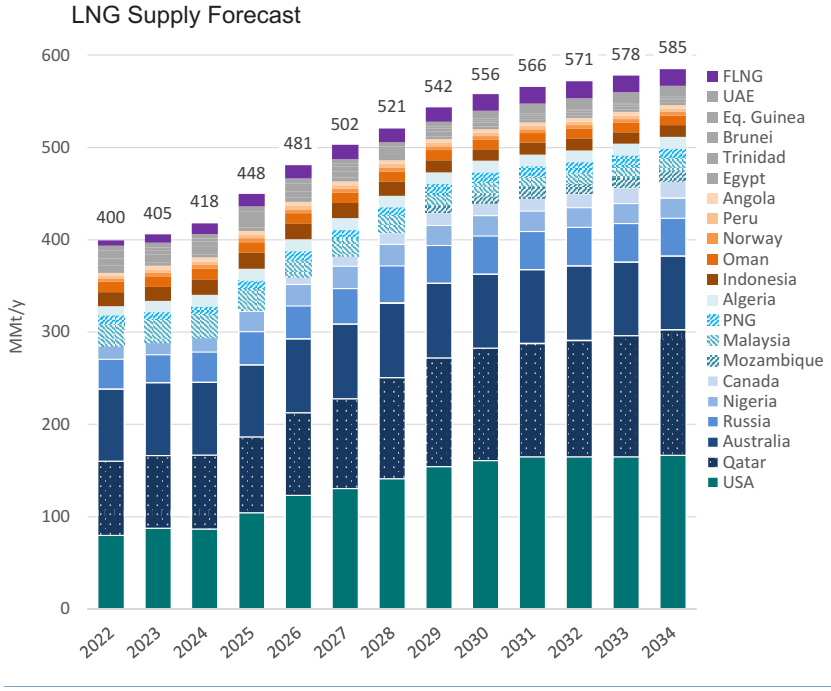
In addition, the EU is to put limits on methane emissions for hydrocarbon imports.

In the US, several projects are facing higher than expected EPC costs. The Zachry Group bankruptcy will affect timing of Golden Pass coming online and reduce the options for projects looking for contractors.

In general, delays and uncertainty mean higher costs.

While there is plenty of gas in the US, over time, feed gas prices will rise, as domestic US gas demand grows, due to more coal-fired generation ceasing and US LNG exports rising, Poten concluded in its roundup of the LNG scene. ■

LNG supply is highly concentrated and will become more so



Source: Poten & Partners Global LNG Outlook

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

Publisher
Stuart Fryer

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

Ad sales enquiries
David Jeffries
+44 (0)20 8150 5293
djeffries@lngjournal.com

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

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

Three phases of future LNG growth – WoodMac

Wood Mackenzie outlined three LNG growth phases in the coming decade in its recently released Global Gas Strategic Planning Outlook (SPO).

First, continued market volatility over the next couple of years, as limited supply growth amplifies risk.

This is followed by a major wave of new supply, ushering in lower prices from 2026. Finally, as LNG supply growth slows, prices recover again before a new wave of LNG supply triggers another cycle of low prices in the early 2030s.

WoodMac's team stress tested its new outlook on the ground at Japan Energy Summit in Tokyo earlier this month.

Continued short-term volatility looks assured - Since the start of this year, softer prices have turbocharged demand in key Asian markets. China was the standout, with LNG imports rising 28% year-to-date.

Consequently, TTF was up by 40% over the past three months, trading close to $11 per MMBtu. As the market grapples with supply risks from Russia and maintenance at Norwegian fields, record European storage levels have kept a lid on prices.

Looking ahead, rising prices are likely to provide some headwinds to near term Asian demand growth, but the overall outlook remains positive, increasing competition between European and Asian buyers.

Limited LNG supply growth and the loss of Russian pipeline imports into Europe via Ukraine could result in 2025 being tighter still. The consensus is for price volatility.

However, the pace of LNG supply growth and demand across Europe and Asia provide upside and downside risks. Uncertainty over Russian gas and LNG exports further muddies the waters, making 2025 a difficult year to call.

Supply growth ushers in a new price cycle from 2026 - The sheer volume of new LNG projects under construction will be a boon for buyers following the turbulence of the past few years.

With supply growth expected to average above 38 mill tonnes per annum between 2026 and 2028, prices will undergo a structural shift, as Europe is called upon to absorb more LNG than required, even with Asian demand increasing. But with European prices still holding north of $7 per MMBtu – and Asian prices correspondingly above $8 per MMBtu – the coming supply wave is far from catastrophic for the market.

Woodmac's view is that the need for US cargo cancellations to balance the market is limited.

The risks here are a muted demand response to lower prices across Asia, which would undoubtedly draw out the market imbalance. Conversely, supply risks can't be ruled out. An anticipated escalation of Western sanctions on Russian LNG threatens to dent the overall supply growth story, increasing the potential for a stronger-for-longer market.

Asia sets the scene for a fresh price cycle in the 2030s - Almost 200 mill tonnes per annum of LNG supply may be under construction, but demand from the Asian emerging economies is only just getting started. WoodMac expected a pressing need for additional supply beyond the current wave.

The timing of this new supply, however, looks less assured. Delays in US LNG investments - due to the US DoE's pause in non-FTA approvals - and the time required to develop projects elsewhere, will result in supply growth slowing significantly beyond 2029.

Markets will respond, with European prices once again above $9 per MMBtu in 2031.

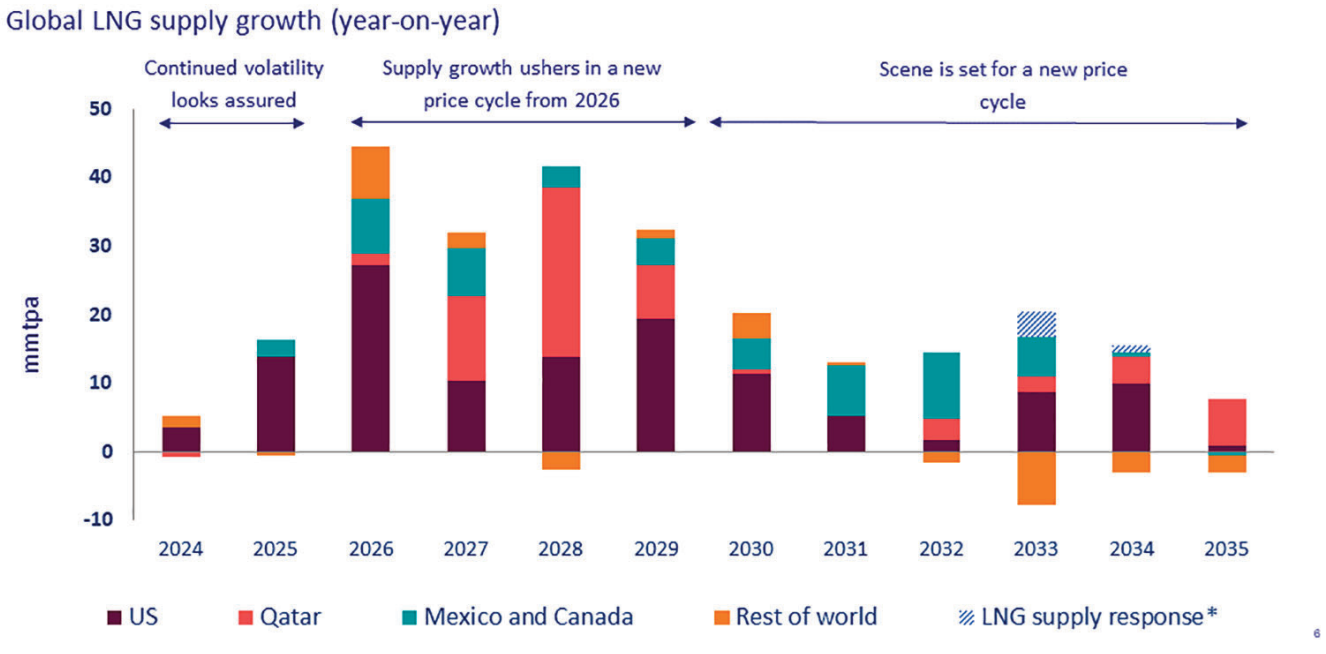
This won't last for long, Woodmac warned. A new round of investments through 2027 across North America, the Middle East and elsewhere will result in over 100 mill tonnes per annum of new FIDs, with this supply hitting the market in the first half of the 2030s.

With European gas demand falling rapidly by this time and Chinese LNG demand peaking, weaker demand growth will trigger another cycle of low prices.

However, much will ride on long-term Asian demand growth. Booming power demand and a move away from coal make gas and renewables the obvious choice. But if LNG prices are too high, Asia's most price sensitive buyers could quickly return to coal.

On the upside, delays or cancellations to the expansion of Central Asian and Russian pipeline gas into China would push Chinese LNG demand higher for longer.

But the devil, as always, is in the detail. The timing of new supply, the scale of future Asian demand and the pace of the energy transition will each hold a casting vote. WoodMac concluded. ■



Source: Wood Mackenzie

Sanctions hit Russia's LNG projects

Samsung Heavy Industries (SHI) is to sue Russian shipbuilder Zvezda, after the latter unilaterally cancelled two contracts worth an estimated $4.3 bill.

Zvedza had asked SHI to return $800 mill in advanced payments received and pay interest on the arrears, as a result of the cancellations.

The Russian company told SHI on Tuesday of last week that it had cancelled the contracts for the supply of blocks and equipment for the construction of 10 ARC7s and seven icebreaking shuttle tankers.

The contracts were signed in November, 2020 and October, 2021, respectively.

As a result of pressure from western governments, SHI stopped building the blocks and equipment, citing 'force majeure.'

Earlier this year, the US government had designated Zvezda as one of the 'specially designated nationals and blocked persons' (SDN) and banned all transactions with the Russian company.

After months of negotiation between SHI and Zvezda about whether to maintain the contracts, the Russian firm claimed that the South Koreans were in breach of the agreements.

"The Russian client unilaterally claimed that the contract was not fulfilled during a negotiation process," SHI said in a public statement on 12th June, "with respect to 10 LNG carriers and seven shuttle tankers for the North Sea ordered from Russia's Zvezda Shipyard in 2020 and 2021.

"The Russian client notified SHI of the termination of the contract and demanded that SHI returns its down payment of $800 mill and its delayed interest to the Russian client.

"We are currently unable to conduct any financial transactions with the Russian client (Zvezda) that has been designated as a specially designated national (SDN).

"We believe that the termination notice is illegal and plan to file a claim in the Singapore Arbitration Court to prove the illegality of the termination and the scope of the refund, while continuing negotiations," SHI said in a statement.

