

LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

14 March 2024

Russia sends LNG to Asia via Cape

Russia is sending its China-bound LNG cargoes via the longer Cape of Good Hope route, due to the risk of attacks by Yemen's Houthi group, according to LSEG data.

The world's shipping community, including Russia, were forced to go around South Africa to avoid the attacks in the Red Sea on ships using the Suez Canal route. Vessels' insurance premiums for those going via the Red Sea have also risen, adding to the voyage costs.

The longer route to and from Asia via the Cape of Good Hope will add about 10 days to the journey, depending on the ship's speed.

According to LSEG data, the 'LNG Geneva', took at Sabetta cargo, loading via a ship-to-ship (STS) near Kildin Island in the Murmansk region on 3rd January, then sailed around Africa and discharged at the Jieyang terminal in China on 16th February.

Another LNGC, 'Clean Vision', which was also carrying Russian LNG from Yamal, loaded on 17th January, headed towards China and arrived at Dalian on 1st March, before sailing again two days later, according to VesselFinder.

It was thought that vessels that loaded Yamal LNG last December for China via the Red Sea were heading back around South Africa.

Yamal's operator, NOVATEK usually ships LNG to Asia via the Suez Canal when the Northern Sea Route (NSR) is closed during the winter months.

However, Russia is planning year-round NSR navigation.

In January this year, exports from Yamal LNG totalled about 1.8 mill tonnes. The figure fell to 1.46 mill tonnes in February, according to LSEG data.



Arc7s seen loading at Sabetta

EU imports

Analysing Russian LNG exports, German research concern, Urgewald, said that EU member states, including Belgium, France, the Netherlands and Spain, were still receiving Russian LNG, two years after the war with Ukraine began.

Around 15 Arc7s regularly ship Russian LNG to the four countries' import terminals. As Kpler analysis showed, Russia's largest LNG export port, Sabetta, operated by NOVATEK, almost fully depends on exports to Europe, Urgewald said.

The main European ports receiving Russian LNG were Zeebrugge (Belgium), Montoir and Dunkerque (France), Bilbao and Mugardos (Spain) and Rotterdam (Netherlands). Montoir and Zeebrugge are also important hubs for transshipments to re-export LNG on conventional vessels to Turkey, China and Taiwan.

Since the start of the Russian invasion of Ukraine in February, 2022, some 34 mill tonnes of Yamal LNG have been delivered to EU ports or transhipped in EU wa-

ters. At least 6.6 mill tonnes, or around 20% of total deliveries, were shipped via Europe to non-European countries.

Almost 90% of Yamal exports are undertaken by the Arc7 fleet, as no other LNGCs can be used during the winter months. Unloading or reloading in EU waters is therefore paramount for Russia, as longer transport routes would curb Yamal's export potential, the researcher said.

While a voyage from Yamal to Zeebrugge takes six to seven days, the time taken to reach the nearest ports in Turkey is at least two weeks.

A possible extension of EU sanctions on LNG imports was also discussed at a recent EU energy ministers' meeting. More than 60 European Parliament members sent a letter to EU Commission President, Ursula von der Leyen, calling for a complete ban on gas imports from Russia.

A recent IEEFA study showed that in 2023, EU countries paid €8.1 bill for Russian LNG supplies. ■

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Biden's pause - no affect on Asia - IEEFA

The fallout from the Biden administration's US LNG export terminal pause continues.

In 2023, the US exported 86 mill tonnes of LNG, making the country the largest LNG exporter worldwide, followed by Qatar and Australia and also boasts the most capacity under construction of any country.

Five projects are currently being built with a combined capacity of 74 mill tonnes, which could almost double US exports over the remainder of the decade. And, the permitting pause does not affect any of these projects.

In a take on the pauses' possible effect on Asia, the Institute for Energy Economics and Financial Analysis (IEEFA) said that the world is heading for an oversupply of LNG and is on track for a record increases in global LNG export capacity this decade.

Based on projects already under construction, some 64 mill tonnes per annum of export capacity could be added worldwide in 2026 - a record for annual supply growth. In 2027, another 37 mill tonnes of projects are targeting completion.

Most of this capacity is set to come online between 2025 and 2027 and is located in the US and Qatar, none of which will be affected by the permitting pause.

Biden's decision will not do anything to ease the forthcoming global supply glut, IEEFA said.

Asian buyers are unlikely to buy more LNG from Russia, however, the looming global LNG supply flood means that Asian importers will still have numerous sources from which to buy the fuel, including the US.

Historically, the largest competitors to US LNG in Asia have been Qatar, Australia, and Malaysia, and according to Wood Mackenzie, Russia is "largely out of the equation for the foreseeable future."

Demand reduction

Japan and South Korea, the US' largest Asian LNG customers, are set to dramatically reduce demand.

In 2023, Japan's LNG demand fell 8% and has declined at an average rate of 3% since 2014. IEEFA estimated that the country's climate and energy plans could cut LNG demand by roughly one-third by 2030.

Japan's largest companies have repeatedly acknowledged that they have more LNG than is necessary to meet domestic demand.

Meanwhile, South Korea's climate and energy targets suggest LNG demand could fall 20% by 2036.

The US permitting pause will not harm Asia's de-carbonisation goals. Methane — the main compo-

nent of natural gas and LNG — is a greenhouse gas that is 80 times more potent than CO2 in terms of warming the global climate.

