

LNG Shipping News

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US project pause - what if?

The Biden Administration's announcement of a pause in LNG terminal advancement has led to more questions than answers. Poten & Partners attempts to fill in the gaps.

Most US projects will be delayed by one to two years should the Biden Administration's temporary pause on new projects go ahead.

Jason Feer, Poten & Partners' Global Head of Business Intelligence, tried to shed some light on a confused situation, despite admitting that nobody knew yet what temporary meant in this context.

He explained that the pause only covers the US Department of Energy's (DoE) new permits and not those issued by the Federal Energy Regulatory Commission (FERC), or plants already in production or under construction.

Mexican LNG export facilities are also included if they are to export US produced gas.

Those projects that have not yet secured DoE permits or have permits, which expire in a few years, will be affected. One of the major problems is that developers will find offtakers more difficult to tie down, as they would be reluctant to negotiate supplies in an

uncertain situation. Banks would also be unwilling to invest in these projects for the same reason.

Feer thought that every project would have to be put back by at least a year. He explained that any developers with one to two years left on their permits will have to reapply or ask for an extension.

Although the US Republicans are generally opposed to the pause, "...there is no silver bullet to overturn this policy anytime soon," he warned.

He estimated that there are 10 projects already exporting or are under construction. In addition, there were another 15 fully permitted but had not taken a final investment decision (FID) thus far and at least three more may require permit extensions.

Once the pause is over, Feer envisaged a large queue of developers asking the DoE for permits, which would take some time to sift through but could lead to a



Poten's Jason Feer

considerable surplus of LNG being produced in 2027/2028.

"There are only a few countries capable of producing large volumes of LNG after 2027, which could lead to supply availability tightening after 2030," he added.

He warned that should the pause persist, this could open the door to other projects worldwide to fill the gap.

Some of the LNG produced by overseas developers would be more expensive than US produced LNG and their supply could also be less stable. ■

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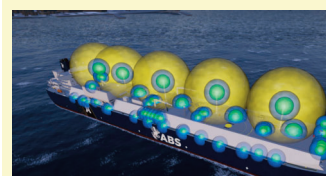
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Russia offers 12 LNG cargoes per year to China

Russia's Pacific-based Sakhalin Energy has reportedly offered 12 LNG cargoes a year to Chinese buyers for three to five years starting in August, industry sources told S&P Global Platts.

The price of the tender, which closes on 5th March, is linked to Brent crude, the sources said.

Platts assessed the front-month ICE Brent futures contract around \$1.40 per barrel higher at \$83.3 per barrel at the Asian close on 22nd February, according to S&P Global Commodity Insights' data.

Sakhalin Energy sells LNG cargoes produced at the Sakhalin 2 plant. Last year, 10.37 mill tonnes of LNG was exported through the project - 59.5% going to Japan, 24.8% to China and 15.7% to South Korea, S&P Global's data showed.

Despite being the largest importer of Sakhalin's cargoes, Japanese trading houses and utilities told Platts that they were not invited to bid for the tender.

Sakhalin Energy also sells one to two spot cargoes a month, with China being the main recipi-

ent, market sources added.

Chinese sources expected the oil slope to trade below 12%, due to possible restrictions on Russian -origin cargoes. Buyers may also target a slope as low as 11%-11.5%, as JKM prices are likely to soften.

Platts assessed the April JKM at \$8.23 per MMBtu and the JKM Balance April next-day derivatives at \$8.15 per MMBtu on 22nd February.

Sakhalin Energy was reviewing shipment prices from April onwards, Japanese buyers said. ■

IEEFA takes a swipe at Shell's LNG outlook

Shell's recently published *LNG Outlook 2024* contained at least two surprising findings, the Institute for Energy Economics and Financial Analysis (IEEFA) said.

First, Shell reduced its global LNG demand expectations for 2040 by up to 11%, compared to previous forecasts. More significantly, the UK-based energy major said that demand will peak sometime in the 2040s.

Shell owns the largest LNG portfolio in the world and is one of the largest equity investors in export projects with assets and contracts that extend beyond 2050. But this year's outlook proved that the long-term investment case for LNG is fading, the institute said.

Instead, Shell pinned its hopes on rapid demand growth in emerging markets and China's industrial sector that may not materialise.

The report acknowledged that gas demand in the mature LNG markets of Japan, South Korea, and Europe had peaked in the last decade, predicting that South and Southeast Asia will pick up the slack, mainly by utilising more LNG to generate power.

This will depend on the infrastructure investment flow, both for import and end-use facilities. However, Shell's predictions for breakneck demand growth in these markets underestimate key barriers to LNG value chain financing, IEEFA said.

First, LNG-to-power projects take a notoriously long time to negotiate and develop. For example, although Vietnam completed its first LNG terminal in 2023, the country's first LNG-fired power plant has yet to agree an offtake contract and could be delayed until 2027.

In addition, the Philippines has faced repeated contractual issues for gas-fired power plants, due to high LNG costs.

More expensive

Second, LNG is significantly more expensive than other energy sources, including coal and renewables. Simply assuming that LNG will provide base load power ignores fundamental economic realities. For example, Bangladesh faces \$5 bill in outstanding energy payments, due to high imported fuel costs.

India's recent renewal of its oil-indexed LNG contract with Qatar would likely yield LNG prices in the \$10 per MMBtu range, which would need to fall by half to compete with coal imports and even further to compete with cheaper domestically produced resources.

As a result, gas is unlikely to play more than a peaking role in much of emerging Asia's electricity mix.

Third, even in countries like Thailand that have increased imports in recent years, the financial sustainability of LNG remains in doubt. High fuel costs and subsidies in 2022 threw the state-owned utility into a liquidity crisis, and it may be unable to shoulder additional subsidies until 2025. As a result, the country aims to ramp up domestic gas production and accelerate its shift to cheaper renewable energy.