In 2019, before the outbreak of the Russian/Ukrainian war, SHI signed a series of contracts to build 22 ships — 15 ARC7s and seven icebreaking shuttle tankers — with Zvezda worth around $5.7 bill.

Five of the ships were built and delivered to the Russian client.

The problem is the remaining 17 ships.

New US sanctions

Also last week, the US introduced new measures aimed at Russia's oil and gas empire, among other sectors, including its LNG projects.

"We are increasing the risk for financial institutions dealing with Russia's war economy and eliminating paths for evasion and diminishing Russia's ability to benefit from access to foreign technology, equipment, software and IT services," US Treasury Secretary, Janet Yellen, said in a statement.

In the LNG space, the new measures target Russia's planned Obsky LNG, Arctic LNG 1, Arctic LNG 3, Murmansk LNG projrcts and the Zvedza contracts, three of which were earmarked for Arctic LNG 2, which was included in an earlier round of sanctions.

Also sanctioned is RusGazDobycha, Gazprom's partner in an LNG and other products' export facility at Ust-Luga in the Baltic.

In another move, Uniper has announced the termination of its long-term Russian gas supply contracts and thus legally ended the long-term gas supply relationship with the Russian state-owned company Gazprom Export.

This decision was made possible after an arbitration tribunal on 7th June awarded Uniper the right to terminate the contracts and awarded the company more than €13 bill in damages for the gas volumes not supplied by Gazprom Export since mid-2022, Uniper claimed.

Although only limited gas volumes were delivered since June, 2022 and no gas volumes since the end of August, 2022, the contracts were still legally in force and individual contracts would have continued to exist until the mid-2030s.

Uniper initiated arbitration proceedings against Gazprom Export at the end of 2022, following heavy losses, as per the contract.

The tribunal, convened in Stockholm, ruled in accordance with Swiss law. The arbitration ruling is legally binding and final, Uniper said. ■

Venture Global to supply LNG to Ukraine

US LNG developer, Venture Global LNG has signed a heads of agreement (HoA) with a subsidiary of Ukraine's DTEK to supply LNG to Ukraine and Eastern Europe.

Under the deal, DTEK's company, D Trading will buy cargoes from Venture Global's Plaquemines LNG facility starting later this year through the end of 2026 to support near to medium term energy security needs for Ukraine and the broader Eastern European region.

In addition, D Trading will purchase up to 2 mill tonnes per annum of LNG from Venture Global's third facility, CP2 LNG, for 20 years.

Ukraine does not operate any LNG receiving terminals.

Venture Global also said that the HoA called for co-operation on opportunities to access regasification terminal capacity and gas pipeline capacity.

Last month, Venture Global announced that it expected to start LNG production at its Plaquemines LNG export plant in Louisiana in mid-2024.

Venture Global took a final investment decision (FID) in May, 2022 on the first phase of the Plaquemines project with a capacity of 13.3 mill tonnes per annum and the related pipeline facilities. It also secured $13.2 bill in project financing.

In March last year, Venture Global agreed Plaquemines second phase and also secured another $7.8 bill in project financing.

The two stages will have a capacity of 20 mill tonnes per annum once built, emanating from 36 modular units, configured in 18 blocks.

As for CP2 LNG, the initial phase has been sold through 20-year sales and purchase agreements (SPAs) with ExxonMobil, Chevron, JERA, New Fortress Energy, Inpex, China Gas, SEFE, and EnBW.

"Venture Global is in active discussions for the remaining capacity, and has launched significant off site construction of the project while it awaits project authorisations from US regulators," Venture Global said recently.

CP2 LNG will have 18 liquefaction blocks, each with a capacity of about 1.1 mill tonnes of LNG, plus four 200,000 cu m full containment LNG storage tanks. ■

ADNOC takes Ruwais project FID

HE Sheikh Khaled bin Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Chairman of the Abu Dhabi Executive Council, endorsed the final investment decision (FID) for ADNOC's lower-carbon intensity Ruwais LNG project at a meeting held this week.

In addition, he sanctioned the award of an engineering, procurement and construction (EPC) contract for the project valued at around $5.5 bill (AED20.2 bill) to a joint venture led by Technip Energies, with JGC Corp and NMDC Energy.

Located in Al Ruwais Industrial City in Abu Dhabi's Al Dhafra region, this project will be the first LNG export facility in the Middle East and North Africa (MENA) region to run on clean power, making it one of the world's lowest-carbon intensity LNG plants.

His Highness said that the project will reinforce ADNOC's position as a reliable global natural gas supplier and accelerate the development of Al Ruwais Industrial City by attracting investments and boosting the local industrial ecosystem.

The project will procure highly specialised equipment and materials and will see 55% of the EPC award value flow back into the UAE's economy under ADNOC's In-Country Value (ICV) programme, stimulating economic and industrial growth and skilled private-sector jobs for Emiratis.

The original Ruwais FSRU terminal

Ruwais will include two 4.8 mill tonnes per annum LNG liquefaction trains with a total capacity of 9.6 mill tonnes, more than doubling ADNOC's existing UAE LNG production capacity to around 15 mill tonnes per annum.

The facility will utilise artificial intelligence (AI) and the latest technologies to enhance safety, minimise emissions and drive efficiency. ■

Taiwan signs major LNG Qatar deal

QatarEnergy has signed binding agreements with CPC Corp (CPC), Taiwan for long-term LNG supply and a partnership in the North Field East (NFE) LNG expansion project.

An LNG sales and purchase agreement (SPA) was signed for the delivery of 4 mill per annum from the NFE project for 27 years.

The companies also signed a share SPA by which QatarEnergy will transfer a 5% interest to CPC for the equivalent of one NFE train with a capacity of eight mill tonnes per annum.

This will not affect the participating interests of any of the other shareholders in the project, QatarEnergy said.

The agreements were signed by HE Saad Sherida Al-Kaabi, the Minister of State for Energy Affairs and President and CEO of QatarEnergy, and Shun-Chin Lee, CPC Corp Chairman.

Minister Al-Kaabi said: "We look forward to further enhancing our relationship with CPC, which extends for over three decades, and to further demonstrate our unwavering commitment to our customers and partners around the world."

Shun-Chin Lee added: "QatarEnergy, the world's leading LNG player, has been playing an important role in ensuring Taiwan's domestic gas market over the past decades. CPC's acquired equity in the NFE project and this new LNG SPA will further strengthen the co-operative relationship between our two companies."

The NFE project is part of the overall North Field LNG expansion programme that also includes the North Field South and North Field West projects, which will raise Qatar's total LNG production capacity from the current 77 mill tonnes per annum to 142 mill tonnes in 2030. ■

NEWS NUDGE

FSRU 'Toscana' moves to Marseille

The first phase of OLT Offshore LNG FSRU 'Toscana' terminal's maintenance period has been completed and on schedule, the operator said.

The FSRU, which had been in Genoa since April for the first part of her maintenance period, was towed by three tugs to Marseille, where the replacement of the anchoring system's bearing, designed and built to ensure the FSRU's rotation around the geostationary turret permanently anchored to the seabed, will be completed.

FSRU 'Toscana' will remain at the Chantier Naval de Marseille shipyard until the completion of the maintenance, expected by mid-September, which will then be followed by the FSRU's re-installation at its current site offshore Livorno.

She is expected to resume operations by the end of October, 2024.

Awilco completes LNGC refinancing

Awilco LNG has completed the up to 12-year sale/leaseback facility for its two LNGCs with CDB Financial Leasing.

This involves the company's two 2013-built 156,000 cu m TFDE LNGCs - 'WilForce' and 'WilPride'.

Both vessels are now financed at $100 mill each and are chartered back on a bareboat basis to Awilco's wholly owned subsidiaries for 12 years.

The facility bears a longer amortisation profile and a longer tenor than the current facility and the floating interest rate structure has a lower margin. which together, reduce the company's running cost and cash breakeven level by around $10,000 per day per vessel.

Awilco has rolling purchase options from the deal's second anniversary and a purchase obligation from the 10th anniversary until maturity. ■

Aramco to receive Rio Grande LNG

Subsidiaries of Aramco and NextDecade have signed a non-binding heads of agreement (HoA) for an LNG sales and purchase agreement (SPA).

The LNG will be supplied from Next Decade's Train 4 of the Rio Grande LNG export facility at Brownsville, Texas.

Under the terms of the HoA, Aramco will agree to purchase 1.2 mill tonnes per annum for 20 years on a free-on-board (FOB) basis at a price indexed to Henry Hub.

Aramco is to offtake Rio Grande LNG supplies

Aramco said that the two companies are currently negotiating a binding agreement, which once signed, will lead to the taking of a final investment decision (FID) by NextDecade on Train 4.

Nasir Al-Naimi, Aramco's Upstream President, said;" We look forward to finalising the terms of a long term LNG offtake agreement with NextDecade, as we explore opportunities to expand our presence in international energy markets.

"We expect LNG to play an important role in meeting the rising demand for secure and efficient energy," he said.

Matt Schatzman, NextDecade's Chair and CEO, added: " We are pleased to have reached an HoA with Aramco for LNG from Train 4, as Aramco seeks to expand its LNG portfolio.

"We look forward to finalising the LNG SPA with Aramco and to pursuing other opportunities together," he said. ■

Egypt seeking LNG cargoes

Egypt is to tender for 15-20 LNG cargoes to cover heavy summer demand.

The country has already suffered a wave of blackouts and forced temporary shutdowns of chemical and fertilizers plants, industry sources told Reuters.

Egypt has recently returned to being a net importer of natural gas, reversing its position from an exporter in recent years, as part of its plan to become a reliable European supplier.

The tender is expected in the second half of June or in early July and will cover demand for the summer season between July and October, a source said.

Another source said the announcement is pending an energy minister appointment, as President Abdel Fattah al-Sisi ordered the Prime Minister to form a new cabinet last week.

Egypt has not imported LNG since late 2018, with only four domestically produced cargoes received at its former FSRU over the 2019/2023 period, as well as an imported part cargo that was re-exported in late 2023, according to S&P Global Commodity Insights data.

The country has bought four cargoes from the spot market this year, and had to pay a high premium, partly due to asking for prompt deliveries.

Two of the cargoes, bought for April and May delivery, were priced at a $1.3-$1.7 per MMBtu premium to the TTF gas price, S&P data showed.

