LNG Shipping News

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LNG newbuilding market's 'perfect storm'

The LNG market is experiencing a 'perfect storm', according to Panos Mitrou, Lloyd's Register's Global Gas Segment Director.

This is due to a sequence of events, each worse than the one before.

For example, energy transition pressure has set back hydrocarbons investment by years with ESG considerations serving to restrict the energy investment needed. The Covid pandemic worsened the situation further by hiding underlying energy growth.

When China's economy came back online, quite a substantial growth was seen in gas requirements. LNG supply was outstripped by demand and prices rose.

At some point, it was no longer able to maintain its market share and coal kicked in, which is why last year was a record year for the commodity, he said.

Months before the Ukraine crisis, there was already an increase in investment in liquefaction plants and a greater appetite for expansion of gas production with infrastructure go-ahead decisions.

As a result, the market was in a growing spiral, he added.

Then the Ukraine crisis occurred, providing a shock to the market, as an already-stretched maritime supply chain was asked to replace Russian pipeline gas.

IMO measures

In addition, IMO's first two short-term GHG reduction measures – EEXI and CII – will be implemented shortly on existing LNGCs. This is expected to put more pressure on ships' operations and productivity.

Perhaps the EEXI's major impact will be to cut the ships' speed, especially in periods of high demand, like forthcoming winters. Many ships will only be able to sail at, for example 17, rather than 19 knots, further restricting supply capacity, Mitrou said.

As for shipyard capacity, the supply problem could be tackled if it were possible to renew the existing LNGC fleet at a significant rate.

There are currently only four yards worldwide able to build full size LNGCs to any degree – Hyundai HI, DSME, Samsung HI and Hudong-Zhonghua and historically, LNGC production has barely exceeded 50 vessels annually.

There are two new Chinese entrants - DSIC at Dalian and Jiangnan Shipyard - but they are only just starting to build LNGCs and it will be years before these shipyards have the expertise and capacity to produce a significant number of vessels.

Also, shipbuilding capacity is limited by physical infrastructure and supply chain capacity, while countries like South Korea want to maintain their output at a certain level.

If shipyard slots are taken by any other ship types – such as large containerships – LNGC slots may not be available. This is the situation at present where LNGC deliveries are being prolonged to 2026 and beyond.

During the recent surge of orders, slots were booked to serve large projects, such as Qatar, TotalEnergies' Mozambique and the Petronas project.

Another key issue of late has been the unprecedented increase

LR's gas carrier guru Panos Mitrou

in the price of steel, as well as for nickel, used for LNG containment systems. These hikes are expected to last.

The recent increase of around $40 mill for a large new LNGC is likely to stay and even rise further, and this is adding to the rush to try and secure future supply chains.

Some 28 LNGCs listed in the current orderbook are connected to Russian interests and are therefore at risk – currently they are stalled, as all steel makers, suppliers, yard, banks, etc, comply with sanctions.

Through 2025, modern LNGCs will be able to benefit from a strong market and the system inertia in building tonnage to absorb demand shocks. Perhaps this is the reason why we are seeing a secondhand market develop for the first time in older ships that can be bought for relatively attractive prices.

Mitrou concluded by saying that the sector needed to adapt to the pace of regulatory change, and at the same time, focus on the existing fleet's footprint, bearing in mind that LNG itself is still a transitional commodity. ■

SHIPPING NEWS AGENDA

Long term contracts favoured

Demand for long-term LNG contracts continued to gain momentum this year.

Large volumes were signed and prices for oil-linked deals under negotiation rose.

According to a recently published LNG contract trends report issued by Wood Mackenzie (WoodMac), long-term contracting got off to a fast start this year with more than 10 mill tonnes per annum signed to end-market users by the middle of May.

Last year, the volume of long-term LNG contracts signed returned to its highest level in the last five years, a momentum which has continued.

WoodMac's principal analyst, Daniel Toleman, said: "The Russian invasion of Ukraine has had a dramatic impact on long-term LNG contracts. Many traditional LNG buyers will neither procure spot gas or LNG nor renew or sign additional LNG contracts with Russian sellers.

"Spot prices have also been high and volatile, pushing many buyers towards long-term contracts. Additionally, some buyers are returning to long-term contracting on behalf of governments to protect national energy security," he said.

Rising prices

The result is rising prices for long-term oil-linked contracts under negotiation. Between 2020 and early 2021, long-term oil-linked contract prices fell into the 10% range, levels not seen in the last 10 years.

This was driven by Qatar opting for a market share strategy, other sellers having long uncontracted positions and Japanese legacy buyers being out of the market for long-term volumes.

Toleman added: "The Russian invasion of Ukraine has pushed prices higher. Middle East sellers are now asking for deals above 12%. These deals have limited flexibility, seasonality and are fixed to a market, so the slope of a 'normal' contract is higher, between 12.5% and 14%.

"There has been news about sellers wanting 16% or 17% for 10 years, but we have not been able to substantiate this. Short-term deals can attract these rates. We believe that sellers can get 16% slopes for two- or three- year deals with volumes ending before the end of 2024. The range is slightly lower at 14-15% for four- or five-year deals with volumes that end in 2026.

"That said, prices vary greatly based on the terms, tenure and start date of new deals. The market remains bifurcated with contracts starting before or after 2026, attracting premiums or discounts to this range, respectively," he said.

Chinese buyers continued to dominate the market signing more than 8 mill tonnes per annum of new LNG sale and purchase agreements (SPAs) this year. Most new contracts were from US suppliers, as operators move projects forward. All these contracts were linked to North American prices.

The Chinese have also continued a strategy of procuring low-priced LNG. In 2020 and early 2021, the Chinese targeted oil-linked Qatar volumes. Since mid 2021, buyers have targeted Henry Hub deals with liquefaction tariffs below $2 per MMBtu.

The only non-Chinese deal with an end-user was an important one - the first Europe LNG deal since the start of Russia's invasion of Ukraine. Engie signed up to 1.75 mill tonnes per annum for 15 years from NextDecade's Rio Grande project, a development that will use carbon capture and storage to reduce its emission intensity.

Toleman commented: "Recent brownfield Henry Hub-linked deals are rumoured to have liquefaction tolling fees below $2 per MMBtu. This follows deals signed last year in a similar range. We expect higher capacity fees for Henry Hub-linked deals under negotiation.

"This is reflective of two trends. First, more advanced projects capable of delivering LNG in the 2025/26 timeframe will attract premiums. Second, rising raw material, labour and EPC costs are all driving up the cost of delivering projects on the US Gulf Coast, in turn resulting in higher capacity fees," he said. ■

Snohvit's Hammerfest export facility is due to reopen on 27th May (see page 6)

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Poland to buy Sempra LNG

Sempra Infrastructure and Polish Oil & Gas Company (PGNiG) have signed a heads of agreement (HOA) to purchase around 3 mill tonnes per annum of LNG.

The cargoes will be delivered on a free-on-board (FOB) basis from Sempra's portfolio of LNG North American projects.

"Today's agreement underscores our commitment to help provide greater energy security to Poland and our global partners through long-term LNG sales," said Dan Brouillette, Sempra Infrastructure President. "Our relationship with PGNiG is core to this commitment, and we are excited to continue working closely with them to advance more reliable, secure and increasingly clean energy solutions."

"The agreement signed today paves the way for negotiations of detailed terms that would provide PGNiG with LNG from a reliable and highly valued infrastructure partner. Here in Poland, LNG is already one of the cornerstones of our diversified strategy to enhance Polish energy security, as well as to strengthen the commercial potential of the PGNiG Group.

"We are determined to further expand our operations in this direction and are therefore taking steps to secure access to adequate natural gas volumes in the future," added Iwona Waksmundzka-Olejniczak, PGNiG President.

Sempra Infrastructure's President Dan Brouillette (see page 6).

SPA agreements

The HOA is aimed at the negotiation and finalisation of definitive 20-year LNG sale and purchase agreements (SPAs) for 2 mill tonnes per annum from the Cameron LNG Phase 2 project under development in Louisiana, and 1 mill tonnes from the Port Arthur LNG project under development in Texas.

It also provides PGNiG with the opportunity to re-allocate volumes from the Cameron LNG Phase 2 project to the Port Arthur LNG project this year.

In addition, Sempra and PGNiG said that they expect to continue working toward a framework for the reduction, mitigation and reporting of greenhouse gas emissions across the LNG value chain.

Sempra Infrastructure is developing the Cameron LNG Phase 2 project, which is expected to include a single LNG train with a maximum production capacity of around 6.75 mill tonnes per annum of LNG, as well as de-bottlenecking of the existing three LNG trains at the Hackberry, Louisiana facility.

Last month, Sempra signed an HOA with the Cameron LNG partners for the development of the Cameron LNG Phase 2 project. In addition, the company is also developing the planned Port Arthur LNG project, an about 13.5 mill tonnes per annum, fully permitted facility on a 3,000 acre site in Jefferson County, Texas.