Shell said that a key demand driver will be China's industrial de-carbonisation. This contradicts

other pathways for the country's 2060 carbon neutrality goals, already underway.

For example, the International Energy Agency (IEA) forecast that China's industrial gas usage could be lower in 2060 than current levels. Under an announced policy scenario, China's overall gas requirements could peak this decade.

Shell's view overlooked Chinese policies designed to limit gas dependence and mistakenly attributed energy efficiency gains and electrification to gas adoption.

China's policy is to source over half of its gas supply domestically, and its draft 'Gas Utilisation Policy' could constrain coal-to-gas switching. Its de-carbonisation approach could constrict rather than propel LNG imports, the think tank said.

Shell also said that Asia is turning to gas to support renewables deployment and erode coal usage. This is not the case in China, whose 14th Five-Year Plan positions coal as a provider of energy security and power reliability, not LNG.

Since 2015, the share of natural gas-fired generation in China's power mix has remained at just 3%, while the share of wind and solar has quadrupled to almost 16%, according to Ember data. Clean energy also accounted for the largest share of the country's economic growth last year.

As a result, China is clearly not counting on gas to reduce emissions or support renewables deployment, IEEFA warned. ■

NEWS NUDGE

FLNGs and FSRUs arrive on site

The core component of the Greater Tortue Ahmeyim (GTA) LNG project - FLNG 'Gimi' - arrived on site within the Mauritania/ Senegal maritime border, a few weeks ago.

The FLNG will be at the heart of the GTA Phase 1 development, operated by bp with partners, Kosmos Energy, PETROSEN and SMH, the UK energy major said.

GTA Phase 1 is set to produce around 2.3 mill tonnes of LNG per year and is expected to produce LNG for more than 20 years, enabling Mauritania and Senegal to become a global LNG hub.

Meanwhile, trials have started at the German Baltic Sea energy terminal in Mukran industrial port

The aim is to check all the functions ahead of the terminal entering into operation.

The FSRU 'Energos Power', arrived at Mukran on 24th February.

New Fortress Energy (NFE) has also announced that the FSRU 'Energos Celsius' had arrived at its LNG terminal in Barcarena, Brazil.

The 160,000 cu m FSRU left Seatrium's Singapore shipyard in December, 2023 after being converted from an LNGC.

She has a nominal regasification capacity of 750 - 1,000 mill cu ft per day. ■

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European LNG imports rise

European LNG imports stood at 5.08 mill tonnes in the month to 16th February, around 46% of January's volumes, according to S&P Global Commodity Insights data.

European LNG imports also climbed 2 mill tonnes week-on-week.

February volumes were headed to Turkey (860,000 tonnes), France (750,000 tonnes), the Netherlands (680,000 tonnes), Spain (650,000 tonnes), the UK (420,000 tonnes), Belgium (300,000 tonnes), Italy (590,000 tonnes), Poland and Germany (each 170,000 tonnes), Portugal (130,000 tonnes), while Russia, Greece, Croatia and Finland accounted for 70,000 tonnes each and Lithuania came in with 60,000 tonnes.

US LNG accounted for 50% of

the total imports, Russia supplied 18% and Algeria 13%. Around 5% originated from Qatar and a similar percentage came from Norway.

Balanced imports

Despite bullish spells in recent weeks, the overall weak trend has continued to push prices lower, with high inventories, a strong import trend and depressed demand from the heating sector weighing on sentiment.

Platts, part of S&P Global Commodity Insights, assessed the Northwest Europe market for

March at \$7.352 per MMBtu on 16th February, or at a discount of 50 cents per MMBtu to the April TTF hub futures price.

Although blips in demand were seen across parts of the world, including the Mediterranean, as low flat prices drove buying interest, sources suggested the interest had already faded.

The spread between bids and offers had begun to widen again in the Northwest European market, indicating scant concrete buying activity.

Imports into Europe have re-

mained healthy, as the ongoing constraints at the Panama and Suez canals have resulted in US sellers favouring sending their cargoes to Europe rather than go to Asia.

However, sources and analysts at S&P Global said the wide gap between Northwest European prices and the JKM drove West African sellers to send their cargoes towards Asia. In addition, some US cargoes were still thought to be making their way to the Middle East.

"West African cargoes represented the lowest proportion of Europe's LNG supply since August 2014 at only 6% of the supply mix," Kelli Krasity, S&P Global Director, said in a quarterly outlook report. "A similar trend also occurred with cargoes originating from Qatar. Qatar's share of European imports fell to its lowest level since May, 2006 (9%)."

She added that North African volumes had been affected by weak liquefaction utilisation, falling to only 6% of European imports, a two-year low.

For now, US supply should help balance out any lost supply in the European market in the near term, Platts concluded. ■



Rotterdam's Gate terminal is receiving US LNG

NEWS NUDGE

Texas LNG selects tugs for export facility

Texas LNG, a 4 mill tonnes per annum LNG export terminal to be constructed at Brownsville, Texas, being developed as a subsidiary of Glenfarne Energy Transition, has chosen Gulf LNG Tugs of Texas to build, deliver and operate tugs under a long term agreement.

Gulf LNG Tugs is a consortium of Suderman & Young Towing Co, Bay-Houston Towing, and Moran Towing Corp and the tugs are needed to assist LNGCs calling at the terminal.

In line with Texas LNG's 'Green by Design' approach, the units will be among the most modern, low-emissions tugs available to serve a facility of Texas LNG's size.

Gibson boosts LNG desk

London-based Gibson Shipbrokers has appointed Gerrit Stricker as Head of LNG.

He has spent the past five years working in the S&P department and has increasingly focused on LNG S&P and timecharter projects.

To further reinforce the LNG offering, Gibson has also hired Romain Grandbesancon as a Senior LNG Shipbroker.

He brings 25 years' experience in LNG, having worked for Poten & Partners and Clarksons.

