LNG Shipping News

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19 January 2023

The year ahead - what does it hold?

Gas proved to be a global story last year, with many twists – from record prices in North America to declining LNG demand in Asia.

Last year also saw momentum in LNG contracting but a disappointing number of LNG project FIDs.

A report looking at gas and LNG fortunes for this year was recently published by Wood Mackenzie (Woodmac).

Last year, no other commodity faced the challenges that the gas sector has confronted in the wake of Russia's invasion of Ukraine.

Not surprisingly, Europe grabbed the headlines, as it ended 2022 in a much better position than many feared only a few months earlier.

Gas demand fell by 50 bill cu m, some 10% higher than 2021, while LNG imports increased by 60 bill cu m. Consequently, despite the reduction in Russian pipeline imports, Europe had been able to maintain storage levels well above 80%.

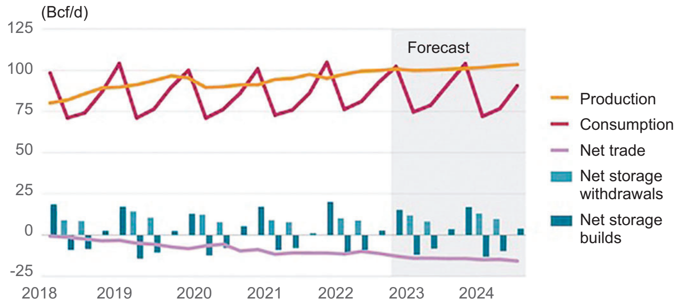
In a brief snapshot of the report, there were six things to look out for this year, Woodmac said.

1. Europe - better than feared but not out of the woods yet.
2. LNG demand growth in China will be limited, but risk is to the upside.
3. Henry Hub price retreats in 2023, as supply and demand start to rebalance.
4. A bumper year for LNG FIDs, but some will struggle.
5. LNG contracting momentum will continue into 2023.
6. Gas needs CCS to ensure demand longevity – investments might start happening this year.

In Asia, high and volatile LNG spot prices are expected to persist – bad news for the region, as it will continue to constrain demand in price-sensitive emerging markets.

Europe enters 2023 with less market uncertainty than seen last year, following the Russian invasion of Ukraine. But there are still risks.

US natural gas supply and demand



Source: US EIA's December Short-Term Energy Outlook

Security of supply and affordability will continue to be at the top of policy and corporate decisions.

North America's year of extreme price volatility and higher prices, as a result of significant market shifts, is coming to an end, but the market will continue to be facing a unique set of challenges.

Price drop

In another report, the US Energy Information Administration (EIA) scaled back its near-term natural gas price forecasts, due to a predicted record increase in US natural gas production.

Henry Hub spot prices were forecast to average $4.90 per MMBtu this year, down from $6.42 per MMBtu in 2022.

According to the EIA's January Short Term Energy Outlook (STEO), the 1Q23 Henry Hub spot price forecast was $4.99 per MMBtu, while the second quarter will also fall by 25 cents from the previous month's estimate to $4.75 per MMBtu.

"The natural gas market is particularly uncertain, but we expect that US natural gas production will establish new record highs in both 2023 and 2024, leading to lower domestic prices," said EIA Administrator, Joe DeCarolis.

The EIA also increased its total natural gas marketed production forecast for 2023 by 2.36 bill cu ft per day to an average of 109.11 bill cu ft and forecast that production will grow further to average 111.24 bill cu ft per day in 2024.

For the first half of this year, the EIA hiked the 1Q23 production estimate by 980 mill cu ft per day to 109.58 bill cu ft, and the 2Q23 forecast by 340 mill cu ft to 108.6 bill cu ft per day.

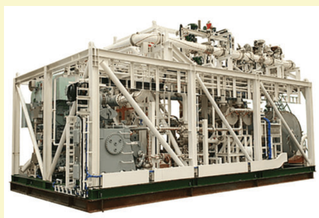
Increases in US natural gas production, relatively flat LNG exports, and declining domestic consumption in the electric power and industrial sectors, will limit upward pressure on prices in 2023, the report claimed.

The EIA also expected prices will again top $5 per MMBtu in late January, continuing into February, due to colder temperatures and the potential return to service of Freeport LNG. However, further delays at Freeport could add downward pressure in the near term.

In 2024, when new LNG export facilities are scheduled to come online, the EIA expected that robust production will keep gas prices "relatively flat – with the possibility of lower prices."

Gross LNG exports are forecast to average 12.06 bill cu ft per day this year and 12.59 bill cu ft next year, up from 10.65 bill cu ft per day in 2022, the report said. ■

SHIPPING NEWS AGENDA



Tight gas markets to persist

Tight natural gas markets are to be expected for the next couple of years, due to inadequate investment in new projects, the Qatari and UAE Energy Ministers said at a forum last weekend.

Another year of big changes in natural gas prices could "distort demand" and "distort" the role gas will play as a baseload for power for a number of years, UAE Energy Minister, Suhail al-Mazrouei said on the 14th January at the Atlantic Council's Global Energy Forum in Abu Dhabi, reported Platts.

Saad al-Kaabi, Qatar's Minister of State for Energy Affairs, told the forum that he expected gas prices to remain volatile this year, but emphasised that Qatar does not want high gas prices, as that would destroy demand. He also said that the market will be tight until at least 2025, when more supply is expected.

"When we talk about the lack of investment and the lack of interest from financial institutions to finance fossils or oil and gas projects, part of that is also the lack of understanding that it is the future for many countries when it comes to energy strategy," Mazrouei stressed.

European countries, which have reduced their consumption of Russian gas, will have to use its gas for prices to stabilise, Kaabi added.

"Russian gas is going to come back to Europe, in my view," Kaabi said. "Once the situation is sorted out, that will be a big relief from the whole gas sector and stabilise prices. High prices are not good for us. We want a happy buyer that can continuously pay."

LNG spot prices should be fair to gas producers to stimulate investments and should be higher than $8-$9 per MMBtu "to make sense for investment," Mazrouei said.

China to return

Kaabi said prices haven't spiked significantly, due to the warm winter in Europe and China's zero COVID-19 policy, but Chinese reopening may change the markets again.

"There is a huge growth and the only reason you're not seeing that huge growth or that pull, whether it's the oil or gas is really China lockdowns and winter being warm," Kaabi later told reporters on the sidelines of the forum. "But as soon as China has a full opening, and you will see that economic growth in China go back on."

Although gas prices have stabilised, they are still relatively high and the market is bracing itself for the introduction of an EU gas price cap in mid-February, with concerns the mechanism could have unintended consequences. However, this has since been delayed.

European Commission President, Ursula von der Leyen, declared in late December that Europe was effectively "safe" for this winter with EU stocks still at healthy levels for the time of year.

EU storage sites were filled to a peak of 95.5% of capacity by mid-November, comfortably beating the bloc's own targets.

Kaabi added: "I do not agree gas is a transition fuel. It is a destination fuel until we have realistic solutions. We are bringing a lot of gas into the market, but it is not enough."

The lack of new LNG export facilities in 2023 will constrain natural gas supply and force global gas markets to balance on demand destruction and existing stocks, according to S&P Global's 2023 energy outlook.

Europe, struggling with an energy crisis, could see even tighter gas and power markets in 2023, as it faces the first full year without significant volumes of Russian pipeline gas.

Qatar is talking to more European and Asian buyers and expects to lock in all volumes of its North Field expansion projects by the end of this year, Kaabi said. ■

> **"Russian gas is going to come back to Europe, in my view ... Once the situation is sorted out, that will be a big relief from the whole gas sector and stabilise prices."**
>
> *- Saad al-Kaabi, Qatar's Minister of State for Energy Affairs,*

NEWS NUDGE

KN accepting terminal spot cargo allocations

Lithuanian LNG terminal operator, AB Klaipėdos nafta (KN) has announced that requests for the Klaipėda LNG terminal spot cargo capacity allocation were being accepted as of last week.

KN said that it was keen to allocate capacity of one conventional size cargo scheduled on 10th/11th March, 2023 with a fixed regasification schedule.

The requests were due to be accepted up to 16th January, 2023 or until the first duly submitted request for spot cargo capacity was received by KN.

In accordance with the regulations for the use of the Klaipeda LNG terminal, spot cargo capacity allocation is performed on a first-come, first-served basis.

Eemshaven suspends send-out

Due to a compressor outage at RWE, Gasunie has said that it will be unable to use the heat connection from its EemsEnergy LNG receiving terminal.

As a result, there will be no send-out between 13th-30th January from the facility at Eemshaven, in the Netherlands.

The scheduling may change depending on the progress of repairs, the company said. ■

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Lubmin comes onstream

Last week, TotalEnergies announced the start-up of the Deutsche Ostsee LNG import terminal at Lubmin, operated by Deutsche ReGas (DRG), the second German receiving facility to come on line.

This project, to which TotalEnergies contributed the chartered FSRU 'Neptune' and will supply the LNG, will make the company one of Germany's main LNG suppliers, it said.

In December last year, TotalEnergies delivered the FSRU – one of its two units – to DRG. The FSRU has an annual regasification capacity of 5 bill cu m, enough to cover about 5% of Germany's demand.

Anthony Veder's 'Coral Favia' seen alongside the FSRU 'Neptune'

Following DRG's open season procedure, in October, 2022, TotalEnergies contracted regasification capacity of 2.6 bill cu m per year and began to deliver LNG from its portfolio to the Lubmin terminal.

