

LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

4 August 2022

The roller coaster continues

Following a soft start in the first quarter of 2022, spot LNGC charter rates saw upward pressure through much of the second quarter, which is untypical for the season.

This upward trend was driven by a focus on energy security combined with high gas prices. Many charterers opted to go long in shipping rather than take the risk of being short, Capital Product Partners said in its second quarter results presentation.

Despite an overall improved spot market in 2Q22, compared to the previous quarter, the market witnessed softer freight rates recently, due to the Freeport liquefaction facility shutdown on the back of an accident.

The facility is due back on-stream by 4Q22. Freeport had accounted for 17% of US liquefaction capacity before the incident.

Broking house Simpson Spence

Young (SSY) said in a report that the shutdown was expected to cause a 97-day outage with an equivalent loss of 3.99 mill tonnes of LNG, or around 57 cargo summer deals.

The impact of this incident was possibly a major turning point for this year, SSY added.

The LNG fleet orderbook stands at 39.8% of the total fleet with 54 new orders placed within 2Q22 (see updated orderbook in this issue).

Simultaneously, the current price of a newbuilding LNGC increased to over \$240 mill. It should also be noted that 72 vessels were fixed on period charters in 2Q22, while several on-going

and upcoming multi-year charter tenders are expected to absorb more of the available newbuilding tonnage, Capital said.

Currently, analysts assessed the 12-month timecharter rate for a 2-stroke LNGC at \$165,000 per day.

Overall, the LNG sector outlook appears positive, with the drive for energy security (especially in Europe) as a result of the Russia/Ukraine war contributing to strong global demand for LNG and accelerated investment in liquefaction and regasification infrastructure, Capital concluded.

SSY added that earlier this year, we also witnessed a market strongly tailored to FSRUs, which had been out of the spotlight for some time.

Given the subsequent lack of Russian pipeline gas, FSRUs suddenly found themselves a hot commodity, and owners charged charterers accordingly.

“Despite an overall improved spot market in 2Q22, compared to the previous quarter, the market witnessed softer freight rates recently”

SHIPPING NEWS AGENDA

MARKETING

‘Hilli’ to benefit from options **2**

Second FLNG for Mozambique **3**

BUSINESS

Sempra expands Mexican deals **3**



Two SPAs signed **5**

Deutsche Bank to help Botaş **5**

FINANCE

Capital benefits from LNGCs **6**

GTT in record orders **8**

Fluxys invests in Chile **8**

TECHNOLOGY



LNGC gets statutory repair **9**

First X-DF iCER order **10**

Retrofit service offered **10**

LNG ORDERBOOK

LNG small scale fleet **12**

LNG carrier orderbook **14**



BRINGING CLEAN ENERGY CLOSER TO YOU

SAFETY EXCELLENCE
SUPERIOR QUALITY
RELIABLE SERVICES



OUR INTEGRATED MARITIME SOLUTIONS:


SHIP REPAIR


OFFSHORE CONSTRUCTION
& FABRICATION


SHIPPING AGENCY
& LOGISTICS


TOWAGE

www.nakilat.com

Option exercised on FLNG's production increase

Perenco Cameroon and Société Nationale des Hydrocarbures (SNH), the joint customers of Golar LNG's FLNG 'Hilli', are to exercise 0.2 mill tonnes per annum of their optional TTF linked production volumes from 2023 to July, 2026.

This continues 'Hilli's' 2022 production volume of 1.4 mill tonnes per annum.

The tariff for the new volume is linked to TTF gas prices. Based on current average 2023 TTF gas prices (\$45.49 per MMBtu) the 0.2 mill tonnes of production can generate \$135 mill of incremental annual adjusted EBITDA for Golar, the company said.

For each \$1 per MMBtu change in TTF, this adjusted EBITDA will increase (or decrease) by \$3.2 mill. The total value of the 0.2 mill tonnes production is around \$267 mill in adjusted EBITDA to Golar, based on current TTF forward prices.

'Hilli' will continue with three components to its adjusted EBITDA generation - a fixed tariff, a Brent

oil linked tariff, and a TTF gas price linked tariff.

At current forward prices for 2023, Golar's share of annual distributable 'Hilli' adjusted EBITDA is expected to be around \$286 mill (fixed tariff of \$65 mill, Brent oil linked earnings of \$86 mill, and TTF linked earnings of about \$135 mill).

Golar's share of total annual debt service for 'Hilli's' contractual debt is about \$50 mill (debt amortisation of around \$29 mill and interest of around \$21 mill).

'Hilli' is therefore expected to generate significant free cash flow to equity for the remainder of the fixed contract, Golar claimed.

Golar CEO, Karl Fredrik Staubo, said: "We are pleased to see continued TTF linked gas volumes



Golar head Karl Fredrik Staubo

from 'Hilli' through the rest of the existing contract, maturing in July, 2026. These confirmed additional volumes combined with 'Hilli's'

outstanding operational track record will add significant free cash flow generation near term with no incremental capex." ■

Papua LNG progresses

The Papua LNG joint venture is to launch the first phase of front end engineering and design (FEED) studies for the project's upstream production facilities, revealed operator TotalEnergies.

In parallel, studies for the downstream liquefaction facilities are progressing in line with the overall project schedule. The objective is to launch the integrated FEED in the fourth quarter of this year.

Papua LNG is targeting a final investment decision (FID) around the end of 2023 and a start-up at the end of 2027.

"The commencement of upstream FEED studies is another

significant step towards developing the Papua LNG project, which will increase Papua New Guinea's LNG export capacity and thus contribute to its further development," said Julien Pouget, TotalEnergies' Senior Vice President Asia Pacific for Exploration & Production and Renewables. "The Papua LNG project is well positioned to contribute to growth in LNG supply worldwide, especially for customers in Asia seeking to de-carbonise from coal to

gas, in line with our strategy to lower global greenhouse gas emissions."

TotalEnergies said that the Papua LNG joint venture is committed to developing a landmark project in terms of sustainability, bio-diversity, and low carbon emissions.

Specifically, the project will incorporate a carbon capture and storage scheme for the fields' native CO₂, which will be re-injected into the reservoirs. ■

“
The Papua LNG project is well positioned to contribute to growth in LNG supply worldwide
”

- Julien Pouget, Senior Vice President Asia Pacific for Exploration & Production and Renewables, TotalEnergies'

LNG Shipping News

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

Publisher

Stuart Fryer

Editor

Ian Cochran
+44 (0)7748 144265
lancochran74@gmail.com

Ad sales enquiries

Narges Jodeyri
+44 (0)20 7017 3406
narges@lngjournal.com

Subscriptions

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

Production

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

No part of this publication may be reproduced or stored in any form by any mechanical, electronic, photocopying, recording or any other means without the prior written consent of the publisher. Whilst the information and articles in LNG Shipping News are published in good faith and every effort is made to check accuracy, readers should verify facts and statements direct with official sources before acting on them as the publisher can accept no responsibility in this respect. Any opinions expressed in this publication should not be construed as those of the publisher."

Eni plans second FLNG offshore Mozambique

Italian energy giant Eni as confirmed that it is planning to install a second FLNG offshore Mozambique.

The unit could be built in less than four years and help Europe diversify its supplies, according to a company executive, talking with Bloomberg.

Eni's latest project would complement its \$7 bill 'Coral-Sul' FLNG moored off Mozambique's northern coast, which is scheduled to start exporting LNG this year.