MAMII membership expands

Major energy players TotalEnergies and Chevron, and major LNGC owner Seapeak, have joined the Methane Abatement in Maritime Innovation Initiative (MAMII), led by SafetyTech Accelerator.

The three companies join the now more than 20 members of the initiative.

MAMII also announced that had selected four providers to produce feasibility studies on the technologies, which will reduce methane emissions from ships. Further details will be released soon.

MAMII is currently focused on shipboard trials, expanding the range of pilots, and starting to address fugitive methane emissions covering the entire spectrum of methane emissions on LNG-fuelled vessels. ■

Qatar to further expand North Field

QatarEnergy is to proceed with another LNG expansion project - North Field West (NFW).

This will raise Qatar's LNG production capacity to 142 mill tonnes per annum before the end of this decade, representing an increase of almost 85% from current production levels, the company said.

HE Saad Sherida Al-Kaabi, Qatari Minister of State for Energy Affairs, and President and CEO of QatarEnergy, made the announcement during a press conference held last Sunday in Doha.

Minister Al-Kaabi explained that extensive appraisal drilling and testing had confirmed that productive layers of Qatar's giant North Field extended towards the west, which will allow for the development of a new LNG production plant in Ras Laffan.



QatarEnergy's head
HE Saad Al-Kaabi

He explained: "QatarEnergy has focused its efforts and attention on determining how far west the North Field's productive layers extend in order to evaluate the production potential from those areas.

"We have continued geological and engineering studies and have drilled a number of appraisal wells in that area. I am pleased to announce that, these great efforts have confirmed, through technical tests of the appraisal wells, the extension of the North Field's productive layers further towards the west, which means the ability to produce significant additional quantities of gas from this new sector," he said.

Minister Al-Kaabi also announced the presence of huge additional gas quantities in the North Field estimated at 240 trill cu ft, which raises Qatar's gas reserves from 1,760 to more than 2,000 trill cu ft, and condensates reserves from 70 to more than 80 bill barrels, in addition to large quantities of LPG, ethane, and helium.

He said: "These are very important results of great dimensions that will take Qatar's gas industry to new horizons, as they will enable us to begin developing a new LNG project from the North



QatarEnergy has focused its efforts and attention on determining how far west the North Field's productive layers extend ...

- HE Saad Sherida Al-Kaabi

Field's western sector with a production capacity of about 16 mill tonnes per annum.

"As such, the State of Qatar's total LNG production will reach about 142 mill tonnes when this new expansion is completed before the end of this decade. This represents an increase of almost 85%, compared to current production levels. With the completion of this project, the State of Qatar's total hydrocarbon production will exceed 7.25 mill barrels of oil equivalent per day," he said.

Work to start

He also confirmed that QatarEnergy will immediately start the basic engineering work necessary to ensure that the planned progress is achieved according to the new project's approved schedule.

QatarEnergy continued work to implement various elements of the North Field production expansion plans, including the North Field East and the North Field

South projects, the company added.

When attending a ground breaking ceremony at Ras Laffan's new petrochemical plant last week, Minister al-Kaabi said that disruption to shipping in the Red Sea region will impact QatarEnergy LNG deliveries but not its production.

He said: "It's only going to take longer to get it there. But it will not reach a point where we have to stop production because there isn't any ship. We're okay,"

Last month, QatarEnergy took the decision to stop sailing via the Red Sea citing security concerns.

"Whether you talk about LNG, crude, LPG condensate, it's exactly the same thing for all these products," Minister al-Kaabi said. "It's going to add cost, it's going to add time and it's also going to add constraint with actual deliveries."

However, he confirmed that most of QatarEnergy's LNG production is shipped to Asia. ■

ADNOC to join bp in Egypt

ADNOC and bp are to form a new gas joint venture (JV) in Egypt.

The JV (51% bp and 49% ADNOC) will combine the two company's technical capabilities and proven track records, as it aims to grow a highly competitive gas portfolio.

As part of the agreement, bp will contribute to three development concessions, as well as exploration, in Egypt to the new JV. ADNOC will make a proportionate cash contribution, which can be used for future growth opportunities.

Musabbeh Al Kaabi, ADNOC Ex-

ecutive Director for low carbon solutions and international growth, said: "(Today's) announcement with bp represents a significant step forward as ADNOC builds its international natural gas portfolio.

"This progressive joint venture partnership will enhance Egyptian energy security and the economic potential of the region's most populous Arab country.

"Building on our long-standing strategic partnership with bp,

ADNOC looks forward to continue exploring other opportunities, as we collectively seek to de-carbonise our operations and lead a just and equitable energy transition," he said.

William Lin, bp's Executive Vice President of regions, corporates & solutions, added: "This dynamic JV offers a platform for international growth that advances our longstanding and strategic partnership with ADNOC that spans

over five decades.

"Together, we will build on the 60 years of safe and efficient operations of bp and its partners in Egypt, and continue to produce and deliver secure, lower-carbon energy in the form of natural gas to the country," he said.

Subject to regulatory approvals and clearances, the incorporated JV is expected to be completed during the second half of this year. ■

India looks to FSUs - seeks more cargoes

A consortium of shipping companies is seeking to convert two LNGCs into FSUs to help meet rising Indian LNG demand.

Petronet currently operates 138,000 cu m LNGCs to import LNG from Qatar, but doesn't plan to renew their charter beyond 2028.

The consortium - named India LNG Transport Co - could utilise the vessels on India's east coast after their conversion in South Korea, market sources said, talking with Bloomberg.

India LNG Transport is a collaboration between state-owned Shipping Corp of India (SCI) and the Japanese trio of Mitsui OSK Lines (MOL), Nippon Yusen Kaisha (NYK) and Kawasaki Kisen Kaisha ('K' Line).

India, currently the world's fourth-largest LNG buyer, is investing heavily in import infrastructure to help meet Prime Minister Narendra Modi's target for gas to reach 15% of the energy mix by 2030, from less than 7%

at present.