This HOA is a preliminary, non-binding arrangement, and the development of the Cameron LNG Phase 2 and Port Arthur LNG projects remains subject to a number of risks and uncertainties, including reaching definitive agreements, securing all necessary permits, signing engineering and construction contracts, obtaining financing and incentives and reaching a final investment decision (FID) for each project, Sempra said. ■

McDermott wins Fujairah FEED

McDermott International has won the front-end engineering and design (FEED) contract from Abu Dhabi National Oil Co (ADNOC) for a new LNG export terminal to be located at Fujairah.

The Fujairah terminal will involve two trains of 4.8 mill tonnes per annum capacity each.

ADNOC said that the production capacity would increase by 9.6 mill tonnes per annum in response to the growing global demand for natural gas.

The facility will probably include LNG storage tanks, an export jetty with an option for bunkering, and other associated infrastructure.

McDermott was appointed design contractor for the plant, which is currently at the design stage. An EPC contract will likely be awarded next year.

On completion, the plant is set to become one of the world's lowest carbon intensity LNG production facilities by incorporating new technologies and running on clean power. ■

Venture Global adds to Plaquemines sales

Venture Global LNG and PETRONAS LNG Ltd (PLL) have signed a 20-year sales and purchase agreement (SPA) for the purchase of 1 mill tonnes per annum of LNG.

The gas will be supplied by the Plaquemines LNG export facility.

With this agreement in place, Venture Global has announced 20-year sales for 16 mill tonnes of the 20 mill tonnes per annum nameplate capacity at Plaquemines LNG thus far.

"Venture Global is proud to begin a new, long-term supply partnership with PETRONAS, a world renowned and experienced leader in global LNG engineering and operations," said Venture Global CEO, Mike Sabel. "This contract represents a significant expansion of our existing customer base in Asia and we particularly look forward to PETRONAS bringing our competitive, lower carbon energy into southeast Asia, a region with rapidly growing gas demand."

PETRONAS Vice President of LNG Marketing & Trading, Shamsairi Ibrahim, added; "PETRONAS looks forward to the long-term LNG partnership with Venture Global, which will support the growth and accessibility of natural gas.

"With the growing demand for energy security, the addition of the new volume certainly enhances PETRONAS' global supply portfolio and demonstrates our support of the energy transition towards a lower carbon future," he said. ■

Power Play AWARDS

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This year, the Power Play Awards will mark ExxonMobil LNG's fourth year supporting inclusion and diversity by connecting and celebrating women and men across the LNG industry. The key objective behind these awards is to recognize and celebrate the accomplishments of remarkable women and men who uphold the importance of supporting and empowering others in the workplace by demonstrating how a mutually supportive environment can help support great business outcomes across all parts of the LNG value chain.

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LNG

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Qatar in talks to supply LNG to Germany

Germany and Qatar signed a Government level energy co-operation deal in Berlin last week.

Germany is seeking gas from Qatar

Ongoing talks could lead to Qatar offering LNG shipments to Germany from Golden Pass, a new US liquefaction plant owned by Qatar Energy and ExxonMobil, from 2024, as a more-immediate source of gas.

Qatar's huge expansion project is not scheduled to come online until 2026.

"We aim to have our LNG plant Golden Pass in Texas, 70% of which are owned by Qatar Energy, ready by 2024 so that we can deliver to Germany," Deputy Premier Sheikh Mohammed bin Abdulrahman Al Thani told the German newspaper Handelsblatt, according to newswires.

Europe is currently trying to find alternatives to gas from Russia - the continent's biggest supplier - after the country's invasion of Ukraine. Imports of LNG from Qatar and the US, the world's largest exporters, are a key part of that solution.

"Whatever we can provide for energy security in Europe, even during this period, we will make sure that we can provide," Qatar's Emir, Sheikh Tamim bin Hamad Al Thani, told reporters at a press conference in Berlin, after he met with German Government officials.

The Emir and German Economy Minister, Robert Habeck, signed a joint declaration of intent last week, agreeing to broadly work together on energy.

A long-term LNG supply deal is still subject to negotiations.

Since Qatar is already producing well above its nameplate output capacity and has stressed that it won't break contracts with Asian buyers, it has few options to help Germany meet its goal of eliminating Russian gas imports by 2024, Bloomberg said, reporting on the meeting.

However, German companies are reluctant to commit to 20 years or longer purchase contracts, due to their goal of cutting carbon emissions by 88% by 2040, a local source told the newswire.

To solve the problem, Germany has suggested that Qatar could auction rights for agreements of varying durations. This could allow German companies to bid for shorter-term contracts while importers from elsewhere could bid for longer contracts.

Destination clauses

At last Friday's press conference, German Chancellor, Olaf Scholz hinted that Qatar would be ready to loosen its strict destination clauses, which prevent Berlin from re-routing Qatari gas from German import terminals to other European locations.

"There are several countries in Europe that don't have access to the coastline and would like to diversify their gas supply via the northern German ports -- and here Qatar is playing a good role," Scholz said.

He added that both sides recognised the Golden Pass project would have a cross-border dimension in Europe.

Scholz has promised to help eastern European countries, such as the Czech Republic and Slovakia, which depend on Russian gas but don't have access to ports.

Germany recently re-introduced previously postponed plans to construct two LNG import terminals at Brunsbuttel and Wilhelmshaven.

Meanwhile, the German transmission system operators (TSOs) has welcomed the efforts of the legislator to enable the integration of LNG into the existing gas supply network, as soon as possible by adopting a new law. ■

Sempra signs sequestration agreements

Sempra Infrastructure has signed a participation agreement with TotalEnergies, Mitsui & Co, and Mitsubishi Corp to develop the proposed Hackberry carbon sequestration (HCS) project in Southwest Louisiana.

The agreement contemplates that the combined Cameron LNG Phase 1 and proposed Phase 2 export projects would potentially serve as the anchor source for the capture and sequestration of CO2 by the HCS project.

It also provides the basis for the parties to enter into a joint venture with Sempra Infrastructure for the HCS project.

"We are excited to advance the development of the Hackberry carbon sequestration project, the first of Sempra Infrastructure's net zero solutions projects, to help Cameron LNG produce cleaner LNG for its customers," said Justin Bird, Sempra Infrastructure CEO.

"This project is expected to be among the first North American carbon capture facilities designed to receive and store CO2 from multiple sources, and our goal is for this facility to set the gold standard for safe and permanent CO2 storage," he said.

Last year, an application was filed for a Class VI Injection well permit from the US Environmental Protection Agency (EPA) for permanent storage of up to 2 mill tonnes per annum of CO2.

"We are excited to welcome new investment from Sempra Infrastructure and its partners in support of our state's emissions reduction plans," said Louisiana Governor, John Bel Edwards.

"As Louisiana pursues a goal of net-zero emissions by 2050, projects like the proposed Hackberry carbon sequestration facility that feature carbon capture and sequestration allow our state to sustain industry without sacrificing our long-term carbon-reduction goals.

"In fact, these types of projects position companies in Louisiana to grow and thrive as the world transitions to a low carbon future and to also leverage the geology, workforce, and infrastructure that positions Louisiana to be a hub and world leader in this arena."

Sempra Infrastructure said that it continued to build a strong business portfolio and is working on a number of initiatives focused on sustainability and the global energy transition to advance its goal to lower the greenhouse gas emission intensity at its LNG facilities, while working to provide de-carbonisation solutions to its customers in North America and in global energy markets.

The project's development is still subject to a number of risks and uncertainties, including signing additional project-related agreements, securing all necessary permits, and reaching a final investment decision (FID), Sempra said. ■

Summer demand/Ukrainian situation buoy spot prices

Asian and European spot LNG and gas prices have remained supported by incremental summer demand and recent Russian gas supply disruptions in Europe.

JKM prices stayed in the low-$20s per MMBtu, while the Dutch TTF benchmark was around the high $20s/MMBtu in the middle of this month, according to Poten & Partners' 'LNG in World Markets - Mid-Month'.

Spot cargoes delivering into western Europe continued to trade at substantial TTF discounts of between $5 and $10 per MMBtu, depending on the counterparties' positions.

Atlantic cargoes scrambled to secure limited discharge windows in western Europe where the arbitrage was pointing. Those that could not secure slots were diverted to lower-paying markets, like India and Thailand.

Asia/Pacific summer buying emerged, with Japanese players Jera and Hokkaido Electric Power believed to have sought volumes. Japanese spot demand, however, was expected to be moderate as LNG inventories built up.

Hokkaido Electric bought a summer cargo delivering either in June or July via a tender that closed on 10th May, which was thought to have been awarded at around $20 per MMBtu.