If Eni decides to proceed by early next year, production could begin before TotalEnergies' \$20 bill onshore project that was abruptly halted last year, due to security issues, Bloomberg said.

For Mozambique, a second FLNG export unit would help boost gas exports slowed by multiple delays.

"This is a great opportunity, to

develop its resources and bring significant revenues," Guido Brusco, Eni's COO of natural resources said in an interview with Bloomberg last week. "It is also a great opportunity for Europe to diversify their supplies. In this context, a project that could be delivered in less than four years has a tremendous opportunity window."

Before reaching a final investment decision (FID), the company will need to agree the deal with its partners, which include ExxonMobil, China National Petroleum Corp and Mozambican state-owned Empresa Nacional de Hidrocarbonetos.

Eni is responsible for offshore projects, while ExxonMobil heads up the onshore assets.

'Coral-Sul' remains on schedule to provide first exports this year despite supply-chain problems caused by the pandemic.

Located more than 50 km offshore, the FLNG was unaffected by an uprising linked to Islamic State that led to TotalEnergies stopping work last year on an onshore project planned to have almost four times the capacity of the FLNG.

"I believe that to fully develop Mozambique's considerable gas resources, the right decision is to move toward both an onshore concept and an offshore concept," Brusco said.

Earlier, it was reported that Samsung was in talks with Eni to build the unit. ■



'Coral Sul' could be joined by a second unit

Sempra expands Mexican agreements

Sempra Infrastructure and Mexico's Federal Electricity Commission (Comisión Federal de Electricidad, CFE), have announced several agreements to advance the joint development of Mexican energy infrastructure projects.

These include the proposed Vista Pacífico LNG project in Topolobampo, Sinaloa, and the potential development of a liquefied natural gas (LNG) terminal in Salina Cruz, Oaxaca, plus the re-routing of a pipeline.

Sempra said that the new agreements outline the path forward for the Vista Pacífico LNG terminal, including the definition of the project's configuration to advance engineering and permitting efforts.

In addition, the companies are expanding the memorandum of understanding (MoU) signed ear-

lier this year to jointly explore the potential development of an LNG terminal in Salina Cruz, Oaxaca.

This initiative will support the Mexican Government's Interoceanic Corridor in the Isthmus of Tehuantepec project, which is intended to promote economic growth and development of Mexico's south-southeast region.

These development projects would allow CFE to potentially optimise the use of existing natural gas pipeline systems, provide additional sources of LNG supply for isolated markets in

Mexico and continue to expand LNG supplies to the global market.

The agreements, together with the pipeline re-routing, remain subject to a number of commitments to be satisfied, including, as applicable, feasibility studies, reaching definitive customer, construction and partnership agreements, securing all necessary permits, obtaining financing and incentives, receiving respective board approval, and reaching a final investment decision (FID), Sempra explained. ■

NEWS NUDGE

Silverstream adds a CCO

Air lubrication systems (ALS) supplier, Silverstream Technologies, has appointed Claire Gardiner as Chief Commercial Officer (CCO).

Her role will be to oversee the company's expansion across Asia and Europe.

In her previous role at Babcock LGE, she held the position of Commercial Director, responsible for the definition and execution of the company's commercial business plan.

Silverstream recently surpassed £100 mill in cumulative order intake, including repeat orders and fleet agreements with top owners and charterers.



Power Play AWARDS

Presented by **ExxonMobil**

Thank you to all who submitted nominations for the 2022 Power Play Awards!

This year's 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. With nominations now closed, we are grateful for the expertise and time of our esteemed panel of judges to evaluate this year's nominees:



Candace Jimerson
*VP, Business
Transformation &
Development*



Célia Correia
*Executive Board
Member for Projects and
Development at the INP*



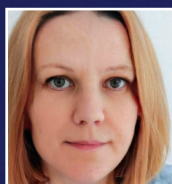
Dr. Yang Lei
*Research Professor
and Deputy President,
Institute of Energy*



Jillian Evanko
*President and Chief
Executive Officer, Chart
Industries Inc., USA*



Alan Heng
*Group Chief Executive
Officer Pavilion Energy
Pte Ltd*



Sandra Antonovic
*Chief Operating Officer,
Reflex Marine*



Dr. Tolulope Ijirona
*Electrical Engineer,
NLNG*



Dena E. Wiggins
*President and CEO of
the Natural Gas Supply
Association (NGSA), USA*



Jane Liao
VP, CPC Corporation



Mr. Wapu Sonk
*Managing Director,
Kumul Petroleum
Holdings Limited (KPHL)*

The international experts from across the LNG value chain demonstrate their support for inclusion and diversity throughout the energy sector.



Learn more at
<https://www.exxonmobillng.com/en/power-play/power-play-awards/>

LNG

ExxonMobil

More SPAs signed

Both Cheniere and NextDecade have signed long term sale and purchase agreements (SPAs) recently.

For example, Cheniere Energy's subsidiary, Corpus Christi Liquefaction has signed a long-term LNG SPA with PTT Global LNG Co Limited (PTTGL), a wholly-owned subsidiary of Thailand's largest state-owned, multi-national energy company.

Under the SPA, PTTGL will purchase 1 mill tonnes per annum of LNG from CCL for 20 years beginning in 2026. Deliveries will be a combination of free-on-board (FOB) and delivered ex-ship (DES).

This customised structure represents a further evolution in Cheniere's commercial offerings tailored to the specific needs of LNG customers worldwide, Cheniere said.

The purchase price will be indexed to the Henry Hub price, plus a fixed liquefaction fee.

"Our new vision 'Powering Life with Future Energy and Beyond' reflects the strategic direction and business transition toward clean energy as well as new businesses. LNG or gas is a major transition fuel which supports both energy security and sustainability. Our ambition is to move forward with the future energy while ensuring energy security.

"We actively engage in the LNG business and target to be a global LNG player by managing an LNG portfolio of 9 mill tonnes per annum by 2030. By the end of this year, PTT's LNG receiving terminals will be able to accommodate regasification capacity up to 19 mill tonnes per year with our new terminal," said Auttapol Rerkpiboon, PTT's President and CEO.

As for NextDecade Corp, the

company has executed a 20-year SPA with ExxonMobil LNG Asia Pacific (EMLAP), an ExxonMobil affiliate.

LNG will be supplied from NextDecade's Rio Grande LNG export project (RGLNG) at Brownsville, Texas.

Under the SPA, EMLAP will purchase 1 mill tonnes per annum of LNG. The LNG will be supplied from RGLNG's first two trains, with the first train expected to start commercial operations in 2026.

Based on current expected demand for LNG and assuming the achievement of further LNG contracting and financing, NextDecade anticipates making a positive final investment decision (FID) on up to three trains on RGLNG in the second half of 2022, with FIDs of its remaining trains to follow. ■



NextDecade has tied up another SPA for its Rio Grande project

Deutsche Bank supports Botaş LNG purchases

Deutsche Bank has finalised a €925 mill three year loan facility with Turkish state-owned energy company Botaş.

The loan, which can be extended, is guaranteed by the German Ministry of Treasury and Finance and designed to finance Botaş' future LNG purchases and diversify its sources of imports.

Responsible for 95% of gas supplies in Turkey, Botaş will use the facility to partly meet its LNG purchase requirements from a list of pre-agreed international natural gas suppliers based in the US, Asia (Singapore), Europe (France, Germany, Italy, Spain, Switzerland and UK) and the Middle East (Algeria and Qatar).