Imports could rise to 150 mill tonnes by 2030, a seven-fold increase from 2023, Petronet's CEO, Akshay Kumar Singh, said earlier this month.

Meanwhile, India's largest gas distributor GAIL (India) has issued a tender to buy four LNG cargoes for delivery between March to October.

The cargoes are being sought on a delivered ex-ship (DES) basis to the Dahej and Hazira terminals, with delivery windows of 1st to 10th or 26th to 31st March, 4th to 11th June, 21st to 28th August and 21st to 30th October.

Equinor deal

Elsewhere, Equinor has announced the signing of an agreement to supply LNG to the Indian fertiliser and petrochemical company,

Deepak Fertilisers.

This deal covers an annual supply of around 0.65 mill tonnes for 15 years with deliveries starting in 2026.

Deepak will use the gas mainly as feedstock for production of ammonia at its newly commissioned plant for manufacturing fertilisers and petrochemicals.

Helge Haugane, Equinor's Senior Vice President for Gas & Power, said: "Deepak's new ammonia plant has created new gas demand in the growing Indian market. I am very happy that we have landed this agreement with Deepak Fertilisers.

"The agreement is another proof of how we use our position in the Atlantic basin to strengthen our relationship with key players in the growing Indian market.

"We look forward to developing

our relationship with Deepak and to exploring avenues for further collaboration on petrochemicals feedstocks, such as propane and ethane and on low carbon ammonia in the future," he said.

"We are very happy to enter into this long-term agreement with Equinor for supply of LNG. The agreement will provide reliable supplies of feedstock which will further strengthen Deepak Fertilisers' value chain from gas to ammonia, the key ingredient in fertilisers.

"The agreement will help us absorb global volatility, as well as enhance overall margins. We also look forward to exploring with Equinor further collaboration on feedstock and carbon footprint reduction initiatives," added Sailesh Mehta, Chairman & Managing Director, DFPCL. ■

Fluxys auctions monthly berthing rights

Following on from 2023, this year Zeebrugge terminal operator, Fluxys LNG will auction Stand Alone Berthing Rights (SABRs) on a monthly basis.

This was due to current market conditions, which have led to the Zeebrugge Terminal's services high usage rates, the company said.

For each month of 2024, Fluxys LNG will determine and communicate the number of SABRs it will offer for the following month. Auctions will systematically start three business days after each communication.

In case multiple SABRs are offered for a specific month, every time a berthing right is allocated in any given auction, the following auction will start 10-15 mins after the closing of the previous auction.

If a shipper has already purchased Additional Berthing Rights (ABRs), it can decide to convert three allocated SABRs or a multiple thereof into one or more ABR(s), Fluxys explained.

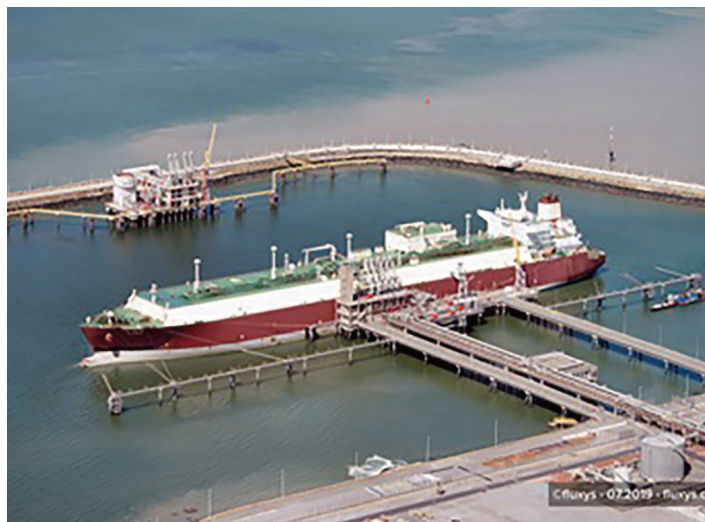
The allocated SABRs will only

be valid during the applicable month and are not transferable to any another month.

SABR scheduling will be possible from the first business day following the allocation until at

the latest four days prior the requested date.

For March, three SABRs were due to be offered one by one in three consecutive auctions on 22nd February, 2024. ■



Fluxys' Zeebrugge receiving terminal

NEWS NUDGE

Terminal maintenance periods announced

OLT Offshore LNG Toscana has confirmed that the FSRU Toscana terminal will undergo its previously announced extraordinary maintenance period on 1st March, 2024.

Maintenance is expected to end by 31st October, 2024.

During this period, the re-gasification service will be interrupted, OLT warned.

In addition, Rotterdam's Dutch Gate LNG terminal plans to conduct scheduled maintenance starting 6th May. The maintenance period will last for 72 hours.

During this period, the terminal's send-out capacity will be reduced to a maximum of around 32,000 cu m per hour.

Vessel discharging and loading operations and truck loading operations will not be impacted, Gate said. ■

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GTT benefits from strong LNGC orderbook

French engineering group GTT said that revenue and EBITDA was at the top of the target range for last year.

The good stream of orders continued and strong growth was expected this year.

For 2023, the consolidated turnover was €428 mill, a rise of 39.2%, compared to 2022. Consolidated EBITDA was €235 mill, up 45.6%, compared to the year before.

GTT proposed a dividend of €4.36 euros per share, up 40.6% compared to 2022.

Last year, the orderbook reached a record level of 311 units for the core tank design sector and 76 units for the LNG as a fuel activity.

The company was also awarded numerous approvals in principle (AIPs), particularly in the field of transport of liquid hydrogen and for the concept of a three-tank LNGC, which highlighted the dynamism of the Group's R&D sec-

tion, GTT said.

Looking forward, GTT forecast a strong turnover of its core activity of around €1,815 mill in total during the period 2024/2029.

