LNG Shipping News

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Overcapacity discussed at Rome LNG summit

Overcapacity was the overriding theme of this year's Italian LNG Summit - Sustainability, Market, Stakeholders - which was held in Rome last week.

Organised and promoted by OLT Offshore LNG Toscana - backed by the Italian Ministry for the Environment and Energy Security (MASE), Proxigas, Gas Infrastructure Europe and SIGTTO - speakers, representing institutions, sector associations and companies, discussed the LNG operators' European scenario and the future of security of supply and energy transition.

In general terms, the theme that emerged was 'overcapacity'. LNG capacity, which exceeds even Italian domestic demand, should not be a concern; as the industry must be able to handle it, delegates were told.

The meeting was opened by OLT's CEO, Giovanni Giorgi, who pointed out that - "The Italian gas system has coped well with market shocks and has demonstrated the importance of far-sighted planning increasingly oriented towards investments aimed at energy independence.

"The OLT Terminal is a demonstration of how development, security and environmental sustainability can be reconciled. This year, we will celebrate 10 years of operations, and our great satisfaction is not only that of being a strategic infrastructure that makes an important contribution to the security and diversification of gas supplies, but also that of having managed to create a solid relationship with the territory in which we operate.

"We are evaluating the opportunity to extend the life of our terminal beyond the 20-year deadline of 2033, for another 10-15 years, against a natural revamping of the plant," he explained.

Infrastructure investment

From the first round table, which was attended by Roxana Caliminte, Deputy Secretary General, GIE; Ian Revell, SIGTTO's CEO; Marcel Tijhuis, Business Developer, Gasunie; and Daan Velter, Managing Director, EemsEnergyTerminal, it emerged that Europe is pursuing its policy of investing in LNG infrastructure, beyond the current crisis.

De-carbonisation is crucial and, with this in mind, work is in progress to adopt ever greener fuels; however, the crisis being experienced also calls for a careful look at the topic of economic sustainability.

The second discussion, which was attended by OLT's CEO, Liliana Panei of MASE; Massimo Ricci, Director, Energy Division, ARERA; Marta Bucci, General Manager, PROXIGAS; and Elio Ruggeri, LNG Business Director, Snam and President of OLT, also focused on the issue of infrastructure and how the price far exceeds the cost of not building it.

System fragility

The Russian/Ukraine war brought out the system's fragility. However, the crisis had begun long before. Over the years, the issue of energy security has been underestimated; the system needs to be more flexible, the speakers said.

"Until now, Italy and Europe represented a so-called market of 'last resort'," said Ruggeri, "In

OLT's CEO Giovanni Giorgi presided over proceedings

short, Europe bought what was left over from the Asian market.

"At this historical stage and in the near future, the supply of Russian gas will decrease and it will no longer be possible to rely on other fossil sources, such as coal. Europe will have to be able to intercept the gas that will make its way to Asia.

"In 2022, the LNG gap cost more than €10 bill; now the cost per MWh has dropped from €300 to €30, but still remains high. Overcapacity is a key element for the safety of the system. Regasification terminals must be flexible and competitive," he said.

Igneo Infrastructure Partners and Snam, OLT's shareholder, closed the proceedings.

"The company I represent," said Marcus Ayre, Partner, Head of Igneo Infrastructure Partners, Europe; "invests in infrastructure businesses characterised by a constant commitment to: sustainability, occupational health and safety; improved environmental performance; diversity, equity and inclusion; high standards of corporate governance; and employee engagement.

"OLT has always been characterised by these features and we have supported investments in improving these policies," he said. ■

SHIPPING NEWS AGENDA

SEFE to take Venture Global LNG

Venture Global LNG and SEFE (Securing Energy for Europe) GmbH have signed a long-term Sales and Purchase Agreement (SPA).

Under the agreement, SEFE's subsidiary, WINGAS GmbH, will purchase 2.25 mill tonnes per annum of LNG from CP2 LNG, Venture Global's third project, for 20 years.

"Venture Global is thrilled to begin a strategic partnership with SEFE, making our company the largest long-term LNG supplier to Germany," said Mike Sabel, Venture Global LNG CEO. "SEFE is playing a leading role in ensuring security of energy supply for not only Germany but the rest of the European gas market.

"Germany has acted decisively to diversify its energy portfolio and LNG will be a vital part of that mix as it seeks to strengthen its energy security, while at the same time advancing environmental progress. We are honoured to support a key US ally in each of these efforts," he said.

"By joining forces with Venture Global LNG, SEFE makes another important step on our mission to secure energy for German and European customers and meet the energy demand of the region.

"In delivering a substantial amount of the contracted capacity of CP2 LNG to European customers, we contribute to the further diversification and sustainability of the European energy supply," added Egbert Laege, SEFE CEO.

SEFE, a German state-owned company, formerly Gazprom Germania, joins other CP2 LNG customers, including ExxonMobil, Chevron, JERA, New Fortress Energy, INPEX, China Gas and EnBW.

To date, 9.25 mill tonnes per annum of CP2's 20 mill tonnes of nameplate capacity has been sold. Active discussions are ongoing for the remaining capacity.

About one third of the current offtake agreements are with German buyers, further underscoring the importance of CP2 LNG to Germany's long-term energy security, the company said.

With this agreement, Venture Global is set to become Germany's largest LNG supplier, with a combined 4.25 mill tonnes per year of 20-year offtake agreements signed.

CP2's construction is expected to begin this year. ■

Caribbean LNG STS offered

Ocean Point Terminals has started LNG ship-to-ship (STS) transfer operations at the company's dock facilities in St Croix, US Virgin Islands.

The STS are being conducted in co-operation with New Fortress Energy (NFE).

Ocean Point welcomed the first LNGC at its Dock No 8 recently, where she acts as an FSU to facilitate transfers on a temporary basis until a permanent operation is established at Dock No 6 later this year.

This follows a three-year process to enable LNGCs to be moored at Ocean Point's facility for STS transfers and creates a new line of business for the company.

LNG will be transhipped from large vessels to smaller shuttle gas carriers for redistribution across the Atlantic region.

"We are very pleased to start this new operation," said Todd Dillabough, Ocean Point Terminals CEO. "The start-up of this project will provide broad benefits to St Croix and the wider region.

"Importantly, this project significantly increases access to affordable, reliable, clean LNG fuel in the region to accelerate the regional energy transition.

"It also expands Ocean Point's business offering to customers, enables additional follow-on business opportunities, builds on Ocean Point's significant contributions to the US Virgin Islands over the last 57 years, and positions the company as a key energy logistics hub in the Atlantic Basin for LNG and both sustainable and green tech fuels of the future," he added.

Ocean Point Terminals is an energy logistics hub centrally located in the Caribbean facilitating the storage, segregation, blending, and global movement of crude oils, fuel oils, LNG, bunker, gasolines, diesel, jet fuel, and liquid petroleum gases.

Customers include oil majors, global infrastructure/distribution network operators, refiners, and trading houses.

The facility consists of 167 tanks, with a capacity of around 34 mill barrels, and deepwater access to 11 docks, including an offshore single point mooring (SPM) buoy capable of loading and discharging vessels of up to VLCC size.

It is currently the world's fifth largest active marine oil and products terminal. ■

Gulfstream receives US DoE nod to export LNG

US mid-size greenfield LNG export project developer, Gulfstream LNG Development has received US Department of Energy (DoE) authorisation, valid until 2050, to export US produced LNG.

Gulfstream has also signed a term sheet for the receipt of feed gas with a gas pipeline network company.

The planned export plant will be located Plaquemines Parish, a site close to multiple feed gas trunkline networks and which benefits from a robust electrical grid.

Gulfstream LNG has obtained approval to export up to 4 mill tonnes per year of LNG both on its own behalf and as an agent for others, to all existing and future countries that have, or will enter, into an free trade agreement with the US.

The developer is now preparing to commence the US Federal Energy Regulatory Commission (FERC) permitting process. Once initial funding is secured, Gulfstream intends to begin the FERC application, the company confirmed. ■

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Cheniere signs two more SPAs

Cheniere Marketing has signed another two long-term LNG sale and purchase agreements (SPAs).

The latest deals agreed were with ENN LNG (Singapore), a wholly-owned subsidiary of the Chinese ENN Natural Gas Co, Ltd, and Norwegian energy major, Equinor.

ENN has agreed to purchase around 1.8 mill tonnes per annum of LNG on a free-on-board (FOB) basis for a purchase price indexed to the Henry Hub price, plus a fixed liquefaction fee.