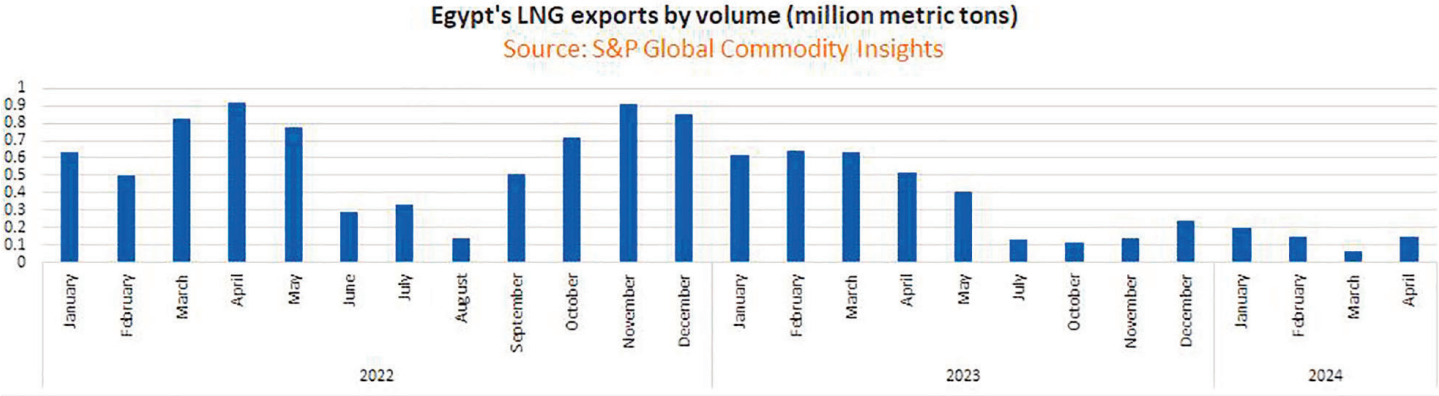
"The market has been expecting this in terms of overall volumes. We've seen Italian, Greek and Turkish delivered prices rising against TTF and Northwest Europe delivered prices, largely because of Egyptian demand and the need for other Mediterranean buyers to compete," said Samuel Good, head of LNG pricing at commodity pricing agency Argus, talking with Reuters.

In May, Egypt's Natural Gas Holding Company (EGAS) struck an agreement with Norway's Hoegh LNG to charter the FSRU 'Hoegh Galleon' from June. 2024 to February. 2026, to support energy security. She has since arrived at Ain Sokhna.

In 2023, Egypt's total natural gas production fell to its lowest since 2017, figures from the Joint Organisations Data Initiative (JODI) showed.

That year's gas production was around 59.29 bill cu m, a drop of 11.5% year-on-year to the lowest production level seen since 2017, when it was around 50.72 bill cu m.

Scheduled power outages have remained in place since. ■



KONGSBERG

The path to a sustainable future starts with the right partners

For decades, we've helped a third of the world's fleet navigate complex challenges. Our deep understanding translates into solutions tailored to your specific needs. Partner with us and unlock a more sustainable future for your business. **kongsberg.com/maritime**

Kongsberg Maritime – Protechting People and Planet

Shell agrees to acquire Pavilion Energy

Shell Eastern Trading, a subsidiary of UK energy giant Shell,, has reached an agreement with Carne Investments, an indirect wholly-owned subsidiary of Singapore's investment vehicle Temasek, to acquire 100% of the shares in Pavilion Energy.

Singapore-based Pavilion Energy operates a global LNG trading business with a contracted supply volume comprising about 6.5 mill tonnes per annum and encompasses shipping, natural gas supply and marketing activities in Asia and Europe.

"The acquisition of Pavilion Energy will strengthen Shell's leadership position in LNG, bringing material volumes and additional flexibility into our global portfolio," said Zoë Yujnovich, Shell's Integrated Gas and Upstream Director.

"We will acquire Pavilion's portfolio of LNG offtake and supply contracts, which includes additional access to strategic gas markets in Asia and Europe. By integrating these into Shell's global LNG portfolio, Shell is strongly positioned to deliver value from this transaction while helping to meet the energy security needs of our customers," she said.

Shell said that the acquisition will be absorbed within its cash capital expenditure guidance, which remains unchanged.

The deal is in excess of the internal rate of return (IRR) hurdle rate for Shell's Integrated Gas business, delivering on its 15-25% growth ambition for purchased volumes, relative to 2022, as outlined during the 2023 Capital Markets Day, the company said.

Integration of portfolios will commence after completion of the deal, which is expected by the first quarter of 2025, subject to regulatory approvals and fulfilment of other conditions precedent.

Large portfolio

Pavilion Energy's portfolio comprises about 6.5 mill tonnes per annum of long-term sale and supply LNG contracts. It also includes long-term regasification capacity of around 2 mill tonnes per year at the UK's Isle Grain LNG terminal, regasification access in Singapore and Spain, as well as the timecharter of three M-type, MEGI LNGCs and two TFDE vessels.

The company also has an LNG bunkering business with its first vessel deployed in early 2024.

Pavilion Energy's pipeline gas business is not included as part of the transaction and will be transferred to Gas Supply (GSPL), a wholly-owned subsidiary of Temasek, prior to completion.

Likewise, its 20% shareholding in block 1 and 4 in Tanzania is not included in this transaction.

Global demand for LNG is estimated to rise by more than 50% by 2040, as industrial coal-to-gas switching gathers pace in China, South Asian and Southeast Asian countries. These countries are expected to use more LNG to support their economic growth, according to Shell's LNG Outlook 2024.

Shell believed that LNG will play a critical role in the energy transition, replacing coal in heavy industry. It also has a continued role in displacing coal in power generation, helping to reduce local air pollution and carbon emissions.

LNG helps to provide the flexibility the power system needs, at a time when renewable generation is growing rapidly, it said.

Shell plans to grow its LNG business by 20-30% by 2030, compared with 2022, and purchased LNG volumes are planned to grow by 15-25%, relative to 2022, as outlined in its 2023 Capital Markets Day.

This transaction is expected to help deliver these targets, it added.

Shell, via its BG acquisition, holds the first LNG importing license to Singapore, supplying nearly a quarter of the country's natural gas needs. ■

Hanwha increases stake in NextDecade

South Korea's Hanwha Group has invested in US-based LNG developer, NextDecade.

On 14th June, Hanwha Aerospace announced it had acquired 17,536,368 shares in NextDecade for Won180.3 bill, resulting in a 6.83% stake in the US LNG project developer.

In addition to Hanwha Aerospace's investment vehicle, Hanwha Ocean is to participate in a Won360 bill rights offering conducted by Hanwha Ocean USA Holdings.

The funds will go to Hanwha Ocean USA International, a subsidiary of USA Holdings. This follows a previous investment in March, in which Hanwha Ocean had invested Won180 bill into USA International.

Hanwha's US arm plans to use about Won540 bill, raised since March, to acquire NextDecade's shares at the same level as Hanwha Aerospace.

As a result, Hanwha Group will have invested Won360 bill to acquire a 13.66% stake in NextDecade.

Business Korea reported that this is not Hanwha Group's first investment in NextDecade; Hanwha Impact previously invested around Won80 bill in the company and secured a seat on its board.

Combined, Hanwha Impact, Hanwha Aerospace, and Hanwha Ocean will hold more than 15% of NextDecade.

A Hanwha representative told the media outlet, "LNG is expected to play an increasingly important role as an intermediate fuel for de-carbonisation. We aim to create business expansion opportunities for Hanwha Ocean through NextDecade." ■

NEWS NUDGE

Perenco invests in Golar LNG

Oil and gas developer Perenco has bought about a 10% stake in Golar LNG, through its investment vehicle, Naria.

This equates to nearly 10.3 mill of Golar LNG shares - 4.8 mill held direct and the other 5.5 mill as an option, which is to be settled within 60 days, according to a US Security Commission (SEC) filing.

The purchase price is about $250 mill, said New York-based law firm Debevoise & Plimpton, Perenco's advisor on the deal.

Since 2018, Golar's FLNG 'Hilli' has been operating for Perenco and Cameroon's national oil firm, Société Nationale des Hydrocarbures offshore Cameroon.

The contract is due to end in July, 2026.

Wheatstone to be shut for weeks

Chevron has started to repair its damaged Australian Wheatstone platform.

The work is expected to be completed in the coming weeks, a spokesperson told newswires late last week.

"LNG and domestic gas production will resume following the safe completion of repair works," he added.

Chevron had suspended production at Wheatstone on Monday of last week to complete repairs to the platform's fuel gas system.

As the offshore platform provides gas to Wheatstone's onshore facilities near Onslow, Western Australia, LNG and domestic gas production were suspended. ■

NNPC to employ Golar FLNG

Nigeria's state-owned energy firm, Nigerian National Petroleum Co (NNPC), has signed an agreement with Golar LNG to deploy an FLNG off the Niger Delta coast.

Nigeria, holds Africa's largest gas reserves of more than 200 trill cu ft and is seeking investments to boost output.

NNPC spokesperson, Olufemi Soneye told newswires that the project development agreement (PDA) will utilise about 500 mill standard cu ft of gas per day, producing LNG, propane and condensate.

"The agreement aims to monetise vast proven gas reserves from shallow water resources offshore Nigeria," Soneye said in his statement.

Soneye also said that NNPC and Golar LNG had agreed to achieve a final investment decision (FID) on the project before the end of this year with production expected to start in 2027.

This deal is the second FLNG contract signed by NNPC with partners in the past year and follows two other LNG agreements with investors to increase its domestic supplies and exports.

Nigeria, which still flares excess gas produced, due to inadequate processing infrastructure, launched a national gas expansion programme in 2020 to end flaring by increasing local use of gas.

NNPC has also announced that it would hold the ground-breaking ceremony for three mini-LNG projects in August of this year.

The corporation's Group CEO, Mele Kyari, revealed the news in Abuja at the inaugural Africa Gas Innovation Summit 2024 held last week and organised by the Society of Petroleum Engineers.

Speaking at the summit, the NNPC head, who was represented by Executive Vice President, Gas, Power and New Energy, Olalekan Ogunkeye, said that NNPC had signed various agreements for the development of gas projects in line with the Nigerian Federal Government's drive to increase gas usage.

> **"The agreement aims to monetise vast proven gas reserves from shallow water resources offshore Nigeria"**
>
> *- Olufemi Soneye , NNPC spokesperson*

"In order to accelerate gas commercialisation, bearing in mind that this is the era of gas, NNPC has signed MoUs and project development agreements for floating LNG projects which will be the first in Nigeria, while currently executing a 30 mill cu ft per day small scale mini-LNG project. Indeed, we are currently participating in three mini-LNG projects slated for ground-breaking this August.

He added: "Nigeria, however, is blessed with abundant natural gas resources of more than 209 trill cu ft of gas, which can take us out of these challenges by providing access to electricity, clean cooking fuel, autogas and feedstock for other industries, thereby generating wealth and improving our wellbeing," he said. ■

NEWS NUDGE

DNV awards Minerva security certification

At the recent Posidonia trade expo, class society DNV presented Minerva Gas and Minerva Marine with ISO/IEC 27001 certification for their information security management system.