For this year, the company forecast a consolidated turnover within a range of €600 to €640 mill; a consolidated EBITDA of between €345 to €385 mill and a distribution objective giving a dividend corresponding to a minimum distribution rate of 80% of the consolidated net income.

Commenting on the results, Philippe Berterottière, GTT's Chairman and CEO, said: "With a total of 73 orders for LNG carriers, two orders for ethane carriers and one order for a unit of LNG liquefaction during the 2023 financial year, the commercial performance of our main activity remains very sustained.

"Demand for LNG remains particularly strong and sustainable, as illustrated by number of final investment decisions (FIDs) for new liquefaction plants taken early and involving very large volumes.

"The continuation of strong demand for LNG and the construction of new liquefaction plants will continue to generate additional needs for LNG carriers.

"Furthermore, the replacement market is expected to gain momentum over the coming years linked to the ageing of the fleet and the entry into force of a new regulations environment," he said.

Subsidiaries strong

Subsidiary, Ascenz Marorka also won major contracts with leading shipowners last year, which underlined the relevance of the group's

digital solutions.

GTT also confirmed that it had acquired VPS, a Danish company specialising in ship performance management.

Another subsidiary, Elogen also reached a milestone towards mass production with the start of the construction of its gigafactory in Vendôme in January, 2024.

In addition, keeping the momentum going, this month GTT won a contract from Samsung Heavy Industries for the tank design of 15 new 174,000 cu m LNGCs on behalf of a leading player.

Each tank will be fitted with the Mark III Flex membrane containment system.

The vessels' deliveries are scheduled for between the fourth quarter of 2026 and the fourth quarter of 2028. ■

Venice Energy gives ownership updates

Australian LNG player, Venice Energy has completed Stage 1 of Port Adelaide's Outer Harbour project, enabling work to start.

Recently, there has been a significant increase in commercial interest and activity around the project - culminating in several key updates, the company said.

In October last year, Venice Energy signed an exclusivity agreement with Origin Energy to enable negotiations for the latter to become the single user of the LNG import terminal. This agreement concludes at the end of this month.

There was an expectation that a final 10-year terminal user agreement (TUA) would be agreed either in December, 2023 or January, 2024.

However, elements of the negotiations with Origin were believed to have been impacted following the announcement by the Australian Federal Government proposing changes to domestic gas supply, which has introduced additional uncertainty into the gas

market, Venice Energy said.

In addition, recently the developer was approached by a number of companies to discuss purchasing the project. As a result, Venice appointed international M&A specialists, CLSA to run a process for interested parties.

By the middle of February, 15 companies had expressed interest in the project and eight have thus far registered, as part of the due diligence process following the opening of a data room.

These companies came from different sectors, including existing energy operators, industrial gas consumers, international LNG-specific concerns and private equity players.

As for the planned FSRU, which will act as the project's terminal, Venice said that since December last year, the situation has changed.

In mid-2022 Venice signed an

FSRU timecharter agreement with Greek shipping company, GasLog. However, last year, GasLog underwent a major restructuring and in doing so made a decision to sell-off a number of vessels.

In December, 2023, AG&P LNG and subsidiary GAS Entec emerged as the provider of a fully converted FSRU and as a result,

Venice secured a new commercial understanding that guarantees the delivery the FSRU at an improved cost and in a timely manner.

GAS Entec, a South Korean company involved in FSRU conversions, has already converted three LNGCs into FSRUs and will convert another LNGC for the Australian project in a South Korean yard. ■



The Port Adelaide site

Woodside reports record production - sells Scarborough stakes

Australian gas developer, Woodside achieved record production of 187.2 MMboe (513 Mboe/d) and excellent operated LNG reliability of 98% for 2023.

The company has reported a full-year net profit after tax (NPAT) of \$1,660 mill, and underlying NPAT of \$3,320 mill when adjusted for exceptional items, while the operating cash flow was \$6,145 mill.

A final dividend of 60 cents per share was agreed, bringing the full-year dividend to 140 cps.

Woodside CEO, Meg O'Neill, said: "Our focus on disciplined capital management has allowed us to deliver consistently strong returns to shareholders. Underlying profit was strong, enabling us to maintain an 80% dividend payout ratio.

"While realised prices were down year-on-year to levels closer to historic norms, annual sales volume topped 200 mill barrels of oil equivalent (over 548 Mboe/d), generating revenue of almost \$14 bill.

"Free cash flow of \$560 mill was a significant achievement in a period of major capital expenditure and normalised prices. Our tax contribution in Australia was a record A\$5 bill in 2023 and we are committed to maintaining the delivery of affordable, reliable gas to Australian customers.

"Across our business in 2023 Woodside achieved a reduction in net equity Scope 1 and 2 emissions of 12.5% below the starting base, against our target of 15% by 2025.

"We achieved our value objectives for the sale of 10% equity in the Scarborough Joint Venture to LNG Japan. This was followed in 2024 by the sale of 15.1% equity to JERA. These transactions demonstrate the ongoing demand for new gas supplies to support regional energy security.

"Across the industry, contracts for LNG continue to be signed with long durations, signalling confidence in the future strength of the market from both buyers and sellers. Woodside is geographically advantaged to meet the forecast growing demand for LNG in Asia.

"Significant progress was made on Woodside's major growth projects over the course of the year. We welcome the Australian Government's plans to reform the system for offshore approvals and are participating in the current consultation process.

"Since the start of 2024, we've

completed the initial drydock of the hull for the Scarborough floating production unit and the first modules for Pluto Train 2 have arrived and been installed on site in Western Australia.

"In our Climate Transition Action Plan, Woodside announced a new target to take FID on new energy products and lower carbon services with total greenhouse gas emissions abatement capacity of 5 mill tonnes per annum by 2030," she said.

Transactions

The LNG Japan transaction is still subject to completion, targeted for the first quarter of 2024, while the sale and purchase agreement is with JERA Scarborough Pty Ltd, which is a wholly owned subsidiary of JERA Co, Inc and is also subject to completion of the transaction, which is targeted for the second half of 2024.