Deliveries will start in mid-2026, ramping to 0.9 mill tonnes in 2027. Delivery of the remaining 0.9 mill tonnes, which is subject to a positive Final Investment Decision (FID) on the first train (Train Seven) of the Sabine Pass liquefaction expansion project (SPL), will commence upon the start of the train's commercial operations.

The SPA will last until the 20th anniversary of the start of Train Seven's commercial operations.

This was the second long-term SPA signed between ENN and Cheniere Marketing, the first being signed in October, 2021.

Wang, Yusuo, ENN Natural Gas Chairman, said, "At present, China is moving forward with the implementation of 'carbon peaking & carbon neutrality,' further accelerating the energy transformation, and China's natural gas market is full of potential.

"As a leading global LNG supplier, Cheniere's stable LNG production and supply capacity are highly compatible with China's fast growing natural gas market. The signing of this long-term SPA marks another milestone in the establishment of good strategic cooperation between two parties, contributes to ENN Natural Gas' establishment of an intelligent ecological operator in the field, provides customers with quality services and resources, and promotes the low-carbon transformation and upgrade of all industries," he said.

A rendering of the SPL expansion project

Three trains

The SPL project is being developed to include up to three liquefaction trains with an expected total production capacity of around 20 mill tonnes of LNG. In May, 2023, subsidiaries of Cheniere Energy Partners agreed the project's pre-filing review process with the US Federal Energy Regulatory Commission (FERC) under the National Environmental Policy Act.

Meanwhile, the Equinor SPA calls for the purchase of about 1.75 mill tonnes per annum also on a free-on-board (FOB) basis and a purchase price indexed to the Henry Hub price, plus a fixed liquefaction fee.

Delivery of half of the volume under the SPA will commence in 2027, and delivery of the second half, which is also subject to a positive FID on SPL, will commence at the end of this decade.

Equinor's SPA's tenure is for 15 years from the commencement of delivery of the full 1.75 mill tonnes per year of LNG volumes. ■

Tamboran signs MoU with UK majors

Australian energy plant developer, Tamboran Resources has entered into two non-binding Memorandum of Understandings (MoUs) with BP Singapore and Shell Eastern Trading.

The MoUs cover the potential purchase of LNG from the planned Northern Territory LNG (NTLNG) project at Middle Arm.

Under the MoUs, bp and Shell would each purchase up to 2.2 mill tonnes of LNG per annum over a 20-year period.

Tamboran Resources head Joel Riddle

Gas volumes would be supplied from Tamboran's Beetaloo Basin gas assets, subject to completion of the concept select studies, successful Beetaloo appraisal drilling and Australian Government approvals.

The company said it will progress talks with both bp and Shell prior to the completion of the FEED in 2024, aiming at the formal execution of the LNG Sale and Purchase Agreements (SPAs) in 2025.

Tamboran Resources Managing Director and CEO, Joel Riddle, said: "Securing these MOUs with bp and Shell is a significant step in progressing the proposed NTLNG development at Middle Arm.

"bp and Shell are two of the world's largest LNG portfolio trading and energy companies and provide important and credible counterparties for Tamboran to progress financing discussions to support the sanctioning of the NTLNG project, capable of producing up to 6.6 mill tonnes per annum.

"We look forward to progressing our agreements with both parties, who have both shown significant support to Tamboran through the accelerated discussions, which further emphasise the importance of LNG demand growth in the Asia/Pacific region," he said.

Earlier, Tamboran had announced that it had secured land at the Middle Arm sustainable development precinct for NTLNG's development.

The company was given exclusive access to over 170 hectares on the precinct for a proposed LNG plant development. NTLNG is expected to be supported by low reservoir CO2 gas from the Beetaloo Basin.

NTLNG represents the first fully integrated onshore LNG development in Northern Australia where upstream, midstream and downstream production and processing facilities are based in the Northern Territory, the company claimed.

Tamboran also said that it is aiming for the first LNG production by 2030. ■

KN starts operations at second German terminal

Lithuania's energy terminal operator KN (AB Klaipėdos nafta) has started commercial operations at the Elbehafen LNG terminal at Brunsbüttel, northern Germany.

This marks KN's second involvement in a German LNG terminal, following its role as commercial operator of the Wilhelmshaven LNG terminal on the North Sea coast since autumn of last year.

Elbehafen, situated on the Elbe River estuary, was developed by Elbehafen LNG GmbH —a subsidiary of the German energy group RWE - on behalf of the German Government.

According to the contract, the commercial terminal services include managing logistics operations, gas dispatching, gas accounting and reporting, and other terminal services adapted to customers' needs.

The terminal receives gas from LNGCs via the FSRU 'Höegh Gannet', which was built in 2018 and has a storage capacity of 170,000 cu m. After natural gas grid network expansion, the terminal will have a designed annual capacity of 7.5 bill cu m of natural gas.

Elbehafen is the third German LNG terminal developed over the last year.

Darius Šilenskis, KN CEO, said: "The growth of LNG terminal construction projects since the start of the Russian war in Ukraine has created an additional market for our services.

"However, we have been planning an ambitious expansion in the global LNG market long before the war. To date, we have contributed to more than 10 different LNG projects around the world. We are delighted to be able to add another new commercial operation contract in Germany to our solid portfolio of international projects," he said.

Brunsbüttel marks KN's second German terminal contract

LNG business development

Šilenskis added that KN's new long-term strategy for 2023/2050, approved in mid-June, also focused on the development of international LNG business.

KN currently operates three liquid energy product terminals in Lithuania and is the operator of LNG terminals in Lithuania and Brazil, plus the commercial services for the two German floating LNG terminals.

In addition, KN revealed that before it takes over the ownership of the FSRU 'Independence', a drydocking is planned for inspection and repairs.

Since the size of 'Independence' requires a large dock, which is not available in Klaipėda and any other neighbouring port, the vessel will go to a southwestern European facility.

"We estimate that since the beginning of LNG terminal operations, the terminal has regasified and supplied approximately 12 bill cu m of natural gas to the market, supplying natural gas to consumers in Lithuania and the region.

"In the last year alone, the LNG terminal has been operating at almost maximum regasification capacity. Therefore, the reliable operation of such a strategic infrastructure and, accordingly, the highest level of maintenance is our priority. A thorough inspection of the FSRU before the ownership is taken by KN, will contribute to smooth natural gas supply to customers in Lithuania and neighbouring countries in the future as well," said Mindaugas Navikas, KN's CCO.

It is estimated that the FSRU's voyage duration to and from the drydock could last about 12 days. For the maintenance and repair work about another 25 days are planned.

During the maintenance period, Lithuania will be supplied with natural gas through the GIPL gas interconnection between Lithuania and Poland and from the Inčukalnis natural gas storage in Latvia. ■

Vitol ties up Indonesian LNG

Vitol Asia Pte Ltd and the Merakes LNG Sellers have signed an LNG sale and purchase agreement (SPA).

This SPA represents the conclusion of an open tender process held in February, 2023 by Merakes LNG Sellers and awarded to Vitol Asia after it had submitted the most competitive bid.

Vitol's LNG supply of around 0.55 mill tonnes per annum will commence in 2024 and will last for three years on a Free on Board (FOB) basis, with a possible one year extension.

The LNG will be produced and loaded at the Bontang LNG plant from feed gas from the Merakes field located in Indonesia's Makassar Strait.

Merakes is part of the East Sepinggan Production Sharing Contract, jointly owned by ENI East Sepinggan, Neptune Energy East Sepinggan and PT Pertamina Hulu Energi East Sepinggan.

Bontang commenced liquefaction operations in the 1970s and has been supplying LNG ever since, primarily to Asian markets.

Mike Muller, Vitol Asia head, said: "We are delighted to enter into this mid-term LNG purchase arrangement with the Merakes LNG Sellers.

"These Bontang LNG volumes are highly complementary to our portfolio and further enhance our ability to optimally, safely and reliably supply our customer base across Asia, whilst underscoring Vitol's strong historical ties with Indonesia," he said.

Vitol has traded LNG for over 15 years and is expanding its presence globally. Last year, the company traded 13.7 mill tonnes of LNG worldwide. ■

MOL ties up with Ineos - agrees Chinese lease agreement

INEOS Energy Trading has signed agreements with Mitsui OSK Lines (MOL) for two newbuilding LNGCs.

They will be used for the import of US LNG into Germany.

This follows the long-term Sales and Purchase Agreement (SPA) signed with Sempra for 1.4 mill tonnes per year of LNG from Port Arthur and the purchase of long-term regasification capacity at the German Brunsbüttel LNG terminal.