"Europe is facing a historic gas supply crisis caused by the sharp drop in flows from Russia. Since the beginning of this crisis, TotalEnergies has mobilised its LNG portfolio, which is broad and flexible, to send available LNG to Europe and to use its 18 mill tonnes per year regasification capacity.

"Thanks to the start-up of the Lubmin terminal, TotalEnergies will be able to add to this effort and increase its imports to Europe to over 20 mill tonnes, or about 15% of the continent's regasification capacity. We are pleased to support this project, which will allow Germany and Europe to further secure gas supply," said Stéphane Michel, TotalEnergies' President Gas, Renewables & Power.

Three shuttle LNGCs

Small-scale gas shipowner Anthony Veder has committed three LNGCs to DRG to shuttle LNG to the FSRU and also took a minority stake in the terminal.

Jan Valkier, Anthony Veder CEO, said: "We are proud that we have been selected by Deutsche ReGas for supporting in their floating LNG terminal. As integrated shipowner with extensive experience in ship-to-ship operations worldwide we are looking forward to collaborating with all parties involved to successfully bringing LNG via this new distribution route to Germany."

With three 10,000 cu m multi-purpose gas carriers - 'Coral Furcata', 'Coral Favia' and 'Coral Fraseri' - the vessels will load LNG at the FSU off Ruegen and discharge at the FSRU in Lubmin.

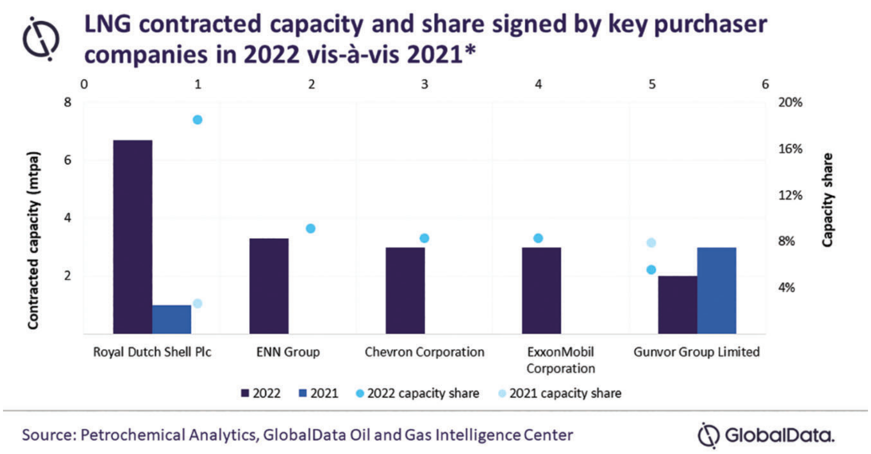
Germany expects the country's LNG import capacity to reach 37 bill cu m per year in 2024 and to double again by 2028, the Economy Ministry said in response to a parliamentary question published on 13th January.

Responding to a series of questions, the Ministry also said it expected gas supply this year to continue at the same level as 2022.

Some 10 projects aimed at direct LNG imports to Germany are under development, the Ministry confirmed. To receive LNG imports of 27.5 bill cu m per year of gas equivalent, an estimated 286 LNGCs would be needed. ■

Shell heads long-term LNG purchases

Shell dominated the global long-term LNG import contract volumes signed by major purchasing companies in 2022.



Last year, the energy major had a contracted capacity of 6.7 mill tonnes per annum, according to data and analytics company, GlobalData.

In a GlobalData report, it was revealed that the biggest long-term contract signed by Shell last year was with Mexico Pacific Limited to procure 2.6 mill tonnes per annum of natural gas.

ENN Group came in second by signing contracts for a total capacity of 3.3 mill tonnes, while Chevron and ExxonMobil entered into contracts to import 3 mill tonnes per annum of LNG each.

Himani Pant Pandey, GlobalData's Oil and Gas Analyst, said: "Energy companies are bullish about long-term LNG demand due to decarbonisation efforts and the role of natural gas as a bridge fuel for the energy transition. The signing of long-term contracts also helps companies to hedge against volatile LNG prices and ensures guaranteed supply."

Among the vendors, Venture Global LNG signed the largest long-term LNG contract volumes totalling 11 mill tonnes per annum. Energy Transfer Partners and NextDecade Corp followed with 7.9 mill tonnes and 6.3 mill tonnes, respectively.

Himani concluded: "Companies from the US, such as Venture Global LNG, have led the signing of the long-term LNG contracts in 2022, as the country is witnessing significant liquefaction capacity additions creating ample opportunities for exports." ■

Shell to offtake Omani LNG

State-owned Oman LNG is to supply 0.8 mill tonnes per year of LNG to Shell.

This agreement is for 10 years starting from 2025, the official Oman News Agency reported last week.

Shell is a shareholder in Oman LNG.

"We are delighted to sign this term-sheet agreement with Shell, who has been our partner in the industry for many years," Hamed Al Nu'amani, Oman LNG CEO, said. "This agreement leverages the opportunities to place Oman LNG in a very competitive market, with strong partners allowing us to grow our market access."

This announcement came on the back of Oman LNG signing binding term sheet agreements to deliver 2.35 mill tonnes per year of LNG to three Japanese companies.

Oman LNG is 51% owned by the Omani Government, 30% by Shell, 5.4% by TotalEnergies and 5% by Kogas, among others.

Clean energy agreements have been signed with Shell covering LNG, green hydrogen and liquefied synthetic gas.

Shell signed a second agreement to join the Green Energy Oman (GEO) consortium. This consortium is involved with a project to optimise around 25 GW of renewables for conversion into green hydrogen, as well as the production, storage and export of green ammonia.

A Letter of Intent (LoI) was also agreed whereby Shell will explore the deployment of liquefied synthetic gas (LSG) in Oman in co-operation with MEMR.

Gas trading boost

Ahead of its results announcement, the energy giant said that its gas trading earnings were much higher in the final three months of 2022.

"There's probably a bit of relief from investors around integrated gas trading," said Biraj Borkhataria, an analyst at RBC Capital Markets, talking with Bloomberg. "Last quarter was poor and they were adamant it wasn't structural. So it's good to see good numbers coming through on that front."

The performance swings highlight the opportunities and challenges ahead for new CEO, Wael Sawan, who took over the role recently.

This year could be another volatile 12 months for energy markets as the world contends with the impact of Russia's ongoing war in Ukraine, a slowing global economy and China's efforts to lift Covid-19 restrictions.

For example, mild weather sent European natural gas prices plunging to levels last seen before the invasion.

Shell's LNG output in the fourth quarter of last year was between 6.6 mill and 7 mill tonnes, down from 7.2 mill in the previous quarter, due to problems with the FLNG 'Prelude' and QGC projects in Australia. ■

NEWS NUDGE

SSY promotes LNG broker to Partner

London-based independent shipbroker, Simpson Spence Young (SSY), has appointed LNG desk broker, Phillip Tripodakis, as a Partner.

He joins five other recently appointed Partners, bringing the total number up to 27.

Stanko Jekov, SSY Managing Partner, commented: "We're delighted to welcome the new partners to the team in recognition of the substantial contribution they have made to our business. It's no secret that shipping and shipbroking is changing – it's entering a very interesting and dynamic phase.

"I strongly believe that the ambition, drive and talent of our new partners will enable us to positively contribute to that change even further and have a very real and positive impact as we drive our business forward," he said. ■

ADNOC consolidates gas processing and LNG operations

UAE-based energy company, ADNOC has consolidated its gas processing and LNG operations into a new single subsidiary - ADNOC Gas.

It is one of the world's largest gas processing entities, with capacity of about 10 bill cu ft of gas per day.

The company claimed that ADNOC Gas will be a key enabler of its strategy for the gas sector, supporting UAE gas self-sufficiency, industrial expansion and economic growth; and expanding export capacity to meet growing global demand.

ADNOC also said that this year, it intended to offer a minority stake in ADNOC Gas through an IPO on the Abu Dhabi Securities Exchange (ADX).

Demand for natural gas is expected to increase steadily over the coming decades with demand driven by industrial and manufacturing growth and the replacement of more carbon intensive fuels, such as coal, in international markets.

HE Dr Sultan Ahmed Al Jaber, UAE Minister of Industry and Advanced Technology and ADNOC Managing Director and Group CEO, said: "The formation of ADNOC Gas represents another major milestone in unlocking the full value of the UAE's vast natural gas resources and builds on ADNOC's more than 40 years' experience as a leading gas producer.

"Natural gas will be a critical fuel in the energy transition and ADNOC Gas, through its world-scale operations and significant growth and expansion plans, will be well-positioned to meet both local and international gas demand. In addition to enabling the growth of local industry and manufacturing, ADNOC Gas will play a critical role in delivering ADNOC's broader LNG expansion plans, including in international markets.

"For our customers, ADNOC Gas will continue to be a reliable provider of LNG, LPG and associated products. Led by a seasoned and highly-qualified senior management team, with unrivalled experience in the sector, this new flagship and world-scale company will strengthen our position as a responsible and sustainable energy leader in an evolving global energy landscape," he said.

Appointments

Ahmed Mohamed Alebri was appointed as CEO (Acting) of ADNOC Gas, Peter Van Driel as CFO, and Mohamed Al Hashemi as COO.

Alebri is the former CEO (Acting) of ADNOC Gas Processing and General Manager (Acting) of ADNOC Industrial Gases.

Van Driel is a 28-year Shell veteran, where he served in various key roles in accounting, investor relations, M&A and finance, while Al Hashemi is the former Senior Vice President of Production Planning & Transmission at ADNOC Gas Processing.