Even at leakage rates as low as 0.2%, natural gas can be as harmful to the climate as coal.

In China, coal's share of electricity generation has declined but the share of gas has remained at just 3% since 2015. Instead, the share of wind and solar generation has quadrupled to 16% over the same period.

The largest buyers from new US projects are the LNG traders, not Asian end users. After Russia's invasion of Ukraine, the traders made fortunes selling shipments to Europe. Since then, oil and gas majors and commodity traders have gobbled up supplies from new projects and opened trading desks in target markets, hoping to maximise returns from LNG resales.

In some cases, entire LNG export projects have been built solely based on traders' purchase commitments. Traders are not the end users, and they could face difficulties reselling the fuel if demand does not grow rapidly.

During past gluts when demand from major markets waned, large amounts of unsold LNG were labelled 'homeless LNG.'

In the US, estimates suggested that two-thirds of the export capacity already under construction will go to traders, instead of Asian and European end users.

These companies are effectively betting on their ability to resell LNG volumes at a mark-up over the long term, IEEFA said. ■

NEWS NUDGE

More FIDs planned

Argentina's state-owned oil and gas company YPF expects to take a final investment decision (FID) in 2025 on an LNG export project, adding the company to several other similar announcements recently.

The YPF FID concerns a first phase, which is being developed in co-operation with Malaysia's Petronas.

This phase is aimed at producing around 5 mill tonnes per annum of LNG, which could rise to 25 mill tonnes, if the company proceeds with the second stage.

Other FIDs planned for next year include ExxonMobil's Rovuma project in Mozambique, Viva Energy's Geelong import terminal, Tanzania LNG with Shell and Equinor, LNG Canada's expansion plan, while in the US, we could see Commonwealth LNG, Sempra's Cameron expansion project, Golden Pass, Plaquemines and Corpus Christi Stage III, all take FID.

In addition, NextDecade has said that Train 4 of the Rio Grande LNG project would take FID in the second half of this year.

The US FIDs could depend on Biden's pause on new permits being issued, while other factors could come into play, such as price and the LNG supply/demand scenario next year, which could affect many projects. ■

“Historically, the largest competitors to US LNG in Asia have been Qatar, Australia, and Malaysia, ... Russia is “largely out of the equation for the foreseeable future.”

- Wood Mackenzie

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Philippine energy majors to develop LNG facility

Meralco PowerGen Corp (MGen), Aboitiz Power Corp (AP) and San Miguel Global Power Holdings Corp (SMGP) are to jointly develop the country's first integrated LNG facility at Batangas.

This initiative, being called a landmark development for the Philippines' energy sector, is aimed at helping boost energy security and steer the country towards a cleaner, more sustainable future in line with the Marcos administration's push for more natural gas in the country's energy mix, AP said.

In a deal, which values the project at \$3.3 bill, MGen and AP will jointly invest in two of SMGP's gas-fired power plants—the 1,278 MW Ilijan power plant and a new 1,320 MW combined cycle power facility - which is expected to start operations by the end of 2024.

In addition, together with SMGP, they will invest in almost 100% of an LNG import and regasification terminal owned by Linseed Field Corp.

This will be used to receive, store and process LNG for the two power plants, thus fully integrating

the local energy sector into the global natural gas supply chain.

"This is a path breaking venture," said MGen Chairman, Manuel Pangilinan. "Apart from transforming the energy landscape of the Philippines, this symbolises a milestone alliance among major players in the energy industry towards a more sustainable future. We are thrilled to have such reliable partners as we lay the foundation for a brighter, greener future."

LNG regas

The collaboration will substantially augment the country's power supply with over 2,500 MW of generation capacity once fully operational, backed by modern LNG storage and regasification capabilities.

This effort will not only meet the country's energy requirements

but also support its environmental objectives by significantly lowering emissions, the company said.

"Both LNG and renewables are needed to achieve a balanced energy mix and well-planned energy transition. Above all, this is a big win for the Philippines and the people. Economic development is impossible without energy security, and this investment is a definitive step forward in that direction," added Sabin Aboitiz, AP chairman.

Ramon Ang, SMGP Chairman and President, commented "For the first time, three leading power companies are working together to secure our country's energy needs while transitioning towards cleaner power sources.

"This represents a major leap forward for our energy future, ensuring not just reliability but also cost-efficient power for



MGen Chairman, Manuel Pangilinan

many Filipinos," he said.

The Department of Energy's (DoE) Philippine Energy Plan has identified LNG as crucial for the country's energy sustainability and security, and aims to boost natural gas's share in the power generation mix to 26% by 2040.

This move also aligns with the Philippines' goal to significantly reduce greenhouse gas emissions by 70% by 2030. ■

Petronet to build third Dahej jetty

India's largest LNG importer, Petronet LNG recently issued a tender inviting EPC contractors to submit bids for a planned third jetty at the Dahej terminal in western Gujarat state.

Petronet invited companies to submit bids through an open international competitive bidding process for selection of 'EPC contractors for marine facilities for third berth (jetty) at Dahej LNG terminal & specified additional works', it said.

Bids must be submitted by 16th April.

Petronet's finance head, Vinod Mishra said in January during the company's quarterly results call that the company was finalising details to award the jetty contract.

Mishra added that the project was valued at Rupees17 bill (\$205 mill).