ISO/IEC 27001 is claimed to be the most recognised international standard for information security management systems.

It assists organisations to establish information security management policies and objectives and to understand implement and manage controls and set clear objectives for improving information security, DNV explained.

For the ISO/IEC 27001 certification and Maritime Management Systems Certification, DNV'S Piraeus office worked with DNV's Business Assurance unit.

The audit was carried out in two initial stages at Minerva's offices, plus the required shipboard ISO sampling process.

Catcha approves Crown LNG's business combination

Publicly traded special purpose acquisition company, Catcha Investment Corp's shareholders have approved the proposed business combination with Crown LNG Holdings, a provider of LNG liquefaction and regasification terminal technologies for harsh weather locations.

The full results of the vote will be included in a report on Form 8-K to be filed by Catcha with the US Securities and Exchange Commission (SEC).

Catcha and Crown also agreed to extend the deadline under the Business Combination Agreement until 28th June, 2024, on or before, which the business combination is expected to close. The combined company's ordinary shares and warrants are expected to commence trading on the Nasdaq Capital Market thereafter.

Qatar Shipyard signs up Armada

Armada Technologies, a provider of hull air lubrication systems and Qatar Shipyard Technology Solutions, have signed a Memorandum of Understanding (MoU).

This will involve collaborating on installing Armada's passive air lubrication systems (PALS) on vessels, including LNGCs, at the shipyard.

Under the terms of the MoU, both companies will explore a business relationship and potential opportunities to incorporate PALS into vessels owned by Qatar's customers.

Armada will provide technical and commercial support to facilitate the integration of PALS into vessel designs, including initial efficiency saving estimates and design information on proposed installations.

Fluxys to auction berthing rights

Fluxys LNG is to auction stand alone berthing rights (SABRs) throughout this year on a monthly basis.

This is due to current market conditions, which has led to a high usage rate of Zeebrugge's terminal services, as was the case in 2023, the company said.

For every month of 2024, Fluxys LNG will determine and communicate the number of SABRs it will offer for the following month.

Auctions will systematically start three business days after the communication.

The allocated SABRs will only be valid during the applicable month and not transferrable to another month. ■

Fast solutions for your LNG Storage & Transportation needs.

We can build your small-scale LNG terminal or peak-shaving plant within 18 months.

On-site/Factory-Built Storage Tanks, Intermodal ISO Tank-Containers, Tanker Trailers, Ship/Barge Cargo Tanks for LNG or any Cryogenic/Liquefied Gases

Corban Energy Group (CEG), based in New Jersey, USA, creats hightly engineered products for the natural gas supply chain in the Americas, Europe, and Africa. With its global network of engineers and manufacturing facilities, CEG has provided unmatched quality and value in LNG equipment.

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

www.CorbanEnergyGroup.com

CORBAN ENERGY GROUP
Your Solution for LNG/CNG

T. **201.509.8555** info@corbanenergygroup.com
418 Falmouth Avenue, Elmwood Park, NJ 07407, USA

TMS teams up with Lloyd's Register (LR)

TMS tanker and LNGC fleets are to be analysed and evaluated for de-carbonisation and efficiency opportunities, by Lloyd's Register (LR) to develop a roadmap for its fleet compliance.

TMS Tankers and TMS Cardiff Gas have joined together with LR to embark on an energy transition strategy project (ETSP).

This will explore and define compliance pathways that will facilitate the TMS Group's fleet transition towards sustainable and environmentally compliant operations, the company said.

The project will focus on three critical strategies, featuring a comprehensive analysis, examining TMS' existing business and sustainability strategies by evaluating ongoing initiatives, performance efficiencies, and alternative fuels, to understand the baseline emissions and operational constraints.

They will then switch to a detailed examination of TMS Group's compliance with Carbon Intensity Indicator (CII) regulations and its strategies to meet future environmental regulations, such as the European Union's Fit for 55 initiative and the IMO's mid-term measures.

LR will conduct a gap assessment as part of this analysis.

The project will conclude with a strategic roadmap developed using the analyses, which will include short, medium, and long-term initiatives to ensure the TMS fleet remains compliant with evolving environmental regulations while minimising operational disruptions.

Also featured will be continuous progress tracking, regular stakeholder meetings, and the delivery of detailed reports to ensure transparency and alignment with TMS Group's strategic goals.

George Kourelis, General Manager of TMS Tankers & TMS Cardiff Gas said: "We are in an era of changes, investing heavily in new construction and fleet expansion, ensuring that our fleet remains energy efficient. It is imperative that we explore all potential future compliance pathways and strategies to ensure our fleet meets future environmental regulations."

(From left to right) Alexandros Kafouros, Emissions Reduction & Compliance Officer, TMS Tankers Ltd; George Kourelis, General Manager, TMS Tankers Ltd and TMS Cardiff Gas Ltd; Andy McKeran, LR CCO; Theo Kourmpelis, LR Strategic Business Partner

Andy McKeran, Lloyd's Register's CCO, added: "We are excited to work alongside TMS in this strategic partnership. This project represents a significant step towards sustainable shipping, and we are committed to leveraging our expertise to help TMS navigate the complexities of the energy transition."

Theo Kourmpelis, LR's Strategic Business Partner, commented: "TMS is a strategic partner for us, and we are very keen to work with the group on this groundbreaking project. We are eager to see the outcomes and help TMS achieve its sustainability goals." ■

Latsco selects Ascenz Marorka's weather routing solution

Ascenz Marorka, a GTT Group company, has announced that its weather routing solution has been selected by Latsco Shipping and will be installed on eight of its vessels.

Latsco selected Ascenz Marorka after a comprehensive market analysis and an extensive one-year testing phase carried out on two of its vessels.

This assessment period was divided into two phases. The first focused on data input/output, aiming to quantify the accuracy of the platform's deliverables, while the second phase involved assessing the platform's user friendliness for both on board and shore personnel, and examining how the platform's operation aligns with employee practices and daily workflow.

The feasibility and ease of implementation of the platform's recommendations in actual navigation and safety operations were also assessed.

This weather routing solution defines optimal shipping routes by integrating multiple operational, economic and environmental variables, while taking into account a wide range of operational and regulatory constraints.

It is compatible with various vessel types and propulsion systems, regardless of the fuel source chosen, the company claimed.

Latsco already uses the Ascenz Marorka Sloshield® and Smart Shipping solutions to monitor in real time sloshing activity inside LNGC cargo tanks by fixed motion sensors, as well as boil-off performance of the containment system during operations.

Ascenz Marorka's platform allows technical operators to monitor the performance of various systems, such as the cargo or reliquefaction plants. It also provides guidance to avoid roll-over when loading LNG of different densities.

Anouar Kiassi, Ascenz Marorka Managing Director, declared: "We are honoured by the trust that Latsco places in us to support them in their journey towards digitalisation. We are delighted to work hand in hand with a shipowner who values technology and innovation to achieve major de-carbonisation goals."

Iasonas Zacharioudakis, Latsco's Operational Technology and Energy Manager, added: "We followed a structured and thorough evaluation process, developed with Ascenz Marorka, to test new technologies.

"This process aimed to assess accurately the capabilities of this promising technology, considering the significant challenges in modelling ship navigation. Our goal is to enhance sustainability, improve environmental operations, and optimise our environmental footprint," he said.

George Mavrogenis, Latsco's Marine Manager, commented: "The platform's features were thoroughly assessed for deliverables and ease of application. We evaluated its operational and safety navigation aspects, confirming it integrates seamlessly into daily practices, ensuring both efficiency and safety in our maritime operations." ■

LNGCs to be fitted with carbon capture system

China's CSSC Power (Group) Corp (CPGC) is to install an on board carbon capture system (OCCS) on multiple LNGCs, utilising BASF's OASE blue technology.

Both parties signed a framework agreement on the OCCS' ship application at the 2024 Shanghai International Carbon Neutrality Expo in Technologies, Products and Achievements.

CPGC's OCCS aims to steer the low carbon transformation and foster the sustainable development of the shipping industry.

OASE Blue is BASF's gas treatment technology designed for CO2 capture application in flue gas, with low energy consumption, low solvent losses, and an exceptionally flexible operating range, the company claimed.

The ship application marks another significant milestone in the partnership, which comes on the heels of a memorandum of understanding (MoU) signed by both parties at the 2023 event and the completion of the system prototype's testing.

Currently, CPGC and BASF are working at optimising the detailed design of the OCCS unit based on real ship conditions, to achieve commercial applications for different types of ships.

Over the past year, CPGC and BASF have conducted technical performance tests on the prototype. The test runs have been validated by class societies, including ABS, Bureau Veritas (BV) and Nippon Kaiji Kyokai (ClassNK).

Chen Haifeng, CPGC's General Manager of Environmental Protection Business Department, said, "Guided by global carbon reduction goals and the megatrend of low carbon transformation in the shipping industry, CPGC, a subsidiary of China State Shipbuilding Corp, has proactively undertaken the responsibility of promoting low carbon development in the shipping industry with a forward-looking vision.

"We have worked closely with BASF to jointly address greenhouse gas emissions in the shipping industry and build a brighter future for low-carbon shipping. CPGC will continue to drive innovation and breakthroughs in low-carbon shipping technology, making every vessel a solid force in protecting our blue planet," he said.

"We are happy to deepen our co-operation with CPGC, which boasts expertise in research and development, manufacturing and supply of marine power systems. By bringing on board BASF's gas treatment expertise, we are dedicated to addressing the challenges of energy efficiency improvement and emission reduction in the maritime sector to meet the growing demand for maritime de-carbonisaation," added Dr Michael Becker, Senior Vice President, Intermediates Asia Pacific, BASF. ■

GTT secures LNG cargo containment system approvals

GTT has been awarded class society Bureau Veritas' (BV) design approval (DA) and Lloyd's Register's (LR) general approval for ship application (GASA) for its GTT NEXT1 LNG cargo containment system.

These two approvals, officially handed over at Posidonia, marked a major milestone for the technology, GTT said.

Through the certificates, BV and LR confirmed that the technology complies with all applicable rules and regulations, including the IMO's International Gas Carrier Code (IGC Code).

In addition, with these two approvals, GTT NEXT1 is now ready for commercial deployment.