Existing joint venture partners with ADNOC LNG (Mitsui & Co, bp and TotalEnergies) and ADNOC Gas Processing (Shell, TotalEnergies and PTTEP) will continue in their respective joint venture partnerships with ADNOC Gas. ■

Gunvor ups LNG borrowing facility

Independent LNG trader, Gunvor Group, has renewed its syndicated borrowing base facility to support the working capital needs of its growing LNG activities globally.

Launched at $1.2 bill, the syndication was oversubscribed, with strong interest from new lenders, including more than 20 banks from Europe, the Middle East, Africa, and Asia. Six new banks were involved.

As a result, the facility was increased from $1.135 bill to $1.565 bill.

The borrowing was inaugurated last year and was structured around Gunvor's global LNG trade flows, including shipping activities. It will finance physical and derivative positions.

As a part of the deal, Gunvor has committed to CO2 carbon emissions reporting to establish transparency for the carbon footprint of the company's LNG value chain.

"The very strong interest this financing has received from such a diversified pool of lenders reflects the global nature of Gunvor's LNG activity," said Tawfik Sadfi, Gunvor's Head of Structured Trade Finance. "LNG has secured a place as strategic commodity for both the energy transition and energy security."

"The successful refinancing and increase of this facility underscores the extent to which a growing number of banks recognise LNG as part of the mainstream commodities market," said Gertjan Lagerwerf, Director Rabobank Trade & Commodity Finance – Energy. "LNG has an important role in assuring energy security for many countries amid the current challenging geopolitical circumstances."

Ludivine Labarre, Global Head of Trade Commodity Finance at Société Générale, added: "This landmark LNG borrowing base facility embodies the long-term strategic move of Gunvor to support LNG transitional commodities contributing to both low-carbon future and energy security.

"Gunvor's clearly defined trading strategy and business model, hand-in-hand with its sustainability commitments, continue to attract market confidence while paving the way for new ESG commitments linked to LNG activity," he said.

Gunvor had previously committed to environment, social, and governance (ESG), targeting a 40% reduction in the company's Scope 1 and 2 emissions by 2025.

For existing and new trading, dedicated programmes are being established to manage emissions and environmental impact, while taking into account human rights considerations, in line with Gunvor's commitment to the UNGPs on Business & Human Rights.

Tracking and reporting of scope 1, 2, and 3 emissions related to the trading of LNG adds further to those commitments, the Group said.

Coöperatieve Rabobank acted as the Lead Co-ordinator, Facility and Security Agent and Société Générale as Documentary Agent of the facility. ■

CCS oversees LNGC sea and gas trials

On the 28th December last year, 'H1837A', the world's largest shallow draft LNGC classed by China Classification Society (CCS), completed its sea and gas trials.

'H1837A', which was built by Hudong-Zhonghua Shipbuilding (Group) for Shenzhen Gas Group, was inspected by CCS. She has an overall length of 239.4 m, a moulded beam of 36.6 m, a moulded depth of 21 m and designed draft of 8.5 m.

She is fitted with a high-efficiency LNG/MGO dual-fuel engine, which meets Tier III emission requirements under gas mode operation.

The ship's construction was stopped for the first half of last year due to the pandemic. As the work resumed, CCS' Shanghai branch co-operated with the shipyard to 'regain lost time' to ensure all inspections could be efficiently completed to a high standard.

Shanghai's LNG inspection project team worked closely with the shipowner and the shipyard to overcome the impact of the epidemic, cold weather and other factors, and successfully completed the routine sea and gas trials, which lasted for 16 days, simultaneously.

During the sea trials, CCS surveyors supported the shipowner and shipyard by using their expertise to identify and resolve any issues arising.

In the gas trials, surveyors conducted a detailed inspection of the ship's integrated automation system (IAS) and optimised its operation together with the shipowner and shipyard to ensure the LNGC operates at a highly stable and reliable level, CCS said. ■

CCS oversaw trials on a new LNGC

Venture Global closes notes issue

Venture Global Calcasieu Pass (VGCP) has closed an offering of $1 bill aggregate principal amount of 6.25% senior secured notes, due 2030.

The notes will mature on 15th January, 2030.

VGCP intends to use the net proceeds to (i) pre-pay certain amounts outstanding under its existing senior secured first lien credit facilities, (ii) pay hedge termination costs in connection with such prepayment and (iii) pay fees and expenses in connection with the offering.

The notes were guaranteed by TransCameron Pipeline, VGCP's affiliate. They are secured on a *pari passu* basis by a first-priority security interest in the assets that secure the existing credit facilities and VGCP's existing senior secured notes.

Meanwhile, the US Federal Energy Regulatory Commission (FERC) said it had prepared an environmental assessment (EA) for Venture Global's Plaquemines LNG upgrade amendment project.

Plaquemines LNG had asked for authorisation to increase the peak liquefaction capacity of its existing LNG export terminal from 24 tonnes per annum to 27.2 mill tonnes under optimum conditions.

FERC concluded that approval of the proposed project, with appropriate mitigating measures, would not constitute a major federal action significantly affecting the quality of the human environment.

The US Department of Energy, Department of Transportation's Pipeline and Hazardous Materials Safety Administration, and the US Coast Guard participated as co-operating agencies in the EA's preparation.

FERC asked for comments on or before 6th February, 2023. ■

Seapeak opts for Global Solutions underwater services

Subsea Global Solutions has signed an agreement with LNGC owner Seapeak Maritime to provide underwater hull maintenance and repair services for the company's fleet of over 70 vessels.

Under the agreement, all of the related underwater work for the fleet will be co-ordinated by Subsea Global Solutions' corporate key accounts team with local operational offices catering for Seapeak's operational and technical needs.

Chris McDade, Seapeak Maritime's Vice President Operations, said; "Seapeak continues to invest in innovation to drive energy efficiency within the fleet. Protecting the environment with proactive underwater preventative maintenance policies and optimising the emissions intensity and performance of our fleet are key long-term goals, which are aligned with the International Maritime Organisation (IMO) 2030 and 2050 ambitions.

"Subsea Global Solutions offers the right depth of expertise, global coverage, and consistent reliability we need to achieve that," he said.

Harun Duzgoren, Subsea Global Solutions' CCO, added; "We are excited to be given the opportunity to support Seapeak's fleet worldwide and we look forward to assisting them practically with their environmental and energy efficiency goals and using our cloud-based online reporting tool and partner central platform to support EEXI and CII regulatory compliance.

"We are committed to supporting these environmental initiatives and helping vessels reduce their fuel consumption and emissions globally," he said.

Employing around 2,400 shore and sea staff worldwide, Seapeak (formerly Teekay LNG Partners) provides services primarily under long-term, fee-based charters through its interests in 46 LNGCs, 20 mid-size LPG carriers and six multi-gas carriers.

Seapeak recently agreed with Jaccar Holdings to acquire Danish shipping company Evergas, a seaborne transporter of petrochemicals and natural gas liquids.

In addition, Seapeak has a $1.1 bill order in place with Samsung Heavy Industries for the construction of five 174,000 cu m M-type, electronically controlled, gas admission (MEGA) propelled LNGCs.

Scheduled for delivery in 2027, the vessels will operate under a fixed-rate timecharter contract with ExxonMobil.

Subsea Global has more than 200 commercial diver-technicians worldwide with 14 offices in five continents. ■

Seapeak's 'Bahrain Spirit' seen alongside the Bahrain LNG receiving terminal

Chinese LNGCs to be fitted with ALS

Silverstream Technologies is to install air lubrication systems (ALS) on four 175,000 cu m LNGCs being built at Dalian Shipbuilding Industry Company (DSIC) for China Merchants Energy Shipping (CMES).

This agreement calls for four firm installations and two options of the patented Silverstream System to be fitted on the Chinese-owned and Chinese-built LNGCs.

The fittings will take place over the next two years, with work expected to be completed by the end of 2024, in line with DSIC's newbuilding schedule.

This order brings the number of ALS to be fitted on LNGCs to 23, eight of which are already in service. It also follows a recent deal with ADNOC to install the Silverstream System on six of the first LNGCs to be built at China's Jiangnan shipyard.

The new 175,000 cu m LNGCs being built at DSIC are jointly classed by China Classification Society (CCS) and Lloyd's Register (LR), American Bureau of Shipping (ABS), DNV and Bureau Veritas (BV).

Silverstream's ALS will cut the vessels' fuel consumption and emissions by 5-10% net and is effective in all sea conditions, the company claimed.

In addition, a number of other technological innovations will be fitted on board the LNGCs, including GTT's Mark III membrane cargo containment system and an LNG dual-fuel propulsion system.

Noah Silberschmidt, Founder & CEO, Silverstream Technologies, said: "We are delighted to announce this new deal with China Merchants Energy Shipping. It comes thanks to our proven track record of cutting emissions and fuel consumption in one of the shipping industry's most important operating sectors.

"The agreement strengthens our co-operation with CMES in LNG ship investment and builds on our already strong relationship with Dalian Shipbuilding Industry Company. We look forward to working on these vessels and deepening the ties between Silverstream's Shanghai presence and the region's most important maritime players over the next two years," he said. ■

NEWS NUDGE

Alaska LNG gains SEIS

The US Department of Energy (DoE) has announced the availability of the Final Supplemental Environmental Impact Statement (SEIS) for the Alaska LNG Project.

This final SEIS evaluates the potential environmental impacts associated with Alaska LNG project's existing authorisation to export LNG from the proposed Alaska Gasline Development Corp (AGDC) project to non-free trade agreement countries.