INEOS said it will capitalise on its experience as the largest transporter of ethane gas from the US to Europe and Asia, to develop a 'pipeline' of LNG into Europe to serve its own demand, as well as that of third parties.

A typical MOL 174,000 cu m LNGC

Both vessels will have a capacity of 174,000 cu m. They are being built at the Hanwha Oceans' Okpo Shipyard in South Korea and will be equipped with the latest MAN Energy Solutions engines (ME-GA), plus air lubrication technology and shaft generators.

They are due for delivery in 2027.

David Bucknall, Ineos Energy Trading CEO, said: "It was extremely important that we selected modern, efficient vessels with environmental considerations embedded in the design. We agreed an engine type and vessel specification with MOL that we believe is optimal for reducing carbon emissions and methane slip.

"We will continue to work with MOL to identify further opportunities to reduce emissions as both companies work towards a net zero future," he said.

Whilst INEOS has an extensive fleet of ethane and naphtha carriers, these two vessels mark the company's first entry into the LNGC market.

MOL has also signed a lease agreement for three new LNGCs under construction at Hudong-Zhonghua Shipbuilding (Group) with Bank of Communications Financial Leasing (BOCOM Leasing).

This was achieved through a joint venture with COSCO SHIPPING LNG Investment (Shanghai), CNOOC Gas and Power Singapore Trading & Marketing, and CETS Investment Management (HK).

BOCOM Leasing is a subsidiary of Bank of Communications, the largest leasing company in China. This also marks MOL's first contract with a Chinese leasing company. ■

CoolCo acquires two LNGCs - expands bank facility

Cool Company (CoolCo) has exercised an option to acquire two newbuilding 2-stroke LNGCs from affiliates of EPS Ventures (EPS).

The ME-GA fitted LNGCs are scheduled to be delivered from Hyundai Samho Heavy Industries (HHI) in September and December, 2024.

They will have a cargo capacity of 174,000 cu m, and will be fitted with GTT Mark III Flex membrane cargo tank systems, reliquefaction systems, air-lubrication and shaft generators.

Each of the two LNGCs is being acquired under the pre-existing purchase option price of around $234 mill, a discount of about 10% to current quoted market value for comparable newbuildings.

The initial exercise price is around $57 mill per vessel, while about $134 mill of the remaining $177 mill is due upon delivery of each vessel.

They will be named 'Kool Tiger' and 'Kool Panther', and are expected to be funded with a combination of cash on hand, including cash that was recently released from the sale of the 'Golar Seal', and debt financing for which CoolCo has received a commitment letter from a financing institution.

This debt financing, which is subject to customary approvals, is on a fixed rate per day basis for 10 years with a minimum loan-to-value of 80% and an implied interest rate of around 6%.

Richard Tyrrell, CEO, commented: "We look forward to welcoming these state-of-the-art vessels into the CoolCo fleet at a material discount to their current market value.

"Their 2024 delivery date makes the vessels especially attractive, with comparable vessels ordered today only being delivered in the 2027/28 timeframe. The vessels' best-in-class design and boil-off rate make them highly attractive to charterers who benefit from the ability to operate efficiently at a range of speeds with reduced emissions.

"With the vast majority of the global LNG carrier orderbook already committed to liquefaction projects coming online in the years ahead, few, if any, modern LNG carriers are expected to be available for timecharter employment during the late 2024 window when the vessels deliver.

"We are currently in discussions to forward fix the vessels on long-term timecharters and expect to do so well in advance of delivery at levels that reflect current market strength," he said.

Upgrades funded

CoolCo has also announced an expansion of its bank facility to fund its LNGe conversion upgrades.

The debt capacity was increased by $70 mill and the lenders also agreed to reduce the facility's interest rate margin from 275 basis points to 225 basis points.

This will fund the LNGe conversion of five vessels, including retrofits with sub-coolers for LNG boil-off reliquefaction under a recent contract with HD Hyundai Global Service.

John Boots, CFO, commented: "As we take decisive steps forward in our efforts to reduce the emissions profile and improve the overall competitiveness of our fleet of modern LNG carriers, this amendment stands as a testament to the confidence in our mission by our banking partners, for which we are very thankful.

"The improved terms of the facility speak to our strong financial position, a source of true competitive advantage under current credit conditions. The upgrades that make up the LNGe conversion process put our TFDE vessels firmly into the top tier of all TFDEs in the market, with boil-off rates that make these upgraded vessels extremely competitive with 2-stroke vessels, further improving CoolCo's ability to take advantage of the strong demand for high-quality, modern LNG carriers," he said. ■

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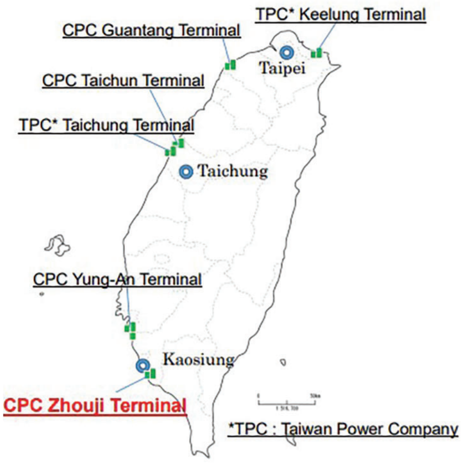
Japanese to aid Taiwan’s fourth LNG terminal development

Osaka Gas subsidiary, Daigas Gas and Power Solution (DGPS), has won a contract for Taiwan’s CPC’s fourth LNG receiving terminal.

DGPS will provide front-end engineering and design (FEED) and technical consulting services for the construction of the planned Zhouji LNG receiving terminal, which will be located in Kaohsiung’s port area.

The terminal will include four LNG storage tanks, each with a capacity of 180,000 cu m, regasification facilities, and LNGC berths.

After its completion, scheduled for 2029, its LNG handling capacity will be 6 mill tonnes per annum.



Taiwan’s LNG receiving terminals. Source: Osaka Gas

In various operations, Osaka Gas has been involved in Taiwan’s LNG receiving terminals since 1990 when technical support was given to the construction of the Yung-An terminals.

Today, DGPS is involved as a technical consultant with the third terminal located at Guantong, Taoyuan City and also with the Taichung Phase 4 terminal expansion project.■

South Koreans to help Vietnam’s LNG plans

Last month, Vietnam’s T&T Group signed a Memorandum of Co-operation with South Korean LNG interests to develop LNG and hydrogen projects in Vietnam.

This agreement was signed within the framework of the Vietnam/Korea Business Forum held in Hanoi.

For example, Vietnam’s T&T Group and Korea Gas Corp (KOGAS) are to co-operate in developing the country’s LNG power projects.

Under the agreement, they will jointly develop projects using LNG refrigeration heat from Vietnamese LNG terminals and engage in other LNG-related business activities, such as procurement, import, transportation and supply of LNG for power generation and other industrial purposes.

Coal power projects under Vietnam’s Power Plan VIII will be converted to LNG electrification under the Government's policy.

The two sides will also explore opportunities to participate in hydrogen production projects.

Do Quang Hien, T&T Group's Strategic Committee Chairman, said that the exploitation and efficient use of domestic fossil energy sources combined with imports will contribute to realising the goal of gradually reducing the proportion of coal-fired thermal power, prioritising the development of domestic electricity and gas and developing LNG power sources with an appropriate scale in accordance with Power Plan VIII.

"The co-operation with KOGAS – the monopoly of natural gas wholesale in Korea and the world's largest LNG importer today - will bring T&T Group valuable resources in terms of experience, technology, finance to implement LNG projects in Vietnam, thereby contributing to ensuring national energy security and providing enough electricity to meet socio-economic development goals," he explained.

Also at the business forum, T&T Energy - a member of T&T Group and SK E&S - an energy company of SK Group (South Korea) signed a memorandum of co-operation.

As a result, the two companies will co-operate in developing LNG terminals and plants. SK E&S will be responsible for developing financial resources to support the projects’ implementation. ■

Mukran to get second FSRU

On 21st June, 2023, German energy company, Deutsche ReGas signed an agreement with the German Federal Republic to charter Dynagas’ FSRU ‘Transgas Power’.

The FSRU will be used for the planned Mukran LNG terminal.

“This is another milestone for phase II of the LNG terminal German Baltic Sea has reached," said Ingo Wagner, Deutsche ReGas’ Managing Director.

The company will be the sub-charterer of the FSRU, which will join the FSRU ‘Neptune’ already operating at Mukran’s LNG terminal Deutsche Ostsee.