Orhan Ozalp, Deutsche Bank Turkey's CEO, said: "Deutsche Bank is proud to support Botaş on the diversification of its energy imports by acting as sole lender in this strategic financing structure. The deal constitutes an important step in the ongoing development and focus of Deutsche Bank's franchise in Turkey and confirms the bank's continuous support and commitment to the country.

"Already a leader in financing a number of Turkey's most significant infrastructure projects, Deutsche Bank has had a long-standing presence in the country and will continue to support selective projects in transport, infrastructure and energy in the future," he said. ■

NEWS NUDGE

C-LNG appoints ASR as US rep

American Ship Repair (ASR) has partnered with C-LNG Solutions, a supplier of maritime LNG system.

ASR will serve as the com-

pany's official US representative.

Based in Singapore, with fabrication facilities in China, C-LNG provides solutions for: LNG fuel gas supply systems (FGSS), LNG cargo handling systems

(CHS), LNG regasification, floating storage regasification units (FSRU), small and medium size LNG logistics solutions (small gas liquefaction, LNG storage tanks, LNG ISO tanks and LNG satellite

stations), and more.

The partnership claimed to have already received commitments from US based customers and is actively discussing projects for both retrofits and newbuildings.

LNGCs boost Capital Product Partners bottom line

Capital Product Partners (CPP) has announced that the operating surplus and operating surplus, following the quarterly allocation to the capital reserve, for the second quarter of 2022 were \$43.9 mill and \$12.7 mill, respectively.

Common unit distribution agreed was \$0.15 for 2Q22.

CPP also announced an agreement to acquire one 174,000 cu m LNG and three containerships between October, 2022 and May, 2023 and also sold two vessels generating gross cash proceeds after repaying outstanding debt of \$102 mill.

Net income for 2Q22, was \$20.4 mill, compared with \$35.4 mill for 2Q21. Total revenue for the quarter was \$74 mill, compared to \$39.8 mill during 2Q21.

The revenue increase was primarily attributable to the rise in the average number of vessels in the fleet by 27% following the acquisition of six LNGCs during 2H21 contributing \$38.1 mill of total revenue in the second quarter, partly offset by the sale of two ships, during the second and fourth quarters of 2021, respectively.

On 7th June, 2022, CPP announced the exercise of its right of first offer to acquire a 174,000 cu m X-DF LNGC and three containerships from Capital Maritime & Trading Corp for a total consideration of \$597.5 mill.

The LNGC, to be named 'Asterix I', is currently under construction by Hyundai Heavy Industries and is expected to be delivered to the Partnership in January, 2023.

Long term charter

'Asterix I' comes with a long-term timecharter with Hartree Partners Power & Gas Co for a firm period of five years, which, together with the optional period, expires in January, 2032.

Jerry Kalogiratos, CEO of the General Partner, said: "We are pleased to witness the continued strong financial performance of

the Partnership during the second quarter of 2022, compared to the same period last year, primarily as a result of our entry in the LNG shipping sector in the second half of 2021.

"In parallel, we continue our strategic fleet renewal, having successfully completed the delivery of the 'Archimidis' and the 'Agamemnon' to their buyer, and accordingly, to position the Partnership for further growth with the recently announced acquisitions of three eco, dual fuel ready, hybrid scrubber fitted 13,278 TEU containerships and one latest generation 174,000 cu m LNGC - all with long term charters attached.

"In addition, the successful issue of a €100 mill bond on the Athens Exchange, the second in a period of 12 months, at a fixed interest cost of 4.4% for a term of seven years, demonstrates the



Capital's Jerry Kalogiratos has benefited from investing in LNGCs

ability of the Partnership to raise incremental capital and provides us with financial flexibility in view of our vessel acquisition programme and rising interest rates.

"Returning capital to our unitholders remains a priority for the Partnership, as in addition to our stated quarterly distribution guidance, we continue with our unit buyback program, which also allows us to take advantage of what we believe is a dislocation between the Partnership's intrinsic value and its equity valuation," he said. ■

Geelong LNG terminal moves ahead

Last week, Australian-based Viva Energy signed commercial agreements with GeelongPort for the construction of a pier and berthing infrastructure for Geelong's proposed LNG terminal.

The terminal is planned to provide flexible and reliable supply of gas to meet Victoria and South East Australia State's ongoing energy needs within the backdrop of

rapidly declining local gas production and predicted shortages expected to impact consumers over the next few years.

The agreement involves the

construction of an extension to the existing refinery pier to provide an additional berth for a permanently moored FSRU, which will be capable of receiving LNG imports.

GeelongPort will construct the extension and license the pier to Viva Energy. In turn, Viva Energy will build the related infrastructure, including a gas pipeline and treatment facility to enable gas to be supplied into the network.

This agreement reflects an important step in approval and development of the Viva Energy gas terminal, and provides a clear pathway to the construction and delivery of the necessary infrastructure underpinning the project, the company explained.

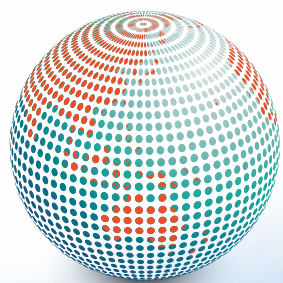
Construction startup remains subject to the satisfaction of cer-

tain conditions, including Viva Energy taking a final investment decision (FID) on the project and the Australian Minister for Planning's assessment of the project's environmental effects under the Environment Effects Act 1978 (Vic) that it will have acceptable environmental outcomes enabling it to proceed.

Viva Energy CEO, Scott Wyatt, said, "Viva Energy has an almost 70-year history of operations in Geelong, is the largest shipper within the Port of Geelong accounting for over 50% of total port volumes, and is an important and longstanding customer of Geelong-Port. We look forward to continuing this relationship, and working with the port to complete this important new piece of Victoria's energy infrastructure." ■



Geelong's LNG terminal project moves ahead



**FLNG &
FSRU**
ASIA

MAXIMISING FLNG & FSRU OPPORTUNITIES TO MEET THE HEIGHTENED DEMAND FOR LNG



DAVID BAUTISTA
Business Development
Upstream,
Crescent Petroleum



DR. AJAY KUMAR
Managing Director,
Fox Petroleum



HARUO KIKKAWA
Project Development
Manager,
GasLog



KAUSHAL RAMESH
LNG and Power
Markets Research,
Rystad Energy

**12 SEPTEMBER 2022,
10 am - 3 pm**

Happening alongside the
FPSO World Congress 2022

fpsoworldcongress.com



SCAN TO
DOWNLOAD
THE EVENT
BROCHURE



GTT suffers revenue blip

GTT, the designer of membrane containment systems, announced revenues of €144.2 mill for the first half of this year, compared with €165.3 mill for 1H21.

Newbuilding revenues were €130.7 mill, down 15.1% versus 1H21, when the cycle was still at its peak. Royalties amounted to €112.7 mill from LNGCs and VLECs, €10.2 mill from FSUs, €1.2 mill from FLNGs, €3.1 mill from onshore storage tanks and €2.3 mill from GBS structures.

LNG as fuel royalties (€1.1 mill) were not impacted by the high order intake seen in 2021 and 2022, as yet, GTT said.