The JERA transaction involves three core elements, including equity in the Scarborough joint venture, LNG offtake and collaboration in new energy and lower carbon service opportunities.

The equity involved Woodside signing a binding sale and purchase agreement (SPA) with JERA for the sale of a 15.1% non-operating participating interest in the Scarborough Joint Venture (JV) for around \$1,400 bill.

Woodside and JERA have also entered into a non-binding heads of agreement (HoA) for the sale and purchase of six LNG cargoes on a delivered ex-ship (DES) basis per year for 10 years commencing in 2026.

Later this week, Woodside reported that it had signed a sale and purchase agreement (SPA) with Korea Gas Corp (KOGAS).

This SPA involves the supply of around 0.5 mill tonnes per annum of LNG for 10.5 years on a delivered basis (DES), commencing in 2026 and subject to certain conditions.

LNG will be sourced from uncommitted volumes across Woodside's global portfolio, including Scarborough.

O'Neill said the SPA was significant as it was Woodside's first long-term supply agreement with South Korea. ■

Catcha/Crown tie-up edges closer

The US Securities and Exchange Commission (SEC) has declared the the proposed business tie-up registration statement involving Catcha Investment Corp and Crown LNG Holdings is effective.

Catcha Investment is a publicly traded special purpose acquisition company, while Crown LNG Holdings is a provider of LNG liquefaction and regasification terminal infrastructure solutions for harsh weather locations.

An extraordinary general meeting of Catcha shareholders to approve the business tie-up is scheduled to be held on 6th March, 2024 at the offices of Goodwin Procter in New York.

Holders of Catcha's Class A ordinary shares and Class B ordinary shares at the close of business on

the record date of 16th January, 2024 are entitled to vote at the special meeting.

Assuming satisfaction or waiver of the conditions to the closing of the tie-up, including approval of the business combination by Catcha's shareholders, the parties anticipate that the deal will close and the combined company's ordinary shares and warrants will commence trading on the New York Stock Exchange (NYSE) or the Nasdaq Capital Market, shortly thereafter.

"We are pleased to have

reached this important milestone on our journey to becoming a public company," said Swapan Kataria, Crown LNG CEO. "The LNG market is supported by strong tailwinds, including rising energy security concerns and the increasing use of natural gas as a transition fuel with a 10th of the emissions of coal fired power plants.

"We believe this transaction will enable us to provide investors with a stable, long-term return on their investment, while meeting the strong and growing

global demand for harsh weather LNG infrastructure," he said.

"This is an exciting milestone for the business combination," added Patrick Grove, Chairman and CEO of Catcha and the Group. "We appreciate the support from our investors and remain confident that Crown's differentiated technology is well-positioned to help enable LNG access for under-served markets, which have been traditionally underserved by existing operators." ■

Lucrative charters buoy CoolCo

LNGC owner and operator, Cool Company (CoolCo) generated total operating revenues of \$97.1 mill in the fourth quarter of last year, compared to \$92.9 mill for 3Q23.

Net income was \$22.41 mill in the quarter, compared to \$39.21 mill for 3Q23. The decrease was primarily related to unrealised mark-to-market losses on interest rate swaps.

CoolCo also reported adjusted EBITDA of \$69.4 mill, compared to \$62.8 mill for 3Q23.

Average 4Q23 TCEs were \$87,300 per day, compared to \$82,400 per day for the previous quarter.

During the quarter, the company entered into sale and lease-back financing arrangements with Huaxia Financial Leasing for two MEGA LNGCs ordered at Hyundai Samho.

Subsequently, CoolCo received commitments from banks to upsize (on a delayed drawdown basis) the existing \$520 mill term loan facility maturing in May, 2029 in anticipation of the maturity of the two sale & leaseback facilities during 1Q25.

CEO Richard Tyrrell, commented: "In the fourth quarter, we benefited from strong operational performance, a seasonal up-lift on our variable rate contract, and the continuing impact of our fleet's fixed-rate charter cover-

age. Additionally, we took measured exposure to the charter market in the form of one vessel that we chose to deploy directly in the spot market, while waiting for the right term opportunity.

"The net result was a sequentially higher TCE level at \$87,300 per day - CoolCo's highest ever quarterly TCE. This winter saw rates return to more normalised levels after an extraordinary period following the Russian invasion of Ukraine.

"Despite the normalisation of the overall market, CoolCo benefited from having a number of medium and long-term charters at previously contracted higher levels and continued to show its ability to secure high value business with the announcement of a 12-month charter for its spot market vessel, to commence during the first quarter of 2024.

"Our next available vessels are well spaced and do not come open before the second half of 2024, when the market is anticipated to be in a seasonal upswing powered by expected longer voyage distances, as greater volumes of LNG head east this year.

"Due to the relatively warm

northern hemisphere winter, gas prices have fallen and reduced the option value to charterers of maintaining excess LNG carrier capacity to facilitate opportunistic trades.

"This, combined with some delays to certain liquefaction projects, has resulted in sublets weighing on time charter rates.

"Nonetheless, CoolCo's newbuilds continue to attract interest and remain the only such vessels in the market available from independent owners in 2024, and thus the only such vessels likely to be available for term contracts.

"With the imposition of increasingly tight emissions regulations in the coming years, the relative advantage of these state-of-the-art vessels only increases over time. Conversely, older steam turbine vessels, which presently make up 31% of the global fleet (by number of vessels) face growing pressure from those same regulations and their utilisation is falling to the point that, heavy scrapping in the coming years is anticipated.

"CoolCo has a backlog of \$1.4 bill of contracted revenue at the end of the quarter and continues to expect near-term earnings

growth from its fully financed newbuilds, when delivered, to offset current market weakness should it persist," he concluded.

Drydockings

While there were no drydockings last year, four are expected during 2024, starting with one in the second quarter and the other three during the third quarter. The budgeted cost of these drydockings is about \$6.5 mill each, plus up to 30 days off-hire.