The DoE said it had prepared the final SEIS in accordance with the US National Environmental Policy Act of 1969 (NEPA) to inform its decision on re-hearing under the Natural Gas Act (NGA). ■

Babcock's LGE wins milestone LNG contract

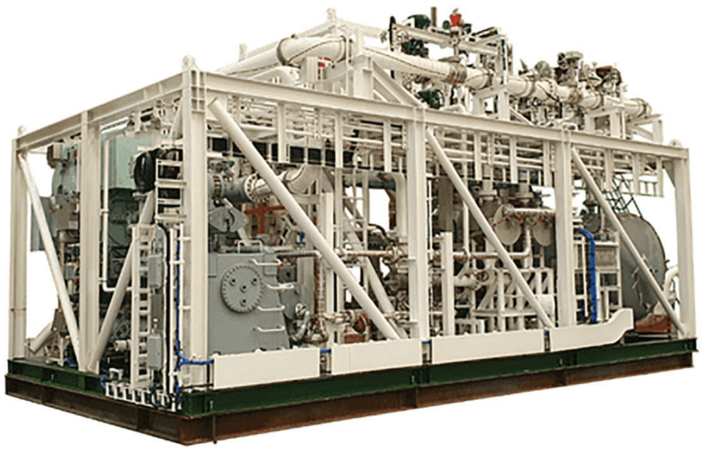
Late last year, Babcock's subsidiary, LGE, announced the award of its 100th contract for its patented ecoSMRT LNG reliquefaction technology.

This contract, from a South Korean shipyard, is a major achievement since the technology was first launched less than four years ago, the company claimed.

LGE added that this order rounded off an exceptional end to the final months of 2022 with 30 project contracts worth more than £100 mill across the LNG, LPG and fuel gas sectors.

Operational benefits of ecoSMRT include efficiency resulting in lower power consumption and carbon footprint, compared to competitor's solutions. The compact modular design is well proven with more than 30 in service and performing well in line with design conditions and multiple repeat orders have been received from leading shipowners, the company said.

Neale Campbell, Babcock LGE's Managing Director, said: "We're dedicated to providing environmental and economic improvements for our clients' assets and investing in technology for the future. These latest contracts further strengthen Babcock's LGE business position as the market leader in LNG, LPG and LNG. They provide an exciting launch pad for our next generation of technology development to support shipowners achieve carbon reduction targets." ■



Babcock LGE has recorded a milestone in its equipment sales

ABS and HD Hyundai sign projects agreement

ABS and HD Hyundai have signed a comprehensive memorandum of understanding (MoU) to continue working together on autonomous projects, including LNGC systems.

Building on shared efforts to expand the development of autonomous navigation technology into critical vessel machinery and safety systems, the organisations met at the Consumer Electronics Show (CES) in Las Vegas to finalise the agreement, which covered four areas:

- Artificial Intelligence-based Autonomous Machinery Health Management Function (HiCBM).
- Artificial Intelligence-based Autonomous Safety Management Function (HiCAMS).
- Artificial Intelligence-based Autonomous LNG Fuel Gas Supply System (Hi-GAS+ SMART FGSS).
- Artificial Intelligence-based Smart LNG Boil-off Gas Management System (Hi-GAS+ AI CHS).

Pictured left to right - ABS' Christopher Wiernicki and Patrick Ryan with HD Hyundai's Sung-joon Kim, Ki-sun Chung and SH Jeon

"This is an exciting time for innovation and technology breakthroughs in maritime, and we are looking forward to continuing to evolve industry solutions with HD Hyundai to drive more efficient operations and advances in safety, addressing the challenges of today and those in the future," said Christopher Wiernicki, ABS' Chairman, President and CEO.

The MoU's scope builds on the last year's signing of a strategic framework agreement. Under that agreement, ABS worked with HD Hyundai subsidiaries, Avikus and Korea Shipbuilding and Offshore Engineering (KSOE).

There were several major achievements claimed, including the demonstration of technology developed by Avikus, enabling the 180,000 cu m LNGC 'Prism Courage' to complete about half of its voyage across the Pacific under autonomous conditions.

"The 'Prism Courage' voyage was a milestone for the entire shipping industry and demonstrated the potential of artificial intelligence and autonomous functions to contribute to safe navigation at sea," added Wiernicki.

"HD Hyundai is one of the most advanced companies in developing and commercialising autonomous navigation technology. We are excited to expand our work with ABS, a leader in the industry in supporting autonomous projects.

"Through this agreement with ABS, we expect to further advance autonomous vessel technology that will support autonomous engine room operations as well as safety management," said Ki-sun Chung, HD Hyundai President and CEO. ■

GTT wins LNGC orders - completes onshore storage tank project

In the fourth quarter of last year, GTT received three orders from Daewoo Shipbuilding & Marine Engineering (DSME) for the tank design of four LNGCs, ordered by several international shipowners.

The 174,000 cu m LNGCs will be fitted with an NO96 family membrane containment system and they are scheduled for delivery between the third and fourth quarters of 2026.

In addition, GTT received orders from Hyundai Samho Heavy Industries and Hyundai Heavy Industries the tank design of a new LNGC and for two new Very Large Ethane Carriers (VLECs).

With a cargo capacity of 174,000 cu m, the LNGC, ordered by TMS Cardiff, will be fitted with the membrane containment system Mark III Flex.

She will be delivered in the first quarter of 2026.

GTT also announced that as part of the BGG Tianjin Nangang LNG terminal, China Huanqiu Contracting & Engineering (HQCEC) has completed the construction of two LNG onshore storage tanks, each with a capacity of 220,000 cu m.

They are claimed to be the world's largest onshore LNG storage tanks and are fitted with GTT's patented GST membrane containment technology.

The two tanks form part of an agreement signed in November, 2019 between GTT and China's state-owned company, Beijing Enterprises Group (BEG), relating to the construction of eight onshore tanks using GST technology, at the terminal.

On schedule

Construction remained on track, despite the constraints imposed by the COVID-19 pandemic. The two onshore tanks are now entering the commissioning phase and will be operational in the first half of 2023, GTT said.

Developed by GTT, GST technology offers many advantages compared to a traditional onshore LNG tanks, ie safer storage management through integrated monitoring, greater storage capacity for the same footprint and greater respect for the environment.

Philippe Berterottière, GTT Chairman and CEO, said: "The construction of these first two onshore tanks marks an important milestone for BGG's LNG terminal in Tianjin. These tanks are the first of eight planned for the site and are already the largest onshore tanks in the world equipped with our GST technology. We thank BGG and the Chinese government for their trust and wish HQCEC every success of this new terminal."

Yalan Li, BGG Chairwoman and President of the International Gas Union (IGU), added: "This milestone is the reward of five years of assessment, preparation, engineering and actual construction. The City of Beijing and Beijing Entrerprises Group are proud to have evolved this emerging technology into a promising solution for many projects around the world.

"Thanks to this world first, these containment membrane tanks are on their way to becoming the state-of-the-art in LNG storage. We have been impressed by the dedication and passion of GTT and HQCEC to make this world first a success, and we thank the French and Chinese authorities for supporting such an important technology partnership between our two countries," she said.

Shaoguang Song, Chairman of HQCEC, commented: "We are proud to have successfully completed these two world largest onshore membrane tanks with the strong support of GTT, thanks to the precious opportunity provided by BGG.

"With the advantages of higher efficiency and lower carbon footprint, membrane system has been proved to be a good choice for upcoming LNG projects, both onshore and offshore. Committed to continuous technology innovation and process optimisation, HQCEC will continue to promote membrane technology to domestic and international markets and bring value to our clients," he concluded. ■

NEWS NUDGE

Ships - Newbuildings

Last year China Shipbuilding Group (CSSC) made a major breakthrough in large-scale LNGC building.

This has become the biggest highlight of the high-quality development of China's shipbuilding industry in 2022, CSSC said.

According to its statistics, CSSC signed 49 contracts for large LNGCs in 2022, amounting to more than $10 bill. As a result, its global market share of total orders jumped from less than 7% in 2021 to nearly 30% in 2022, on a par with South Korea's three major shipbuilding companies.

The order structure was diversified, and the co-operation with a number of international customers was realised for the first time, highlighting the strong technical strength and strong market influence of China's shipbuilding industry, CSSC claimed.

CSSC also said it had accurately predicted market trends since the beginning of 2020, launching a large-scale LNGC construction capacity improvement project. As a result, both CSSC subsidiaries, Jiangnan Shipbuilding (Group) and Dalian Shipbuilding Industry Group (DSIC) entered the field of large-scale LNGC building.

A large-scale LNGC construction capacity project was formed involving 'two places, three plants and two types' with Hudong-Zhonghua Shipbuilding (Group), a subsidiary of China Shipbuilding Group, and also clarified the future large-scale LNGC capacity planning goals and development paths.

CSSC also established a commercial ship project office to further strengthen the top-level planning and co-ordination of major projects, set up a large LNGC expert group to carry out guidance and consultation on R&D, construction technology, capacity building, quality and safety, risk prevention and control, etc, aimed at accelerating the improvement of large LNGC building capacity, and provide strong support for market expansion.

In addition, the main marketing platform, China State Shipbuilding Industry Trading, has joined with Hudong-Zhonghua, Jiangnan Shipbuilding and Dalian Shipbuilding to form a large-scale LNGC market development team.

Hudong-Zhonghua set a record for the largest single LNGC order in Chinese shipbuilding last year, and Jiangnan Shipbuilding and Dalian Shipbuilding also won batch orders after achieving their first breakthroughs.

South Korea's Hyundai claimed the first orders of 2023, when announcing a contract for three 200,000 cu m LNGCs believed to be for Dynagas.