Under the terms of the charter, Deutsche ReGas will take over the rights and obligations of the head charter agreement between the German Government and Dynagas, involving all of the costs, including the charter hire.

The 2021-built ‘Transgas Power’ is registered in Malta and has a regasification capacity of up to 7.5 bill cu m of natural gas per year and an LNG capacity of 174,000 cu m.

Once both FSRUs are operational, Deutsche Ostsee will have a total entry capacity, according to the BNetzA exemption decision, for up to 13.5 bill cu m of natural gas per year.

In order to meet the objective of a secure supply of natural gas in the coming winter months, Deutsche ReGas started marketing natural gas availability on 29th June, 2023.

At Mukran, the energy terminal is scheduled to go into operation during the winter 2023/24. In addition to the LNG terminal, a hydrogen electrolyser and the building of infrastructure for hydrogen imports are planned. ■

Mukran could be about to get a second FSRU

Rio Grande LNG financed - FID imminent

NextDecade Corp's Rio Grande LNG (RGLNG) has now received binding commitments from a syndicate of lenders.

Together with expected project equity funding, the amount is sufficient to support a positive final investment decision (FID) of the first three liquefaction trains (Phase 1) at the LNG export facility in Brownsville, Texas, the company claimed.

The syndicate includes the world's leading Asian, European, Middle Eastern and North American project finance banks.

NextDecade said that it had sold 16.2 mill tonnes per annum of LNG from Phase 1, or 92% of nameplate capacity, under long-term sale and purchase agreements (SPAs), sufficient to support the binding debt commitments from the lenders and the near-term FID of the 17.61 mill tonnes per annum Phase 1.

Due partly to various holidays around the world, including the US July 4th holiday, NextDecade is now targeting FID on Phase 1 early this month with FIDs of its remaining trains to follow thereafter, the company revealed. ■

Mercuria gets credit for Italian LNG supplies

Mercuria Energy Trading has closed a new €500 mill five-year multi-currency covered credit facilities agreement.

The facility, negotiated to increase Italian LNG supplies, is guaranteed by SACE, Italy's Export Credit Agency (ECA) controlled by the Ministry of the Economy and Finance, as part of SACE's Push Strategy.

"This is the first ECA-backed transaction for Mercuria. Under this agreement, Mercuria will increase its natural gas and LNG supplies to Italy, supporting Italian national industrial needs and the overall European gas market," said Guillaume Vermersch, Mercuria Group CFO.

Mercuria mandated UniCredit Bank, Société Générale, Natixis, and UBS Switzerland as lead arrangers and Abu Dhabi Commercial Bank as lead arranger. ■

NEWS NUDGE

FSRU arrives at Batangas

Last month, the Philippine's company First Gen Corp welcomed the arrival of the FSRU 'BW Batangas' chartered for the Batangas Bay project.

Subsidiary FGEN LNG and BW Group signed a charter agreement for the FSRU in April, 2021 to regasify imported LNG to fuel the natural gas power plants at the Batangas First Gen Clean Energy Complex.

'BW Batangas', ex 'BW Paris', arrived on 16th June. She has an LNG capacity of 162,524 cu m and can regasify up to 500 mill cu ft of gas per day to enable LNG to supplement the Malampaya gas reserves. ■

NEWS NUDGE

Large FSU arrives in Russia

Russia's giant 'Saam FSU' arrived in the Ura Guba, a bay on the Barents Sea coast, last month.

According to the Barents Observer, the FSU was towed from Deawoo's shipyard (now Hanwha Ocean) in an operation which took more than four months.

'Saam FSU' is 400 m long and 60 m wide.

The FSU will be permanently moored in Ura Guba, and serve as a transhipment point for LNG produced by the Yamal LNG and Arktik LNG 2 projects.

Ice class LNGCs will take the gas from Novatek's production plants to the FSU from where conventional LNGCs will ship it to worldwide destinations.

Ura Guba is situated about 50 km northwest of Murmansk.

Another similar sized FSU is under construction in South Korea, which will be deployed in Kamchatka.

Novatek CEO, Leonid Mikhelson, said; "We hope that the presence of permanent volumes of LNG at these sites will lead to price stabilisation in the market: we hope that both futures and speculative hedging in the LNG market will stabilise," he told news agency Finmarket.

El Musel opens for business

The 174,000 cu m 'Cool Racer' has become the first LNGC to berth at the El Musel LNG terminal at Gijon.

She will undertake the first unloading necessary to complete the final technical tests before the commercial start-up of the terminal.

The unloading operation will have a duration between 72 and 90 hrs.

Logistics services available at El Musel include unloading, storage and loading operations.

The Gijón terminal could contribute up to 8 bill cu m of LNG capacity per year to Europe's security of energy supply. It will handle vessels of between 50,000 and 266,000 cu m, has two LNG stroage tanks of 150,000 cu m capacity each, two truck loading bays with a capacity to load a maximum of 9 GWh/d and a maximum emission capacity of 800,000 Nm3/h.

El Musel received the Certificate of Start-up for Testing by the Industry and Energy Area of the Government Delegation in the Principality of Asturias on 9th June, following the administrative authorisation for its start-up by the Spanish Ministry for the Ecological Transition and the Demographic Challenge.

CEO change at WinGD

Swiss-based marine power company, WinGD, has announced a change in leadership.

After five years at the helm, the current CEO, Klaus Heim, has decided to step down from his role, effective 31st July, 2023.

As a result, the Board has appointed Dominik Schneiter as Acting CEO, which became effective 1st July, 2023.

He brings over three decades of industry experience to the role, having served as WinGD's Vice President of Research and Development for the last seven years.

Ships - Ships, Orders, Deliveries, Recycling

HD Hyundai has reported that Hyundai Samho has won an order for two LNGCs.

In a filing, the company said that the 174,000 cu m vessels will be delivered in 2027.

The order was believed to have been placed by NYK for the equivalent of $262 mill per vessel.

Knutsen recently took delivery of the 174,000 cu m LNGC 'Gordon Waters Knutsen'.

The LNGC is the first of two Knutsen newbuildings to be long-term chartered to Engie.

She is fitted with a GTT Mark III Flex system, a reliquefaction unit, air lubrication system and an ME-GA engine.

Capital Gas Ship Management recently completed the flag registration process for the LNGC 'Aristarchos' to the Greek registry.

'Aristarchos' was built in 2021 at Hyundai Heavy Industries (HHI) shipyard and has a capacity of 174,000 cu m.

The change of flag took place at Taichung, Taiwan.

Brokers have reported that the 1993-built, 87,300 cu m LNGC 'Seapeak Polar' has been committed to undisclosed recyclers.

The price was put at $637 per ldt on the basis of 'as is' Khor Fakkan under Hong Kong Convention (HKC) recycling rules.

More than 14 years since the IMO adopted the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (HKC), it has now been ratified and will enter into force on 26th June, 2025.

This comes after Bangladesh and Liberia signed up to the Convention, which takes it past the percentage of tonnage needed to ratify it.

Once it enters into effect, ships destined for recycling will be required to carry an Inventory of Hazardous Materials (IHM) on board.

Authorised ship recycling facilities will also need to provide a specific Ship Recycling Plan for each individual vessel to be recycled.

The International Chamber of Shipping (ICS) has published a 'Ship Recycling Guide' providing the latest advice to shipowners and other key stakeholders on compliance with the HKC's provisions.

The new guide explains the differences between the European Union Ship Recycling Regulation and the HKC, to help ensure that companies are in compliance with the applicable law. ■

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	$257.34 mill
Five years old (174,000 cu m)	$221.36 mill
Total Fleet (566 ships)	$91.34 bill
Orderbook (321 ships)	$84.97 bill

*Source: VesselsValue (20/06/23)

*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	$70,000	-
West of Suez	$75,000	-
12 mos T/C	$112,500	-$7,500

*Since last report (22/06/23)

Source: Fearnleys (05/07/23)

Shell LNGCs test new navigational platform

Recently, trials were held on a pilot project involving Tel Aviv-based start-up Orca AI's maritime navigation platform utilising a Shell-managed LNGC.

These tests have since developed into a long-term development collaboration, resulting in new features that can significantly enhance safety at sea.

The introduction of tools such as AIS, ARPA, VTS and ECDIS has provided more navigational data, but correct information processing and action response continue to rely on human factors, such as Officers of the Watch (OOWs).

"There has been a hiatus in novel navigational technologies since ECDIS, and serious navigation incidents are still happening. Among our many R&D initiatives we wanted to explore ways to improve situational awareness and to enhance the safety of navigation.