One of the 3Q24 drydockings will involve the upgrade of a vessel to LNGe specification at a budgeted cost of an additional \$15 mill and an additional 20 days off-hire.

Also following the end of 4Q23, CoolCo announced that it has entered into a new 12-month timecharter agreement with Santos Singapore Shipping for a TFDE LNGC, which is the vessel due to be upgraded. The charter is scheduled to commence in 1Q24.

CoolCo also said that it is continuing discussions with multiple potential charterers seeking employment for its two newbuildings due to be delivered towards the end of 2H24. ■

NEWS NUDGE

Russia tries to boost NSR usage

In an effort to pave the way for year-round transport of LNG on the Northern Sea Route (NSR), the Russian Government has eased the requirements for icebreaker escorts, according to Russian newswires.

The rule change applies to double-acting vessels with Ice Class Arc7 and Arc8 notations, such as LNGCs calling at NOVATEK's Yamal LNG and Arctic LNG 2 projects.

Previously, Arc7 LNGCs were

allowed to navigate independently, ie without icebreaker escort, in severe ice conditions only between 1st July and 30th November.

The amended rules expand this period by three months to include January, June, and December.

'Double-acting vessels with Ice Class Arc7 and Arc8 are permitted to travel independently in the period from 1st January to 31st January and from 1st June to 31st December in any ice conditions,' the updated rules said.

The rule change may be down to Russian efforts to begin year-round deliveries of LNG to Asia. According to NOVATEK and Russian

government officials, routine winter deliveries will begin this year.

However, in the latest round of US sanctions against Russia announced last week, Russian LNG owner and manager Sovcomflot was included.

South Africa's first LNG import terminal cost revealed

South Africa's first LNG import terminal at Richards Bay will cost over Rand7 bill (\$372 mill).

The terminal aims to import 2 mill tonnes per annum, double the initial amount, a senior official at state-owned logistics firm Transnet told Reuters. ■

In January, the Government awarded a long-term concession for the LNG project to a consortium - VOPA - led by Dutch terminal operator Vopak.

The consortium is tasked with developing at least 6,000 MW of new gas-to-power projects to reduce record electricity outages.

Located on South Africa's east coast, north of Durban, the LNG terminal will initially import 2 mill tonnes per annum by 2027 before ramping up to 5 mill tonnes, according to Linda Myeza, oil and gas sector specialist at Transnet National Ports Authority (TNPA), talking with the news outlet. ■

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Courtesy of SNAM

Qatari LNG Academy inaugurated

Houston-based class society and consultancy, ABS has inaugurated the ABS Global LNG Academy.

This is a training centre dedicated to using the latest techniques to train seafarers in modern LNGC operations.

Located in Doha and supported by QatarEnergy, the Academy is a joint project with industry partners, who are working to make the Academy the global epicentre for LNG-related training and development.

Establishing the training centre is also a key part of ABS' support of Qatar's National Vision 2030 and the Tawteen Programme, which focuses on Qatari nationals education and quality employment.

The academy will not just act as an LNG training centre, but will also be part of QatarEnergy's Lo-

calisation Programme for Services and Industries in the Energy Sector (Tawteen) and also an LNG Centre of Excellence in Qatar.

"Qatar offers an ideal location for the establishment of ABS' global LNG Academy, allowing us to combine Qatar's LNG operational leadership with ABS' record of safety leadership and technical and regulatory LNG knowledge.

"This one-of-a-kind, state-of-the-art facility offers a unique learning experience both on board and through immersive classroom simulation training," said Christopher Wiernicki, ABS Chairman and CEO.

The centre is designed to offer both theoretical and practical

training to support safety in the various aspects of LNG carriage and the safe handling of LNG as a marine fuel. The training facility offers online, virtual and classroom options for interactive and continuous learning.

Virtual LNGC

In co-operation with NAKILAT, ABS is delivering the industry's first fully operational LNG metaSHIP. Powered by Orka, this is a highly realistic virtual asset, built to scale from vessel drawings, taking learners on virtual field trips to provide a powerful, immersive learning experience in a dynamic simulated training environment, the class society said.

As part of the training, learners interact with the vessel and its crew. They can inspect equipment, take photographs, ask questions, view certificates, write reports and practice many more critical technical skills.

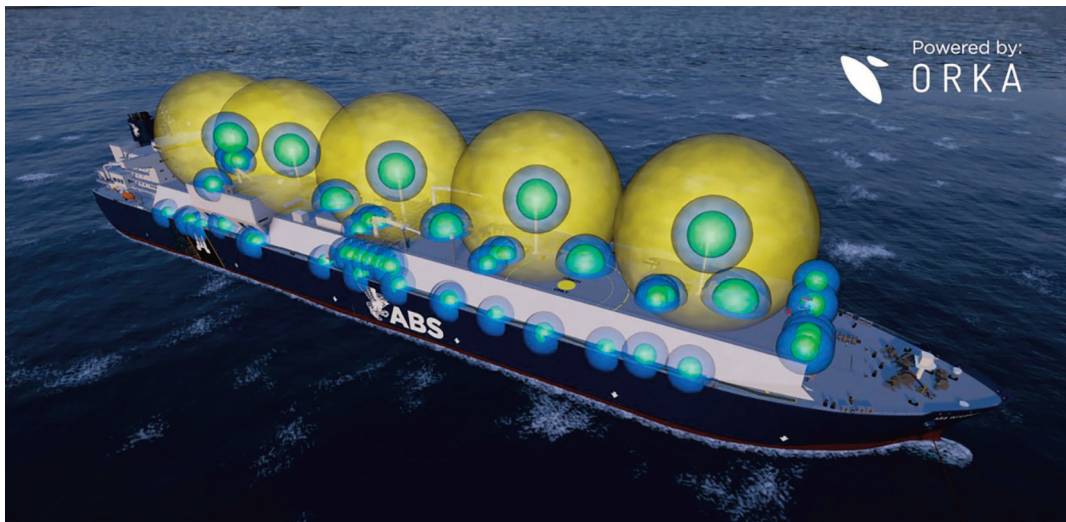
Difficult or obscure concepts can be better understood when visualised on board the MetaSHIP, such as recognising gas hazardous zones and their safety implications, ABS said.