The contract was valued at Won971.4 bill, according to a filing. They will be delivered starting from the first half of 2026.

Brokers have also reported the sale of MISC's 134,770 cu m, 2002-built 'Puteri Intan Satu' to southeast Asian interests for $30 mill. ■

JGC awarded FLNG contract

As head of a consortium with Samsung Heavy Industries (SHI), JGC Corp was awarded the engineering, procurement, construction, commissioning (EPCC) contract for a nearshore FLNG project to be operated by PETRONAS.

This unit will be the world's first nearshore FLNG, as well as the third floating LNG plant to be constructed for offshore gas fields located in Malaysia. With a minimum production capacity of 2 mill tonnes of LNG per annum, the FLNG is scheduled for completion in 2027.

JGC's main responsibilities will cover the engineering, procurement and commissioning work for the FLNG's topsides, the associated onshore facilities, as well as the management of the overall project. SHI will be responsible for the FLNG hull EPC work and the modular fabrication of the topsides.

Since the 1980's, the JGC Group has executed EPC projects for PETRONAS for all nine trains of the LNG plants at its complex in Bintulu, Sarawak, which has an annual production capacity of around 29 mill tonnes per annum, and in 2021, successful completed the Malaysian energy major's second FLNG, 'PFLNG Dua', the world's first deepwater FLNG unit.

JGC also achieved the Mozambique 'Coral FLNG' first cargo in November of last year. The Group's experience includes two other newly-built EPC FLNG projects out of the total of three in operation worldwide, and is currently performing the FEED for an Nigerian FLNG project.

JGC Holdings Corp's Representative Director, President and COO, Tadashi Ishizuka, said, "We believe that our consortium secured the order for the PETRONAS FLNG facility project on the basis of JGC's world-leading project management capabilities and the company's advanced and proven technologies in LNG plants, accounting for about 30% of LNG plants worldwide, as well as SHI's world-class shipbuilding capabilities in this field.

"It is our sincere wish to continue to contribute to the realisation of planned FLNG plants and LNG plants, with LNG positioned as a key energy transition source. In doing so, JGC will leverage its accumulated experience and achievements, founded on an abundance of high-level execution and technical capabilities," he said.

"We believe that our consortium secured the order for the PETRONAS FLNG facility project on the basis of JGC's world-leading project management capabilities and the company's advanced and proven technologies in LNG plants"

- Tadashi Ishizuka, JGC Holdings Corp's Representative Director, President and COO,

NEWS NUDGE

Nigeria LNG halts cargo shipments

Nigeria LNG (NLNG) has reportedly cancelled several LNG shipments after vandalism on gas field pipelines disrupted production.

The company declared an additional *force majeure* on export LNG cargoes and cancelled the loading of at least two cargoes scheduled for January delivery from the Bonny Island facility. As many as 10 shipments were cancelled, local sources told Bloomberg.

Last year, NLNG's exports made up about 7% of Europe's LNG supply, data compiled by BloombergNEF showed.

This latest incident comes after Nigerian gas exports were disrupted earlier last year by floods. security issues, as well as feedgas problems.

More shipments, for February, could also be cancelled, sources told the newswire.

Chinese LNG terminals

Agency group GAC has reported on crew changes allowed at Chinese LNG terminals.

At Qingdao and Tangshan, all crew signing onto a vessel must have a negative PCR test from organisations designated or recognised by the Chinese embassies and consulates overseas and they must be taken within three days of a person joining a vessel.

Foreign crew changes are still not being allowed at some terminals, GAC warned.

GAIL seeks two LNG cargoes

GAIL (India) has issued a buy tender for two LNG cargoes.

India's largest gas distributor is seeking the cargoes for delivery during February on a delivered ex-ship (DES) basis to the Dabhol terminal.

The tender closed on 18th January, sources told Reuters.

LNG rate assessments

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

Region	This week	Change*
East of Suez	$100,000	- $50,000
West of Suez	$58,000	- $62,000
12 mos T/C	$154,000	- $17,000

*Since last report (05/01/23) Source: Fearnleys (18/01/23)

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	$265.51 mill
Five years old (174,000 cu m)	$213.39 mill
Total Fleet (559 ships)	$82.28 bill
Orderbook (297 ships)	$78.23 bill

*Source: VesselsValue (04/01/23)

*The above is updated each month courtesy of VesselsValue

WORLD LNG CARRIER ORDERBOOK

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Asterix I	Capital Gas	Hyundai Heavy	174000	XDF	01/11/2022	Q4, 2022
Hudong-zhonghua H1829a	CSSC	Hudong-Zhonghua	174000	XDF	01/01/2024	Q1, 2024
Hudong-zhonghua H1830a	CSSC	Hudong-Zhonghua	174000	XDF	01/04/2024	Q2, 2024
Alexey Kosygin	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/03/2023	Q1, 2023
Pyotr Stolypin	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/09/2023	Q3, 2023
Sergei Witte	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/10/2023	Q4, 2023
Zvezda 044	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/11/2023	Q4, 2023
Zvezda 045	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/12/2023	Q4, 2023
Seri Damai	MISC	Samsung	174000	XDF	01/01/2023	Q1, 2023
Seri Daya	MISC	Samsung	174000	XDF	01/03/2023	Q1, 2023
Samsung 2315	SinoKor	Samsung	173400	ME-GA	01/12/2023	Q4, 2023
Samsung 2316	SinoKor	Samsung	173400	ME-GA	01/11/2022	Q4, 2022
Samsung 2317	SinoKor	Samsung	173400	ME-GA	01/12/2022	Q4, 2022
Samsung 2318	SinoKor	Samsung	173400	ME-GA	01/03/2023	Q1, 2023
Lng Prosperity	JP Morgan	Hyundai Heavy	174000	XDF	01/12/2022	Q4, 2022
Kun Lun	ULT	Hudong-Zhonghua	174000	XDF	01/04/2023	Q2, 2023
Wu Dang	ULT	Hudong-Zhonghua	174000	XDF	01/01/2023	Q1, 2023
Lng Harmony	JP Morgan	Hyundai Heavy	174000	XDF	01/08/2023	Q3, 2023
Orion Jessica	JP Morgan	Hyundai Heavy	174000	XDF	01/07/2023	Q3, 2023
El Ferrol Knutsen	Knutsen	Hyundai Samho	174000	XDF	01/05/2023	Q2, 2023
Extremadura Knutsen	Knutsen	Hyundai Samho	174000	XDF	01/06/2023	Q2, 2023
Daewoo 2517	MOL, COSCO	DSME	172500	TFDE - Azipod	01/09/2023	Q3, 2023
Daewoo 2518	MOL, COSCO	DSME	172500	TFDE - Azipod	01/10/2023	Q4, 2023
Daewoo 2519	MOL, COSCO	DSME	172500	TFDE - Azipod	01/12/2023	Q4, 2023
Zvezda 046	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/08/2024	Q3, 2024
Zvezda 047	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/09/2024	Q3, 2024
Zvezda 048	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/10/2024	Q4, 2024
Zvezda 049	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/11/2024	Q4, 2024
Zvezda 050	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/12/2024	Q4, 2024
Zvezda 051	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/08/2025	Q3, 2025
Zvezda 052	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/09/2025	Q3, 2025
Zvezda 053	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/10/2025	Q4, 2025
Zvezda 054	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/11/2025	Q4, 2025
Zvezda 055	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/12/2025	Q4, 2025
Sm Golden Eagle	Korea Line	Hyundai Heavy	174000	XDF	01/09/2025	Q3, 2025
Sm Kestrel	Korea Line	Hyundai Heavy	174000	XDF	01/10/2023	Q4, 2023
Grazyna Gesicka	Knutsen	Hyundai Heavy	174000	XDF	01/06/2023	Q2, 2023
Lech Kaczynski	Knutsen	Hyundai Heavy	174000	XDF	01/12/2022	Q4, 2022
Samsung 2425	Maran Gas Maritime	Samsung	174000	XDF	01/07/2023	Q3, 2023
Hyundai Samho 8100	Knutsen	Hyundai Samho	174000	ME-GA	01/11/2024	Q4, 2024
Orion Sky	JP Morgan	Hyundai Heavy	174000	XDF	01/11/2024	Q4, 2024
New Brave	Pan Ocean	Hyundai Heavy	174000	XDF	01/09/2024	Q3, 2024
New Nature	Pan Ocean	Hyundai Heavy	174000	XDF	01/10/2024	Q4, 2024
New Apex	Pan Ocean	Samsung	174000	XDF	01/04/2023	Q2, 2023
Energy Fidelity	Alpha Gas	Hyundai Samho	174000	XDF	01/08/2023	Q3, 2023
Dapeng Princess	Shenzhen Gas	Hudong-Zhonghua	79960	XDF	01/01/2023	Q1, 2023
Hyundai Ulsan 3294	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/02/2024	Q1, 2024
Hyundai Ulsan 3295	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/06/2024	Q2, 2024
Hyundai Ulsan 3296	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/07/2024	Q3, 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 = 8 December 2022