"Our aim has been to come to a deep understanding of how AI technologies can support better decision-making alongside existing systems," explained Saurabh Kumar, Project Engineer at Shell Shipping & Maritime.

In 2019, Shell's maritime R&D department started looking for potential partners with technology that could be installed on deepsea vessels. "Most autonomous ship projects focused on smaller vessels and short voyages, but we wanted something that could be scaled for larger tonnage," Saurabh explained.

Orca AI's automated watchkeeper met Shell's technological requirements, as the system uses a combination of thermal cameras, low-light cameras, and data from on board sensors to create an accurate image of the waters surrounding a ship in real-time.

Advanced computer vision allows it to identify objects and classify them. The AI algorithm continuously learns the environment in order to understand hazardous situations and alert the OOW based on predefined thresholds.

Another deciding factor for Shell was that Orca AI's navigation and collision avoidance system was already mature. As a 'plug n' play' system, there is no requirement for complex retrofits.

Shell project engineer, Saurabh Kumar

Green light

Shell invited Orca AI to work on a six-month pilot that kicked off in November, 2020, with the system installed on a large LNGC.

Saurabh said. "Our ships are like living labs in this respect. We're using every new version on the second LNG carrier with good feedback."

In the first few months of the trials, the insights generated by the Orca AI system were significant. "The crew were expecting enhanced radar capabilities, but they soon saw that Orca AI stands on its own merits. It's especially useful in high-traffic conditions closer to shore," Saurabh said.

Orca AI's CTO and Co-founder, Dor Raviv, said the pilot project was key to proving the credibility and reliability of the platform. "The Shell R&D team prepared internal analysis of navigational performance using data generated by the Orca AI system, including close quarters events, from the vessel," he explained. "The analysis clearly demonstrated the capabilities of our platform to improve safety and they are championing its value internally."

Shell also acted as a catalyst for designing new features of the Orca AI platform, such as its dashboard and monthly reports. Shell is now supporting Orca AI in creating a more relevant product suited to any cargo segment, with a focus on actionable insights, learning and awareness.

Today, ships rely on an optimised route, however, this will not be the case with a semi-autonomous ship. "There are many suppliers of strategic route planning systems, which are of course helpful, but no one else has a solution for tactical navigation based on high-resolution data," Raviv said. "Today, the Captain decides the best collision avoidance manoeuvre. However, our system can recommend a manoeuvre and optimal timing."

Eventually, the software will be integrated with the propulsion system, taking control of the helm under human supervision. This will facilitate time and distance savings that will stack up not only for individual ships but also across fleets. ■

NEWS NUDGE

TMC wins another 12 orders

TMC Compressors (TMC) is to deliver marine compressed air systems to 12 LNGCs being built by Samsung Heavy Industries (SHI) for an undisclosed client.

TMC will deliver a complete marine compressed air system – including control, service air and N2 compressors – to each 174,000 cu m vessel.

TMC will manufacture the equipment in Europe and ship it DSME in South Korea.

OCIMF begins STS transfer guide revision

OCIMF and its co-authors ICS, CDI and SIGTTO is updating the 'Ship to Ship Transfer Guide for Petroleum, Chemicals and Liquefied Gases' (first edition, 2013).

A project plan has been developed to guide the work of revising the publication over the course of the next 12-18 months.

With a tight timeline envisaged, the aim was to have started detailed work by the end of last month.

Open season at Adriatic

Adriatic LNG, operator of Italy's largest LNG regasification terminal, has launched the accreditation phase for Open Season 2023.

This open season offers regasification capacity available between January, 2029 - December 2048 and also possible incremental capacity from the first quarter of 2026 for another 20 years.

A binding phase will begin on 19th July and will end on 2nd August, 2023.

It provides an opportunity to increase LNG imports and, at the same time, diversify sources of supply, thereby fostering greater resilience of the energy system, Adriatic said. ■

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WORLD LNG CARRIER ORDERBOOK

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Hudong-Zhonghua H1829a	CSSC	Hudong-Zhonghua	01/08/2019	174,000	XDF	01/01/2024
Wen Cheng	CSSC	Hudong-Zhonghua	01/08/2019	174,000	XDF	01/04/2024
Alexey Kosygin	Smart LNG	Zvezda SSK	01/09/2019	172,600	TFDE - Azipod	01/03/2024
Pyotr Stolypin	Smart LNG	Zvezda SSK	01/09/2019	172,600	TFDE - Azipod	01/09/2024
Samsung 2315	SinoKor	Samsung	01/12/2019	173,400	XDF	01/12/2023
Samsung 2316	SinoKor	Samsung	01/12/2019	173,400	ME-GA	01/12/2026
Samsung 2317	SinoKor	Samsung	01/12/2019	173,400	ME-GA	01/03/2027
Samsung 2318	SinoKor	Samsung	01/12/2019	173,400	ME-GA	01/06/2027
Kun Lun	ULT	Hudong-Zhonghua	30/06/2020	174,000	XDF	01/04/2023
Lng Harmony	JP Morgan	Hyundai Heavy	20/07/2020	174,000	XDF	01/07/2023
Orion Jessica	JP Morgan	Hyundai Heavy	20/07/2020	174,000	XDF	01/06/2023
Daewoo 2517	MOL, COSCO	DSME	01/08/2020	172,500	TFDE - Azipod	01/11/2023
Daewoo 2518	MOL, COSCO	DSME	01/08/2020	172,500	TFDE - Azipod	01/02/2024
Daewoo 2519	MOL, COSCO	DSME	01/08/2020	172,500	TFDE - Azipod	01/05/2026
Sm Golden Eagle	Korea Line	Hyundai Heavy	12/08/2020	174,000	XDF	01/09/2025
Sm Kestrel	Korea Line	Hyundai Heavy	12/08/2020	174,000	XDF	01/10/2023
Grazyna Gesicka	Knutsen	Hyundai Heavy	30/10/2020	174,000	XDF	01/06/2023
Samsung 2425	Maran Gas Maritime	Samsung	01/11/2020	174,000	XDF	01/08/2023
Hyundai Samho 8100	Knutsen	Hyundai Samho	14/12/2020	174,000	ME-GA	01/11/2024
Orion Sky	JP Morgan	Hyundai Heavy	14/12/2020	174,000	XDF	01/11/2024
New Brave	Pan Ocean	Hyundai Heavy	15/12/2020	174,000	XDF	01/09/2024
New Nature	Pan Ocean	Hyundai Heavy	15/12/2020	174,000	XDF	01/10/2024
Energy Fidelity	Alpha Gas	Hyundai Samho	08/01/2021	174,000	XDF	01/04/2023
Puteri Saadong	Hyundai LNG Shipping	Hyundai Heavy	15/04/2021	174,000	XDF	01/02/2024
Puteri Santubong	Hyundai LNG Shipping	Hyundai Heavy	29/04/2021	174,000	XDF	01/06/2024
Puteri Sejinjang	Hyundai LNG Shipping	Hyundai Heavy	29/04/2021	174,000	XDF	01/07/2024
Gordon Waters Knutsen	Knutsen	Hyundai Samho	30/04/2021	174,000	XDF	01/06/2023
Mulan Spirit	Jovo Energy	Jiangnan	01/05/2021	79,800	XDF	01/12/2023
Samsung 2473	Maran Gas Maritime	Samsung	01/05/2021	174,000	XDF	01/09/2024
Samsung 2474	Maran Gas Maritime	Samsung	01/05/2021	174,000	XDF	01/09/2024
Daewoo 2521	Hyundai LNG Shipping	DSME	28/05/2021	174,000	MEGI	01/09/2023
Clean Destiny	Dynagas	Hyundai Heavy	31/05/2021	200,000	ME-GA	01/11/2023
Clean Future	Dynagas	Hyundai Heavy	31/05/2021	200,000	ME-GA	01/03/2024
Clean Resolution	Dynagas	Hyundai Heavy	31/05/2021	200,000	ME-GA	01/09/2023
Clean Vitality	Dynagas	Hyundai Heavy	31/05/2021	200,000	ME-GA	01/02/2024
MOL Coral	MOL	DSME	01/06/2021	174,000	ME-GA	01/10/2023
Amore Mio I	Capital Gas	Hyundai Heavy	18/06/2021	174,000	ME-GA	01/10/2023
Axios II	Capital Gas	Hyundai Heavy	18/06/2021	174,000	ME-GA	01/12/2023
Celsius Geneva	Celsius Shipping	Samsung	01/07/2021	180,000	ME-GA	01/07/2023
Energy Fortitude	Alpha Gas	Hyundai Samho	01/07/2021	174,000	XDF	01/05/2024
Hyundai Samho 8106	Alpha Gas	Hyundai Samho	01/07/2021	174,000	XDF	01/07/2024
Hyundai Samho 8147	H-Line	Hyundai Samho	01/07/2021	174,000	XDF	01/11/2023
Samsung 2460	Celsius Shipping	Samsung	01/07/2021	180,000	ME-GA	01/10/2023
Samsung 2461	Celsius Shipping	Samsung	01/07/2021	180,000	ME-GA	01/02/2024
Hyundai Samho 8101	Knutsen	Hyundai Samho	13/07/2021	174,000	ME-GA	01/12/2023
Hyundai Samho 8102	Knutsen	Hyundai Samho	13/07/2021	174,000	ME-GA	01/09/2025
Orion Gaugin	JP Morgan	Hyundai Heavy	13/07/2021	174,000	ME-GA	01/09/2025
Orion Hugo	JP Morgan	Hyundai Heavy	13/07/2021	174,000	ME-GA	01/07/2025
New Green	Pan Ocean	Hyundai Heavy	14/07/2021	174,000	ME-GA	01/10/2024
New Oasis	Pan Ocean	Hyundai Heavy	14/07/2021	174,000	ME-GA	01/12/2024