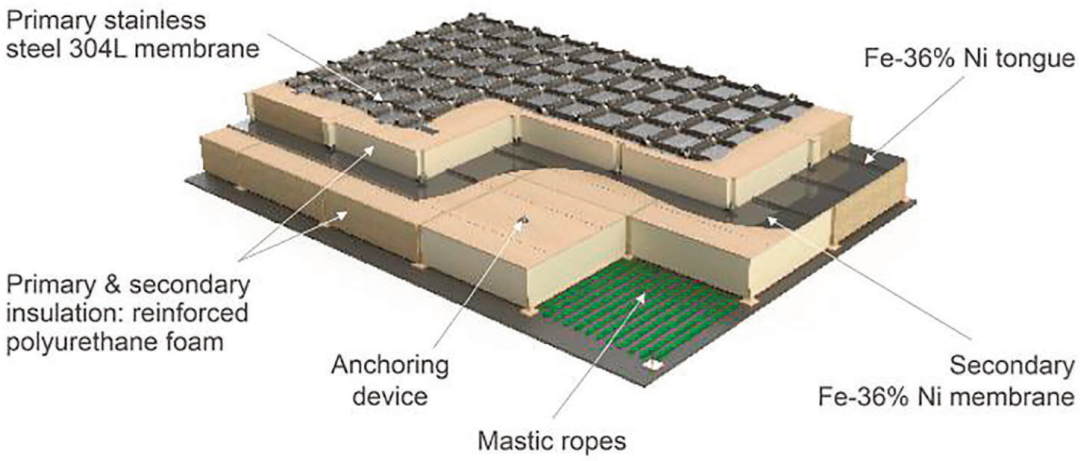
GTT NEXT1 is claimed to offer a thermal level of performance equivalent to that of Mark III Flex+ technology, while using two metallic barriers.

Utilising prefabricated reinforced polyurethane foam panels to support the two membranes provides the best compromise between thermal and mechanical performance, GTT said.

The secondary barrier is made of Invar, while the design of the first barrier is based on an existing corrugated stainless steel concept, similar to that of the Mark technologies.

By activating these design levers, it is possible to deliver significant performance improvements, while using proven materials and components, GTT said.

GTT's NEXT1 LNG containment system



Philippe Berterottière, GTT Chairman and CEO, stated: "The approvals from Bureau Veritas and Lloyd's Register for our GTT NEXT1 LNG cargo containment system demonstrate our unwavering commitment to innovation and technological excellence. We are proud to present this cutting edge solution, which combines the best of our proven technologies with new advancements, ensuring optimal performance and improved reliability for the transportation of liquefied natural gas."

Matthieu de Tugny, Bureau Veritas Marine & Offshore President added: "I would like to congratulate GTT on the development of this GTT NEXT1 cargo containment system - another significant GTT technological advancement, providing ever-more efficient solutions for moving by sea the cleanest energy, globally available at scale. Bureau Veritas experts have been there every step of the way. We are so very proud to be involved in this latest evolution, reflecting our commitment to helping secure safe and reliable solutions for the transportation of liquefied natural gas working yet again in collaboration with GTT."

Panos Mitrou, LR's Gas Segment Director, commented: "In the GTT NEXT1 LNG cargo containment system, GTT combines the strengths of Mark III and NO96 technology, creating a membrane system that sets a new standard in efficiency and reliability. This general approval signifies readiness for GTT NEXT1 containment system application on Lloyd's Register class ships." ■

> **"The approvals from Bureau Veritas and Lloyd's Register for our GTT NEXT1 LNG cargo containment system demonstrate our unwavering commitment to innovation and technological excellence."**
>
> *- Philippe Berterottière, GTT Chairman and CEO*

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	$268.83 mill
Five years old (174,000 cu m)	$228.45 mill
Total Fleet (594 ships)	$99.18 bill
Orderbook (385 ships)	$106.61 bill

Source: VesselsValue (21/05/24)

The above is updated each month courtesy of VesselsValue

LNG rate assessments

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

Region	This week	Change*
East of Suez	$38,500	-
West of Suez	$45,000	-
12 mos T/C	$60,500	-

*Since last report (06/06/24)

Source: Fearnleys (19/06/24)

LNG Solutions for the Marine Industry

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

Cryogenic Solutions for:

- **LNG ship fueling systems**
- **FLNG**
- **FSRUs**
- **Bunkering vessels**
- **Bunkering stations**
- **Port power applications**

www.ChartLNG.com
LNG@ChartIndustries.com

CHART®

Innovation. Experience. Performance.®

WORLD LNG CARRIER ORDERBOOK

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Agamemnon	Capital Gas	Hyundai Samho	01/06/2022	174,000	ME-GA	01/03/2026
Aktoras	Capital Gas	Hyundai Samho	01/09/2021	174,000	ME-GA	01/07/2024
Alcaios I	Capital Gas	Hyundai Samho	01/01/2023	174,000	ME-GA	01/09/2026
Alexey Kosygin	Smart LNG	Zvezda SSK	01/09/2019	172,600	TFDE - Azipod	01/03/2024
Al-kharrarah	H-Line, Pan Ocean, SK Shipping	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/02/2025
Al-kheesah	Pan Ocean, SK Shipping, H-Line	Samsung	01/09/2022	174,000	ME-GA	01/01/2025
Al-slaimi	H-Line, Pan Ocean, SK Shipping	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/04/2025
Antaios I	Capital Gas	Hyundai Samho	01/01/2023	174,000	ME-GA	01/11/2026
Apostolos	Capital Gas	Hyundai Heavy	01/11/2021	174,000	ME-GA	01/06/2024
Archimidis	Capital Gas	Hyundai Samho	01/06/2022	174,000	ME-GA	01/01/2026
Archon	Capital Gas	Hyundai Samho	01/03/2023	174,000	ME-GA	01/03/2027
Assos	Capital Gas	Hyundai Heavy	01/11/2021	174,000	ME-GA	01/05/2024
Athlos	Capital Gas	Hyundai Samho	01/03/2023	174,000	ME-GA	01/02/2027
Celsius 6	Celsius Shipping	China Merchants HI Jiangsu	24/10/2023	180,000	ME-GA	01/09/2027
Celsius Gandhinagar	Celsius Shipping	Samsung	01/07/2021	180,000	ME-GA	01/03/2024
Celsius Greenwich	Celsius Shipping	Samsung	01/08/2021	180,000	ME-GA	01/06/2024
Celsius Grenada	Celsius Shipping	Samsung	01/08/2021	180,000	ME-GA	01/07/2024
China Merchants Jiangsu Cmhi-282-01	Celsius Shipping	China Merchants HI Jiangsu	01/05/2023	180,000	ME-GA	01/03/2026
China Merchants Jiangsu Cmhi-282-02	Celsius Shipping	China Merchants HI Jiangsu	01/05/2023	180,000	ME-GA	01/07/2026
China Merchants Jiangsu Cmhi-282-03	Celsius Shipping	China Merchants HI Jiangsu	01/05/2023	180,000	ME-GA	01/11/2026
China Merchants Jiangsu Cmhi-282-04	Celsius Shipping	China Merchants HI Jiangsu	01/05/2023	180,000	ME-GA	01/03/2027
China Merchants Jiangsu Cmhi-282-05	Celsius Shipping	China Merchants HI Jiangsu	01/02/2024	180,000	ME-GA	01/06/2027
Clean Astraeus	Dynagas	Hyundai Heavy	01/04/2023	200,000	XDF	01/05/2027
Clean Azeus	Dynagas	Hyundai Heavy	01/04/2023	200,000	XDF	01/07/2027
Clean Brownsville	Dynagas	Hyundai Heavy	01/01/2023	200,000	XDF	01/07/2026
Clean Future	Dynagas	Hyundai Heavy	01/05/2021	200,000	ME-GA	01/03/2024
Clean Levant	Dynagas	Hyundai Heavy	01/03/2022	200,000	ME-GA	01/04/2025
Clean Mistral	Dynagas	Hyundai Heavy	01/03/2022	200,000	ME-GA	01/03/2025
Clean Rio Grande	Dynagas	Hyundai Heavy	01/01/2023	200,000	XDF	01/04/2026
Clean Srocco	Dynagas	Hyundai Heavy	01/03/2022	200,000	ME-GA	01/12/2025
Clean Texas	Dynagas	Hyundai Heavy	01/01/2023	200,000	XDF	01/12/2025
Clean Vitality	Dynagas	Hyundai Heavy	01/05/2021	200,000	ME-GA	01/02/2024
Cosco 1	COSCO	Dalian Shipbuilding	31/08/2023	175,000		01/03/2027
Cosco 2	COSCO	Dalian Shipbuilding	31/08/2023	175,000		01/06/2027
Cosco 3	COSCO	Dalian Shipbuilding	31/08/2023	175,000		01/04/2028
Daewoo 2522	Hyundai LNG Shipping	Hanwha Ocean	01/07/2021	174,000	MEGI	01/05/2024
Daewoo 2523	MOL	Hanwha Ocean	01/09/2021	174,000	ME-GA	01/02/2024
Daewoo 2524	MOL	Hanwha Ocean	01/09/2021	174,000	ME-GA	01/04/2024
Daewoo 2525	MOL	Hanwha Ocean	01/09/2021	174,000	ME-GA	01/08/2024
Daewoo 2526	MOL	Hanwha Ocean	01/09/2021	174,000	ME-GA	01/10/2024
Daewoo 2527	MOL	Hanwha Ocean	01/10/2021	174,000	ME-GA	01/07/2024
Daewoo 2528	Maran Gas Maritime	Hanwha Ocean	01/11/2021	174,000	MEGI	01/08/2024
Daewoo 2529	Maran Gas Maritime	Hanwha Ocean	01/11/2021	174,000	MEGI	01/11/2024
Daewoo 2530	BWGas	Hanwha Ocean	01/11/2021	174,000	MEGI	01/03/2025
Daewoo 2531	BWGas	Hanwha Ocean	01/11/2021	174,000	MEGI	01/05/2025
Daewoo 2532	GasLog	Hanwha Ocean	01/01/2022	174,000	MEGI	01/07/2024
Daewoo 2533	GasLog	Hanwha Ocean	01/01/2022	174,000	MEGI	01/09/2024
Daewoo 2534	GasLog	Hanwha Ocean	01/01/2022	174,000	MEGI	01/06/2025
Daewoo 2535	GasLog	Hanwha Ocean	01/01/2022	174,000	MEGI	01/09/2025
Daewoo 2536	MOL	Hanwha Ocean	01/01/2022	174,000	ME-GA	01/09/2024
Daewoo 2537	Maran Gas Maritime	Hanwha Ocean	01/01/2022	174,000	MEGI	01/09/2025
Daewoo 2538	Maran Gas Maritime	Hanwha Ocean	01/01/2022	174,000	MEGI	01/11/2025