Following the contract award, it would take about 36 months to complete the new jetty.

He said that the jetty would be a multi-purpose berth, able to import propane, ethane, as well as LNG, giving Petronet more

flexible operations.

Petronet is currently expanding its 17.5 mill tonnes per year Dahej terminal by adding about 5 mill tonnes of new capacity, and is also constructing another two LNG tanks alongside the six existing tanks.

Mishra said the tanks are expected to be completed by June this year and the new capacity is expected to be available by March, 2025.

Higher demand

Meanwhile, ICIS has revised its Indian LNG demand expectations higher for this year, projecting a 13% increase from 2023 based on faster industrial demand recovery.

LNG imports are still forecast to remain below the peak year of 2020 and may still be capped by higher domestic gas supply and/or adverse global LNG market movements.

India is the world's second largest steel producer, with production targets for 2030 indicating annual growth of about 7%.

The east coast Dhamra LNG terminal, which received its first cargo in April last year, is located to fuel steel plants' production growth in the eastern states of West Bengal, Jharkhand, and Odisha. The final completion of the Jagdishpur-Haldia and Bokaro-Dhamra Pipeline (JHBDPL) network in June 2024 will also allow greater LNG intake.

In addition, LNG demand growth is forecast to come from other industrial sectors, such as refineries and petrochemicals.

For example, Reliance Industries securing a part cargo for delivery to Dahej in January is a clear sign that LNG is returning to favour, ICIS said.

The Dhamra LNG terminal and

JHBDPL network are also key in this respect, with several refineries situated in eastern states: Bihar, West Bengal, and Odisha. A pipeline connection to the north-east also opens LNG supply to four refineries located in Assam.

The city gas sector is also forecast to expand its LNG use in 2024. A delayed LNG demand recovery was possibly tied to higher LNG intake in the fertiliser sector. In May, 2023, a pooling mechanism, which mandates state-owned GAIL to offer gas on a uniform base price was extended from fertiliser to city gas.

The outlook is contingent on stable LNG prices, which could be challenged later this year. ICIS modelling showed that a relatively moderate increase in European gas demand could severally tighten the LNG market from the second half of 2024. ■

Summit to supply LNG to Petrobangla

Bangladesh's government has approved a long-term liquefied natural gas (LNG) supply deal with Summit Oil and Shipping (SOSC), a part of the Summit Group conglomerate.

The country's cabinet committee on economic affairs approved the supply up to 1.5 mill tonnes per year of LNG to state-owned Petrobangla for 15 years, SOSC said in a social media post.

Deliveries are expected to start in October, 2026.

Last year, US FSRU owner Excelerate Energy signed a 15-year LNG supply deal with Petrobangla.

Under the SPA, Petrobangla agreed to purchase 0.85 to 1 mill tonnes per annum of LNG from Excelerate beginning in January,

2026. Excelerate will buy the LNG from QatarEnergy and ship it to Bangladesh.

This deal is Bangladesh's fourth long-term LNG supply deal but is the first with Summit, local media said.

Two Excelerate FSRU terminals already in operation in Bangladesh delivering about 25% of the country's natural gas supply, according to the US company.

In June last year, Summit secured Government approval to operate a second FSRU LNG import terminal in the country.



Summit will sell LNG to Petrobangla from its FSRUs

NFE's second Brazilian terminal starts operations

A second New Fortress Energy (NFE) LNG terminal has commenced operations in Brazil.

This is Terminal Gas Sul (TGS) located in Santa Catarina, Brazil. NFE has confirmed that the FSRU 'Energos Winter' was now on-site.

TGS is an offshore LNG import terminal with a capacity of around 6 mill tonnes per annum and maximum send out of 500 mill cu ft per day.

The terminal includes the FSRU and a 33 km pipeline, which connects the facility to the existing inland Transportadora Brasileira

Gasoduto Bolívia-Brasil (TBG) pipeline.

TGS stands as a distinctive and promising prospect for NFE, as it presents a high-growth opportunity within the Brazilian power and gas markets, the company explained.

The terminal serves the wider Brazilian gas market by pipeline, including more than 3.5 GW of power that does not benefit from firm, long-term gas supply contracts and more than 300 TBtu of

industrial and residential gas consumers in Brazil's south region.

Brazilian power and gas demand is set to substantially increase, while the main source of gas supply from Bolivia has declined and is expected to further diminish in the near term, NFE said.

"TGS is directly connected to more than 3.5 GW of existing power infrastructure that lacks firm supply agreements, making the terminal a key asset in Brazil's evolving energy landscape. With numerous new power projects required to balance the grid in Brazil in the near term, NFE is poised to meet growing demand by leveraging its vertically integrated portfolio of LNG assets and expertise," said Wes Edens, NFE's Chairman and CEO.

This follows last month's news that the 6 mill tonnes per year Barcarena LNG terminal located in Pará, Brazil became operational with the FSRU 'Energos Celsius' on-site.

Barcarena is strategically located at the mouth of the Amazon River and serves as the only natural gas supply source in the state of Pará and the North region of Brazil.

The facility will supply LNG to several industrial customers, including a 15-year contract with Norsk Hydro's Alunorte refinery, the largest alumina refinery in the world.

The Barcarena terminal will also supply natural gas to NFE's 630 MW power plant, which is currently under construction adjacent to the terminal.