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = 28 March 2023

Fearnley LNG

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Daewoo 2522	Hyundai LNG Shipping	DSME	15/07/2021	174,000	MEGI	01/05/2024
Ignacy Lukasiewicz	Knutsen	Hyundai Samho	22/07/2021	174,000	ME-GA	01/03/2024
Puteri Ledang	Hyundai LNG Shipping	Hyundai Heavy	22/07/2021	174,000	XDF	01/05/2024
Puteri Mahsuri	Hyundai LNG Shipping	Hyundai Heavy	22/07/2021	174,000	XDF	01/11/2024
Puteri Mayang	Hyundai LNG Shipping	Hyundai Heavy	22/07/2021	174,000	XDF	01/01/2025
Saint Barbara	Knutsen	Hyundai Samho	22/07/2021	174,000	ME-GA	01/02/2024
Samsung 2579	Celsius Shipping	Samsung	26/07/2021	180,000	ME-GA	01/04/2024
Samsung 2584	Celsius Shipping	Samsung	01/08/2021	180,000	ME-GA	01/08/2024
Samsung 2585	Celsius Shipping	Samsung	01/08/2021	180,000	ME-GA	01/09/2024
Aktoras	Capital Gas	Hyundai Samho	01/09/2021	174,000	ME-GA	01/07/2024
Hudong-Zhonghua H1838a	K-Line	Hudong-Zhonghua	01/09/2021	79,960	XDF	01/09/2023
Daewoo 2523	MOL	DSME	14/09/2021	174,000	ME-GA	01/02/2024
Daewoo 2524	MOL	DSME	14/09/2021	174,000	ME-GA	01/04/2024
Daewoo 2525	MOL	DSME	14/09/2021	174,000	ME-GA	01/08/2024
Daewoo 2526	MOL	DSME	14/09/2021	174,000	ME-GA	01/10/2024
Daewoo 2527	MOL	DSME	01/10/2021	174,000	ME-GA	01/07/2024
Hudong-Zhonghua H1790a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/09/2024
Hudong-Zhonghua H1791a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/12/2024
Hudong-Zhonghua H1792a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/03/2025
Hudong-Zhonghua H1793a	MOL	Hudong-Zhonghua	01/10/2021	175,000	XDF	01/05/2025
Samsung 2580	NYK	Samsung	01/10/2021	174,000	XDF	01/09/2023
Samsung 2581	NYK	Samsung	01/10/2021	174,000	XDF	01/11/2023
Samsung 2582	NYK	Samsung	01/10/2021	174,000	XDF	01/12/2023
Samsung 2583	NYK	Samsung	01/10/2021	174,000	XDF	01/02/2024
Samsung 2592	JP Morgan	Samsung	01/10/2021	174,000		01/04/2024
Samsung 2593	JP Morgan	Samsung	01/10/2021	174,000		01/07/2024
Samsung 2594	JP Morgan	Samsung	01/10/2021	174,000		01/10/2024
Samsung 2595	JP Morgan	Samsung	01/10/2021	174,000		01/01/2025
Samsung 2596	JP Morgan	Samsung	01/10/2021	174,000	ME-GA	01/11/2024
Samsung 2597	JP Morgan	Samsung	01/10/2021	174,000	ME-GA	01/12/2024
Apostolos	Capital Gas	Hyundai Heavy	04/11/2021	174,000	ME-GA	01/06/2024
Assos	Capital Gas	Hyundai Heavy	04/11/2021	174,000	ME-GA	01/05/2024
Daewoo 2528	Maran Gas Maritime	DSME	10/11/2021	174,000	MEGI	01/08/2024
Daewoo 2529	Maran Gas Maritime	DSME	10/11/2021	174,000	MEGI	01/11/2024
Daewoo 2530	BWGas	DSME	25/11/2021	174,000	MEGI	01/03/2025
Daewoo 2531	BWGas	DSME	25/11/2021	174,000	MEGI	01/05/2025
Samsung 2600	JP Morgan	Samsung	01/12/2021	174,000		01/07/2024
Samsung 2601	JP Morgan	Samsung	01/12/2021	174,000		01/01/2025
Samsung 2598	Celsius Shipping	Samsung	07/12/2021	180,000	ME-GA	01/01/2025
Samsung 2599	Celsius Shipping	Samsung	07/12/2021	180,000	ME-GA	01/05/2025
Hudong-Zhonghua H1834a	ULT	Hudong-Zhonghua	08/12/2021	174,000	XDF	01/09/2024
Hudong-Zhonghua H1835a	ULT	Hudong-Zhonghua	08/12/2021	174,000	XDF	01/12/2024
Hudong-Zhonghua H1836a	ULT	Hudong-Zhonghua	08/12/2021	174,000	XDF	01/03/2025
Samsung 2604	NYK	Samsung	27/12/2021	174,000	XDF	01/12/2024
Daewoo 2532	GasLog	DSME	01/01/2022	174,000	MEGI	01/05/2024
Daewoo 2533	GasLog	DSME	01/01/2022	174,000	MEGI	01/08/2024
Daewoo 2534	GasLog	DSME	01/01/2022	174,000	MEGI	01/06/2025
Daewoo 2535	GasLog	DSME	01/01/2022	174,000	MEGI	01/08/2025
Samsung 2602	H-Line, Pan Ocean, SK Shipping	Samsung	01/01/2022	174,000	ME-GA	01/12/2024
Samsung 2603	H-Line, Pan Ocean, SK Shipping	Samsung	01/01/2022	174,000	ME-GA	01/12/2024