In addition, Tohoku Electric secured three to four winter cargoes through a tender in late April, possibly at low-20% Brent slopes, plus big constants, although offers were heard at slopes in the high-20% to low-30%.

The cargoes went mainly to oil majors.

South Korea's Kogas issued a tender for cargoes for summer to winter deliveries, as it looked to replenish stocks. The country is expecting warmer than average weather this summer, according to earlier meteorological forecasts.

Kogas is seeking one cargo of at least 2.9 trill Btu (58,000 tonnes) in size each month from July this year to March, 2023. The energy major is flexible on quantity – sellers can offer zero or more than two cargoes a month, although they each must offer at least six cargoes in total.

Sellers are to nominate precise delivery windows via a narrowing mechanism. Kogas also requested that suppliers allow ad-hoc flexibility in adjusting delivery periods, if it cannot receive cargoes during stipulated windows.

The company is open to FOB or DES terms and is seeking Brent, JKM, TTF or Henry Hub linked pricing, or fixed prices. Kogas has also asked for price caps for the various indices, to limit upside volatility risks and a cap of $35 per MMBtu for fixed prices.

Emerging buyers active

Emerging buyers also continued to pursue cargoes. Thailand's PTT eyed June volumes via a tender that closed on 16th May and offered sellers four delivery windows to nominate. Thai utility EGAT also tendered for June supply via a tender and has offered two delivery windows - the same as PTT's.

Buyers from Pakistan, Bangladesh and India have also sought June/July supplies. State-run Pakistan LNG's latest tender for two June cargoes was awarded to PetroChina International (PCI) at fixed prices of between $22.5/$24 per MMBtu, depending on the delivery window, suggesting the Chinese firm has surplus LNG volumes, sources said, talkiing with Poten.

The Indian Government has asked state-run importer Gail to step up gas procurements to meet increased demand from industries and power generation, helped by a heatwave, although the region's electricity mix is dominated by coal.

India was thought to have received multiple Atlantic basin cargoes that were unable to secure regasification slots in Europe, including Yamal LNG cargoes. Yamal LNG has stopped term supplies to Gazprom London for the rest of the year, following Moscow sanctions, and will issue the remaining volumes to shareholders.

Chinese buyers, however, were conspicuously quiet. Strict lockdowns capped gas demand for industries and power generation, while elevated spot prices continued to prompt a downstream demand drop.

They have also been reselling cargoes to capitalise on the strong spot prices. Besides PCI's two-cargo sale to Pakistan LNG, CNOOC Gas & Power sold a May cargo to EGAT at around $23-$24 per MMBtu. Private-sector firm Jovo was believed to have sold two summer cargoes to Northeast Asia recently.

On the supply front, Kogas International was rumoured to have sold a second half May loading 'Prelude' cargo. Petronas, Pertamina, Angola LNG and Egypt's EGAS have also offered spot cargoes loading and delivering in June/July.

Meanwhile, Norway's Snohvit LNG plant is to restart operations on 27th May, later than planned, following a shutdown since September, 2020. ■

Hanwha buys LNG from TotalEnergies

TotalEnergies has signed a Sale and Purchase Agreement (SPA) with South Korea's Hanwha Energy Corp for the supply of 600,000 tonnes of LNG for 15 years, starting in 2024

This was announced at the World Gas Conference 2022.

The LNG will be sourced from TotalEnergies' global LNG portfolio, delivered to the Tongyeong regasification terminal and then used to supply Hanwha & HDC's greenfield 1 GW power plant currently under construction next to the terminal.

"We are pleased to extend our long-standing co-operation with Hanwha, with whom we are already partnering on the Daesan petrochemical site, and in the US for the development of 1.6 GW of renewables.

"With this new contract, TotalEnergies increases its natural gas shipments to South Korea, the world's third largest importer of LNG in 2021. Our Company is keen to support the country's switch away from coal for power generation, with both LNG supplies and renewables projects, such as our significant 'Bada' 2 GW offshore wind project," said Stéphane Michel, TotalEnergies' President Gas, Renewables & Power.

"It is significant that we have secured business stability by signing a long-term contract with our long-lasting partner TotalEnergies, even though the volatility of the LNG market has increased more than ever due to the recent unstable international situation.

"It will serve as a great foundation for our Tongyeong project, and I think the success of the Tongyeong project will have a great impact on our future LNG businesses. Eventually in the long term, the company will grow steadily with a business portfolio of solar power, ESS and LNG," added Jung In Sub, Hanwha Energy Corp CEO. ■

First PGNiG chartered cargo delivered

The LNGC 'Maran Gas Apollonia' recently arrived at the Polish President Lech Kaczyński LNG Terminal in Świnoujście.

This marked the first cargo delivery on a vessel chartered by the PGNiG Group and was also the first shipment PGNiG has received from Venture Global LNG who will soon be a major supplier to Poland.

"This is the first time the LNG cargo has been delivered by a vessel chartered by the PGNiG Group opening a new chapter in the Group's operations on the global LNG market.

"Until now, we have only purchased LNG cargoes with transport provided. Now we also are able to purchase gas directly from liquefaction terminals under free-on-board (FOB) contracts. This definitely broadens our possibilities of securing liquefied natural gas volumes," said Iwona Waksmundzka-Olejniczak, PGNiG Management Board President.

"The last year on the European gas market has clearly demonstrated the importance of access to diversified and reliable sources of gas. LNG offers such access, hence the huge growth of interest in LNG among European companies.

"Acting in advance, PGNiG secured a solid foothold on the LNG market, so now we can effectively use our competences and capabilities to strengthen the energy security of our customers," she added.

'Maran Gas Apolonia' shipped over 65,000 tonnes of LNG, which corresponds to over 90 mill cu m of natural gas after regasification.

The cargo was loaded at Venture Global's Calcasieu Pass liquefaction terminal in Louisiana.

From next year, PGNiG will start receiving 1.5 mill tonnes of LNG per year (2 bill cu m of natural gas, after regasification) from the Calcasieu Pass terminal under a long-term contract.

PGNiG also has a long-term agreement with Venture Global for about 4 mill tonnes per year from its Plaquemines liquefaction terminal in Louisiana.

"Venture Global is proud to celebrate this historic milestone with our partner and largest customer, PGNiG," Mike Sabel, Venture Global LNG CEO said. "Poland's foresight and proactive strategic planning for its energy security needs has put it in a position of strength today.

"Our company is proud that under long-term agreements with PGNiG, we will soon be supplying LNG, which will help meet a significant share of the Polish demand for gas. These long-term FOB contracts will make PGNiG not only a consumer but also a regional leader in LNG supply and trading," he added.

Both long-term contracts with Venture Global are based on FOB deliveries.

In order to receive gas purchased under these contracts, PGNiG has started to build up its own LNGC fleet. The Group has chartered eight 174,000 cu m vessels thus far that will be built exclusively for the PGNiG Group. The first two will enter service next year, the next two in 2024 and the remaining four in 2025.

Charter commitment

Due to the recent ramp up of PGNiG's LNG imports, the Group chartered three vessels this year, two of them in the first half of 2022, including the 'Maran Gas Apollonia'.

Owner Maran Gas Maritime (MGM), part of the Angelicoussis Group, will also be responsible for two of the eight LNGCs being built for the PGNiG Group.

"Maran Gas is truly honoured to be PGNiG's shipping partner in this major milestone. This 'first' comes soon after PGNiG and Maran Gas entered into long term charter contracts for two LNG carriers in support of Poland's efforts to diversify and strengthen its LNG supply chain.

"In the face of accelerated trade growth, within a world that is significantly more fragmented than a few months ago and with rising environmental challenges, such a partnership between two strong European companies is more relevant than ever," Sveinung Stohle, Angelicoussis Group Deputy CEO, said.

The 'Maran Gas Apollonia' delivery was the 17th received by PGNiG at the Świnoujście terminal this year and the 165th since it began operations. ■

NEWS NUDGE

Ships-Newbuildings, etc

The giant PETRONAS LNG project has led to a spate of LNGC orders to export the gas.

South Korean companies picked up the bulk of the orders, including H-Line Shipping contracting three LNGCs at Samsung for about $223.5 mill each; while SK Shipping ordered four vessels, two at Hyundai Heavy Industries and two at Hyundai Samho Heavy Industries for about $227 mill each.

In addition, TMS Cardiff was believed to have ordered two at Samsung for a slightly higher equivalent of $231 mill each for the same project.

All of the vessels are due for delivery in 2025.

Elsewhere, COSCO Shipping Energy Transportation (CSET) reportedly ordered two 171,320 cu m LNGCs at Hudong-Zhonghua for 2026 deliveries.

The price was said to be the equivalent of around $215 mill each.

Elsewhere, The Ukraine/Russia situation has affected Sovcomflot (SCF).

In what is described as bank deal, Eastern Pacific has picked up four SCF LNGCs.

All four are on long term charters to Shell for between seven and 10 years.