First half revenues from Elogen's electrolyser business amounted to €1.7 mill, while revenues from services rose sharply, up 32.6% to €11.8 mill, driven by growth in digital, maintenance and intervention operations on vessels in service and new project studies.

In 1H22, GTT booked 88 orders for LNGCs, continuing the sales momentum achieved in 1Q22. Deliveries are scheduled between 3Q24 and 2Q27. The Qatar project orders amounted to 24 of the vessels in the first half of this year.

Philippe Berterrotière, GTT's Chairman and CEO, said: "With 88 orders for LNGCs, our core business sales performance for the

first half of 2022 beats our record for the whole of 2021, highlighting particularly strong momentum. Furthermore, the final investment decisions (FIDs) on new liquefaction plants taken in the second quarter, the expected ramp-up of LNG carrier orders from Qatar and increasing demand for LNG in Europe, have confirmed the need for infrastructure and LNG carriers in the years to come.

"The first half is also promising for LNG as fuel, with 38 orders already placed, well above last year's level. In addition, the growing number of mid-sized containments in our orderbook is evidence of our enlarged market share in this sector. In order to meet the needs of the market, new shipyards have been marketing our technologies since the first half of the year.

"GTT maintains a tireless focus on R&D to meet its customers' energy transition needs and the increased requirements they face. During the first half, we obtained a number of approvals from classification bodies to develop new innovative technologies across a wide range of fields, notably for our future NEXT1 containment sys-

tem and for designing a LH2 carrier as part of our partnership with Shell.

"From a financial perspective, revenues for the first half of 2022 were, as expected, lower than for the first half of 2021. This decline is attributable to a base effect, as the first half of 2021 still benefited from the excellent momentum experienced in 2020, whereas the first half of 2022 didn't get the full impact of the high order intake in 2021 and 2022.

"It is worth noting that revenues increased by 11.5% between 1Q and 2Q22. Margin levels achieved in the first half of 2022 are also lower than in 1H21, due to lower revenues, partly offset by cost reductions.

"As regards 2022 targets, in the second quarter the Group noted some delays in shipbuilding schedules, resulting in a postponement of revenue recognition. These delays have various reasons: supply difficulties related to sanctions, lockdowns and social movements in Asia.

"Given these delays, we are confirming our annual targets, but we now expect to be in the lower half of the range announced in

February. Furthermore, work on projects in which the Group is involved in Russia is continuing in compliance with the applicable sanction regimes. However, given the increasing impact of international sanctions on LNG liquefaction projects in Russia, the continuation and proper execution of these contracts are exposed to risks of postponement or cancellation.

"However, the crisis has highlighted the global scale of gas demand, the need for European countries to achieve energy independence in respect of Russia and, more specifically, the strategic importance of maritime transport of LNG, GTT's core business," he concluded.

More orders

Continuing its ordering spree, GTT recently received a contract from Hyundai Heavy Industries for the tank design of eight new 174,000 cu m LNGCs on behalf of a European shipowner.

Each vessel will be fitted with the Mark III Flex membrane containment system and they will be delivered between 3Q25 and 4Q26. ■



Fluxys and EIG buy into Quintero LNG terminal

Belgian gas infrastructure company Fluxys and institutional investor EIG have completed the acquisition of Enagás and OMERS Infrastructure's stakes, representing 80% of GNL Quintero's share capital.

GNL Quintero, strategically located in Quintero Bay and operational since 2009, is the largest LNG regasification terminal in Chile.

It is a key energy infrastructure business supporting

Chile's de-carbonisation strategy by fostering the uptake of renewables and the phasing out of coal.

The agreement with EIG to become partners in GNL Quintero was initially announced on 28th March.

It is a solid fit with Fluxys' strategy to develop outside Europe in a country where energy transition stands high on the agenda, the company explained. ■

CMS undertakes world's first DF engine 36K maintenance

CSSC Marine Service Co (CMS), a subsidiary of China State Shipbuilding Corp (CSSC), has completed the world's first 36,000 running hours major maintenance on an LNGC's dual-fuel (DF) engines.

The overhaul was carried out by CMS Korea at the Malaysia Marine & Heavy Engineering (MMHE) shipyard in June, 2022 on the 'SK Audace'.

'SK Audace' is owned by Total Gas & Power Chartering and is fitted with WinGD X62DF engines. Having completed more than 36,000 operating hours, a major service was scheduled in accordance with class society and design specifications.

A full package maintenance project was planned, including condition-based and post-completion consulting. CMS is WinGD's authorised service partner.

"The extensive service capabilities of CMS have again been emphasised with the successful completion of this landmark maintenance project," said Yan Wei, CMS Vice President. "Not only was it the first 36,000 hour overhaul of a DF engine, but the spare parts supply had to be carried out under challenging lockdown circumstances because of Covid-19. Most importantly, the overhaul confirmed the excellent condition of the WinGD engines."

The design qualities of the engines were demonstrated throughout the disassembly of the moving

parts and overhauling work, both during this project and the 18,000 hour project two years ago.

In both cases, CMS had to overcome challenging circumstances caused by the Covid pandemic.

DF engines have been the choice of many shipowners for a

number of years and their popularity continues to increase, the company claimed.

CMS not only prepares spare part stocks for DF engines, but also plays a supporting role in maiden voyages and warranty support issues. The company's servicing ex-

perience with DF engines has been the driver for numerous long-term service agreement signings.

The service company has its own facilities in China, South Korea, Singapore, Hamburg and Switzerland and also uses partner service facilities.



CMS has handled the statutory drydocking of the LNGC 'SK Audace'

NEWS NUDGE

Ships - Newbuildings

Norwegian-based tanker owner ADS Maritime Holding (ADS) has issued a fully underwritten private placement of new ordinary shares to raise gross proceeds of around NOK100 mill.

The aim of the placement is to invest in the LNG sector in addition to expanding its tanker interests.

ADS said that it had signed a letter of intent (LoI) to construct two LNGCs and the company sees its role as providing management services to their owner, who is a large financial investor.

As the planned project develops, the owner will provide ADS with an option to buy a minority stake in the LNGC owning subsidiaries.

The subscription price per new share will be NOK2.10 per offer share.

B T Larsen & Co Ltd (the underwriter), a company that controls 28.2% of the shares in ADS, which is controlled by the Chairman of the board, Bjørn Tore Larsen, has fully underwritten the private placement at the offer price.

The application period com-

menced on 21st July, 2022 and closed the following day.

Arctic Securities acted as sole bookrunner and sole manager in the placement. Advokatfirmaet Wiersholm acted as Norwegian legal counsel to ADS.

Brokers have since reported that ADS was behind a letter of intent (LoI) signed with Daewoo (DSME) for two 174,000 cu m LNGCs worth about \$247.5 mill each.

The newbuilding project was linked to the Avaio Capital controlled Mexican Pacific project.

In addition, ExxonMobil was

thought to be close to finalising LNGC newbuilding contracts in South Korea, either wholly owned or chartered, while Shell has said that it intends to expand its LNG portfolio.

Shell usually long term charters newbuildings from third parties, thus guaranteeing their price.

Brokers also reported at least another two orders connected to the Qatar project.

Japanese owners, Iino Kaiun and Meiji, were said to have contracted two 174,000 cu m LNGCs each for delivery in 2025.

First iCER engine order confirmed

WinGD has won its first order for the iCER (intelligent control by exhaust recirculation) on-engine solution.