Each action completed on board by the student is recorded and available for review and assessment, providing follow-up in person coaching experiences.

The Academy's simulator training room also offers gas handling operations and engine room simulation courses offered by GTT Training and the Theta Training Centre.

ABS and Poten & Partners also offer a joint LNG Commercial Operations course providing a foundational understanding about how LNGCs' commercial operations are effectively managed throughout their life cycles.

A large suite of programs is available, including LNG and LNGC fundamentals, membrane technologies, LNG marine fuel operations, bunkering, ship-to-ship (STS) operations, commercial operations, and more. ■



ABS' LNGC training initiative

NEWS NUDGE

Ships - Newbuildings, charters, sales, namings

HD Korea Shipbuilding & Offshore Engineering (HD KSOE) has received a Won1.43 trill (\$1.08 bill) order for four LNGCs.

In a regulatory filing on Monday, the shipbuilder said that the four units will be built at Hyundai Samho Heavy Industries for delivery by January, 2028.

It was thought that Capital was behind the order.

Turning to the charter market, Flex LNG has been advised by the charterer of 'Flex Courageous', that it has exercised its first extension option.

'Flex Courageous' was fixed on a three-year timecharter on 1st November, 2021, commencing in February, 2022, together with 'Flex Resolute', which was also recently extended by two years until 2027.

Under the charter terms, the charterer has the option to extend the period by two consecutive two year periods.

Following this first option

declaration, 'Flex Courageous' will be firm until first quarter of 2027. The charterer will then have a final option to extend by another two years until 2029.

Brokers have reported that the 2000-built, 132,570 cu m LNGC 'Golar Mazo' has been sold to Greek interests for \$20 mill on the basis 'as is' Labuan and the vessel being out of class.

QatarEnergy has named the first LNGC to be delivered as part of its new fleet expansion programme - 'Rex Tillerson' - in recognition of the former Chairman and CEO of ExxonMobil, who

also served as the 69th US Secretary of State.

During his 10-year tenure as Chairman and CEO of ExxonMobil, Tillerson oversaw the consolidation of relations with the State of Qatar and its energy sector, resulting in strategic partnerships and significant investments in Qatar's LNG industry.

'Rex Tillerson' is expected to enter service in September, 2024 and is currently under construction at the Hudong-Zhonghua Shipyard in China, as part of a 12-ship newbuilding programme. ■

Armada's new ALS to be tested on board LNGC

UK-based Armada Technologies has won a contract to fit its air lubrication system (ALS) on a CoolCo LNGC in co-operation with US-based engineering company, Ecochlor.

Under the terms of a partnership agreement, Armada will design, engineer, procure, and provide support for the installation and commissioning of its ALS on the LNGC, which is scheduled to dry-dock this year.

Once commissioned, CoolCo will conduct sea trials and provide documentation to Armada, following ISO or ITTC guidance, to measure the system's performance.

Armada CEO, Alex Routledge, said, "We are delighted to introduce our advanced passive air lu-

brication system (PALS) to the maritime industry through this collaboration with CoolCo.

"Our PALS, which utilises tailored bubble production design for each ship's characteristics, including speed, draft and weather conditions, eliminates the need for continuously running compressors.

"Conducting sea tests with CoolCo will enable us to optimise the system even further using our machine learning algorithms," he explained.

CoolCo CEO, Richard Tyrrell,

added, "We are pleased to be working with Armada Technologies. We selected Armada for its system's performance potential and its minimal impact on the crew, due to the absence of rotating equipment.

"CoolCo is committed to reducing its fleetwide carbon intensity and surpassing the IMO targets for 2030. It's goal is to achieve a 35% reduction in fleetwide carbon intensity, compared to 2019, which would significantly exceed the IMO's target.

"Through the partnership with Armada Technologies, CoolCo is taking a meaningful stride towards achieving its sustainability goals," he said.

"The affiliation between Ecochlor and Armada Technologies continues to support the development of a game-changing solution for hull air lubrication in the marine industry," Andrew Marshall, Ecochlor CEO, commented.

"As execution partner to this project, we are committed to leveraging our expertise in concept design and engineering, as well as developing a robust and reliable software solution to ensure PALS delivers consistent and ongoing fuel savings regardless of vessel type and operating condition.

"We are proud to have Armada as one of our partners and remain steadfast in our commitment to

driving lasting, positive change for the benefit of our planet and future generations to come," he concluded. ■

Reliquefaction plants for two Chevron LNGCs

South Korean ship service provider, HD Hyundai Marine Solution, part of the giant HD Hyundai Group, has won an order to retrofit Chevron Shipping's two LNGCs.

They will be fitted with new re-liquefaction systems.

HD Hyundai Marine Solution claimed that its reliquefaction system provides a solution to liquefy boil-off gas (BOG) and return it back to the cargo tanks, helping reduce LNG cargo loss and CO2 emissions.

Thus far, Hyundai's engineering subsidiary has won \$100 mill worth of orders to install reliquefaction systems on eight LNGCs.

It is thought that around 100 LNGCs are operating without re-liquefaction systems fitted, sources told Yonhap. As a result, the world market for re-liquefaction retrofits is estimated at around \$700 mill. ■



Armada's Alex Routledge (left) agreeing the deal with CoolCo's Richard Tyrrell (right)

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	\$40,000	-\$3,000
West of Suez	\$40,000	-
12 mos T/C	\$54,000	-

*Since last report (15/02/24)

Source: Fearnleys (28/02/24)

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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