The ships were the 2015-built sisters 'LNG Mitre' and 'LNG Melampus', which were thought to have cost $150 mill each, and the 2020/2021 built 'SCF Barents' and 'SCF Timmermans', which were said to have cost $200 mill each.

In addition, Daewoo was reported as having announced the cancellation of an Arc7 order, due to the non-availability of funds to pay the instalments.

Kyushu launches LNG trading subsidiary

The demand for LNG as a transition energy is expected to increase globally in various industrial areas, including bunkering and fuel conversion projects.

In response to this, Kyushu Electric Power has formed a new subsidiary, Q United Energy Supply & Trading Co (QUEST), dedicated to trading LNG.

The Fukuoka-based subsidiary will supply LNG utilising Kyushu's assets, including LNGCs and storage terminals, as well as trading capabilities built up in the past, to meet various requirements from LNG customers.

In parallel, the function of balancing and optimisation is transferred to the new subsidiary to integrate delivery scheduling and balancing in incremental demand and existing demand, Kyushu said. ■


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Flex LNG in upbeat mood

Flex LNG has announced that vessel operating revenue was $74.6 mill for the first quarter 2022, compared to $114.6 mill for the previous quarter.

Net income was $55.8 mill and basic earnings per share was $1.05 for 1Q22, compared to $69.4 mill and $1.31 for 4Q21, respectively.

Average timecharter Equivalent (TCE) rate was $62,627 per day for 1Q22, compared to $95,908 per day for 4Q21.

Adjusted EBITDA of $56.3 mill for 1Q22, compared to $95.5 mill for 4Q21, while adjusted net income was $23.8 mill for 1Q22, compared to $62.8 mill for 4Q21.

Adjusted basic and diluted earnings per share was $0.45 for 1Q22, compared to $1.18 for 4Q21.

In March 2022, the company signed a $375 mill term and revolving credit facility, with an accordion option to increase this by $125 mill, secured against an additional vessel.

The whole facility will be secured by the 'Flex Ranger', 'Flex Rainbow' and 'Flex Endeavour', while 'Flex Enterprise' is a candidate for the accordion option.

In April, 2022, the 'Flex Ranger' and 'Flex Rainbow' completed their re-financing with net cash of $11.5 mill provided to the company.

During the same month, Flex LNG signed an aggregate $320 mill sale and leaseback agreements for the refinancing of the existing facility for the 'Flex Constellation' and 'Flex Courageous'.

Completion of the refinancing is expected this month, subject to customary closing conditions in connection with delivery and acceptance of each vessel. The financing will release around $99.6 mill to the company.

Cheniere charters

In April, 'Flex Volunteer' started a timecharter with Cheniere, as part of the agreements signed in April, 2021 for four vessels. She was delivered about two months ahead of schedule.

The fixed rate timecharter has a firm period ending in 1Q26.

Cheniere also declared an option for a fifth timecharter involving the 'Flex Aurora'. The fixed rate timecharter will commence in 3Q22 with the firm period ending in 1Q26.

Flex LNG declared a dividend of $0.75 per share for 1Q22.

Øystein Kalleklev, Flex LNG Management CEO, commented: "The first quarter was a fantastic period to be a cargo owner with high demand and elevated prices for LNG given the global energy crunch.

"For the spot freight market, the first quarter was, however challenging as the LNG trade abruptly shifted towards Europe resulting in lower sailing distances and thus higher availability of ships depressing freight economics, as liquidity in the spot market also dried up.

"The sentiment in the freight market did, however turn positive during the end of February and spot rates for modern tonnage have now recovered to above seasonal average, while the one-year and three-year timecharter rates remains very strong.

"This is evidencing that charterers are willing to pay a substantial premium to spot rates in order to lock in large fuel-efficient ships on longer periods, as the forward market also price in a much tighter freight market in the second half of the year.

"During the last 13 months, we have successfully secured in total nine fixed hire timecharters with first class counterparties. The minimum period of these contracts range from three to five years, which gives us comfortable earnings visibility. We still have three ships, which will be redelivered from existing timecharterers during the next 23 months and given the strong term market and general lack of available modern tonnage, we are upbeat about the prospects of re-contracting these ships at attractive terms.

"Revenue wise, we are pleased to deliver revenues for the quarter of $74.6 mill in line with our revenue guidance communicated in February. With 98% contract coverage for the year and three of our 13 ships on variable hire contracts linked to the spot market, we do expect gradual increased revenues in the next three quarters, as we also guided in February.

"Given the strong backlog, positive outlook and our very solid financial position, the Board is therefore again declaring a dividend for the quarter of 75 cents per share. This provides our shareholders with an annualised yield of around 12%, which should be attractive given the wobbly financial markets these days," he concluded. ■

Höegh LNG sees profit fall

Ukraine situation seen as boosting potential FSRU use.

Höegh LNG Holdings reported a total income of €91.8 mill and an EBITDA of $54.4 mill for the first quarter of 2022.

This was slightly down on the $94.7 mill and $56.5 mill recorded for the preceding quarter.

EBITDA decrease was mainly due to a lower share of results from associates and joint ventures and higher administrative expenses.

However, this was offset by higher revenues and lower operating expenses for 'Höegh Gallant', compared to 4Q21 when this vessel was idle, while being modified for FSRU operations in Jamaica.

The group recorded a net profit after tax of €2 mill for 1Q22, down from €3.6 mill in the preceding quarter.

Operating cash flows decreased by €38.2 mill to €22.6 mill, which was driven mainly by changes in working capital, predominantly caused by temporary timing effects, including a reversing effect from the previous quarter.

The recent tragic events in Ukraine have led to a surge in interest for LNG import terminals in Europe, to reduce dependency on Russian pipeline gas.

As a result, Höegh LNG signed implementation agreements with the German Federal Ministry for Economic Affairs and Climate Action to charter out two FSRUs for 10 years.

After the quarter end, Höegh LNG terminated 'Höegh Giant's' FSRU contract in India following the charterer's default of the contractual terms.

Höegh LNG claimed it was confident of its contractual right to terminate the contract and has commenced arbitration proceedings against the charterer.

In addition, Höegh LNG Holdings entered into an agreement and plan of merger with Höegh LNG Partners.

Höegh LNG will acquire by merger all of the outstanding common units representing limited partner interests of the Partnership not already owned by the company in exchange for $9.25 in cash per common unit.

The merger is expected to close in the second half of 2022 and is subject to approval by a majority of the outstanding common units of the Partnership and certain regulatory filings and customary closing conditions.

Credit Suisse International and Morgan Stanley acted as financial advisors and Kirkland & Ellis acted as legal counsel to Höegh LNG. ■

Two FSRU charters announced

Two FSRUs were chartered out recently - one from Excelerate and the other involving Golar.

'Exemplar' seen transiting the Panama Canal

First, Excelerate Energy and a subsidiary of Gasgrid Finland signed a 10-year contract to charter the FSRU 'Exemplar'.

She will provide LNG to Finland, Estonia and the Baltic Sea Region. Excelerate will deploy the FSRU to provide regasification services in Southern Finland.

She has storage capacity of 150,900 cu m and can provide more than 5 bill cu m per year of regasification capacity.

A co-operation agreement signed on 4th May by Gasgrid Finland and Estonia's gas transmission operator Elering, could mean that the FSRU will be located in an Estonian port this winter if the port structures are not completed in Finland.

On 29th April, the Finnish and Swedish Governments published a memorandum of understanding (MoU) agreeing to jointly lease an FSRU.

"Flexible access to LNG is a critical component of European energy security," said Steven Kobos, Excelerate's President and CEO. "We are honoured to collaborate with Gasgrid Finland to deliver essential energy infrastructure that will benefit Finland and more broadly the Baltic Sea region.

"As a leader in flexible LNG solutions, Excelerate is proud to support the goals of the US/EU Task Force for Energy Security, which include diversifying LNG supplies in alignment with climate objectives," he said.

Olli Sipilä, Gasgrid CEO, added, "We are glad that we were able to sign the agreement on such a fast schedule. It required the committed contribution of dozens of top professionals, for which I am very grateful.

"The project requires seamless co-operation between different actors as well in the future, and the project is progressing as planned.

"Leasing an LNG terminal vessel is extremely important, as it ensures security of supply for gas supplies in both Finland and Estonia. On the other hand, we see that there is a need for the terminal in the wider Baltic Sea region and it has been received with interest," he said.

FSRU conversion

The second contract involved Golar LNG chartering the LNGC 'Golar Arctic' as an FSRU to Snam.

Once converted, the Italian energy major will moor the unit at the Sardinian port of Portovesme, as part of a project to supply the island with energy.

For a total consideration of €269 mill, the contract includes the vessel and the capex needed for Golar to convert the LNGC into an FSRU with a storage capacity for up to 140,000 cu m.