The system will be delivered with a WinGD X-DF2.1 engine for a new 174,000 cu m LNGC to be built by Hyundai Heavy Industries (HHI).

iCER was developed in close collaboration with HHI's Engine & Machinery Division and delivers the advantages of second-generation X-DF technology - greater combustion control translating to lower emissions and fuel savings across the load range - in an integrated engine package that can be installed as a single unit at the shipyard, simplifying testing and commissioning, the company claimed.

X-DF2.0 engines with iCER technology were introduced onto the market in 2020. The system is claimed to be able to improve fuel consumption by around 8% in gas mode and 6% with diesel fuel, as well as meeting IMO's Tier III NOx regulations in both modes.

Furthermore, methane slip is reduced by as much as 50%, giving it the lowest emission levels of any currently available low-pressure combustion concept, WinGD claimed.

The fuel efficiency and emissions improvements were confirmed at recent factory acceptance tests carried out with Chinese and Japanese engine builders, CMD and IHI Power Systems.

By cooling and recirculating exhaust through the engine, iCER enables more harmful gases to be combusted instead of emitted. Crucially, exhaust gas recycling can be used across the full engine load profile in both gas and diesel modes. In gas mode, the pilot fuel required remains the same across the load range.

The first on-engine iCER will be delivered to HHI in May, 2024. ■



WinGD has won its first order for an engine fitted with an iCER system

Retrofit service offered to reduce LNGC emissions

Cryostar and Hyundai Global Service (HGS) are to co-operate to provide a retrofit service for LNGCs and FSRUs with systems and equipment to reduce CO2 emissions.

In order to reduce vessel CO2 emission, in compliance with EEXI and CII environmental regulations, various improvements can be undertaken on board.

Lower vessel operating speed is a way to reduce CO2 emissions, but results in larger volumes of surplus boil-off gas that needs to be treated.

However, the installation of a sub-cooler to cool the LNG in the tank and significantly reduce boil-off will help avoid use of the GCU and associated emissions and conserve valuable cargo.

Sub-coolers can be fitted without disturbing existing fuel gas

supply systems, and require minimal interfaces on board.

GHG pricing mechanisms, such as EU-ETS with FuelEU maritime regulations to lower GHG intensity of the fuel itself, will be introduced as basket measures from 2023.

HGS and Cryostar have teamed up to provide turnkey solutions, such as retrofit of 'EcoChill' sub-coolers and other key technologies, including engine power limitation (EPL) or shaft power limitation (Shapoli) packages and energy saving devices to shipowners wanting to improve efficiency and their vessels' compliance. ■

LNG rate assessments

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

Region	This week	Change*
East of Suez	\$45,000	-\$8,000
West of Suez	\$40,000	-\$5,000
12 mos T/C	\$130,000	-\$3,000

*Since last report (21/07/22)

Source: Fearnleys (03/08/22)

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	\$235.66 mill
Five years old (174,000 cu m)	\$185.45 mill
Total Fleet (548 ships)	\$73.54 bill
Orderbook (251 ships)	\$61.27 bill

*Source: VesselsValue (29/07/22)

*The above is updated each month courtesy of VesselsValue

LNG Solutions for the Marine Industry



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

Cryogenic Solutions for:

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

www.ChartLNG.com
LNG@ChartIndustries.com



Innovation. Experience. Performance.®

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

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	FueLNG
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	Knutsen 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

WORLD LNG CARRIER ORDERBOOK

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Minerva Amorgos	Minerva Marine	Samsung	174000	XDF	01/11/2022	Q4, 2022
Clean Copano	Dynagas	Hyundai Heavy	200000	XDF	01/07/2022	Q3, 2022
Asterix I	Capital Gas	Hyundai Heavy	174000	XDF	01/11/2022	Q4, 2022
Hudong-zhonghua H1829a	CSSC	Hudong-Zhonghua	174000	XDF	01/01/2024	Q1, 2024
Hudong-zhonghua H1830a	CSSC	Hudong-Zhonghua	174000	XDF	01/04/2024	Q2, 2024
Alexey Kosygin	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/03/2023	Q1, 2023
Pyotr Stolypin	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/09/2023	Q3, 2023
Sergei Witte	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/10/2023	Q4, 2023
Zvezda 044	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/11/2023	Q4, 2023
Zvezda 045	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/12/2023	Q4, 2023
Bw Cassia	BWGas	DSME	174000	MEGI	01/09/2022	Q3, 2022
Bw Enn Snow Lotus	BWGas	DSME	174000	MEGI	01/07/2022	Q3, 2022
Samsung 2364	MISC	Samsung	174000	XDF	01/01/2023	Q1, 2023
Samsung 2365	MISC	Samsung	174000	XDF	01/03/2023	Q1, 2023
Alicante Knutsen	Knutsen	Hyundai Samho	174000	XDF	01/09/2022	Q3, 2022
Huelva Knutsen	Knutsen	Hyundai Samho	174000	XDF	01/11/2022	Q4, 2022
Malaga Knutsen	Knutsen	Hyundai Samho	174000	XDF	01/08/2022	Q3, 2022
Sm Albatross	Korea Line	Hyundai Heavy	174000	XDF	01/08/2022	Q3, 2022
Sm Bluebird	Korea Line	Hyundai Heavy	174000	XDF	01/09/2022	Q3, 2022
Lng Prosperity	JP Morgan	Hyundai Heavy	174000	XDF	01/12/2022	Q4, 2022
Orion Song	JP Morgan	Hyundai Heavy	174000	XDF	01/11/2022	Q4, 2022
Kun Lun	ULT	Hudong-Zhonghua	174000	XDF	01/04/2023	Q2, 2023
Shaolin	ULT	Hudong-Zhonghua	174000	XDF	01/08/2022	Q3, 2022
Wu Dang	ULT	Hudong-Zhonghua	174000	XDF	01/01/2023	Q1, 2023
Lng Harmony	JP Morgan	Hyundai Heavy	174000	XDF	01/08/2023	Q3, 2023
Orion Sage	JP Morgan	Hyundai Heavy	174000	XDF	01/07/2023	Q3, 2023
El Ferrol Knutsen	Knutsen	Hyundai Samho	174000	XDF	01/05/2023	Q2, 2023
Extremadura Knutsen	Knutsen	Hyundai Samho	174000	XDF	01/06/2023	Q2, 2023
Daewoo 2514	Sovcomflot	DSME	172500	TFDE - Azipod	01/02/2023	Q1, 2023
Daewoo 2515	Sovcomflot	DSME	172500	TFDE - Azipod	01/04/2023	Q2, 2023
Daewoo 2516	Sovcomflot	DSME	172500	TFDE - Azipod	01/07/2023	Q3, 2023
Daewoo 2517	MOL, COSCO	DSME	172500	TFDE - Azipod	01/09/2023	Q3, 2023
Daewoo 2518	MOL, COSCO	DSME	172500	TFDE - Azipod	01/10/2023	Q4, 2023
Daewoo 2519	MOL, COSCO	DSME	172500	TFDE - Azipod	01/12/2023	Q4, 2023
Zvezda 046	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/08/2024	Q3, 2024
Zvezda 047	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/09/2024	Q3, 2024
Zvezda 048	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/10/2024	Q4, 2024
Zvezda 049	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/11/2024	Q4, 2024
Zvezda 050	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/12/2024	Q4, 2024
Zvezda 051	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/08/2025	Q3, 2025
Zvezda 052	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/09/2025	Q3, 2025
Zvezda 053	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/10/2025	Q4, 2025
Zvezda 054	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/11/2025	Q4, 2025
Zvezda 055	Smart LNG	Zvezda SSK	172600	TFDE - Azipod	01/12/2025	Q4, 2025
Sm Golden Eagle	Korea Line	Hyundai Heavy	174000	XDF	01/09/2025	Q3, 2025
Sm Kestrel	Korea Line	Hyundai Heavy	174000	XDF	01/12/2023	Q4, 2023
Grazyna Gesicka	Knutsen	Hyundai Heavy	174000	XDF	01/06/2023	Q2, 2023