The Santa Catarina site

NEWS NUDGE

TotalEnergies to supply LNG to Sembcorp

TotalEnergies has signed a sale and purchase agreement (SPA) with Sembcorp Fuels, a wholly owned subsidiary of Singapore-based Sembcorp Industries.

This new agreement adds to

the companies' current SPA, which runs until 2029.

The latest deal involves the delivery of up to 0.8 mill tonnes of LNG per annum for 16 years, commencing in 2027. The LNG will be sourced from TotalEnergies' global portfolio.

Golar progresses FLNG portfolio

In its annual results roundup, Golar LNG gave an update of progress with its FLNGs.

For example, FLNG 'Hilli' continued her operational track record and exceeded her contracted 2023 production volume resulting in a release of the remaining 2022 contract year underutilisation balance of \$29 mill to the income statement and the recognition of \$0.3 mill of 2023 over production revenue.

The fourth quarter distributable adjusted EBITDA from 'Hilli', which excluded the non-cash \$29 mill underutilisation balance released, was \$89 mill, of which Golar's share was \$84 mill, an \$11 mill increase, compared to 3Q23, driven by higher Brent oil prices.

Meanwhile, FLNG 'Gimi' arrived at the GTA field offshore Mauritania and Senegal on 10th January, 2024 and was subsequently taken to her 20-year hub location by bp. The vessel is now moored at the hub ready to commence operations.

The operator advised that first gas is expected in 3Q24, subject to final completion of upstream activities and installation of an FPSO. This commissioning period is expected to be around six months.

The FLNG is expected to receive a standby day rate and daily commissioning payments ahead of operational startup (COD). Pre-COD contractual cash flows will be deferred on the balance sheet.

COD triggers the start of the 20-year lease and operate agreement that unlocks the equivalent of around \$3 bill of adjusted EBITDA.

Golar also progressed discussions with prospective lenders for refinancing of the existing senior debt facility, including agreed indicative terms.

Strong progress was also made on 'Hilli's' redeployment and potential MKII FLNG employment, including execution of a framework agreement with a potential customer for a long-term opportunity that could utilise either FLNGs.

Charter opportunities

Commercial terms were being discussed for charter opportunities with 12-20 year contract durations, in which Golar is working towards mutually acceptable terms with gas resource owners.

Technical development of these FLNG opportunities is also being negotiated in parallel to optimise mooring solutions and required upstream infrastructure, the company said.

Construction of long lead item orders for the 3.5 mill tonnes per annum MKII FLNG continued and the 'Fuji LNG', intended for the FLNG conversion, is expected to be delivered to Golar this month.

During 4Q23 terms were agreed for and progressed a potential MKII debt facility and reconfirmed yard availability and pricing. A final investment decision (FID) is expected when commercial terms for FLNG 'Hilli' redeployment and/or a MKII FLNG have been concluded.

Operating revenues and costs under corporate and other items comprised of two FSRU operate and maintain agreements for the 'LNG Croatia' and 'Tundra'. The LNGC 'Golar Arctic' completed her five-year drydocking in early November and is currently operating in the spot market.

She is a non-core asset, which Golar will trade in the spot and short-term market, while considering chartering alternatives or a potential sale.

Overall, Golar LNG reported full year 2023 total operating revenues of \$298 mill, a net loss of \$47 mill, including \$331 mill of non-cash items, and an adjusted EBITDA of \$356 mill.

The 4Q23 total operating revenues were \$80 mill, net loss was \$33 mill, including \$117 mill of non-cash items, and adjusted EBITDA was \$114 mill.

Golar's Board approved a total 4Q23 dividend of \$0.25 per share to be paid on or around

20th March, 2024.

As of 31st December, 2023, total cash was \$753 mill, comprised of \$679 mill of cash and cash equivalents and \$74 mill of restricted cash.

Golar's share of contractual debt as of the end of last year was \$1,221 mill. Deducting the cash held, this leaves a debt position of \$468 mill.

On 1st November, 2023 the sale of 'Gandria' was closed and Golar received \$13 mill, representing the balance of the agreed \$15 mill sale price.

The result for the year ended at an all-time high of \$38.2 mill and \$0.29 earnings per share. ■

Congo LNG project startup

Senior representatives from Eni, EXMAR and the project partners joined Congolese institutions to celebrate the start-up of LNG production and the Republic of Congo's first shipment of LNG.

This milestone completed the implementation of the first phase of the Eni-operated Congo LNG project.

The project includes a liquefaction facility, which involves the 'Tango' FLNG, with a capacity of about 1 bill cu m per year, being moored alongside EXMAR's FSRU 'Excalibur', using a configuration called 'split mooring', implemented for the first time with an FLNG.

EXMAR provided its formerly owned 'Tango' FLNG and the 'Excalibur' on long-term charters and is in charge of terminal operations at the site.

This project, sanctioned by Eni in December, 2022, came on stream after just a year in line with the initial timeline. This achievement was made possible in close co-operation with partner Eni, EXMAR said. ■



Golar also looks after the FSRU 'LNG Croatia'

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Excelerate to move from strategy to action

US-based FSRU owner and operator, Excelerate Energy reported net income of \$126.8 mill for 2023 and \$20 mill for the fourth quarter of last year.

Adjusted EBITDA was \$346.8 mill for the full year and \$71.4 mill for 4Q23.