Following her conversion, 'Golar Arctic' will be sold to the Snam Group.

The conversion startup is subject to Snam's issuing a notice-to-proceed (NTP). The work is expected to take about two years. ■

MOL LNGC used in anti-piracy exercise

Mitsui OSK Lines (MOL) has held a pu1blic/private sector anti-piracy training session on board the LNGC 'LNG Mars'.

This was carried out while the vessel was underway in the southern area of Ise Bay on 13th May.

Based on a scenario that pirates were pursuing and closing in on the MOL-operated LNGC, the training focused on emergency telecommunications.

The Japan Coast Guard's patrol ship 'Mizuho' was also involved and went to the scene.

MOL confirmed the effectiveness of its risk management system and ensured that everyone concerned could communicate clearly and swiftly.

The participants in the training exercise included the Japan Coast Guard (JCG) and patrol ship 'Mizuho'; the Japanese Ministry of Land, Infrastructure, Transport and Tourism Maritime Bureau, Ocean Shipping Section'; MOL's LNG carrier 'LNG Mars' (operated by MOL, co-owned by Osaka Gas International Transport and MOL); MOL LNG Transport (MOL Group ship management company) and Regional Co-operation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP-ISC). ■

STS transfer operations study released

The Oil Companies International Marine Forum (OCIMF) has published a study analysing ship-to-ship (STS) transfers under varying environmental conditions.

STS transfer operations take place across different geographies and under varying environmental conditions, adding to their complexity and risks.

Despite best efforts, mooring line failures are still a leading cause of incidents, potentially causing harm to people and the environment thus jeopardising STS' integrity, OCIMF said.

The information paper, 'Mooring Load Analysis during Ship to Ship Transfer Operations', aims to support the stakeholders in making their own assessments to determine suitable weather criteria and ascertain an appropriate weather window for STS operations.

This study supports KPIs listed under element 5 of the 'Ship-to-Ship Service Provider Management Self Assessment, 2nd edition (2020)'.

Previous editions of OCIMF's STS transfer guide included similar outputs. The current study used advanced mooring line load simulation technology for enhanced assessment of mooring line loads under varying environmental conditions for various ship type combinations, including LNGCs. ■

OCIMF has published an STS study highlighting mooring conditions

Golar invests in carbon capture concern

Oslo-based Aqualung Carbon Capture, a provider of membrane CO2 capture technology, has completed new equity investment from several partners worth $10 mill.

The partners included Delek US, Global Ship Lease, Golar LNG, MKS Pamp and Standard Lithium.

As a result, representatives from Golar LNG and Standard Lithium will join Aqualung's Board.

The company explained that it will utilise the funds to increase its team across Europe and the US, deliver its first commercial pilot with Standard Lithium and initiate commercialisation projects with key industrial suppliers in order to achieve its objective of providing large scale commercial units before 2025.

Proof of concept has been achieved for the technology with installations at two cement works and the company said that it was embarking on the next step to industrialise its coating process and deliver a containerised commercial unit.

Aqualung will initiate this scale up in collaboration with Standard Lithium at a CO2 capture pilot plant, which will demonstrate the efficacy of the technology on low CO2 concentration levels.

This pilot project will unlock a significant number of hard-to-abate emitters and also set up Aqualung to optimise its solution for higher CO2 concentration markets.

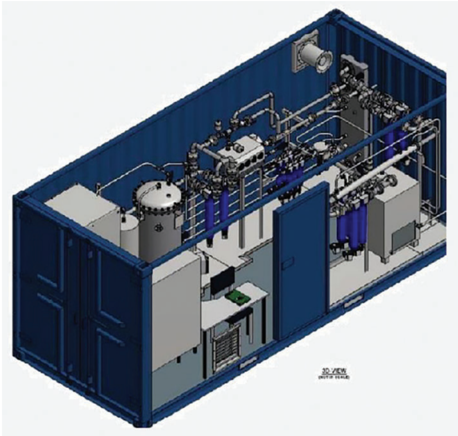
Strong interest

The cost, weight, low complexity and small footprint advantage has garnered strong interest from the LNG/maritime sector as confirmed by the investors, the company said.

Talking specifically about the LNG space, Andrew Robbins, Aqualung CEO, told *LNG Shipping News*: "Aqualung and Golar are looking to deploy the technology across the entire LNG supply chain. FLNGs are a natural fit, as we can collectively offer a blue LNG molecule to Golar's customers and also undertake site sequestration. This concept would represent the lowest CO2 LNG footprint globally.

"We believe the FSRU market is another area of high ~interest, as industrial emitters are co-located near the FSRU, which means more aggregation volumes for a sequestration project. The LNGCs are also interesting but storage requirements and logistics of offload between destinations is going to be the largest hurdle to overcome.

"That being said we believe our partner, Golar, has some of the best knowledge and know-how in the world as it relates to space constraint optimisation and liquefaction integration.



The Aqualung unit will fit in a standard container unit providing significant installation and OPEX savings

"The Aqualung unit can either be retrofitted or installed at the newbuilding stage. A newbuild will be easier to engineer around. Aqualung is extremely excited to deploy the technology alongside Golar to further decarbonise the already lowest CO2 fossil fuel source," he concluded.

Affordable carbon capture utilisation and storage (CCUS) projects have a critical role to play in creating a reliable, sustainable and energy independent future.

It is one of a host of technologies that will be required to tackle global climate change at the pace and scale needed, the company added. ■

NEWS NUDGE

GTT awarded tank designs for four LNGCs

GTT is to provide the tank design for another four LNGCs.

Two 174,000 cu m vessels are being built at Hyundai Samho Heavy Industries.

One was ordered by an Asian shipowner and the other by a European interest.

They will both be fitted with the Mark III Flex membrane containment system and are due for delivery in the fourth quarter of 2025.

Daewoo has also ordered the tank designs for two 174,000 cu m LNGCs.

Each tank will be fitted with the GTT NO96 GW membrane containment system.

Delivery of the vessels is scheduled for the third quarter 2025 and the third quarter 2026, respectively.

Tellurian announces management changes

Tellurian's COO, Keith Teague, has announced his retirement from full time employment.

However, he will continue with the company in an advisory role.

At the same time, Tellurian announced the appointment of former McDermott International, Executive Vice President and COO, Samik Mukherjee, to the role of Executive Vice President and President of Driftwood Assets.

Mukherjee will be responsible for all of Tellurian's projects, including the construction and operations of Driftwood LNG. ■

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	$218.86 mill
Five years old (174,000 cu m)	$171.53 mill
Total Fleet (545 ships)	$67.75 bill
Orderbook (218 ships)	$49.37 bill

Source: VesselsValue (23/05/22)

**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	$69,000	+$14,000
West of Suez	$77,000	+$22,000
12 mos T/C	$110,000	+$2,000

**Since last report (12/05/22)*

Source: Fearnleys (25/05/22)

LNG Solutions for the Marine Industry

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

Cryogenic Solutions for:

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

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WORLD LNG CARRIER ORDERBOOK

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Minerva Amorgos	Minerva Marine	Samsung	1/1/2019	174,000	XDF	Q4, 2022
Clean Cajun	Dynagas	Hyundai Heavy	5/22/2019	200,000	XDF	Q2, 2022
Clean Copano	Dynagas	Hyundai Heavy	5/22/2019	200,000	XDF	Q3, 2022
Orion Star	JP Morgan	Samsung	6/1/2019	174,000	XDF	Q2, 2022
Orion Sun	JP Morgan	Samsung	6/1/2019	174,000	XDF	Q2, 2022
Prism Diversity	SK Shipping	Hyundai Heavy	6/29/2019	180,000	XDF	Q3, 2022
Asterix I	Capital Gas	Hyundai Heavy	8/1/2019	174,000	XDF	Q1, 2023
Hudong-zhonghua H1829a	CSSC	Hudong-Zhonghua	8/1/2019	174,000	XDF	Q1, 2024
Hudong-zhonghua H1830a	CSSC	Hudong-Zhonghua	8/1/2019	174,000	XDF	Q2, 2024
Alexey Kosygin	Smart LNG	Zvezda SSK	9/1/2019	172,600	TFDE - Azipod	Q1, 2023
Pyotr Stolypin	Smart LNG	Zvezda SSK	9/1/2019	172,600	TFDE - Azipod	Q3, 2023
Sergei Witte	Smart LNG	Zvezda SSK	9/1/2019	172,600	TFDE - Azipod	Q4, 2023
Zvezda 044	Smart LNG	Zvezda SSK	9/1/2019	172,600	TFDE - Azipod	Q4, 2023
Zvezda 045	Smart LNG	Zvezda SSK	9/1/2019	172,600	TFDE - Azipod	Q4, 2023
Bw Cassia	BWGas	DSME	10/1/2019	174,000	MEGI	Q3, 2022
Bw Iris	BWGas	DSME	10/1/2019	174,000	MEGI	Q3, 2022
Samsung 2364	MISC	Samsung	10/10/2019	174,000	XDF	Q1, 2023
Samsung 2365	MISC	Samsung	10/10/2019	174,000	XDF	Q1, 2023
Vivit Arabia Lng	H-Line	Hyundai Samho	12/1/2019	174,000	XDF	Q2, 2022
Alicante Knutsen	Knutsen	Hyundai Samho	12/18/2019	174,000	XDF	Q4, 2022
Huelva Knutsen	Knutsen	Hyundai Samho	12/18/2019	174,000	XDF	Q4, 2022
Malaga Knutsen	Knutsen	Hyundai Samho	12/18/2019	174,000	XDF	Q3, 2022
Santander Knutsen	Knutsen	Hyundai Samho	12/18/2019	174,000	XDF	Q2, 2022
Sm Albatross	Korea Line	Hyundai Heavy	12/18/2019	174,000	XDF	Q3, 2022
Sm Bluebird	Korea Line	Hyundai Heavy	12/18/2019	174,000	XDF	Q4, 2022
Lng Prosperity	JP Morgan	Hyundai Heavy	12/19/2019	174,000	XDF	Q4, 2022
Orion Song	JP Morgan	Hyundai Heavy	12/19/2019	174,000	XDF	Q4, 2022
Grace Freesia	NYK	Hyundai Samho	12/27/2019	173,000	XDF	Q2, 2022
Lagenda Serenity	K-Line	Hudong-Zhonghua	1/1/2020	79,960	XDF	Q2, 2022
Lagenda Suria	K-Line	Hudong-Zhonghua	1/1/2020	79,960	XDF	Q2, 2022
Hudong-zhonghua H1831a	ULT	Hudong-Zhonghua	6/30/2020	174,000	XDF	Q3, 2022
Hudong-zhonghua H1832a	ULT	Hudong-Zhonghua	6/30/2020	174,000	XDF	Q1, 2023
Hudong-zhonghua H1833a	ULT	Hudong-Zhonghua	6/30/2020	174,000	XDF	Q2, 2023
Lng Harmony	JP Morgan	Hyundai Heavy	7/20/2020	174,000	XDF	Q3, 2023
Orion Sage	JP Morgan	Hyundai Heavy	7/20/2020	174,000	XDF	Q3, 2023
El Ferrol Knutsen	Knutsen	Hyundai Samho	7/30/2020	174,000	XDF	Q4, 2022
Extremadura Knutsen	Knutsen	Hyundai Samho	7/30/2020	174,000	XDF	Q1, 2023
Daewoo 2514	Sovcomflot	DSME	8/1/2020	172,500	TFDE - Azipod	Q1, 2023
Daewoo 2515	Sovcomflot	DSME	8/1/2020	172,500	TFDE - Azipod	Q2, 2023
Daewoo 2516	Sovcomflot	DSME	8/1/2020	172,500	TFDE - Azipod	Q3, 2023
Daewoo 2517	MOL, COSCO	DSME	8/1/2020	172,500	TFDE - Azipod	Q3, 2023
Daewoo 2518	MOL, COSCO	DSME	8/1/2020	172,500	TFDE - Azipod	Q4, 2023
Daewoo 2519	MOL, COSCO	DSME	8/1/2020	172,500	TFDE - Azipod	Q4, 2023
Zvezda 046	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q3, 2024
Zvezda 047	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q3, 2024
Zvezda 048	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q4, 2024
Zvezda 049	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q4, 2024
Zvezda 050	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q4, 2024

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = 12th April 2022

Fearnley LNG

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Zvezda 051	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q3, 2025
Zvezda 052	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q3, 2025
Zvezda 053	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q4, 2025
Zvezda 054	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q4, 2025
Zvezda 055	Smart LNG	Zvezda SSK	8/1/2020	172,600	TFDE - Azipod	Q4, 2025
Sm Golden Eagle	Korea Line	Hyundai Heavy	8/12/2020	174,000	XDF	Q3, 2023
Sm Kestrel	Korea Line	Hyundai Heavy	8/12/2020	174,000	XDF	Q4, 2023
Grazyna Gesicka	Knutsen	Hyundai Heavy	10/30/2020	174,000	XDF	Q2, 2023
Lech Kaczynski	Knutsen	Hyundai Heavy	10/30/2020	174,000	XDF	Q1, 2023
Samsung 2425	Maran Gas Maritime	Samsung	11/1/2020	174,000	XDF	Q3, 2023
Hyundai Samho 8100	Knutsen	Hyundai Samho	12/14/2020	174,000	XDF	Q3, 2024
Orion Sky	JP Morgan	Hyundai Heavy	12/14/2020	174,000	XDF	Q4, 2024
Hyundai Ulsan 3221	Pan Ocean	Hyundai Heavy	12/15/2020	174,000	XDF	Q3, 2024
Hyundai Ulsan 3222	Pan Ocean	Hyundai Heavy	12/15/2020	174,000	XDF	Q4, 2024
Samsung 2426	Pan Ocean	Samsung	1/1/2021	174,000	XDF	Q2, 2023
Jules Verne	Sovcomflot	Hyundai Samho	1/8/2021	174,000	XDF	Q2, 2023
Hudong-zhonghua H1837a	Shenzhen Gas	Hudong-Zhonghua	3/21/2021	79,960	XDF	Q1, 2023
Hyundai Ulsan 3294	Hyundai LNG Shipping	Hyundai Heavy	4/15/2021	174,000	XDF	Q1, 2024
Hyundai Ulsan 3295	Hyundai LNG Shipping	Hyundai Heavy	4/29/2021	174,000	XDF	Q2, 2024
Hyundai Ulsan 3296	Hyundai LNG Shipping	Hyundai Heavy	4/29/2021	174,000	XDF	Q3, 2024
Hyundai Samho 8139	Knutsen	Hyundai Samho	4/30/2021	174,000	XDF	Q4, 2023
Jiangnan H2637	Jovo Energy	Jiangnan	5/1/2021	79,800	XDF	Q4, 2023
Samsung 2473	Maran Gas Maritime	Samsung	5/1/2021	174,000	XDF	Q3, 2024
Samsung 2474	Maran Gas Maritime	Samsung	5/1/2021	174,000	XDF	Q3, 2024
Daewoo 2521	Hyundai LNG Shipping	DSME	5/28/2021	174,000	MEGI	Q3, 2023
Hyundai Ulsan 3290	Dynagas	Hyundai Heavy	5/31/2021	200,000	ME-GA	Q4, 2023
Hyundai Ulsan 3291	Dynagas	Hyundai Heavy	5/31/2021	200,000	ME-GA	Q4, 2023
Hyundai Ulsan 3292	Dynagas	Hyundai Heavy	5/31/2021	200,000	ME-GA	Q1, 2024
Hyundai Ulsan 3293	Dynagas	Hyundai Heavy	5/31/2021	200,000	ME-GA	Q3, 2023
Daewoo 2520	MOL	DSME	6/1/2021	174,000	MEGI	Q4, 2023
Amore Mio I	Capital Gas	Hyundai Heavy	6/18/2021	174,000	ME-GA	Q4, 2023
Axios II	Capital Gas	Hyundai Heavy	6/18/2021	174,000	ME-GA	Q4, 2023
Alexandre Dumas	Sovcomflot	Hyundai Samho	7/1/2021	170,520	XDF	Q1, 2024
Hyundai Samho 8147	H-Line	Hyundai Samho	7/1/2021	174,000	XDF	Q3, 2023
Samsung 2459	Celsius Shipping	Samsung	7/1/2021	180,000	ME-GA	Q2, 2023
Samsung 2460	Celsius Shipping	Samsung	7/1/2021	180,000	ME-GA	Q3, 2023
Samsung 2461	Celsius Shipping	Samsung	7/1/2021	180,000	ME-GA	Q4, 2023
Victor Hugo	Sovcomflot	Hyundai Samho	7/1/2021	170,520	XDF	Q3, 2024
Hyundai Samho 8101	Knutsen	Hyundai Samho	7/13/2021	174,000	XDF	Q4, 2023
Hyundai Samho 8102	Knutsen	Hyundai Samho	7/13/2021	174,000	ME-GA	Q3, 2025
Hyundai Ulsan 3320	JP Morgan	Hyundai Heavy	7/13/2021	174,000	ME-GA	Q3, 2025
Hyundai Ulsan 3321	JP Morgan	Hyundai Heavy	7/13/2021	174,000	ME-GA	Q3, 2025
Hyundai Ulsan 3224	Pan Ocean	Hyundai Heavy	7/14/2021	174,000	ME-GA	Q4, 2024
Hyundai Ulsan 3225	Pan Ocean	Hyundai Heavy	7/14/2021	174,000	ME-GA	Q4, 2024
Daewoo 2522	Hyundai LNG Shipping	DSME	7/15/2021	174,000	MEGI	Q2, 2024
Hyundai Samho 8148	Knutsen	Hyundai Samho	7/22/2021	174,000	XDF	Q1, 2024
Hyundai Samho 8149	Knutsen	Hyundai Samho	7/22/2021	174,000	ME-GA	Q1, 2024
Hyundai Ulsan 3297	Hyundai LNG Shipping	Hyundai Heavy	7/22/2021	174,000	XDF	Q2, 2024
Hyundai Ulsan 3298	Hyundai LNG Shipping	Hyundai Heavy	7/22/2021	174,000	XDF	Q4, 2024
Hyundai Ulsan 3299	Hyundai LNG Shipping	Hyundai Heavy	7/22/2021	174,000	XDF	Q1, 2025