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Lech Kaczynski	Knutsen	Hyundai Heavy	174000	XDF	01/12/2022	Q4, 2022
Samsung 2425	Maran Gas Maritime	Samsung	174000	XDF	01/07/2023	Q3, 2023
Hyundai Samho 8100	Knutsen	Hyundai Samho	174000	XDF	01/11/2024	Q4, 2024
Orion Sky	JP Morgan	Hyundai Heavy	174000	XDF	01/11/2024	Q4, 2024
Hyundai Ulsan 3221	Pan Ocean	Hyundai Heavy	174000	XDF	01/09/2024	Q3, 2024
Hyundai Ulsan 3222	Pan Ocean	Hyundai Heavy	174000	XDF	01/10/2024	Q4, 2024
Samsung 2426	Pan Ocean	Samsung	174000	XDF	01/04/2023	Q2, 2023
Jules Verne	Alpha Gas	Hyundai Samho	174000	XDF	01/04/2023	Q2, 2023
Dapeng Princess	Shenzhen Gas	Hudong-Zhonghua	79960	XDF	01/01/2023	Q1, 2023
Hyundai Ulsan 3294	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/02/2024	Q1, 2024
Hyundai Ulsan 3295	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/06/2024	Q2, 2024
Hyundai Ulsan 3296	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/07/2024	Q3, 2024
Hyundai Samho 8139	Knutsen	Hyundai Samho	174000	XDF	01/10/2023	Q4, 2023
Jiangnan H2637	Jovo Energy	Jiangnan	79800	XDF	01/12/2023	Q4, 2023
Samsung 2473	Maran Gas Maritime	Samsung	174000	XDF	01/09/2024	Q3, 2024
Samsung 2474	Maran Gas Maritime	Samsung	174000	XDF	01/09/2024	Q3, 2024
Daewoo 2521	Hyundai LNG Shipping	DSME	174000	MEGI	01/09/2023	Q3, 2023
Hyundai Ulsan 3290	Dynagas	Hyundai Heavy	200000	ME-GA	01/09/2023	Q3, 2023
Hyundai Ulsan 3291	Dynagas	Hyundai Heavy	200000	ME-GA	01/11/2023	Q4, 2023
Hyundai Ulsan 3292	Dynagas	Hyundai Heavy	200000	ME-GA	01/02/2024	Q1, 2024
Hyundai Ulsan 3293	Dynagas	Hyundai Heavy	200000	ME-GA	01/03/2024	Q1, 2024
Daewoo 2520	MOL	DSME	174000	ME-GA	01/10/2023	Q4, 2023
Amore Mio I	Capital Gas	Hyundai Heavy	174000	ME-GA	01/10/2023	Q4, 2023
Axios II	Capital Gas	Hyundai Heavy	174000	ME-GA	01/12/2023	Q4, 2023
Alexandre Dumas	Alpha Gas	Hyundai Samho	170520	XDF	01/07/2024	Q3, 2024
Hyundai Samho 8147	H-Line	Hyundai Samho	174000	XDF	01/11/2023	Q4, 2023
Samsung 2459	Celsius Shipping	Samsung	180000	ME-GA	01/06/2023	Q2, 2023
Samsung 2460	Celsius Shipping	Samsung	180000	ME-GA	01/09/2023	Q3, 2023
Samsung 2461	Celsius Shipping	Samsung	180000	ME-GA	01/12/2023	Q4, 2023
Victor Hugo	Alpha Gas	Hyundai Samho	170520	XDF	01/08/2024	Q3, 2024
Hyundai Samho 8101	Knutsen	Hyundai Samho	174000	XDF	01/10/2023	Q4, 2023
Hyundai Samho 8102	Knutsen	Hyundai Samho	174000	ME-GA	01/09/2025	Q3, 2025
Hyundai Ulsan 3320	JP Morgan	Hyundai Heavy	174000	ME-GA	01/07/2025	Q3, 2025
Hyundai Ulsan 3321	JP Morgan	Hyundai Heavy	174000	ME-GA	01/09/2025	Q3, 2025
Hyundai Ulsan 3224	Pan Ocean	Hyundai Heavy	174000	ME-GA	01/10/2024	Q4, 2024
Hyundai Ulsan 3225	Pan Ocean	Hyundai Heavy	174000	ME-GA	01/12/2024	Q4, 2024
Daewoo 2522	Hyundai LNG Shipping	DSME	174000	MEGI	01/05/2024	Q2, 2024
Hyundai Samho 8148	Knutsen	Hyundai Samho	174000	XDF	01/02/2024	Q1, 2024
Hyundai Samho 8149	Knutsen	Hyundai Samho	174000	ME-GA	01/03/2024	Q1, 2024
Hyundai Ulsan 3297	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/05/2024	Q2, 2024
Hyundai Ulsan 3298	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/11/2024	Q4, 2024
Hyundai Ulsan 3299	Hyundai LNG Shipping	Hyundai Heavy	174000	XDF	01/01/2025	Q1, 2025
Samsung 2579	Celsius Shipping	Samsung	180000	ME-GA	01/03/2024	Q1, 2024
Samsung 2584	Celsius Shipping	Samsung	180000	ME-GA	01/07/2024	Q3, 2024
Samsung 2585	Celsius Shipping	Samsung	180000	ME-GA	01/09/2024	Q3, 2024
Hudong-zhonghua H1838a	K-Line	Hudong-Zhonghua	79960	XDF	01/09/2023	Q3, 2023
Hyundai Samho 8140	Capital Gas	Hyundai Samho	174000	ME-GA	01/07/2024	Q3, 2024