During the period, Excelerate secured supply for Petrobangla's sale and purchase agreement (SPA) by agreeing a long-term contract to purchase 0.85 to 1 mill tonnes per annum of LNG from QatarEnergy on a delivered ex-ship (DES) basis in Bangladesh for 15 years, beginning January, 2026.

The company also declared a quarterly dividend of \$0.025 per share, payable on 28th March, 2024.

"Excelerate Energy delivered an exceptionally strong year of financial results in 2023. The consistent earnings contribution from our core regasification business and the solid performance of our contracts in Brazil highlighted the unique potential of our integrated

strategy," said Steven Kobos, Excelerate's President and CEO.

"In 2024, Excelerate Energy is committed to moving from strategy to action. We remain focused on executing our growth strategy and optimising our business to deliver superior returns for our shareholders.

"Additionally, we will be using our balance sheet to return capital to shareholders through a new \$50 mill share re-purchase programme, while maintaining the flexibility to pursue our organic and inorganic growth opportunities," he said.

Excelerate also gave a 2024 financial guidance. For the full year 2024, adjusted EBITDA is expected to range between \$315 mill and \$335 mill.

Committed growth capex, which is defined as capital allo-

cated and committed to specific investments currently in execution, is expected to range between \$70 mill and \$80 mill.

Maintenance capex is expected to range between \$50 mill and \$60 mill.

New charters

The net income and adjusted EBITDA for 2023 increased primarily due to new charters in Finland and Germany, higher rates on Brazilian, Argentinian and the UAE charters, higher direct margins on gas sales and lower operating lease expense, due to the acquisition of the FSRU 'Sequoia', partially offset by drydocking expense for the FSRU 'Excellence'.

However, net income and adjusted EBITDA decreased sequentially in 4Q23, compared with the

previous quarter primarily due to drydocking expenses for the FSRU 'Excellence', spot LNG cargo sales during 3Q23 that did not reoccur in 4Q23, and planned vessel repairs and maintenance during the quarter.

Beyond the committed growth capex already mentioned, the company said that it expected to deploy significant growth capital through 2026 in support of its portfolio of inorganic and organic commercial opportunities.

As of 31st December, 2023, Excelerate had \$555.9 mill in cash and cash equivalents, \$49.4 mill of letters of credit issued and no outstanding borrowings under its \$350 mill revolving credit facility.

During 4Q23, the company paid off \$68.3 mill of debt, including a \$55.2 mill discretionary repayment of debt on its term loan. ■

Awilco sees record results

Oslo-based Awilco LNG achieved its best ever quarterly net result of \$14.9 mill and earnings per share of \$0.11 in the fourth quarter of last year, compared with \$3.3 mill and \$0.03 per share, respectively for the previous quarter.

The result for the year ended at an all-time high of \$38.2 mill and \$0.29 earnings per share.

Net freight income for 4Q23 was \$22.2 mill, up from \$14.8 mill in the previous quarter. Net freight income for the year was \$79.4 mill.

EBITDA in 4Q23 ended at \$22.8 mill, up from \$11.1 mill in 3Q23 and for the year came in at \$68.9 mill.

Vessel utilisation was 100% for 4Q24 with net TCE at \$120,600, compared to \$119,500 per day for 3Q23 (excluding scheduled off-hire). For the full year, utilisation was also 100% (excluding scheduled off-hire) with a net TCE of \$118,500 per day.

In December, Awilco paid NOK0.35 per share in dividend, corresponding to \$4.4 mill, bringing a total paid dividend for last year to NOK1.60 per share, corre-

sponding to \$20 mill.

Also in December, the company made a full and final settlement agreement between owners and insurance companies on both sides relating to the collision between 'WilForce' and 'Western Moscow' in May, 2019. A compensation fee of \$5 mill was booked as income in 4Q23.

The same month, the company signed a term sheet for refinancing of both vessels at significantly improved terms, with longer tenor, lower margin, and longer profile.

This refinancing package will reduce the company's costs and cash break even substantially. Credit approval was received in February, 2024 and documentation is progressing as expected towards the closing of the refinancing during 2Q24.

On 27th February, 2024, the Board authorised a cash dividend payment of NOK1 per share to be

paid in April.

CEO, Jon Skule Storheill, commented: "Following the second special survey and drydock in third quarter, both vessels resumed their timecharter contracts and generated full earnings without any off-hire in the fourth quarter.

"A full and final settlement of the insurance claim from 2019 for 'WilForce' was also reached and we are thus very pleased to report the best ever net profit of \$14.9 mill for the quarter. With both vessels on fixed rate contracts through first half 2024 we can expect earnings to be in line with first half 2023.

"The fixed earnings contracts enable the company to continue to return value to our shareholders and the board resolved and declared a dividend of NOK1 for fourth quarter, payable in April 2024," he concluded. ■

NEWS NUDGE

Vietnam to import LNG this month

PV GAS has completed Vietnam's Thi Vai LNG terminal's central infrastructure and will start importing LNG for industrial production from 15th March, 2024, according to President and CEO, Pham Van Phong.

The state-owned company will be able to handle LPG/CNG /LNG at the terminal giving customers a diverse selection of products, flexible supply sources, and competitive prices.

However, LNG is the flagship product in PV GAS' Optimal Energy Solutions Package for the market.