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = Data last updated = 12th April 2022

Fearnley LNG

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Samsung 2579	Celsius Shipping	Samsung	7/26/2021	180,000	ME-GA	Q1, 2024
Samsung 2584	Celsius Shipping	Samsung	8/1/2021	180,000	ME-GA	Q3, 2024
Samsung 2585	Celsius Shipping	Samsung	8/1/2021	180,000	ME-GA	Q3, 2024
Hudong-zhonghua H1838a	K-Line	Hudong-Zhonghua	9/1/2021	79,960	XDF	Q3, 2023
Hyundai Samho 8140	Capital Gas	Hyundai Samho	9/1/2021	174,000	ME-GA	Q3, 2024
Daewoo 2523	MOL	DSME	9/14/2021	174,000	ME-GA	Q1, 2024
Daewoo 2524	MOL	DSME	9/14/2021	174,000	ME-GA	Q2, 2024
Daewoo 2525	MOL	DSME	9/14/2021	174,000	ME-GA	Q3, 2024
Daewoo 2526	MOL	DSME	9/14/2021	174,000	ME-GA	Q4, 2024
Daewoo 2527	MOL	DSME	10/1/2021	174,000	ME-GA	Q3, 2024
Hudong-Zhonghua QP #1	Qatar Petroleum	Hudong-Zhonghua	10/1/2021	175,000	XDF	Q3, 2024
Hudong-Zhonghua QP #2	Qatar Petroleum	Hudong-Zhonghua	10/1/2021	175,000	XDF	Q1, 2024
Hudong-Zhonghua QP #3	Qatar Petroleum	Hudong-Zhonghua	10/1/2021	175,000	XDF	Q4, 2024
Hudong-Zhonghua QP #4	Qatar Petroleum	Hudong-Zhonghua	10/1/2021	175,000	XDF	Q1, 2025
MOL 23	MOL	DSME	10/1/2021	174,000	ME-GA	Q3, 2023
MOL 25	MOL	DSME	10/1/2021	174,000	ME-GA	Q3, 2025
MOL 26	MOL	DSME	10/1/2021	174,000	ME-GA	Q3, 2026
Samsung 2580	NYK	Samsung	10/1/2021	174,000	XDF	Q3, 2023
Samsung 2581	NYK	Samsung	10/1/2021	174,000	XDF	Q4, 2023
Samsung 2582	NYK	Samsung	10/1/2021	174,000	XDF	Q4, 2023
Samsung 2583	NYK	Samsung	10/1/2021	174,000	XDF	Q1, 2024
Samsung 2592	JP Morgan	Samsung	10/1/2021	174,000		Q2, 2024
Samsung 2593	JP Morgan	Samsung	10/1/2021	174,000		Q3, 2024
Samsung 2594	JP Morgan	Samsung	10/1/2021	174,000		Q4, 2024
Samsung 2595	JP Morgan	Samsung	10/1/2021	174,000		Q1, 2025
Hyundai Ulsan 3341	Capital Gas	Hyundai Heavy	11/4/2021	174,000	ME-GA	Q2, 2024
Hyundai Ulsan 3342	Capital Gas	Hyundai Heavy	11/4/2021	174,000	ME-GA	Q2, 2024
Qatar DSME 1/4	Qatar Petroleum	DSME	11/7/2021	174,000	MEGI	Q1, 2025
Qatar DSME 2/4	Qatar Petroleum	DSME	11/7/2021	174,000	MEGI	Q3, 2025
Qatar DSME 3/4	Qatar Petroleum	DSME	11/7/2021	174,000	MEGI	Q2, 2025
Qatar DSME 4/4	Qatar Petroleum	DSME	11/7/2021	174,000	MEGI	Q4, 2025
Qatar SHI 1/2	Qatar Petroleum	Samsung	11/7/2021	174,000	ME-GA	Q1, 2025
Qatar SHI 2/2	Qatar Petroleum	Samsung	11/7/2021	174,000	ME-GA	Q1, 2025
Daewoo 2528	Maran Gas Maritime	DSME	11/10/2021	174,000	MEGI	Q3, 2024
Daewoo 2529	Maran Gas Maritime	DSME	11/10/2021	174,000	MEGI	Q4, 2024
Daewoo 2530	BWGas	DSME	11/25/2021	174,000	MEGI	Q1, 2025
Daewoo 2531	BWGas	DSME	11/25/2021	174,000	MEGI	Q2, 2025
Qatar HHI 1	Qatar Petroleum	Hyundai Heavy	11/29/2021	174,000		Q1, 2025
Qatar HHI 2	Qatar Petroleum	Hyundai Heavy	11/29/2021	174,000		Q1, 2025
Qatar HHI 3	Qatar Petroleum	Hyundai Heavy	11/29/2021	174,000		Q2, 2025
Qatar HHI 4	Qatar Petroleum	Hyundai Heavy	11/29/2021	174,000		Q3, 2025
Samsung 2600	JP Morgan	Samsung	12/1/2021	174,000		Q3, 2024
Samsung 2601	JP Morgan	Samsung	12/1/2021	174,000		Q1, 2025
Samsung 2598	Celsius Shipping	Samsung	12/7/2021	180,000	ME-GA	Q1, 2025
Samsung 2599	Celsius Shipping	Samsung	12/7/2021	180,000	ME-GA	Q2, 2025
Hudong-zhonghua H1834a	ULT	Hudong-Zhonghua	12/8/2021	174,000	XDF	Q3, 2024
Hudong-zhonghua H1835a	ULT	Hudong-Zhonghua	12/8/2021	174,000	XDF	Q4, 2024
Hudong-zhonghua H1836a	ULT	Hudong-Zhonghua	12/8/2021	174,000	XDF	Q1, 2025
Samsung 2604	NYK	Samsung	12/27/2021	174,000	XDF	Q4, 2024
Daewoo 2532	GasLog	DSME	1/1/2022	174,000	MEGI	Q2, 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 = Data last updated = 12th April 2022