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 = 19 February 2024

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Daewoo 2539	Maran Gas Maritime	Hanwha Ocean	01/02/2022	174,000	MEGI	01/11/2025
Daewoo 2540	Maran Gas Maritime	Hanwha Ocean	01/02/2022	174,000	MEGI	01/12/2025
Daewoo 2541	Venture Global LNG	Hanwha Ocean	01/03/2022	200,000	ME-GA	01/07/2025
Daewoo 2542	Venture Global LNG	Hanwha Ocean	01/03/2022	200,000	ME-GA	01/10/2025
Daewoo 2543	Venture Global LNG	Hanwha Ocean	01/03/2022	200,000	ME-GA	01/12/2025
Daewoo 2544	BWGas	Hanwha Ocean	01/04/2022	174,000	MEGI	01/11/2025
Daewoo 2545	BWGas	Hanwha Ocean	01/04/2022	174,000	MEGI	01/12/2025
Daewoo 2547	H-Line, Pan Ocean, SK Shipping	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/12/2024
Daewoo 2548	H-Line, Pan Ocean, SK Shipping	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/01/2025
Daewoo 2550	MOL	Hanwha Ocean	01/04/2022	174,000	ME-GA	01/09/2025
Daewoo 2551	MOL	Hanwha Ocean	01/04/2022	174,000	ME-GA	01/09/2026
Daewoo 2552	Maran Gas Maritime	Hanwha Ocean	01/06/2022	174,000	MEGI	01/05/2026
Daewoo 2553	Maran Gas Maritime	Hanwha Ocean	01/06/2022	174,000	MEGI	01/06/2026
DAEWOO 2558	MOL	Hanwha Ocean	01/09/2022	174,000	ME-GA	01/09/2026
Daewoo 2559	SK Shipping, Pan Ocean, H-Line	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/02/2025
Daewoo 2561	Pan Ocean, SK Shipping, H-Line	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/05/2025
Daewoo 2562	SK Shipping, Pan Ocean, H-Line	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/06/2025
Daewoo 2563	H-Line, Pan Ocean, SK Shipping	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/11/2025
Daewoo 2564	Pan Ocean, SK Shipping, H-Line	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/11/2025
Daewoo 2565	Pan Ocean, SK Shipping, H-Line	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/02/2026
Daewoo 2566	Meiji Shipping	Hanwha Ocean	01/09/2022	174,000	XDF	01/08/2025
Daewoo 2567	Meiji Shipping	Hanwha Ocean	01/09/2022	174,000	XDF	01/09/2025
Daewoo 2568	Meiji Shipping	Hanwha Ocean	01/09/2022	174,000	XDF	01/06/2026
Daewoo 2569	Meiji Shipping	Hanwha Ocean	01/09/2022	174,000	XDF	01/09/2026
DAEWOO 2570	MISC	Hanwha Ocean	01/09/2022	174,000	XDF	01/01/2026
DAEWOO 2571	MISC	Hanwha Ocean	01/09/2022	174,000	XDF	01/05/2026
Daewoo 2572	TMS Cardiff Gas	Hanwha Ocean	01/09/2022	174,000	ME-GA	01/04/2026
Daewoo 2573	TMS Cardiff Gas	Hanwha Ocean	01/09/2022	174,000	ME-GA	01/07/2026
Daewoo 2574	Venture Global LNG	Hanwha Ocean	01/03/2023	200,000	MEGI	01/09/2026
Daewoo 2575	Venture Global LNG	Hanwha Ocean	01/03/2023	200,000	MEGI	01/12/2026
Dalian No 1 G175k-1	China Merchant	Dalian Shipbuilding		175,000	XDF	01/09/2025
Dalian No 1 G175k-12	Wah Kwong, China Gas, CSSC	Dalian Shipbuilding	21/08/2023	175,000		01/01/2027
Dalian No 1 G175k-13	Wah Kwong, China Gas, CSSC	Dalian Shipbuilding	21/08/2023	175,000		01/07/2027
Dalian No 1 G175k-2	China Merchant	Dalian Shipbuilding	01/04/2022	175,000	XDF	01/12/2025
Dalian No 1 G175k-3	China Merchant	Dalian Shipbuilding	01/09/2022	175,000	XDF	01/11/2025
Dalian No 1 G175k-4	China Merchant	Dalian Shipbuilding	01/09/2022	175,000	XDF	01/01/2026
DALIAN NO 1 G175K-5	China Merchant	Dalian Shipbuilding	01/03/2023	175,000	XDF	01/08/2026
DALIAN NO 1 G175K-6	China Merchant	Dalian Shipbuilding	01/03/2023	175,000	XDF	01/10/2026
DALIAN NO 1 G175K-7	China Merchant	Dalian Shipbuilding	01/03/2023	175,000	XDF	01/12/2026
DALIAN NO 1 G175K-8	China Merchant	Dalian Shipbuilding	01/03/2023	175,000	XDF	01/02/2027
Energy Fortitude	Alpha Gas	Hyundai Samho	01/07/2021	174,000	XDF	01/04/2024
Hanwha Ocean 2580	MOL	Hanwha Ocean	01/02/2023	174,000	ME-GA	01/03/2027
HANWHA OCEAN 2581	Maran Gas Maritime	Hanwha Ocean	01/04/2023	174,000	MEGI	01/04/2027
HANWHA OCEAN 2582	Maran Gas Maritime	Hanwha Ocean	01/04/2023	174,000	MEGI	01/06/2027
Hanwha Ocean 2583	MOL	Hanwha Ocean	01/04/2023	174,000	ME-GA	01/08/2027
Hanwha Ocean 2584	MOL	Hanwha Ocean	01/08/2023	174,000	ME-GA	31/01/2027
Hd Hyundai Ulsan 3441	NYK	Hyundai Heavy	28/04/2023	174,000		01/03/2027
Hd Hyundai Ulsan 3442	NYK	Hyundai Heavy	28/04/2023	174,000		01/06/2027
Hd Hyundai Ulsan 3443	NYK	Hyundai Heavy	28/04/2023	174,000		01/08/2027
Hd Hyundai Ulsan 3444	NYK	Hyundai Heavy	01/05/2023	174,000		31/08/2027
Hd Hyundai Ulsan 3454	Evalend Shipping	Hyundai Heavy	02/08/2023	174,000	XDF	01/12/2026
Hd Hyundai Ulsan 3455	Evalend Shipping	Hyundai Heavy	02/08/2023	174,000	XDF	30/06/2027
HD Hyundai Ulsan 3456	Evalend Shipping	Hyundai Heavy	14/11/2023	174,000		01/12/2027
Hd Hyundai Ulsan 3457	Evalend Shipping	Hyundai Heavy	14/11/2023	174,000		01/02/2028
Hd Hyundai Ulsan 3476	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/01/2027
Hd Hyundai Ulsan 3477	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/02/2027
Hd Hyundai Ulsan 3478	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/04/2027

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 = 19 February 2024

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Hd Hyundai Ulsan 3479	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/05/2027
Hd Hyundai Ulsan 3480	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/07/2027
Hd Hyundai Ulsan 3481	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/08/2027
Hd Hyundai Ulsan 3482	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/09/2027
Hd Hyundai Ulsan 3483	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/10/2027
Hd Hyundai Ulsan 3484	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/11/2027
Hd Hyundai Ulsan 3485	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/12/2027
Hd Hyundai Ulsan 3486	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/05/2028
Hd Hyundai Ulsan 3487	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/07/2028
Hd Hyundai Ulsan 3488	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/09/2028
Hd Hyundai Ulsan 3489	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/11/2028
Hd Hyundai Ulsan 3490	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/03/2029
Hd Hyundai Ulsan 3491	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/06/2029
Hd Hyundai Ulsan 3492	Qatar Energy Trading	Hyundai Heavy	01/09/2023	174,000	XDF	01/09/2029
HI Alyssa Warner	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/03/2025
HI Edward Austin	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/05/2025
HL Fortuna	H-Line	Hyundai Samho	01/01/2022	174,000	XDF	01/04/2025
HI Puffin	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/09/2025
HI Sea Eagle	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/06/2025
HLS Bilbao	Hyundai LNG Shipping	Hanwha Ocean	01/05/2021	174,000	MEGI	01/03/2024
Hudong Qatar 1	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/03/2028
Hudong Qatar 2	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/06/2028
Hudong Qatar 3	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/09/2028
Hudong Qatar 4	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/12/2028
Hudong Qatar 5	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/03/2029
Hudong Qatar 6	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/06/2029
Hudong Qatar 7	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/09/2029
Hudong Qatar 8	Qatar Energy Trading	Hudong-Zhonghua	12/01/2024	271,000		01/12/2029
Hudong-zhonghua H1790a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/09/2024
Hudong-zhonghua H1791a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/12/2024
Hudong-zhonghua H1792a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/03/2025
Hudong-zhonghua H1793a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/05/2025
Hudong-zhonghua H1794A	MOL	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/02/2027
Hudong-zhonghua H1795A	MOL	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/07/2027
Hudong-zhonghua H1796A	MOL	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/12/2027
Hudong-zhonghua H1797a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/09/2025
Hudong-zhonghua H1798a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/11/2025
Hudong-zhonghua H1799a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/02/2026
Hudong-zhonghua H1800a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/05/2026
Hudong-zhonghua H1801a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/07/2026
Hudong-zhonghua H1835a	ULT	Hudong-Zhonghua	01/12/2021	174,000	XDF	01/12/2024
Hudong-zhonghua H1836a	ULT	Hudong-Zhonghua	01/12/2021	174,000	XDF	01/03/2025
Hudong-zhonghua H1880a	MOL	Hudong-Zhonghua	01/01/2022	174,000	XDF	01/10/2024
Hudong-zhonghua H1881a	MOL	Hudong-Zhonghua	01/01/2022	174,000	XDF	01/08/2025
Hudong-zhonghua H1882a	MOL	Hudong-Zhonghua	01/01/2022	174,000	XDF	01/10/2025
Hudong-zhonghua H1883a	MOL	Hudong-Zhonghua	01/01/2022	174,000	XDF	01/03/2026
Hudong-zhonghua H1884a	MOL	Hudong-Zhonghua	01/01/2022	174,000	XDF	01/06/2026
Hudong-zhonghua H1885a	MOL	Hudong-Zhonghua	01/01/2022	174,000	XDF	01/09/2026
Hudong-zhonghua H1886a	NYK	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/08/2026
Hudong-zhonghua H1887a	NYK	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/10/2026
Hudong-zhonghua H1888a	NYK	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/12/2026
Hudong-zhonghua H1889a	NYK	Hudong-Zhonghua	01/04/2022	174,000	XDF	01/03/2027
Hudong-zhonghua H1890a	NYK	Hudong-Zhonghua	01/04/2022	174,000	XDF	01/05/2027