PV GAS is confident and committed to continuously and stably supplying LNG for industrial production, contributing to national energy security and the robust, prosperous development of Vietnam's economy, the President claimed. ■

Höegh LNG enjoys fruitful year

Höegh LNG Holdings has reported an EBITDA of €78 mill for the fourth quarter of 2023, compared to €89 mill for the preceding quarter.

In 4Q23, Höegh LNG completed the refinancing of 'Hoegh Gannet' and entered into partnership with VTTI to develop a new energy terminal in or near the port of Vlissingen in the Netherlands.

In addition, the charterer of 'Hoegh Grace' waived its termination option due in 2026, which means that she will continue her employment in Colombia until at least 2031.

Subsequent to the quarter end, 'Hoegh Galleon' was refinanced and the group extended its €100 mill corporate credit facility until January, 2025.

As previously announced, Höegh LNG has also signed a settlement agreement with the charterer of 'PGN FSRU Lampung', resulting in a withdrawal of the pending arbitration proceedings.

Total income for 4Q23 was €125.7 mill, compared to €131 mill for the previous quarter.

The EBITDA decrease was

mainly a result of lower revenues from 'Hoegh Galleon'. She was earning a higher rate under the previous short term LNGC charter, which ended in September, 2023, and increased administrative expenses, the Group explained.

Höegh LNG recorded a net profit after tax of €15.8 mill for 4Q23, down from €27.5 mill in the preceding quarter. This decrease was mainly down to the drop in EBITDA in addition to incurring higher interest expenses mainly as a result of the refinancing of 'Hoegh Gannet' and 'Hoegh Galleon'.

These factors were partially offset by lower fourth quarter corporate income taxes.

Fourth quarter operating cash flows increased by €18.1 mill to €89.6 mill, which was mainly driven by positive changes in working capital exceeding the reduced EBITDA effect.

While the group repaid corpo-

rate bonds of €169 mill in the third quarter, the refinancing of 'Hoegh Gannet' brought €319.3 mill in gross proceeds in 4Q23, which in turn were partly used to repay the existing mortgage debt of €145 mill and the corporate credit facility of €100 mill.

The net increase in cash and cash equivalents during 4Q23 was €89.7 mill.

Falling debt

On 31st December, 2023, Höegh LNG held €218.5 mill in unrestricted cash (€128.8 mill). Net interest bearing debt, including lease liabilities, decreased during the quarter by €60 mill to €1,380 mill (€1,440 mill).

Total assets and book equity on 31st December, 2023, after adjusting for the mark-to-market of interest rate swaps, were €2,598 mill (€2,529 mill) and €781 mill (€769 mill) respectively, equivalent to an adjusted book equity

ratio of 30% (30%).

For the 12-month period, Höegh LNG saw significant revenue growth reporting a total income of €520.9 mill, up from €380.8 mill in 2022. Similarly, EBITDA reached €338.2 mill, a considerable increase from €153.2 mill in 2022.

The improvements were mainly down to new fleet contracts, which commenced in late 2022 and in 2023, the addition of 'Hoegh Gandria' to the fleet in 2023, and reduced administrative expenses, compared to the previous year.

The group reported a net profit of €97 mill for 2023, a substantial improvement on the loss of €55.4 mill recorded for 2022.

Höegh LNG said that the demand for FSRUs is expected to remain strong. While the Group has secured long-term contracts for its entire FSRU fleet, the business development team is in active dialogue with several potential new projects looking for FSRU capacity. ■

Ledwood in South Hook upgrade

Pembroke Dock, UK-based Ledwood Mechanical Engineering is to be the main construction contractor for a project that is designed to unlock commercially available capacity at Milford Haven's South Hook LNG terminal.

The 12-month contract was won following a competitive tender process and involves the installation, connection and completion of a new submerged combustion vaporiser (SCV), as part of an incremental capacity project at the terminal.

Piping and steel fabrication will be undertaken at Ledwood's Pembroke Dock headquarters before steelwork, piping and mechanical equipment installation on-site in Milford Haven.

Peter Lewis, South Hook's Terminal Project Manager, said: "Having begun operations in 2009, South Hook LNG terminal has provided over a decade of safe, reliable and secure energy to the UK. "Increasing our reliable delivery of natural gas at maximum capacity

for extended periods of time, represents a major investment and involves the reinforcement and installation of new equipment at the site.

"It is a commitment not only to the energy security of the UK, but to the local community in which we operate, ensuring the extended life of the terminal.

"We are proud of our place in the Pembrokeshire community so are delighted to have Ledwood - a local company - as our partner in this project," he said.

Liam Revell, Ledwood's Commercial Director, added: "As a company, we were involved with the original construction of South Hook LNG terminal back in 2009 ahead of it becoming fully operational in 2010.



The UK's South Hook import terminal is being upgraded

"The success of the initial works has since led to the award of all mechanical works in the process area and now the installation, connection and completion of the new submerged combustion vapor-

iser (SCV) as part of the incremental capacity project.

"The contract is very much testament to our high standards of safety, quality and value for money," he said. ■

LNGC tank inspections extension - industry study

Inspection intervals for LNGC membrane tanks can be safely extended thanks to monitoring technology and predictive maintenance, a new study claimed.

This study was undertaken by the GTT Group, Lloyd's Register (LR) and Shell International Trading and Shipping Company (STASCO).