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Daewoo 2533	GasLog	DSME	1/1/2022	174,000	MEGI	Q3, 2024
Daewoo 2534	GasLog	DSME	1/1/2022	174,000	MEGI	Q2, 2025
Daewoo 2535	GasLog	DSME	1/1/2022	174,000	MEGI	Q3, 2025
NYK 2	NYK	Hyundai Samho	1/1/2022	174,000	XDF	Q1, 2025
Qatar SHI 3	Qatar Petroleum	Samsung	1/1/2022	174,000	ME-GA	Q1, 2025
Qatar SHI 4	Qatar Petroleum	Samsung	1/1/2022	174,000	ME-GA	Q2, 2025
Hyundai Samho 8173	SK Shipping	Hyundai Samho	1/4/2022	174,000	ME-GA	Q3, 2024
Daewoo 2537	Maran Gas Maritime	DSME	1/6/2022	174,000	MEGI	Q3, 2025
Daewoo 2538	Maran Gas Maritime	DSME	1/6/2022	174,000	MEGI	Q4, 2025
Hudong-zhonghua H1880a	MOL	Hudong-Zhonghua	1/7/2022	174,000	XDF	Q4, 2024
Hudong-zhonghua H1881a	MOL	Hudong-Zhonghua	1/7/2022	174,000	XDF	Q3, 2025
Hudong-zhonghua H1882a	MOL	Hudong-Zhonghua	1/7/2022	174,000	XDF	Q4, 2025
Hudong-zhonghua H1883a	MOL	Hudong-Zhonghua	1/7/2022	174,000	XDF	Q1, 2026
Hudong-zhonghua H1884a	MOL	Hudong-Zhonghua	1/7/2022	174,000	XDF	Q2, 2026
Hudong-zhonghua H1885a	MOL	Hudong-Zhonghua	1/7/2022	174,000	XDF	Q3, 2026
Samho Jan		Hyundai Samho	1/10/2022	174,000	ME-GA	Q1, 2025
Daewoo	MOL	DSME	1/17/2022	174,000	ME-GA	Q4, 2024
Daewoo 2539	Maran Gas Maritime	DSME	2/7/2022	174,000	MEGI	Q4, 2025
Daewoo 2540	Maran Gas Maritime	DSME	2/7/2022	174,000	MEGI	Q4, 2025
Bono Samho 1	Bono Energy	Hyundai Samho	2/10/2022	174,000	ME-GA	Q1, 2025
Bono Samho 2	Bono Energy	Hyundai Samho	2/10/2022	174,000	ME-GA	Q1, 2025
Qatar DSME 5	Qatar Petroleum	DSME	2/15/2022	174,000	MEGI	Q2, 2025
Qatar HHI 5	Qatar Petroleum	Hyundai Heavy	2/15/2022	174,000		Q3, 2025
Qatar HHI 6	Qatar Petroleum	Hyundai Heavy	2/15/2022	174,000		Q4, 2025
Qatar SHI 5	Qatar Petroleum	Samsung	2/15/2022	174,000	ME-GA	Q2, 2025
HL 1	H-Line	Samsung	2/16/2022	174,000		Q1, 2025
HL 2	H-Line	Samsung	2/16/2022	174,000		Q2, 2025
HL 3	H-Line	Samsung	2/16/2022	174,000		Q3, 2025
HL 4	H-Line	Samsung	2/16/2022	174,000		Q3, 2025
Glovis Samho	Hyundai Glovis	Hyundai Samho	2/21/2022	174,000		Q4, 2024
Samsung 1		Samsung	2/24/2022	174,000		Q2, 2025
Samsung 2		Samsung	2/24/2022	174,000		Q2, 2025
Samsung 3		Samsung	2/24/2022	174,000		Q3, 2025
Samsung 4		Samsung	2/24/2022	174,000		Q3, 2025
Jiangnan ADNOC 1	ADNOC	Jiangnan	3/1/2022	175,000	XDF	Q1, 2025
Jiangnan ADNOC 2	ADNOC	Jiangnan	3/1/2022	175,000	XDF	Q2, 2025
HHI 1	Dynagas	Hyundai Heavy	3/3/2022	200,000	ME-GA	Q1, 2025
HHI 2	Dynagas	Hyundai Heavy	3/3/2022	200,000	ME-GA	Q2, 2025
HHI 3	Dynagas	Hyundai Heavy	3/3/2022	200,000	ME-GA	Q4, 2025
BW DSME 3	BWGas	DSME	3/18/2022	174,000	MEGI	Q4, 2025
BW DSME 4	BWGas	DSME	3/18/2022	174,000	MEGI	Q4, 2025
VG DSME 1	Venture Global LNG	DSME	3/24/2022	200,000		Q3, 2025
VG DSME 2	Venture Global LNG	DSME	3/24/2022	200,000		Q4, 2025
VG DSME 3	Venture Global LNG	DSME	3/24/2022	200,000		Q4, 2025
Dalian Merchant 1	China Merchant	Dalian Shipbuilding	3/31/2022	175,000	XDF	Q3, 2025
Dalian Merchant 2	China Merchant	Dalian Shipbuilding	3/31/2022	175,000	XDF	Q2, 2026
Samho 1	Knutsen	Hyundai Samho	3/31/2022	174,000	ME-GA	Q1, 2026
Samho 2	Knutsen	Hyundai Samho	3/31/2022	174,000	ME-GA	Q2, 2025
Samsung Apr	Celsius Shipping	Samsung	3/31/2022	180,000	ME-GA	Q4, 2025

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Data last updated = Data last updated = 12th April 2022

Fearnley LNG

WORLD SMALL SCALE LNG FLEET*

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
1974	Seagas	187	LNG	Sweden	Yes	AGA
1988	Kayoh Maru	1,517	LNG	Japan	Yes	Daiichi
1993	Aman Bintulu	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1996	Surya Aki	19,475	LNG	Indonesia - Japan	Yes	MCGC
1997	Aman Sendai	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1998	Pelita Energy	18,800	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
2000	Triputra	23,096	LNG	Indonesia - Japan	Yes	MCGC
2003	Pioneer Knutsen	1,100	LNG	Norway	Yes	Knutsen
2003	Shinju Maru No.1	2,540	LNG	Japan	Yes	Shinwa
2005	North Pioneer	2,500	LNG	Japan	Yes	Japan Liquid Gas
2007	Sun Arrows	19,531	LNG	Malaysia - Russia - Japan	Yes	Mitsui
2008	Kakurei Maru	2,536	LNG	Japan	Yes	Hogaki Zosen
2008	Shinju Maru No.2	2,540	LNG	Japan	Yes	Shinwa
2009	Coral Methane	7,551	LNG/LPG/Ethylene	Northwest Europe/Baltics	Yes, sometimes	Anthony Veder
2010	Coral Favia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2010	Coral Fraseri	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Coral Furcata	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Coral Fungia	10,000	LNG/LPG/Ethylene	Worldwide	No	Anthony Veder
2011	Akebono Maru	3,556	LNG	Japan	Yes	Chuo Kaiun
2011	Vision Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2011	Unikum Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2015	JS Ineos Ingenuity	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Insight	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Intrepid	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	JS Ineos 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

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Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
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	SM Jeju LNG1	7,500	LNG	Korea	Yes	Korea Line
2019	Gas Agility	18,600	LNG	NWE	Yes	MOL
2019	Flexfueller 001	1,480	LNG	Amsterdam	Yes	Titan LNG
2020	Avenir Advantage	7,500	LNG	Mediterranean	Yes	Avenir LNG
2020	Avenir Accolade	7,500	LNG	Mediterranean	Yes	Avenir LNG
2020	Avenir Aspiration	7,500	LNG		Yes	Avenir LNG
2020	Kaguya	3,500	LNG	Japan	Yes	CLS
2020	CNTIC VPOWER Global	28,000	LNG	Myanmar	Yes	Dalian Inteh Group
2020	Ecobunker Tokyo Bay	2,500	LMG	Japan	Yes	Ecobunkers
2020	Optimus	6,000	LNG	NWE	Yes	Elenger
2020	FueLNG Bellina	7,500	LNG	Singapore	Yes	FuelLNG
2020	SM Jeju LNG2	7,500	LNG	Korea	Yes	Korea Line
2020	Q-LNG 4000	4,000	LNG	US Coast	Yes	Q-LNG Transport/Harvey Gulf
2020	Flexfueller 002	1,480	LNG	Antwerp	Yes	Titan LNG
2021	Xin Ao Pu Tuo Hao	8,500	LNG	China	Yes	ENN
2021	Avenir Ascension	7,500	LNG		Yes	Avenir LNG
2021	Hai Gang Wei Lai	20,000	LNG	China	Yes	SSES
2021	Bergen LNG	850	LNG	Norway	Yes	Bergen Tankers
2021	Dmitry Mendeleev	5,800	LNG	Russia	Yes	Gazprom Neft
2021	JMU TBN	2,500	LNG	Japan	Yes	JMU
2021	Ravenna Knutsen	30,000	LNG	Mediterranean	Yes	Knutsen OAS
2021	Brassavola	12,000	LNG	Singapore	Yes	MOL
2021	Gas Vitality	18,600	LNG	Mediterranean	Yes	MOL
2021	TG TBN	500	LNG	Korea	Yes	Trans Gas
2021	Titan Hyperion	8,000	LNG	Benelux	Yes	Titan LNG
2022	Coral Nordic	30,000	LNG	Worldwide	Yes	Anthony Veder
2022	Avenir Achievement	20,000	LNG	Worldwide	Yes	Avenir LNG
2022	Haugesund Knutsen	5,000	LNG	Spain	Yes	Knutsen OAS
2022	Clean Cañaveral	5,400	LNG	USG	Yes	PNE
2022	K.Lotus	18,000	LNG	Korea	Yes	K Line
2023	Cryopeak TBA	4,000	LNG	West Canada	Yes	Cryopeak
2023	Kuntsen TBN	12,500	LNG	Spain	Yes	Knutsen OAS
2023	SM Jeju LNG3	7,500	LNG	Korea	Yes	Korea Line
2023	Pan Ocean TBN	18,000	LNG	USG	Yes	Pan Ocean Co
2023	Krios	4,200	LNG	Benelux	Yes	Titan LNG
2023	Fratelli Cosulich TBN	8,000	LNG	Mediterranean	Yes	Fratelli Cosulich
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	PNE TBN	5,500	LNG	USG	Yes	PNE
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2024	TBN	30,000	LNG	Australia	Yes	Anthony Veder ?
2024	Crowley TBN	12,000	LNG	US Coast	Yes	Crowley Maritime
2024	CNOOC TBN	12,000	LNG	China	Yes	CNOOC
2024	TBN	12,500	LNG	Worldwide	Yes	???
2024	Keys TBN	3,500	LNG	Japan	Yes	Keys Bunkering West Japan Co
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG

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