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = 28 March 2023

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Hyundai Samho 8173	SK Shipping	Hyundai Samho	04/01/2022	174,000	ME-GA	01/09/2024
Daewoo 2537	Maran Gas Maritime	DSME	06/01/2022	174,000	MEGI	01/09/2025
Daewoo 2538	Maran Gas Maritime	DSME	06/01/2022	174,000	MEGI	01/11/2025
Hudong-zhonghua H1880a	MOL	Hudong-Zhonghua	07/01/2022	174,000	XDF	01/10/2024
Hudong-zhonghua H1881a	MOL	Hudong-Zhonghua	07/01/2022	174,000	XDF	01/08/2025
Hudong-zhonghua H1882a	MOL	Hudong-Zhonghua	07/01/2022	174,000	XDF	01/10/2025
Hudong-zhonghua H1883a	MOL	Hudong-Zhonghua	07/01/2022	174,000	XDF	01/03/2026
Hudong-zhonghua H1884a	MOL	Hudong-Zhonghua	07/01/2022	174,000	XDF	01/06/2026
Hudong-zhonghua H1885a	MOL	Hudong-Zhonghua	07/01/2022	174,000	XDF	01/09/2026
Daewoo 2536	MOL	DSME	17/01/2022	174,000	ME-GA	01/09/2024
Hyundai Samho 8175	H-Line	Hyundai Samho	26/01/2022	174,000	XDF	01/04/2025
MOL 1	MOL	Samsung	01/02/2022	174,000		01/12/2026
MOL 2	MOL	Samsung	01/02/2022	174,000		01/01/2027
Samsung 2607	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/03/2025
Samsung 2608	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/05/2025
Samsung 2609	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/06/2025
Samsung 2610	H-Line	Samsung	01/02/2022	174,000	ME-GA	01/09/2025
Daewoo 2539	Maran Gas Maritime	DSME	07/02/2022	174,000	MEGI	01/11/2025
Daewoo 2540	Maran Gas Maritime	DSME	07/02/2022	174,000	MEGI	01/12/2025
Hyundai Samho 8170	Hyundai Glovis	Hyundai Samho	21/02/2022	174,000	ME-GA	01/08/2024
Daewoo 2541	Venture Global LNG	DSME	01/03/2022	200,000	ME-GA	01/07/2025
Daewoo 2542	Venture Global LNG	DSME	01/03/2022	200,000	ME-GA	01/10/2025
Daewoo 2543	Venture Global LNG	DSME	01/03/2022	200,000	ME-GA	01/12/2025
Jiangnan H2700	ADNOC	Jiangnan	01/03/2022	175,000	XDF	01/01/2025
Jiangnan H2701	ADNOC	Jiangnan	01/03/2022	175,000	XDF	01/05/2025
Samsung 2619	Celsius Shipping	Samsung	01/03/2022	180,000	ME-GA	01/10/2025
Clean Levant	Dynagas	Hyundai Heavy	02/03/2022	200,000	ME-GA	01/04/2025
Clean Mistral	Dynagas	Hyundai Heavy	02/03/2022	200,000	ME-GA	01/03/2025
Clean Srocco	Dynagas	Hyundai Heavy	02/03/2022	200,000	ME-GA	01/12/2025
Hyundai Samho 8179	Knutsen	Hyundai Samho	31/03/2022	174,000	ME-GA	01/03/2025
Hyundai Samho 8180	Knutsen	Hyundai Samho	31/03/2022	174,000	ME-GA	01/06/2025
Daewoo 2544	BWGas	DSME	01/04/2022	174,000	MEGI	01/11/2025
Daewoo 2545	BWGas	DSME	01/04/2022	174,000	MEGI	01/12/2025
Samsung 2635	TMS Cardiff Gas	Samsung	01/04/2022	174,000	ME-GA	01/09/2024
Samsung 2636	TMS Cardiff Gas	Samsung	01/04/2022	174,000	ME-GA	01/03/2026
Daewoo 2550	MOL	DSME	15/04/2022	174,000	ME-GA	01/09/2025
Daewoo 2551	MOL	DSME	15/04/2022	174,000	ME-GA	01/09/2026
Dalian No 1 G175k-1	China Merchant	Dalian Shipbuilding	19/04/2022	175,000	XDF	01/09/2025
Dalian No 1 G175k-2	China Merchant	Dalian Shipbuilding	19/04/2022	175,000	XDF	01/12/2025
Hyundai Samho 8181	Knutsen	Hyundai Samho	20/04/2022	174,000	ME-GA	01/12/2025
Shanghai Jiangnan Changxing SB H1889A		Hudong-Zhonghua	28/04/2022	174,000	XDF	01/03/2027
Shanghai Jiangnan Changxing SB H1890A		Hudong-Zhonghua	28/04/2022	174,000	XDF	01/05/2027
NYK CNOOC 1	NYK	Hudong-Zhonghua	29/04/2022	174,000		01/04/2027
NYK CNOOC 2	NYK	Hudong-Zhonghua	29/04/2022	174,000		01/03/2027
NYK CNOOC 3	NYK	Hudong-Zhonghua	29/04/2022	174,000		01/01/2027
NYK CNOOC 4	NYK	Hudong-Zhonghua	29/04/2022	174,000		01/05/2026
NYK CNOOC 5	NYK	Hudong-Zhonghua	29/04/2022	174,000		01/08/2026
NYK CNOOC 6	NYK	Hudong-Zhonghua	29/04/2022	174,000		01/11/2026
Jiangnan H2702	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/09/2025
Jiangnan H2703	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/01/2026
Jiangnan H2704	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/06/2026

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 = 28 March 2023

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Jiangnan H2705	ADNOC	Jiangnan	01/05/2022	175,000	XDF	01/09/2026
Samsung 2631	H-Line	Samsung	01/05/2022	174,000	ME-GA	01/07/2025
Samsung 2632	H-Line	Samsung	01/05/2022	174,000	ME-GA	01/12/2025
Samsung 2633	H-Line	Samsung	01/05/2022	174,000	ME-GA	01/01/2026
Hyundai Samho 8188	SK Shipping	Hyundai Samho	16/05/2022	174,000	ME-GA	01/07/2025
Hyundai Samho 8189	SK Shipping	Hyundai Samho	16/05/2022	174,000	ME-GA	01/08/2025
Hyundai Ulsan 3370	SK Shipping	Hyundai Heavy	16/05/2022	174,000	ME-GA	01/02/2025
Hyundai Ulsan 3371	SK Shipping	Hyundai Heavy	16/05/2022	174,000	ME-GA	01/03/2025
Petronas K-line 1	K-Line	Hudong-Zhonghua	17/05/2022	174,000	XDF	01/10/2026
Petronas K-line 2	K-Line	Hudong-Zhonghua	17/05/2022	174,000	XDF	01/12/2026
Petronas K-line 3	K-Line	Hudong-Zhonghua	17/05/2022	174,000	XDF	01/03/2027
Petronas K-line 4	K-Line	Hudong-Zhonghua	17/05/2022	174,000	XDF	01/06/2027
Daewoo 2559	SK Shipping, Pan Ocean, H-Line	DSME	01/06/2022	174,000	ME-GA	01/05/2024
Daewoo 2560	H-Line, Pan Ocean, SK Shipping	DSME	01/06/2022	174,000	ME-GA	01/04/2025
Daewoo 2561	Pan Ocean, SK Shipping, H-Line	DSME	01/06/2022	174,000	ME-GA	01/05/2025
Daewoo 2562	SK Shipping, Pan Ocean, H-Line	DSME	01/06/2022	174,000	ME-GA	01/06/2025
Daewoo 2563	H-Line, Pan Ocean, SK Shipping	DSME	01/06/2022	174,000	ME-GA	01/11/2025
Daewoo 2564	Pan Ocean, SK Shipping, H-Line	DSME	01/06/2022	174,000	ME-GA	01/11/2025
Daewoo 2565	Pan Ocean, SK Shipping, H-Line	DSME	01/06/2022	174,000	ME-GA	01/02/2026
Hyundai Samho 8196	EPS	Hyundai Samho	02/06/2022	174,000	ME-GA	01/09/2024
Hyundai Samho 8197	EPS	Hyundai Samho	02/06/2022	174,000	ME-GA	01/12/2024
Hyundai Ulsan 3380	Knutsen	Hyundai Heavy	03/06/2022	174,000	XDF	01/05/2025
Hyundai Ulsan 3381	Knutsen	Hyundai Heavy	03/06/2022	174,000	XDF	01/06/2025
Daewoo 2546	H-Line, Pan Ocean, SK Shipping	DSME	07/06/2022	174,000	ME-GA	01/12/2024
Daewoo 2547	H-Line, Pan Ocean, SK Shipping	DSME	07/06/2022	174,000	ME-GA	01/12/2024
Daewoo 2548	H-Line, Pan Ocean, SK Shipping	DSME	07/06/2022	174,000	ME-GA	01/01/2025
Daewoo 2549	H-Line, Pan Ocean, SK Shipping	DSME	07/06/2022	174,000	ME-GA	01/02/2025
Daewoo 2552	Maran Gas Maritime	DSME	08/06/2022	174,000	MEGI	01/05/2026
Daewoo 2553	Maran Gas Maritime	DSME	08/06/2022	174,000	MEGI	01/06/2026
Agamemnon	Capital Gas	Hyundai Samho	14/06/2022	174,000	ME-GA	01/03/2026
Archimidis	Capital Gas	Hyundai Samho	14/06/2022	174,000	ME-GA	01/01/2026
Samsung 2634	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/05/2025
Samsung 2637	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/07/2025
Samsung 2638	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/08/2025
Samsung 2641	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/11/2025
Samsung 2642	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/01/2026
Samsung 2643	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/02/2026
Samsung 2644	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/05/2026
Samsung 2645	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/06/2026
Samsung 2646	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/07/2026
Samsung 2647	JP Morgan	Samsung	15/06/2022	174,000	ME-GA	01/08/2026
Hudong-Zhonghua H1892A	COSCO	Hudong-Zhonghua	01/07/2022	174,000	XDF	01/10/2025
Hudong-Zhonghua H1893A	COSCO	Hudong-Zhonghua	01/07/2022	174,000	XDF	01/03/2026
Hyundai Samho 8200	TMS Cardiff Gas	Hyundai Samho	06/07/2022	174,000	XDF	01/03/2026