Fearnley LNG

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Hyundai Samho 8139	Knutsen	Hyundai Samho	174000	XDF	01/10/2023	Q4, 2023
Jiangnan H2637	Jovo Energy	Jiangnan	79800	XDF	01/12/2023	Q4, 2023
Samsung 2473	Maran Gas Maritime	Samsung	174000	XDF	01/09/2024	Q3, 2024
Samsung 2474	Maran Gas Maritime	Samsung	174000	XDF	01/09/2024	Q3, 2024
Daewoo 2521	Hyundai LNG Shipping	DSME	174000	MEGI	01/09/2023	Q3, 2023
Clean Destiny	Dynagas	Hyundai Heavy	200000	ME-GA	01/11/2023	Q4, 2023
Clean Future	Dynagas	Hyundai Heavy	200000	ME-GA	01/03/2024	Q1, 2024
Clean Resolution	Dynagas	Hyundai Heavy	200000	ME-GA	01/09/2023	Q3, 2023
Clean Vitality	Dynagas	Hyundai Heavy	200000	ME-GA	01/02/2024	Q1, 2024
MOL Coral	MOL	DSME	174000	ME-GA	01/10/2023	Q4, 2023
Amore Mio I	Capital Gas	Hyundai Heavy	174000	ME-GA	01/10/2023	Q4, 2023
Axios II	Capital Gas	Hyundai Heavy	174000	ME-GA	01/12/2023	Q4, 2023
Hyundai Samho 8106	Alpha Gas	Hyundai Samho	170520	XDF	01/04/2024	Q2, 2024
Hyundai Samho 8107	Alpha Gas	Hyundai Samho	170520	XDF	01/06/2024	Q2, 2024
Hyundai Samho 8147	H-Line	Hyundai Samho	174000	XDF	01/11/2023	Q4, 2023
Samsung 2459	Celsius Shipping	Samsung	180000	ME-GA	01/06/2023	Q2, 2023
Samsung 2460	Celsius Shipping	Samsung	180000	ME-GA	01/09/2023	Q3, 2023
Samsung 2461	Celsius Shipping	Samsung	180000	ME-GA	01/12/2023	Q4, 2023
Hyundai Samho 8101	Knutsen	Hyundai Samho	174000	ME-GA	01/10/2023	Q4, 2023
Hyundai Samho 8102	Knutsen	Hyundai Samho	174000	ME-GA	01/09/2025	Q3, 2025
Hyundai Ulsan 3320	JP Morgan	Hyundai Heavy	174000	ME-GA	01/07/2025	Q3, 2025
Hyundai Ulsan 3321	JP Morgan	Hyundai Heavy	174000	ME-GA	01/09/2025	Q3, 2025
New Green	Pan Ocean	Hyundai Heavy	174000	ME-GA	01/10/2024	Q4, 2024
New Oasis	Pan Ocean	Hyundai Heavy	174000	ME-GA	01/12/2024	Q4, 2024
Daewoo 2522	Hyundai LNG Shipping	DSME	174000	MEGI	01/05/2024	Q2, 2024
Hyundai Samho 8148	Knutsen	Hyundai Samho	174000	XDF	01/02/2024	Q1, 2024
Hyundai Samho 8149	Knutsen	Hyundai Samho	174000	ME-GA	01/03/2024	Q1, 2024
Hyundai Ulsan 3297	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/05/2024	Q2, 2024
Hyundai Ulsan 3298	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/11/2024	Q4, 2024
Hyundai Ulsan 3299	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/01/2025	Q1, 2025
Samsung 2579	Celsius Shipping	Samsung	180000	ME-GA	01/03/2024	Q1, 2024
Samsung 2584	Celsius Shipping	Samsung	180000	ME-GA	01/07/2024	Q3, 2024
Samsung 2585	Celsius Shipping	Samsung	180000	ME-GA	01/09/2024	Q3, 2024
Hudong-zhonghua H1838a	K-Line	Hudong-Zhonghua	79960	XDF	01/09/2023	Q3, 2023
Hyundai Samho 8140	Capital Gas	Hyundai Samho	174000	ME-GA	01/07/2024	Q3, 2024
Daewoo 2523	MOL	DSME	174000	ME-GA	01/02/2024	Q1, 2024
Daewoo 2524	MOL	DSME	174000	ME-GA	01/04/2024	Q2, 2024
Daewoo 2525	MOL	DSME	174000	ME-GA	01/08/2024	Q3, 2024
Daewoo 2526	MOL	DSME	174000	ME-GA	01/10/2024	Q4, 2024
Daewoo 2527	MOL	DSME	174000	ME-GA	01/07/2024	Q3, 2024
Hudong-zhonghua H1790a	MOL	Hudong-Zhonghua	175000	XDF	01/09/2024	Q3, 2024
Hudong-zhonghua H1791a	MOL	Hudong-Zhonghua	175000	XDF	01/12/2024	Q4, 2024
Hudong-zhonghua H1792a	MOL	Hudong-Zhonghua	175000	XDF	01/03/2025	Q1, 2025
Hudong-zhonghua H1793a	MOL	Hudong-Zhonghua	175000	XDF	01/05/2025	Q2, 2025
Samsung 2580	NYK	Samsung	174000	XDF	01/09/2023	Q3, 2023
Samsung 2581	NYK	Samsung	174000	XDF	01/11/2023	Q4, 2023
Samsung 2582	NYK	Samsung	174000	XDF	01/12/2023	Q4, 2023
Samsung 2583	NYK	Samsung	174000	XDF	01/02/2024	Q1, 2024
Samsung 2592	JP Morgan	Samsung	174000		01/04/2024	Q2, 2024
Samsung 2593	JP Morgan	Samsung	174000		01/07/2024	Q3, 2024
Samsung 2594	JP Morgan	Samsung	174000		01/10/2024	Q4, 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 = 8 December 2022

Fearnley LNG

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Samsung 2595	JP Morgan	Samsung	174000		01/01/2025	Q1, 2025
Samsung 2596	JP Morgan	Samsung	174000	ME-GA	01/11/2024	Q4, 2024
Samsung 2597	JP Morgan	Samsung	174000	ME-GA	01/12/2024	Q4, 2024
Apostolos	Capital Gas	Hyundai Heavy	174000	ME-GA	01/06/2024	Q2, 2024
Assos	Capital Gas	Hyundai Heavy	174000	ME-GA	01/05/2024	Q2, 2024
Daewoo 2528	Maran Gas Maritime	DSME	174000	MEGI	01/08/2024	Q3, 2024
Daewoo 2529	Maran Gas Maritime	DSME	174000	MEGI	01/11/2024	Q4, 2024
Daewoo 2530	BWGas	DSME	174000	MEGI	01/03/2025	Q1, 2025
Daewoo 2531	BWGas	DSME	174000	MEGI	01/05/2025	Q2, 2025
Samsung 2600	JP Morgan	Samsung	174000		01/07/2024	Q3, 2024
Samsung 2601	JP Morgan	Samsung	174000		01/01/2025	Q1, 2025
Samsung 2598	Celsius Shipping	Samsung	180000	ME-GA	01/01/2025	Q1, 2025
Samsung 2599	Celsius Shipping	Samsung	180000	ME-GA	01/05/2025	Q2, 2025
Hudong-zhonghua H1834a	ULT	Hudong-Zhonghua	174000	XDF	01/09/2024	Q3, 2024
Hudong-zhonghua H1835a	ULT	Hudong-Zhonghua	174000	XDF	01/12/2024	Q4, 2024
Hudong-zhonghua H1836a	ULT	Hudong-Zhonghua	174000	XDF	01/03/2025	Q1, 2025
Samsung 2604	NYK	Samsung	174000	XDF	01/12/2024	Q4, 2024
Daewoo 2532	GasLog	DSME	174000	MEGI	01/05/2024	Q2, 2024
Daewoo 2533	GasLog	DSME	174000	MEGI	01/08/2024	Q3, 2024
Daewoo 2534	GasLog	DSME	174000	MEGI	01/06/2025	Q2, 2025
Daewoo 2535	GasLog	DSME	174000	MEGI	01/08/2025	Q3, 2025
Samsung 2602	Celsius Shipping	Samsung	174000	ME-GA	01/12/2024	Q4, 2024
Samsung 2603	Celsius Shipping	Samsung	174000	ME-GA	01/12/2024	Q4, 2024
Hyundai Samho 8173	SK Shipping	Hyundai Samho	174000	ME-GA	01/09/2024	Q3, 2024
Daewoo 2537	Maran Gas Maritime	DSME	174000	MEGI	01/09/2025	Q3, 2025
Daewoo 2538	Maran Gas Maritime	DSME	174000	MEGI	01/11/2025	Q4, 2025
Hudong-zhonghua H1880a	MOL	Hudong-Zhonghua	174000	XDF	01/10/2024	Q4, 2024
Hudong-zhonghua H1881a	MOL	Hudong-Zhonghua	174000	XDF	01/08/2025	Q3, 2025
Hudong-zhonghua H1882a	MOL	Hudong-Zhonghua	174000	XDF	01/10/2025	Q4, 2025
Hudong-zhonghua H1883a	MOL	Hudong-Zhonghua	174000	XDF	01/03/2026	Q1, 2026
Hudong-zhonghua H1884a	MOL	Hudong-Zhonghua	174000	XDF	01/06/2026	Q2, 2026
Hudong-zhonghua H1885a	MOL	Hudong-Zhonghua	174000	XDF	01/09/2026	Q3, 2026
Daewoo 2536	MOL	DSME	174000	ME-GA	01/09/2024	Q3, 2024
Hyundai Samho 8175	H-Line	Hyundai Samho	174000	XDF	01/04/2025	Q2, 2025
Samsung 2607	H-Line	Samsung	174000	ME-GA	01/03/2025	Q1, 2025
Samsung 2608	H-Line	Samsung	174000	ME-GA	01/05/2025	Q2, 2025
Samsung 2609	H-Line	Samsung	174000	ME-GA	01/06/2025	Q2, 2025
Samsung 2610	H-Line	Samsung	174000	ME-GA	01/09/2025	Q3, 2025
Daewoo 2539	Maran Gas Maritime	DSME	174000	MEGI	01/11/2025	Q4, 2025
Daewoo 2540	Maran Gas Maritime	DSME	174000	MEGI	01/12/2025	Q4, 2025
Hyundai Samho 8170	Hyundai Glovis	Hyundai Samho	174000	ME-GA	01/08/2024	Q3, 2024
Daewoo 2541	Venture Global LNG	DSME	200000	ME-GA	01/07/2025	Q3, 2025
Daewoo 2542	Venture Global LNG	DSME	200000	ME-GA	01/10/2025	Q4, 2025
Daewoo 2543	Venture Global LNG	DSME	200000	ME-GA	01/12/2025	Q4, 2025
Jiangnan H2700	ADNOC	Jiangnan	175000	XDF	01/01/2025	Q1, 2025
Jiangnan H2701	ADNOC	Jiangnan	175000	XDF	01/05/2025	Q2, 2025
Samsung 2619	Celsius Shipping	Samsung	180000	ME-GA	01/10/2025	Q4, 2025
Hyundai Ulsan 3356	Dynagas	Hyundai Heavy	200000	ME-GA	01/03/2025	Q1, 2025
Hyundai Ulsan 3357	Dynagas	Hyundai Heavy	200000	ME-GA	01/04/2025	Q2, 2025
Hyundai Ulsan 3358	Dynagas	Hyundai Heavy	200000	ME-GA	01/12/2025	Q4, 2025
Hyundai Samho 8179	Knutsen	Hyundai Samho	174000	ME-GA	01/03/2025	Q1, 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 = 8 December 2022