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Daewoo 2523	MOL	DSME	174000	ME-GA	01/02/2024	Q1, 2024
Daewoo 2524	MOL	DSME	174000	ME-GA	01/04/2024	Q2, 2024
Daewoo 2525	MOL	DSME	174000	ME-GA	01/08/2024	Q3, 2024
Daewoo 2526	MOL	DSME	174000	ME-GA	01/10/2024	Q4, 2024
Daewoo 2527	MOL	DSME	174000	ME-GA	01/07/2024	Q3, 2024
Hudong-zhonghua H1790a	MOL	Hudong-Zhonghua	175000	XDF	01/09/2024	Q3, 2024
Hudong-zhonghua H1791a	MOL	Hudong-Zhonghua	175000	XDF	01/12/2024	Q4, 2024
Hudong-zhonghua H1792a	MOL	Hudong-Zhonghua	175000	XDF	01/03/2025	Q1, 2025
Hudong-zhonghua H1793a	MOL	Hudong-Zhonghua	175000	XDF	01/05/2025	Q2, 2025
Samsung 2580	NYK	Samsung	174000	XDF	01/09/2023	Q3, 2023
Samsung 2581	NYK	Samsung	174000	XDF	01/11/2023	Q4, 2023
Samsung 2582	NYK	Samsung	174000	XDF	01/12/2023	Q4, 2023
Samsung 2583	NYK	Samsung	174000	XDF	01/02/2024	Q1, 2024
Samsung 2592	JP Morgan	Samsung	174000		01/04/2024	Q2, 2024
Samsung 2593	JP Morgan	Samsung	174000		01/07/2024	Q3, 2024
Samsung 2594	JP Morgan	Samsung	174000		01/10/2024	Q4, 2024
Samsung 2595	JP Morgan	Samsung	174000		01/01/2025	Q1, 2025
Apostolos	Capital Gas	Hyundai Heavy	174000	ME-GA	01/06/2024	Q2, 2024
Assos	Capital Gas	Hyundai Heavy	174000	ME-GA	01/05/2024	Q2, 2024
Daewoo 2528	Maran Gas Maritime	DSME	174000	MEGI	01/08/2024	Q3, 2024
Daewoo 2529	Maran Gas Maritime	DSME	174000	MEGI	01/11/2024	Q4, 2024
Daewoo 2530	BWGas	DSME	174000	MEGI	01/03/2025	Q1, 2025
Daewoo 2531	BWGas	DSME	174000	MEGI	01/05/2025	Q2, 2025
Samsung 2600	JP Morgan	Samsung	174000		01/07/2024	Q3, 2024
Samsung 2601	JP Morgan	Samsung	174000		01/01/2025	Q1, 2025
Samsung 2598	Celsius Shipping	Samsung	180000	ME-GA	01/01/2025	Q1, 2025
Samsung 2599	Celsius Shipping	Samsung	180000	ME-GA	01/05/2025	Q2, 2025
Hudong-zhonghua H1834a	ULT	Hudong-Zhonghua	174000	XDF	01/09/2024	Q3, 2024
Hudong-zhonghua H1835a	ULT	Hudong-Zhonghua	174000	XDF	01/12/2024	Q4, 2024
Hudong-zhonghua H1836a	ULT	Hudong-Zhonghua	174000	XDF	01/03/2025	Q1, 2025
Samsung 2604	NYK	Samsung	174000	XDF	01/12/2024	Q4, 2024
Daewoo 2532	GasLog	DSME	174000	MEGI	01/05/2024	Q2, 2024
Daewoo 2533	GasLog	DSME	174000	MEGI	01/08/2024	Q3, 2024
Daewoo 2534	GasLog	DSME	174000	MEGI	01/06/2025	Q2, 2025
Daewoo 2535	GasLog	DSME	174000	MEGI	01/08/2025	Q3, 2025
Samsung 2602	Celsius Shipping	Samsung	174000	ME-GA	01/12/2024	Q4, 2024
Samsung 2603	Celsius Shipping	Samsung	174000	ME-GA	01/12/2024	Q4, 2024
Hyundai Samho 8173	SK Shipping	Hyundai Samho	174000	ME-GA	01/09/2024	Q3, 2024
Daewoo 2537	Maran Gas Maritime	DSME	174000	MEGI	01/09/2025	Q3, 2025
Daewoo 2538	Maran Gas Maritime	DSME	174000	MEGI	01/11/2025	Q4, 2025
Hudong-zhonghua H1880a	MOL	Hudong-Zhonghua	174000	XDF	01/10/2024	Q4, 2024
Hudong-zhonghua H1881a	MOL	Hudong-Zhonghua	174000	XDF	01/08/2025	Q3, 2025
Hudong-zhonghua H1882a	MOL	Hudong-Zhonghua	174000	XDF	01/10/2025	Q4, 2025
Hudong-zhonghua H1883a	MOL	Hudong-Zhonghua	174000	XDF	01/03/2026	Q1, 2026
Hudong-zhonghua H1884a	MOL	Hudong-Zhonghua	174000	XDF	01/06/2026	Q2, 2026
Hudong-zhonghua H1885a	MOL	Hudong-Zhonghua	174000	XDF	01/09/2026	Q3, 2026
Daewoo 2536	MOL	DSME	174000	ME-GA	01/09/2024	Q3, 2024

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 = 29th July 2022

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Samsung 2607	H-Line	Samsung	174000	ME-GA	01/03/2025	Q1, 2025
Samsung 2608	H-Line	Samsung	174000	ME-GA	01/05/2025	Q2, 2025
Samsung 2609	H-Line	Samsung	174000	ME-GA	01/06/2025	Q2, 2025
Samsung 2610	H-Line	Samsung	174000	ME-GA	01/09/2025	Q3, 2025
Daewoo 2539	Maran Gas Maritime	DSME	174000	MEGI	01/11/2025	Q4, 2025
Daewoo 2540	Maran Gas Maritime	DSME	174000	MEGI	01/12/2025	Q4, 2025
Hyundai Samho 8170	Hyundai Glovis	Hyundai Samho	174000	ME-GA	01/08/2024	Q3, 2024
Daewoo 2541	Venture Global LNG	DSME	200000		01/07/2025	Q3, 2025
Daewoo 2542	Venture Global LNG	DSME	200000		01/10/2025	Q4, 2025
Daewoo 2543	Venture Global LNG	DSME	200000		01/12/2025	Q4, 2025
Jiangnan H2700	ADNOC	Jiangnan	175000	XDF	01/01/2025	Q1, 2025
Jiangnan H2701	ADNOC	Jiangnan	175000	XDF	01/05/2025	Q2, 2025
Samsung 2619	Celsius Shipping	Samsung	180000	ME-GA	01/10/2025	Q4, 2025
Hyundai Ulsan 3356	Dynagas	Hyundai Heavy	200000	ME-GA	01/03/2025	Q1, 2025
Hyundai Ulsan 3357	Dynagas	Hyundai Heavy	200000	ME-GA	01/04/2025	Q2, 2025
Hyundai Ulsan 3358	Dynagas	Hyundai Heavy	200000	ME-GA	01/12/2025	Q4, 2025
Hyundai Samho 8179	Knutsen	Hyundai Samho	174000	ME-GA	01/03/2025	Q1, 2025
Hyundai Samho 8180	Knutsen	Hyundai Samho	174000	ME-GA	01/06/2025	Q2, 2025
Daewoo 2544	BWGas	DSME	174000	MEGI	01/11/2025	Q4, 2025
Daewoo 2545	BWGas	DSME	174000	MEGI	01/12/2025	Q4, 2025
Samsung 2635	TMS Cardiff Gas	Samsung	174000	ME-GA	01/09/2024	Q3, 2024
Samsung 2636	TMS Cardiff Gas	Samsung	174000	ME-GA	01/03/2026	Q1, 2026
Cosco 1	COSCO	Hudong-Zhonghua	174000		01/01/2026	Q1, 2026
Cosco 2	COSCO	Hudong-Zhonghua	174000		01/03/2026	Q1, 2026
Cosco 3	COSCO	Hudong-Zhonghua	174000		01/05/2026	Q2, 2026
Cosco 4	COSCO	Hudong-Zhonghua	174000		01/07/2026	Q3, 2026
Cosco 5	COSCO	Hudong-Zhonghua	174000		01/09/2026	Q3, 2026
Cosco 6	COSCO	Hudong-Zhonghua	174000		01/11/2026	Q4, 2026
MOL DSME 1	MOL	DSME	174000	ME-GA	01/11/2026	Q4, 2026
MOL DSME 2	MOL	DSME	174000	ME-GA	01/08/2026	Q3, 2026
Dalian No 1 G175k-1	China Merchant	Dalian Shipbuilding	175000	XDF	01/09/2025	Q3, 2025
Dalian No 1 G175k-2	China Merchant	Dalian Shipbuilding	175000	XDF	01/12/2025	Q4, 2025
Hyundai Samho 8181	Knutsen	Hyundai Samho	174000	ME-GA	01/12/2025	Q4, 2025
NYK Samho	NYK	Hyundai Samho	174000	XDF	30/11/2025	Q4, 2025
NYK CNOOC 1	NYK	Hudong-Zhonghua	174000		01/04/2027	Q2, 2027
NYK CNOOC 2	NYK	Hudong-Zhonghua	174000		01/03/2027	Q1, 2027
NYK CNOOC 3	NYK	Hudong-Zhonghua	174000		01/01/2027	Q1, 2027
NYK CNOOC 4	NYK	Hudong-Zhonghua	174000		01/02/2026	Q1, 2026
NYK CNOOC 5	NYK	Hudong-Zhonghua	174000		01/04/2026	Q2, 2026
NYK CNOOC 6	NYK	Hudong-Zhonghua	174000		01/06/2026	Q2, 2026
Jiangnan H2702	ADNOC	Jiangnan	175000	XDF	01/09/2025	Q3, 2025
Jiangnan H2703	ADNOC	Jiangnan	175000	XDF	01/01/2026	Q1, 2026
Jiangnan H2704	ADNOC	Jiangnan	175000	XDF	01/06/2026	Q2, 2026
Jiangnan H2705	ADNOC	Jiangnan	175000	XDF	01/09/2026	Q3, 2026
Samsung 2631	H-Line	Samsung	174000	ME-GA	01/07/2025	Q3, 2025
Samsung 2632	H-Line	Samsung	174000	ME-GA	01/12/2025	Q4, 2025
Samsung 2633	H-Line	Samsung	174000	ME-GA	01/01/2026	Q1, 2026