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 = 19 February 2024

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Hudong-zhonghua H1891a	NYK	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/10/2027
Hudong-zhonghua H1892A	COSCO	Hudong-Zhonghua	01/07/2022	174,000	XDF	01/10/2025
Hudong-zhonghua H1893A	COSCO	Hudong-Zhonghua	01/07/2022	174,000	XDF	01/03/2026
Hudong-zhonghua H1894a	K-Line	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/10/2026
Hudong-zhonghua H1895a	K-Line	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/12/2026
Hudong-zhonghua H1896a	K-Line	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/03/2027
Hudong-zhonghua H1897a	K-Line	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/06/2027
Hudong-zhonghua H1898a	MOL, COSCO, ENN	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/10/2027
Hudong-zhonghua H1899a	MOL, COSCO, ENN	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/12/2027
Hudong-zhonghua H1900a	MOL, COSCO, ENN	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/03/2028
Hudong-zhonghua H1901a	CSSC	Hudong-Zhonghua	01/05/2023	174,000	XDF	31/05/2028
Hudong-zhonghua H1902a	CSSC	Hudong-Zhonghua	01/05/2023	174,000	XDF	01/09/2028
Hudong-zhonghua H1903a	CSSC	Hudong-Zhonghua	01/05/2023	174,000	XDF	01/12/2028
Hudong-zhonghua H1908a	ULT	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/11/2025
Hudong-zhonghua H1909a	ULT	Hudong-Zhonghua	01/06/2023	174,000	XDF	01/12/2025
Hyundai Samho 8049	NYK	Hyundai Samho	01/08/2022	174,000	XDF	01/03/2025
Hyundai Samho 8100	Knutsen	Hyundai Samho	01/12/2020	174,000	ME-GA	01/11/2024
Hyundai Samho 8170	Hyundai Glovis	Hyundai Samho	01/02/2022	174,000	ME-GA	01/08/2024
Hyundai Samho 8174	NYK	Hyundai Samho	01/08/2022	174,000	XDF	01/10/2025
Hyundai Samho 8179	Knutsen	Hyundai Samho	01/03/2022	174,000	ME-GA	01/03/2025
Hyundai Samho 8180	Knutsen	Hyundai Samho	01/03/2022	174,000	ME-GA	01/06/2025
Hyundai Samho 8181	Knutsen	Hyundai Samho	01/04/2022	174,000	ME-GA	01/12/2025
Hyundai Samho 8182	TMS Cardiff Gas	Hyundai Samho	01/10/2022	174,000	XDF	01/01/2026
Hyundai Samho 8188	SK Shipping	Hyundai Samho	01/05/2022	174,000	ME-GA	01/07/2025
Hyundai Samho 8189	SK Shipping	Hyundai Samho	01/05/2022	174,000	ME-GA	01/08/2025
Hyundai Samho 8200	TMS Cardiff Gas	Hyundai Samho	01/07/2022	174,000	XDF	01/03/2026
Hyundai Samho 8201	TMS Cardiff Gas	Hyundai Samho	01/07/2022	174,000	XDF	01/08/2026
Hyundai Samho 8204	Oman Shipping Co.	Hyundai Samho	01/01/2023	174,000		01/05/2026
Hyundai Samho 8205	Oman Shipping Co.	Hyundai Samho	01/01/2023	174,000		01/06/2026
Hyundai Samho 8208	NYK	Hyundai Samho	01/02/2023	174,000	XDF	01/12/2026
Hyundai Samho 8209	NYK	Hyundai Samho	01/02/2023	174,000	XDF	01/07/2027
Hyundai Samho 8210	NYK	Hyundai Samho	01/02/2023	174,000	XDF	01/12/2027
Hyundai Samho 8238	NYK	Hyundai Samho	01/02/2023	174,000	XDF	01/05/2027
Hyundai Samho 8239	NYK	Hyundai Samho	01/02/2023	174,000	XDF	01/10/2027
Hyundai Ulsan 3380	Knutsen	Hyundai Heavy	01/06/2022	174,000	XDF	01/05/2025
Hyundai Ulsan 3381	Knutsen	Hyundai Heavy	01/06/2022	174,000	XDF	01/06/2025
Hyundai Ulsan 3382	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/07/2025
Hyundai Ulsan 3383	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/11/2025
Hyundai Ulsan 3384	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/02/2026
Hyundai Ulsan 3385	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/04/2026
Hyundai Ulsan 3386	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/08/2025
Hyundai Ulsan 3387	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/08/2026
Hyundai Ulsan 3393	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/12/2025
Hyundai Ulsan 3394	Knutsen	Hyundai Heavy	01/07/2022	174,000	XDF	01/12/2025
Hyundai Ulsan 3395	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	01/08/2022	174,000	XDF	01/08/2025
Hyundai Ulsan 3396	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	01/08/2022	174,000	XDF	01/12/2025
Hyundai Ulsan 3397	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	01/08/2022	174,000	XDF	01/01/2026
Hyundai Ulsan 3398	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	01/08/2022	174,000	XDF	01/07/2026
Hyundai Ulsan 3399	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	01/08/2022	174,000	XDF	01/09/2026
Hyundai Ulsan 3400	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	01/08/2022	174,000	XDF	01/12/2026
Hyundai Ulsan 3401	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	01/08/2022	174,000	XDF	01/12/2026

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 = 19 February 2024

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Ilya Mechnikov	MOL, COSCO	Hanwha Ocean	01/08/2020	172,500	TFDE - Azipod	01/03/2024
Jiangnan H2700	ADNOC	Jiangnan	01/03/2022	175,000	XDF	01/01/2025
Jiangnan H2701	ADNOC	Jiangnan	01/03/2022	175,000	XDF	01/05/2025
Jiangnan H2702	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/09/2025
Jiangnan H2703	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/01/2026
Jiangnan H2704	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/06/2026
Jiangnan H2705	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/09/2026
JIANGSU YANGZI XINFU YZJ2022-1475	Hammonia Reederei	Yangzijiang	01/10/2022	175,000	ME-GA	01/11/2025
JIANGSU YANGZI XINFU YZJ2022-1476	Hammonia Reederei	Yangzijiang	01/10/2022	175,000	ME-GA	01/05/2026
Kool Panther	Cool Co	Hyundai Samho	01/06/2022	174,000	ME-GA	01/12/2024
Kool Tiger	Cool Co	Hyundai Samho	01/06/2022	174,000	ME-GA	31/08/2024
Lev Landau	Hanwha Ocean	Hanwha Ocean	01/08/2020	172,500	TFDE - Azipod	01/03/2024
Lng Ping Hu	Zhejiang Huaxiang	Jiangsu Yixiang	01/07/2023	78,900	XDF	01/12/2024
Marseille Knutsen	Knutsen	Hyundai Samho	01/07/2021	174,000	ME-GA	01/09/2025
Marvel Dove	SK Shipping	Hyundai Samho	01/01/2022	174,000	ME-GA	01/09/2024
Mulan Spirit	Jovo Energy	Jiangnan	01/05/2021	79,800	XDF	01/03/2024
Nakilat 1	Nakilat	Hyundai Samho	09/01/2024	174,000		01/12/2026
Nakilat 2	Nakilat	Hyundai Samho	09/01/2024	174,000		01/03/2027
New Brave	Pan Ocean	Hyundai Heavy	01/12/2020	174,000	XDF	01/09/2024
New Green	Pan Ocean	Hyundai Heavy	01/07/2021	174,000	ME-GA	01/10/2024
New Nature	Pan Ocean	Hyundai Heavy	01/12/2020	174,000	XDF	01/10/2024
New Oasis	Pan Ocean	Hyundai Heavy	01/07/2021	174,000	ME-GA	01/12/2024
Nikolay Basov	MOL, COSCO	Hanwha Ocean	01/08/2020	172,500	TFDE - Azipod	01/03/2024
Nikolay Semenov	MOL, COSCO	Hanwha Ocean	01/08/2020	172,500	TFDE - Azipod	01/05/2026
North Wind	NYK	Samsung	01/10/2021	174,000	XDF	01/02/2024
Nuaijah	H-Line, Pan Ocean, SK Shipping	Hanwha Ocean	01/06/2022	174,000	ME-GA	01/12/2024
Orion Gaugin	JP Morgan	Hyundai Heavy	01/07/2021	174,000	ME-GA	01/09/2025
Orion Hugo	JP Morgan	Hyundai Heavy	01/07/2021	174,000	ME-GA	01/07/2025
Orion Sinead	JP Morgan	Hyundai Heavy	01/12/2020	174,000	XDF	01/11/2024
Pacific Success	SinoKor	Samsung	01/12/2019	173,400	XDF	01/03/2024
Puteri Ledang	Hyundai LNG Shipping	Hyundai Heavy	01/07/2021	174,000	XDF	01/05/2024
Puteri Mahsuri	Hyundai LNG Shipping	Hyundai Heavy	01/07/2021	174,000	XDF	01/11/2024
Puteri Mayang	Hyundai LNG Shipping	Hyundai Heavy	01/07/2021	174,000	XDF	01/01/2025
Puteri Saadong	Hyundai LNG Shipping	Hyundai Heavy	01/04/2021	174,000	XDF	01/02/2024
Puteri Sabah	SK Shipping	Hyundai Heavy	01/05/2022	174,000	ME-GA	01/02/2025
Puteri Santubong	Hyundai LNG Shipping	Hyundai Heavy	01/04/2021	174,000	XDF	01/06/2024
Puteri Sarawak	SK Shipping	Hyundai Heavy	01/05/2022	174,000	ME-GA	01/03/2025
Puteri Sejinjang	Hyundai LNG Shipping	Hyundai Heavy	01/04/2021	174,000	XDF	01/07/2024
Pyotr Kapitsa	Hanwha Ocean	Hanwha Ocean	01/08/2020	172,500	TFDE - Azipod	01/03/2024
Pyotr Stolypin	Smart LNG	Zvezda SSK	01/09/2019	172,600	TFDE - Azipod	01/06/2024
Samsung 2316	SinoKor	Samsung	01/12/2019	173,400	ME-GA	01/09/2026
Samsung 2317	SinoKor	Samsung	01/12/2019	173,400	ME-GA	01/03/2027
Samsung 2318	SinoKor	Samsung	01/12/2019	173,400	ME-GA	01/06/2027
Samsung 2473	Maran Gas Maritime	Samsung	01/05/2021	174,000	XDF	01/09/2024
Samsung 2474	Maran Gas Maritime	Samsung	01/05/2021	174,000	XDF	01/09/2024
Samsung 2592	JP Morgan	Samsung	01/10/2021	174,000		01/04/2024
Samsung 2594	JP Morgan	Samsung	01/10/2021	174,000		01/09/2024
Samsung 2595	JP Morgan	Samsung	01/10/2021	174,000		01/01/2025
Samsung 2596	JP Morgan	Samsung	01/10/2021	174,000	ME-GA	01/11/2024
Samsung 2597	JP Morgan	Samsung	01/10/2021	174,000	ME-GA	01/12/2024
Samsung 2598	Celsius Shipping	Samsung	01/12/2021	180,000	ME-GA	01/01/2025
Samsung 2599	Celsius Shipping	Samsung	01/12/2021	180,000	ME-GA	01/05/2025
Samsung 2600	JP Morgan	Samsung	01/12/2021	174,000		01/07/2024
Samsung 2601	JP Morgan	Samsung	01/12/2021	174,000		01/01/2025
Samsung 2602	H-Line, Pan Ocean, SK Shipping	Samsung	01/01/2022	174,000	ME-GA	01/12/2024