Fearnley LNG

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Hyundai Samho 8180	Knutsen	Hyundai Samho	174000	ME-GA	01/06/2025	Q2, 2025
Daewoo 2544	BWGas	DSME	174000	MEGI	01/11/2025	Q4, 2025
Daewoo 2545	BWGas	DSME	174000	MEGI	01/12/2025	Q4, 2025
Samsung 2635	TMS Cardiff Gas	Samsung	174000	ME-GA	01/09/2024	Q3, 2024
Samsung 2636	TMS Cardiff Gas	Samsung	174000	ME-GA	01/03/2026	Q1, 2026
Daewoo 2550	MOL	DSME	174000	ME-GA	01/09/2025	Q3, 2025
Daewoo 2551	MOL	DSME	174000	ME-GA	01/09/2026	Q3, 2026
Dalian No 1 G175k-1	China Merchant	Dalian Shipbuilding	175000	XDF	01/09/2025	Q3, 2025
Dalian No 1 G175k-2	China Merchant	Dalian Shipbuilding	175000	XDF	01/12/2025	Q4, 2025
Hyundai Samho 8181	Knutsen	Hyundai Samho	174000	ME-GA	01/12/2025	Q4, 2025
NYK CNOOC 1	NYK	Hudong-Zhonghua	174000		01/04/2027	Q2, 2027
NYK CNOOC 2	NYK	Hudong-Zhonghua	174000		01/03/2027	Q1, 2027
NYK CNOOC 3	NYK	Hudong-Zhonghua	174000		01/01/2027	Q1, 2027
NYK CNOOC 4	NYK	Hudong-Zhonghua	174000		01/05/2026	Q2, 2026
NYK CNOOC 5	NYK	Hudong-Zhonghua	174000		01/08/2026	Q3, 2026
NYK CNOOC 6	NYK	Hudong-Zhonghua	174000		01/11/2026	Q4, 2026
Jiangnan H2702	ADNOC	Jiangnan	175000	XDF	01/09/2025	Q3, 2025
Jiangnan H2703	ADNOC	Jiangnan	175000	XDF	01/01/2026	Q1, 2026
Jiangnan H2704	ADNOC	Jiangnan	175000	XDF	01/06/2026	Q2, 2026
Jiangnan H2705	ADNOC	Jiangnan	175000	XDF	01/09/2026	Q3, 2026
Samsung 2631	H-Line	Samsung	174000	ME-GA	01/07/2025	Q3, 2025
Samsung 2632	H-Line	Samsung	174000	ME-GA	01/12/2025	Q4, 2025
Samsung 2633	H-Line	Samsung	174000	ME-GA	01/01/2026	Q1, 2026
Hyundai Samho 8188	SK Shipping	Hyundai Samho	174000	ME-GA	01/07/2025	Q3, 2025
Hyundai Samho 8189	SK Shipping	Hyundai Samho	174000	ME-GA	01/08/2025	Q3, 2025
Hyundai Ulsan 3370	SK Shipping	Hyundai Heavy	174000	ME-GA	01/02/2025	Q1, 2025
Hyundai Ulsan 3371	SK Shipping	Hyundai Heavy	174000	ME-GA	01/03/2025	Q1, 2025
Petronas K-line 1	K-Line	Hudong-Zhonghua	174000	XDF	01/10/2025	Q4, 2025
Petronas K-line 2	K-Line	Hudong-Zhonghua	174000	XDF	01/12/2025	Q4, 2025
Petronas K-line 3	K-Line	Hudong-Zhonghua	174000	XDF	01/07/2026	Q3, 2026
Petronas K-line 4	K-Line	Hudong-Zhonghua	174000	XDF	01/10/2026	Q4, 2026
Daewoo 2559	SK Shipping, Pan Ocean, H-Line	DSME	174000	ME-GA	01/05/2024	Q2, 2024
Daewoo 2560	H-Line, Pan Ocean, SK Shipping	DSME	174000	ME-GA	01/04/2025	Q2, 2025
Daewoo 2561	Pan Ocean, SK Shipping, H-Line	DSME	174000	ME-GA	01/05/2025	Q2, 2025
Daewoo 2562	SK Shipping, Pan Ocean, H-Line	DSME	174000	ME-GA	01/06/2025	Q2, 2025
Daewoo 2563	H-Line, Pan Ocean, SK Shipping	DSME	174000	ME-GA	01/11/2025	Q4, 2025
Daewoo 2564	Pan Ocean, SK Shipping, H-Line	DSME	174000	ME-GA	01/11/2025	Q4, 2025
Daewoo 2565	Pan Ocean, SK Shipping, H-Line	DSME	174000	ME-GA	01/02/2026	Q1, 2026
Hyundai Samho 8196	EPS	Hyundai Samho	174000	ME-GA	01/02/2025	Q1, 2025
Hyundai Samho 8197	EPS	Hyundai Samho	174000	ME-GA	01/01/2025	Q1, 2025
Hyundai Ulsan 3380	Knutsen	Hyundai Heavy	174000	XDF	01/05/2025	Q2, 2025
Hyundai Ulsan 3381	Knutsen	Hyundai Heavy	174000	XDF	01/06/2025	Q2, 2025
Daewoo 2546	H-Line, Pan Ocean, SK Shipping	DSME	174000	ME-GA	01/12/2024	Q4, 2024
Daewoo 2547	H-Line, Pan Ocean, SK Shipping	DSME	174000	ME-GA	01/12/2024	Q4, 2024

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Fearnley LNG

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Daewoo 2548	H-Line, Pan Ocean, SK Shipping	DSME	174000	ME-GA	01/01/2025	Q1, 2025
Daewoo 2549	H-Line, Pan Ocean, SK Shipping	DSME	174000	ME-GA	01/02/2025	Q1, 2025
Daewoo 2552	Maran Gas Maritime	DSME	174000	MEGI	01/05/2026	Q2, 2026
Daewoo 2553	Maran Gas Maritime	DSME	174000	MEGI	01/06/2026	Q2, 2026
Hyundai Samho 8198	Capital Gas	Hyundai Samho	174000	ME-GA	01/01/2026	Q1, 2026
Hyundai Samho 8199	Capital Gas	Hyundai Samho	174000	ME-GA	01/03/2026	Q1, 2026
Samsung 2634	JP Morgan	Samsung	174000	ME-GA	01/05/2025	Q2, 2025
Samsung 2637	JP Morgan	Samsung	174000	ME-GA	01/07/2025	Q3, 2025
Samsung 2638	JP Morgan	Samsung	174000	ME-GA	01/08/2025	Q3, 2025
Samsung 2641	JP Morgan	Samsung	174000	ME-GA	01/11/2025	Q4, 2025
Samsung 2642	JP Morgan	Samsung	174000	ME-GA	01/01/2026	Q1, 2026
Samsung 2643	JP Morgan	Samsung	174000	ME-GA	01/02/2026	Q1, 2026
Samsung 2644	JP Morgan	Samsung	174000	ME-GA	01/05/2026	Q2, 2026
Samsung 2645	JP Morgan	Samsung	174000	ME-GA	01/06/2026	Q2, 2026
Samsung 2646	JP Morgan	Samsung	174000	ME-GA	01/07/2026	Q3, 2026
Samsung 2647	JP Morgan	Samsung	174000	ME-GA	01/08/2026	Q3, 2026
Hudong-Zhonghua H1892A	COSCO	Hudong-Zhonghua	174000	XDF	01/10/2025	Q4, 2025
Hudong-ZhonghuaH1893A	COSCO	Hudong-Zhonghua	174000	XDF	01/03/2026	Q1, 2026
Hyundai Ulsan 3382	Knutsen	Hyundai Heavy	174000	XDF	01/06/2025	Q2, 2025
Hyundai Ulsan 3383	Knutsen	Hyundai Heavy	174000	XDF	01/09/2025	Q3, 2025
Hyundai Ulsan 3384	Knutsen	Hyundai Heavy	174000	XDF	01/12/2025	Q4, 2025
Hyundai Ulsan 3385	Knutsen	Hyundai Heavy	174000	XDF	01/01/2026	Q1, 2026
Hyundai Ulsan 3386	Knutsen	Hyundai Heavy	174000	XDF	01/03/2026	Q1, 2026
Hyundai Ulsan 3387	Knutsen	Hyundai Heavy	174000	XDF	01/04/2026	Q2, 2026
Hyundai Ulsan 3393	Knutsen	Hyundai Heavy	174000	XDF	01/07/2026	Q3, 2026
Hyundai Ulsan 3394	Knutsen	Hyundai Heavy	174000	XDF	01/07/2026	Q3, 2026
Hyundai Samho 8049	NYK	Hyundai Samho	174000	XDF	01/03/2025	Q1, 2025
Hyundai Samho 8174	NYK	Hyundai Samho	174000	XDF	01/10/2025	Q4, 2025
Hyundai Ulsan 3395	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	174000	XDF	01/07/2025	Q3, 2025
Hyundai Ulsan 3396	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	174000	XDF	01/10/2025	Q4, 2025
Hyundai Ulsan 3397	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	174000	XDF	01/11/2025	Q4, 2025
Hyundai Ulsan 3398	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	174000	XDF	01/03/2026	Q1, 2026
Hyundai Ulsan 3399	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	174000	XDF	01/06/2026	Q2, 2026
Hyundai Ulsan 3400	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	174000	XDF	01/08/2026	Q3, 2026
Hyundai Ulsan 3401	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	174000	XDF	01/10/2026	Q4, 2026
Daewoo 2558	MOL	DSME	174000	ME-GA	01/09/2026	Q3, 2026
Hudong-Zhonghua H1794A	MOL	Hudong-Zhonghua	174000	XDF	01/02/2027	Q1, 2027
Hudong-Zhonghua H1795A	MOL	Hudong-Zhonghua	174000	XDF	01/07/2027	Q3, 2027
Hudong-Zhonghua H1796A	MOL	Hudong-Zhonghua	174000	XDF	01/12/2027	Q4, 2027
Hudong-zhonghua H1797a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	174000	XDF	01/09/2025	Q3, 2025
Hudong-zhonghua H1798a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	174000	XDF	01/11/2025	Q4, 2025