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 = 29th July 2022

Name	Owners	Yard	Capacity	Propulsion	Delivered	Delivery
Hyundai Ulsan 3370	SK Shipping	Hyundai Heavy	174000	ME-GA	01/02/2025	Q1, 2025
Hyundai Ulsan 3371	SK Shipping	Hyundai Heavy	174000	ME-GA	01/03/2025	Q1, 2025
Petronas SK Samho 1	SK Shipping	Hyundai Samho	174000	ME-GA	01/07/2025	Q3, 2025
Petronas SK Samho 2	SK Shipping	Hyundai Samho	174000	ME-GA	01/08/2025	Q3, 2025
Petronas K-line 1	K-Line	Hudong-Zhonghua	174000		01/10/2025	Q4, 2025
Petronas K-line 2	K-Line	Hudong-Zhonghua	174000		01/12/2025	Q4, 2025
Petronas K-line 3	K-Line	Hudong-Zhonghua	174000		01/02/2026	Q1, 2026
Petronas K-line 4	K-Line	Hudong-Zhonghua	174000		01/04/2026	Q2, 2026
Qatar HHI 3	Knutsen	Hyundai Heavy	174000	XDF	01/05/2025	Q2, 2025
Qatar HHI 4	Knutsen	Hyundai Heavy	174000	XDF	01/07/2025	Q3, 2025
Qatar HHI 5	Knutsen	Hyundai Heavy	174000	XDF	01/08/2025	Q3, 2025
Qatar HHI 6	Knutsen	Hyundai Heavy	174000	XDF	01/12/2025	Q4, 2025
Hyundai Samho 8196	Cool Co	Hyundai Samho	174000	ME-GA	01/02/2025	Q1, 2025
Hyundai Samho 8197	Cool Co	Hyundai Samho	174000	ME-GA	01/01/2025	Q1, 2025
Hyundai Ulsan 3380	Knutsen	Hyundai Heavy	174000	XDF	01/05/2025	Q2, 2025
Hyundai Ulsan 3381	Knutsen	Hyundai Heavy	174000	XDF	01/06/2025	Q2, 2025
Daewoo 2546	Pan Ocean, SK Shipping, DSME H-Line		174000	ME-GA	01/12/2024	Q4, 2024
Daewoo 2547	Pan Ocean, SK Shipping, DSME H-Line		174000	ME-GA	01/12/2024	Q4, 2024
Daewoo 2548	Pan Ocean, SK Shipping, DSME H-Line		174000	ME-GA	01/01/2025	Q1, 2025
Daewoo 2549	Pan Ocean, SK Shipping, DSME H-Line		174000	ME-GA	01/02/2025	Q1, 2025
Daewoo 2552	Maran Gas Maritime	DSME	174000	MEGI	01/03/2026	Q1, 2026
Daewoo 2553	Maran Gas Maritime	DSME	174000	MEGI	01/06/2026	Q2, 2026
Hyundai Samho 8198	Capital Gas	Hyundai Samho	174000	ME-GA	01/01/2026	Q1, 2026
Hyundai Samho 8199	Capital Gas	Hyundai Samho	174000	ME-GA	01/03/2026	Q1, 2026
Samsung 2634	JP Morgan	Samsung	174000	ME-GA	01/05/2025	Q2, 2025
Samsung 2637	JP Morgan	Samsung	174000	ME-GA	01/07/2025	Q3, 2025
Samsung 2638	JP Morgan	Samsung	174000	ME-GA	01/08/2025	Q3, 2025
Samsung 2641	JP Morgan	Samsung	174000	ME-GA	01/11/2025	Q4, 2025
Samsung 2642	JP Morgan	Samsung	174000	ME-GA	01/01/2026	Q1, 2026
Samsung 2643	JP Morgan	Samsung	174000	ME-GA	01/02/2026	Q1, 2026
Samsung 2644	JP Morgan	Samsung	174000	ME-GA	01/05/2026	Q2, 2026
Samsung 2645	JP Morgan	Samsung	174000	ME-GA	01/06/2026	Q2, 2026
Samsung 2646	JP Morgan	Samsung	174000	ME-GA	01/07/2026	Q3, 2026
Samsung 2647	JP Morgan	Samsung	174000	ME-GA	01/08/2026	Q3, 2026
K3 SHI 1	Pan Ocean, SK Shipping, Samsung H-Line		174000		01/03/2026	Q1, 2026
K3 SHI 2	Pan Ocean, SK Shipping, Samsung H-Line		174000		01/06/2026	Q2, 2026
Qatar SHI 11	JP Morgan	Samsung	174000	ME-GA	01/11/2024	Q4, 2024
Qatar SHI 12	JP Morgan	Samsung	174000	ME-GA	01/12/2024	Q4, 2024
Qatar Knutsen 10	Knutsen	Hyundai Heavy	174000	XDF	01/08/2026	Q3, 2026
Qatar Knutsen 7	Knutsen	Hyundai Heavy	174000	XDF	01/02/2026	Q1, 2026
Qatar Knutsen 8	Knutsen	Hyundai Heavy	174000	XDF	01/04/2026	Q2, 2026
Qatar Knutsen 9	Knutsen	Hyundai Heavy	174000	XDF	01/06/2026	Q2, 2026

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = 29th July 2022