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 = 19 February 2024

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Samsung 2603	H-Line, Pan Ocean, SK Shipping	Samsung	01/01/2022	174,000	ME-GA	01/12/2024
Samsung 2604	NYK	Samsung	01/12/2021	174,000	XDF	25/11/2024
Samsung 2612	Pan Ocean, SK Shipping, H-Line	Samsung	01/09/2022	174,000	ME-GA	01/02/2025
Samsung 2619	Celsius Shipping	Samsung	01/03/2022	180,000	ME-GA	01/10/2025
Samsung 2631	H-Line	Samsung	01/05/2022	174,000	ME-GA	01/07/2025
Samsung 2632	H-Line	Samsung	01/05/2022	174,000	ME-GA	01/12/2025
Samsung 2633	H-Line	Samsung	01/05/2022	174,000	ME-GA	01/01/2026
Samsung 2634	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/05/2025
Samsung 2635	TMS Cardiff Gas	Samsung	01/04/2022	174,000	ME-GA	01/08/2024
Samsung 2636	TMS Cardiff Gas	Samsung	01/04/2022	174,000	ME-GA	01/03/2026
Samsung 2637	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/07/2025
Samsung 2638	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/08/2025
Samsung 2639	JP Morgan	Samsung	01/09/2022	174,000	ME-GA	01/09/2025
Samsung 2640	JP Morgan	Samsung	01/09/2022	174,000	ME-GA	01/10/2025
Samsung 2641	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/11/2025
Samsung 2642	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/01/2026
Samsung 2643	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/02/2026
Samsung 2644	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/05/2026
Samsung 2645	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/06/2026
Samsung 2646	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/07/2026
Samsung 2647	JP Morgan	Samsung	01/06/2022	174,000	ME-GA	01/08/2026
Samsung 2651	Celsius Shipping	Samsung	01/10/2022	180,000	ME-GA	01/11/2025
Samsung 2652	Minerva Marine	Samsung	01/11/2022	174,000	ME-GA	01/02/2026
Samsung 2653	Minerva Marine	Samsung	01/11/2022	174,000	ME-GA	01/03/2026
Samsung 2656	Seapeak	Samsung	01/11/2022	174,000	ME-GA	01/03/2027
Samsung 2657	Seapeak	Samsung	01/11/2022	174,000	ME-GA	01/05/2027
Samsung 2658	Seapeak	Samsung	01/11/2022	174,000	ME-GA	01/08/2027
Samsung 2659	Seapeak	Samsung	01/11/2022	174,000	ME-GA	01/09/2027
Samsung 2660	Seapeak	Samsung	01/11/2022	174,000	ME-GA	01/12/2027
Samsung 2662	MOL	Samsung	20/01/2023	174,000	ME-GA	01/09/2026
Samsung 2663	MOL	Samsung	20/01/2023	174,000	ME-GA	01/01/2027
Samsung 2664	K-Line	Samsung	31/03/2023	174,000	ME-GA	01/05/2026
Samsung 2665	K-Line	Samsung	31/03/2023	174,000	ME-GA	01/09/2026
Samsung 2668	Chevron	Samsung	01/06/2023	174,000		01/11/2027
Samsung 2669	Chevron	Samsung	01/06/2023	174,000		01/01/2028
Samsung 2687	MOL	Samsung	01/11/2023	174,000		01/09/2026
Samsung Qatar 1	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/06/2026
Samsung Qatar 10	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/12/2027
Samsung Qatar 11	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/02/2028
Samsung Qatar 12	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/04/2028
Samsung Qatar 13	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/06/2028
Samsung Qatar 14	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/08/2028
Samsung Qatar 15	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/10/2028
Samsung Qatar 2	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/08/2026
Samsung Qatar 3	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/10/2026
Samsung Qatar 4	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/12/2026
Samsung Qatar 5	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/02/2027
Samsung Qatar 6	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/04/2027
Samsung Qatar 7	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/06/2027
Samsung Qatar 8	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/08/2027
Samsung Qatar 9	Qatar Energy Trading	Samsung	06/02/2024	174,000		01/10/2027
Sergei Witte	Smart LNG	Zvezda SSK	01/09/2019	172,600	TFDE - Azipod	01/08/2024
Shandong 1	Shandong Marine	Jiangnan	01/03/2023	175,000		01/03/2027
Shandong 2	Shandong Marine	Jiangnan	01/03/2023	175,000		01/07/2027
Venture Gator	JP Morgan	Samsung	01/10/2021	174,000		01/06/2024
Zhores Alferov	Hanwha Ocean	Hanwha Ocean	01/08/2020	172,500	TFDE - Azipod	01/03/2024

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 = 19 February 2024

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	Coral Furcata	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Coral Fungia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Akebono Maru	3,556	LNG	Japan	Yes	Chuo Kaiun
2011	Titan Vision	12,000	LNG/LPG/Ethylene	Europe	No	Titan LNG
2011	Titan Unikum	12,000	LNG/LPG/Ethylene	Europe	No	Titan LNG
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
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	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	JS Ineos Indepence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Innvovation	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Inspiration	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	Anthony Veder
2017	Coral EnergICE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	Coral Encanto	30,000	LNG	China	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	Oizmendi	600	LNG	Spain	Yes	Itsas Gas
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	Green Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	New Frontier 1	6,500	LNG	Northwest Europe	Yes	Shell
2018	Kairos	7,500	LNG	Baltic	Yes	Bernhard Schulte
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	Bunker Breeze	1,200	LNG	Barcelona	Yes	Suardiaz Energy Shipping
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2019	Blue Whale	7,500	LNG	Korea	Yes	Korea Line

Data last updated = 7 May 2024 | For more information please visit http://small-lng.com.

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2019	Gas Agility	18,600	LNG	NWE	Yes	MOL
2019	Flexfueller 001	1,480	LNG	Amsterdam	Yes	Titan LNG
2020	Avenir Advantage	7,500	LNG	Mediterranean	Yes	Avenir LNG
2020	Avenir Accolade	7,500	LNG	Mediterranean	Yes	Avenir LNG
2020	Avenir Aspiration	7,500	LNG		Yes	Avenir LNG
2020	Kaguya	3,500	LNG	Japan	Yes	CLS
2020	CNTIC VPOWER Global	28,000	LNG	Myanmar	Yes	Dalian Inteh Group
2020	Ecobunker Tokyo Bay	2,500	LMG	Japan	Yes	Ecobunkers
2020	Optimus	6,000	LNG	NWE	Yes	Elenger
2020	FueLNG Bellina	7,500	LNG	Singapore	Yes	FuelLNG
2020	SM Jeju LNG2	7,500	LNG	Korea	Yes	Korea Line
2020	Q-LNG 4000	4,000	LNG	US Coast	Yes	Q-LNG Transport / Harvey Gulf
2020	Flexfueller 002	1,480	LNG	Antwerp	Yes	Titan LNG
2021	Avenir Ascension	7,500	LNG		Yes	Avenir LNG
2021	Hai Gang Wei Lai	20,000	LNG	China	Yes	SSES
2021	Bergen LNG	850	LNG	Norway	Yes	Bergen Tankers
2021	Dmitry Mendeleev	5,800	LNG	Russia	Yes	Gazprom Neft
2021	JMU TBN	2,500	LNG	Japan	Yes	JMU
2021	Ravenna Knutsen	30,000	LNG	Mediterranean	Yes	Knutsen OAS
2021	Brassavola	12,000	LNG	Singapore	Yes	MOL
2021	Gas Vitality	18,600	LNG	Mediterranean	Yes	MOL
2021	TG TBN	500	LNG	Korea	Yes	Trans Gas
2021	Titan Hyperion	8,000	LNG	Benelux	Yes	Titan LNG
2022	Xin Ao Pu Tuo Hao	8,500	LNG	China	Yes	ENN
2022	Coral Nordic	30,000	LNG	Worldwide	Yes	Anthony Veder
2022	Avenir Achievement	20,000	LNG	Worldwide	Yes	Avenir LNG
2022	Haugesund Knutsen	5,000	LNG	Spain	Yes	Knutsen OAS
2022	Clean Cañaveral	5,400	LNG	USG	Yes	PNE
2022	K.Lotus	18,000	LNG	Korea	Yes	K Line
2023	Cryopeak TBA	4,000	LNG	West Canada	Yes	Cryopeak
2023	Levante LNG	12,500	LNG	Spain	Yes	Knutsen OAS
2023	SM Jeju LNG3	7,500	LNG	Korea	Yes	Korea Line
2023	New Frontier 2	18,000	LNG	USG	Yes	Shell
2023	Krios	4,200	LNG	Benelux	Yes	Titan LNG
2023	Alice Cosulich	8,000	LNG	Mediterranean	Yes	Fratelli Cosulich
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	Clean Everglades	5,500	LNG	USG	Yes	PNE
2023	FueLNG Venosa	18,000	LNG	Singapore	Yes	FuelLNG
2023	LNG Erasmus	8,000	LNG	NWE	Yes	Shell
2023	Energy Stockholm	8,000	LNG	NWE	Yes	Shell
2024	Coral Evolution	30,000	LNG	Australia	Yes	Anthony Veder ?
2024	Crowley TBN	12,000	LNG	US Coast	Yes	Crowley Maritime
2024	CNOOC TBN	12,000	LNG	China	Yes	CNOOC
2024	TBN	12,500	LNG	Worldwide	Yes	???
2024	Keys TBN	3,500	LNG	Japan	Yes	Keys Bunkering West Japan Co
2024	Seaspan Garbaldi	7,600	LNG	Panama	Yes	Seaspan ULC
2024	Paolina Cosulich	8,000	LNG	Mediterranean	Yes	Fratelli Cosulich
2024	Anhui Changjiang TBN	14,000	LNG	China	Yes	Anhui Changjiang LNG
2024	Keys Azalea	3,500	LNG	Japan	Yes	Keys Bunkering West Japan
2024	Seaspan Lions	7,600	LNG	Canada	Yes	Seaspan ULC
2024	Hai Yang Shi You 302	12,000	LNG	China	Yes	CETS (CNOOC)
2025	Axpo TBN	7,500	LNG	Italy	Yes	Axpo
2025	Seaspan TBN 3	7,600	LNG	Canada	Yes	Seaspan ULC
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2027	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2026	ScaleGas TBN	12,500	LNG	Spain	Yes	ScaleGas

Data last updated = 7 May 2024 | For more information please visit http://small-lng.com.