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Fearnley LNG

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Hudong-zhonghua H1799a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	174000	XDF	01/02/2026	Q1, 2026
Hudong-zhonghua H1800a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	174000	XDF	01/05/2026	Q2, 2026
Hudong-zhonghua H1801a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	174000	XDF	01/07/2026	Q3, 2026
Samsung 2611	H-Line, Pan Ocean, SK Shipping	Samsung	174000	ME-GA	01/01/2025	Q1, 2025
Samsung 2612	H-Line, Pan Ocean, SK Shipping	Samsung	174000	ME-GA	01/03/2025	Q1, 2025
Samsung 2639	JP Morgan	Samsung	174000	ME-GA	01/09/2025	Q3, 2025
Samsung 2640	JP Morgan	Samsung	174000	ME-GA	01/09/2025	Q3, 2025
MOL ENN 1	MOL	Hudong-Zhonghua	174000		01/06/2027	Q2, 2027
MOL ENN 2	MOL	Hudong-Zhonghua	174000		01/10/2027	Q4, 2027
MOL ENN 3	MOL	Hudong-Zhonghua	174000		01/12/2027	Q4, 2027
Cardiff 3	TMS Cardiff Gas	Hyundai Samho	174000	XDF	01/08/2026	Q3, 2026
Qatar Cardiff 1	TMS Cardiff Gas	DSME	174000	ME-GA	01/06/2026	Q2, 2026
Qatar Cardiff 2	TMS Cardiff Gas	DSME	174000	ME-GA	01/08/2026	Q3, 2026
Dalian n3	China Merchant	Dalian Shipbuilding	175000	XDF	01/07/2026	Q3, 2026
Dalian n4	China Merchant	Dalian Shipbuilding	175000	XDF	01/10/2026	Q4, 2026
Dalian n5	China Merchant	Dalian Shipbuilding	175000	XDF	01/04/2026	Q2, 2026
Dalian n6	China Merchant	Dalian Shipbuilding	175000	XDF	01/02/2025	Q1, 2025
Meiji 1	Meiji Shipping	DSME	174000	ME-GA	01/09/2025	Q3, 2025
Meiji 2	Meiji Shipping	DSME	174000	ME-GA	01/01/2026	Q1, 2026
Meiji 3	Meiji Shipping	DSME	174000	ME-GA	01/05/2026	Q2, 2026
Meiji 4	Meiji Shipping	DSME	174000	ME-GA	01/10/2026	Q4, 2026
MISC EM 1	MISC	Samsung	174000	XDF	01/06/2026	Q2, 2026
MISC EM 2	MISC	Samsung	174000	XDF	01/08/2026	Q3, 2026
K3 SHI 1	H-Line, Pan Ocean, SK Shipping	Samsung	174000	ME-GA	01/04/2026	Q2, 2026
K3 SHI 2	H-Line, Pan Ocean, SK Shipping	Samsung	174000	ME-GA	01/08/2026	Q3, 2026
Samho Cardiff	TMS Cardiff Gas	Hyundai Samho	174000	XDF	01/10/2026	Q4, 2026
Samho Cardiff 2	TMS Cardiff Gas	Hyundai Samho	174000	XDF	01/11/2026	Q4, 2026
VG 1	Venture Global LNG	DSME	200000	ME-GA	01/10/2026	Q4, 2026
VG 2	Venture Global LNG	DSME	200000	ME-GA	01/12/2026	Q4, 2026
Yangzijiang 1	Hammonia Reederei	Yangzijiang	175000		01/09/2025	Q3, 2025
Yangzijiang 2	Hammonia Reederei	Yangzijiang	175000		01/06/2026	Q2, 2026
Wideshine 2	CSSC	Hudong-Zhonghua	174000	XDF	01/03/2028	Q1, 2028
Wideshine 3	CSSC	Hudong-Zhonghua	174000	XDF	01/06/2028	Q2, 2028
Wideshine 4	CSSC	Hudong-Zhonghua	174000	XDF	01/09/2028	Q3, 2028
Maran Nov	Maran Gas Maritime	DSME	174000	MEGI	01/12/2026	Q4, 2026
Minerva 1	Minerva Marine	Samsung	174000	ME-GA	01/02/2026	Q1, 2026
Minerva 2	Minerva Marine	Samsung	174000	ME-GA	01/03/2026	Q1, 2026
Seapeak 1	Seapeak	Samsung	174000	ME-GA	01/01/2027	Q1, 2027
Seapeak 2	Seapeak	Samsung	174000	ME-GA	01/03/2027	Q1, 2027
Seapeak 3	Seapeak	Samsung	174000	ME-GA	01/05/2027	Q2, 2027
Seapeak 4	Seapeak	Samsung	174000	ME-GA	01/07/2027	Q3, 2027
Seapeak 5	Seapeak	Samsung	174000	ME-GA	01/12/2027	Q4, 2027

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Data last updated = 8 December 2022

Fearnley LNG

WORLD SMALL SCALE LNG FLEET*

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
1974	Seagas	187	LNG	Sweden	Yes	AGA
1988	Kayoh Maru	1,517	LNG	Japan	Yes	Daiichi
1993	Aman Bintulu	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1996	Surya Aki	19,475	LNG	Indonesia - Japan	Yes	MCGC
1997	Aman Sendai	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1998	Pelita Energy	18,800	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
2000	Triputra	23,096	LNG	Indonesia - Japan	Yes	MCGC
2003	Pioneer Knutsen	1,100	LNG	Norway	Yes	Knutsen
2003	Shinju Maru No.1	2,540	LNG	Japan	Yes	Shinwa
2005	North Pioneer	2,500	LNG	Japan	Yes	Japan Liquid Gas
2007	Sun Arrows	19,531	LNG	Malaysia - Russia - Japan	Yes	Mitsui
2008	Kakurei Maru	2,536	LNG	Japan	Yes	Hogaki Zosen
2008	Shinju Maru No.2	2,540	LNG	Japan	Yes	Shinwa
2009	Coral Methane	7,551	LNG/LPG/Ethylene	Northwest Europe/Baltics	Yes, sometimes	Anthony Veder
2010	Coral Favia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2010	Coral Fraseri	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	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	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	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 Independence	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

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Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2018	Bunker Breeze	1,200	LNG	Barcelona	Yes	Suardiaz Energy Shipping
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2019	SM Jeju LNG1	7,500	LNG	Korea	Yes	Korea Line
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	Xin Ao Pu Tuo Hao	8,500	LNG	China	Yes	ENN
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	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	Kuntsen TBN	12,500	LNG	Spain	Yes	Knutsen OAS
2023	SM Jeju LNG3	7,500	LNG	Korea	Yes	Korea Line
2023	Pan Ocean TBN	18,000	LNG	USG	Yes	Pan Ocean Co
2023	Krios	4,200	LNG	Benelux	Yes	Titan LNG
2023	Fratelli Cosulich TBN	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	PNE TBN	5,500	LNG	USG	Yes	PNE
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2024	TBN	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 TBN 1	7,600	LNG	Canada	Yes	Seaspan ULC
2024	Fratelli Cosulich TBN	8,000	LNG	Mediterranean	Yes	Fratelli Cosulich
2025	Seaspan TBN 2	7,600	LNG	Canada	Yes	Seaspan ULC
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG

Data last updated = 9th August 2022 | For more information please visit http://small-lng.com.