The International Gas Carriers (IGC) Code and IACS UR Z16 rules require LNGC cargo tanks to be inspected internally every five years.

This joint study explored whether the interval could be extended in the framework of an alternative survey plan (ASP) with consideration to the implications on the associated risk profile.

The project group conducted a thorough analysis of LNG tanks and related system design and their operation, with consideration of potential damage mechanisms,

the potential consequences and their detectability.

They concluded that the inspection period extension is possible with little adaptation of the design, as well as an adequate monitoring of the cargo tank and ship-specific hazard and operability (HAZOP).

A 'Sloshing Virtual Sensor', a GTT Group company Ascenz Marorka's technology, was at the heart of the study.

Ascenz Marorka performs tank monitoring to support inspection interval extension using the sloshing virtual sensor technology.

This unique digital solution, which has already been adopted by LNGC owners, uses the GTT-de-

signed tank digital twin, together with real-time operational data.

It enables the assessment of vessels' sloshing activity and the monitoring of their critical integrity parameters. Shipowners and charterers can therefore optimise tank maintenance, while, at the same time, comply with strict safety standards, improving operational flexibility and obtaining significant cost-savings, GTT said.

Anouar Kiassi, Ascenz Marorka Managing Director, said: "This study, jointly conducted with industry leaders, is an important milestone in our on-going efforts to improve LNG carrier design and operations.

"We are proud that our cut-

ting-edge digital technology, sloshing virtual sensor, a combination of artificial intelligence and GTT Group's expertise, contributes to supporting this evolution in the LNG industry.

"We believe that this solution has the potential to become an industry standard in the years to come," he said.

Andy McKeran, LR's CCO, added: "We worked with Shell and GTT to ensure this application meets the highest safety standards of the industry. We are very privileged to introduce a solution that improves fleet operations and availability in a world where energy security is of paramount importance."

LR advises Cypriot FSRU conversion

Lloyd's Register, China Petroleum Pipeline Engineering (CPP), COSCO Shipping and CyGas are working on a project to convert the steam driven LNGC 'Galea' into an FSRU.

To be named 'Etyfa Prometheas', she is currently undergoing the final stages of her conversion at the COSCO Shanghai shipyard before sailing.

The FSRU is owned by CPP and will be operated by CyGas at Vassilikos. CyGas is responsible for Cyprus' import, storage, distribution, transmission, supply, trade and management of natural gas.

Despite Cypriot media reporting a dispute between the country and China over the project, the Vassilikos terminal infrastructure is in its final stages of construction and is set to be connected to the FSRU within the next three to six months, LR said.

As part of the conversion process, LR acted as an adviser, project managing the conversion to ensure the FSRU meets all safety, quality and efficiency requirements.

Once in operation, LR will also provide effective support throughout the vessel's lifecycle.

Sau Weng, LR's Greater China President, said: "This is a significant conversion project and is the first of its kind to be performed by LR for COSCO Heavy Industry, in co-operation with the CPP and CyGas.

"Conversions of LNG carriers to FSRUs are complex projects and the safe management of the project's overall efficiency marks a milestone for all stakeholders involved,

along with the increased gas supply chain infrastructure for the eastern Mediterranean," he said.

Lu Shu, CPP's Executive Director, added: "We are very proud to be able to co-operate with LR on

this Cyprus FSRU conversion project. As an important project on the 'Belt and Road', LR's professionalism and close co-operation ensure the smooth implementation of the entire project."



Vassilikos' FLNG seen under conversion

NEWS NUDGE

Shell's Hill quits

Shell has announced that Steve Hill, head of liquefied natural gas, natural gas and power trading, is to leave the company.

His successor will be announced in the coming weeks, Shell said earlier this week.

Hill elected to leave the company, the UK energy major added.

Hybrid LNGC tank support structure wins approval

The Liberian Registry, the world's largest shipping registry, has assisted in the design approval process of the world's first application to an LNGC's independent tank.

This redefines the role and arrangement of support structures, enhances structural strength, and transitions to a safety design that minimises inspections and works in high-altitude areas.

HD Hyundai Heavy Industries, HD Korea Shipbuilding & Offshore Engineering, and Hyundai Mipo Dockyard, under the HD Hyundai Group obtained a design approval for the 'High-strength Composite Hybrid Support of the Independent Tanks Liquefied Gas Carriers' from Lloyd's Register (LR), DNV, and the Liberian International Ship & Cor-

porate Registry (LISCR).

The independent tanks require structures that support various loads while remaining separate from the hull. The application of the newly developed hybrid support structure allows for rearranging the existing support structure layout while simultaneously minimising the needs for high-risk work and inspections.

"This innovative independent tank support structures solution, by utilising composite fusion to optimise performance and reduce risks during surveys and inspec-

tions, is a great achievement. It demonstrates HHI, KSOE, and HMD's dedication to performance, safety, and continuous improvements through innovation.

"The Liberian Registry is proud to have participated in this successful project in close collaboration with HD Hyundai Group, DNV and LR," said Thomas Klenum, LISCR's Executive Vice President of Innovation and Regulatory Affairs.

The hybrid support structure, developed by HD Hyundai group as a world-first, is fabricated

with a fusion of carbon fibre reinforced plastics (CFRP) with tensile strength approximately 10 times greater than that of conventional steel, enhancing structural stability to a significant extent.

Furthermore, after undergoing multi-dimensional product design and three prototype tests during the development period, the final stage involved completing detailed design and engineering through a joint development agreement with the classification societies and the flag administration. ■

NEWS NUDGE

Ships - Newbuildings, deliveries, charters

QatarEnergy was behind a recently placed order for 12 LNGCs at Hanwha Ocean.

Prices and delivery schedules were not revealed.

Last month, Samsung Heavy Industries also won an order backed by QatarEnergy for 15 gas carriers worth \$3.44 bill, while in October last year HD Hyundai Heavy Industries confirmed a record \$3.9 bill deal to build 17 LNGCs for the Qataris.

It was also reported that HD Hyundai Heavy Industries had won a contract for a 174,000 cu m FSRU valued at Won483.9 bill (about \$364 mill).

Parent HD Korea Shipbuilding & Offshore Engineering confirmed

in a filing that the unit will be built for European interests.

HHI will deliver the FSRU by July, 2027. No other details were revealed.

Dynagas has taken delivery of the 200,000 cu m ME-GA 'Clean Vitality' from Hyundai Heavy Industries, while sister shipbuilder, Hyundai Samho has handed over the 174,000 cu m 'Energy Fortitude' to Alpha Gas.

Meanwhile, Mitsui OSK Lines (MOL) has signed a long-term charter contract for a newbuilding 174,000 cu m LNGC with Tokyo LNG Tanker Co (TLT), a wholly-owned subsidiary of Tokyo Gas Co.

This is the eighth contract with TLT, following timecharters previously agreed for seven LNGCs.

The new ME-GA vessel will be built at the Geoje Shipyard of Hanwha Ocean and is scheduled for delivery in 2026.

She will be managed by MOL and will transport LNG for TLT.

TMC to deliver compressors to four LNGC

Hanwha Ocean has selected Norway-based TMC Compressors to deliver the complete marine compressed air system for four LNGCs under construction for an undisclosed Asian shipowner.

TMC will provide control, service air and nitrogen feed air compressors to each of the four 174,000 cu m vessels.

"We have delivered the marine compressed air systems to multiple of Hanwha Ocean's

174,000 cu m LNG carrier newbuildings in the past, but every new contract award is equally exciting.

"Energy efficiency is at the core of our compressor system deliveries in order to keep both cost and emissions to air down during vessel operations," Hans Petter Tanum, TMC's director of sales and business development, said.

TMC will manufacture the equipment in Europe and then ship it to Hanwha Ocean in South Korea.

"The system we deliver is designed to allow the vessel crew to maintain it themselves, which helps keep the vessel operators' operating costs to a minimum," added Hans Petter Tanum. ■

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	\$249.20 mill
Five years old (174,000 cu m)	\$214.46 mill
Total Fleet (586 ships)	\$91.06 bill
Orderbook (366 ships)	\$93.55 bill

*Source: VesselsValue (27/02/24)

*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	\$38,000	-\$2,000
West of Suez	\$37,500	-\$2,500
12 mos T/C	\$54,000	-

*Since last report (29/02/24)

Source: Fearnleys (13/03/24)

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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	Knutson	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	Knutson	Hyundai Samho	01/03/2022	174,000	ME-GA	01/03/2025
Hyundai Samho 8180	Knutson	Hyundai Samho	01/03/2022	174,000	ME-GA	01/06/2025
Hyundai Samho 8181	Knutson	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	Knutson	Hyundai Heavy	01/06/2022	174,000	XDF	01/05/2025
Hyundai Ulsan 3381	Knutson	Hyundai Heavy	01/06/2022	174,000	XDF	01/06/2025
Hyundai Ulsan 3382	Knutson	Hyundai Heavy	01/07/2022	174,000	XDF	01/07/2025
Hyundai Ulsan 3383	Knutson	Hyundai Heavy	01/07/2022	174,000	XDF	01/11/2025
Hyundai Ulsan 3384	Knutson	Hyundai Heavy	01/07/2022	174,000	XDF	01/02/2026
Hyundai Ulsan 3385	Knutson	Hyundai Heavy	01/07/2022	174,000	XDF	01/04/2026
Hyundai Ulsan 3386	Knutson	Hyundai Heavy	01/07/2022	174,000	XDF	01/08/2025
Hyundai Ulsan 3387	Knutson	Hyundai Heavy	01/07/2022	174,000	XDF	01/08/2026
Hyundai Ulsan 3393	Knutson	Hyundai Heavy	01/07/2022	174,000	XDF	01/12/2025
Hyundai Ulsan 3394	Knutson	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

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

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

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	FueLNG
2020	SM Jeju LNG2	7,500	LNG	Korea	Yes	Korea Line
2020	Q-LNG 4000	4,000	LNG	US Coast	Yes	
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 Mendelev	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	FueLNG
2023	LNG Erasmus	8,000	LNG	NWE	Yes	Shell
2023	Energy Stockholm	8,000	LNG	NWE	Yes	Shell
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
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	3,000	LNG / Oil	Japan	Yes	Keys Bunkering West Japan Co
2025	Seaspan TBN 2	7,600	LNG	Canada	Yes	Seaspan ULC
2025	Axpo TBN	7,500	LNG	Italy	Yes	Axpo
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2026	ScaleGas TBN	12,500	LNG	Spain	Yes	ScaleGas