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Data last updated = 28 March 2023

Fearnley LNG

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Hyundai Samho 8201	TMS Cardiff Gas	Hyundai Samho	06/07/2022	174,000	XDF	01/08/2026
Hyundai Ulsan 3382	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/07/2025
Hyundai Ulsan 3383	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/11/2025
Hyundai Ulsan 3384	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/02/2026
Hyundai Ulsan 3385	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/04/2026
Hyundai Ulsan 3386	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/05/2026
Hyundai Ulsan 3387	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/08/2026
Hyundai Ulsan 3393	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/10/2026
Hyundai Ulsan 3394	Knutsen	Hyundai Heavy	06/07/2022	174,000	XDF	01/11/2026
Hyundai Samho 8049	NYK	Hyundai Samho	01/08/2022	174,000	XDF	01/03/2025
Hyundai Samho 8174	NYK	Hyundai Samho	01/08/2022	174,000	XDF	01/10/2025
Hyundai Ulsan 3395	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	09/08/2022	174,000	XDF	01/08/2025
Hyundai Ulsan 3396	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	09/08/2022	174,000	XDF	01/12/2025
Hyundai Ulsan 3397	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	09/08/2022	174,000	XDF	01/01/2026
Hyundai Ulsan 3398	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	09/08/2022	174,000	XDF	01/07/2026
Hyundai Ulsan 3399	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	09/08/2022	174,000	XDF	01/09/2026
Hyundai Ulsan 3400	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	09/08/2022	174,000	XDF	01/12/2026
Hyundai Ulsan 3401	NYK, MISC, K-Line, China LNG Shipping Holdings	Hyundai Heavy	09/08/2022	174,000	XDF	01/12/2026
DAEWOO 2558	MOL	DSME	01/09/2022	174,000	ME-GA	01/09/2026
Dalian No 1 G175k-3	China Merchant	Dalian Shipbuilding	01/09/2022	175,000	XDF	01/11/2025
Dalian No 1 G175k-4	China Merchant	Dalian Shipbuilding	01/09/2022	175,000	XDF	01/01/2026
Hudong-Zhonghua H1794A	MOL	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/02/2027
Hudong-Zhonghua H1795A	MOL	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/07/2027
Hudong-Zhonghua H1796A	MOL	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/12/2027
Hudong-Zhonghua H1797a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/09/2025
Hudong-zhonghua H1798a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/11/2025
Hudong-zhonghua H1799a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/02/2026
Hudong-zhonghua H1800a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/05/2026
Hudong-zhonghua H1801a	NYK, MISC, K-Line, China LNG Shipping Holdings	Hudong-Zhonghua	01/09/2022	174,000	XDF	01/07/2026
Samsung 2611	H-Line, Pan Ocean, SK Shipping	Samsung	01/09/2022	174,000	ME-GA	01/01/2025
Samsung 2612	H-Line, Pan Ocean, SK Shipping	Samsung	01/09/2022	174,000	ME-GA	01/03/2025
Samsung 2639	JP Morgan	Samsung	01/09/2022	174,000	ME-GA	01/09/2025
Samsung 2640	JP Morgan	Samsung	01/09/2022	174,000	ME-GA	01/09/2025
MOL ENN 1	MOL	Hudong-Zhonghua	08/09/2022	174,000		01/06/2027
MOL ENN 2	MOL	Hudong-Zhonghua	08/09/2022	174,000		01/10/2027
MOL ENN 3	MOL	Hudong-Zhonghua	08/09/2022	174,000		01/12/2027
Dalian n5	China Merchant	Dalian Shipbuilding	26/09/2022	175,000	XDF	01/04/2026
Dalian n6	China Merchant	Dalian Shipbuilding	26/09/2022	175,000	XDF	01/02/2025
Daewoo 2566	Meiji Shipping	DSME	30/09/2022	174,000	XDF	01/08/2025
Daewoo 2567	Meiji Shipping	DSME	30/09/2022	174,000	XDF	01/09/2025

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Data last updated = 28 March 2023

Fearnley LNG

Name	Owners	Yard	Ordered	Capacity	Propulsion	Delivery
Daewoo 2568	Meiji Shipping	DSME	30/09/2022	174,000	XDF	01/06/2026
Daewoo 2569	Meiji Shipping	DSME	30/09/2022	174,000	XDF	01/09/2026
DAEWOO 2570	MISC	DSME	30/09/2022	174,000	XDF	01/01/2026
DAEWOO 2571	MISC	DSME	30/09/2022	174,000	XDF	01/05/2026
Daewoo 2572	TMS Cardiff Gas	DSME	30/09/2022	174,000	ME-GA	01/03/2026
Daewoo 2573	TMS Cardiff Gas	DSME	30/09/2022	174,000	ME-GA	01/06/2026
MISC EM 1	MISC	Samsung	30/09/2022	174,000	XDF	01/06/2026
MISC EM 2	MISC	Samsung	30/09/2022	174,000	XDF	01/08/2026
Samsung 2651	Celsius Shipping	Samsung	01/10/2022	180,000	ME-GA	01/12/2025
Hyundai Samho 8182	TMS Cardiff Gas	Hyundai Samho	17/10/2022	174,000	XDF	01/01/2026
VG 1	Venture Global LNG	DSME	21/10/2022	200,000	ME-GA	01/10/2026
VG 2	Venture Global LNG	DSME	21/10/2022	200,000	ME-GA	01/12/2026
Shandong 1	Shandong Marine	Jiangnan	26/10/2022	175,000		01/03/2027
Shandong 2	Shandong Marine	Jiangnan	26/10/2022	175,000		01/05/2027
Shandong 3	Shandong Marine	Jiangnan	26/10/2022	175,000		01/12/2027
Yangzijiang 1	Hammonia Reederei	Yangzijiang	26/10/2022	175,000	ME-GA	01/10/2025
Yangzijiang 2	Hammonia Reederei	Yangzijiang	26/10/2022	175,000	ME-GA	01/03/2026
Wideshine 2	CSSC	Hudong-Zhonghua	27/10/2022	174,000	XDF	01/03/2028
Wideshine 3	CSSC	Hudong-Zhonghua	27/10/2022	174,000	XDF	01/06/2028
Wideshine 4	CSSC	Hudong-Zhonghua	27/10/2022	174,000	XDF	01/09/2028
Samsung 2652	Minerva Marine	Samsung	01/11/2022	174,000	ME-GA	01/02/2026
Samsung 2653	Minerva Marine	Samsung	01/11/2022	174,000	ME-GA	01/03/2026
Samsung 2656	Seapeak	Samsung	15/11/2022	174,000	ME-GA	01/03/2027
Samsung 2657	Seapeak	Samsung	15/11/2022	174,000	ME-GA	01/05/2027
Samsung 2658	Seapeak	Samsung	15/11/2022	174,000	ME-GA	01/08/2027
Samsung 2659	Seapeak	Samsung	15/11/2022	174,000	ME-GA	01/09/2027
Samsung 2660	Seapeak	Samsung	15/11/2022	174,000	ME-GA	01/12/2027
Dalian 7	China Merchant	Dalian Shipbuilding	05/12/2022	175,000	XDF	01/12/2026
Dalian 8	China Merchant	Dalian Shipbuilding	05/12/2022	175,000	XDF	01/06/2027
Celsius 1	Celsius Shipping	China Merchants HI Jiangsu	31/12/2022	180,000	ME-GA	01/01/2026
Celsius 2	Celsius Shipping	China Merchants HI Jiangsu	31/12/2022	180,000	ME-GA	01/03/2026
Celsius 3	Celsius Shipping	China Merchants HI Jiangsu	31/12/2022	180,000	ME-GA	01/05/2026
Celsius 4	Celsius Shipping	China Merchants HI Jiangsu	31/12/2022	180,000	ME-GA	01/07/2026
Hyundai Samho 8204	Oman Shipping Co.	Hyundai Samho	01/01/2023	174,000		01/01/2026
Hyundai Samho 8205	Oman Shipping Co.	Hyundai Samho	01/01/2023	174,000		01/04/2026
Hyundai Ulsan 3433	Dynagas	Hyundai Heavy	16/01/2023	200,000	XDF	01/04/2026
Hyundai Ulsan 3434	Dynagas	Hyundai Heavy	16/01/2023	200,000	XDF	01/07/2026
Hyundai Ulsan 3435	Dynagas	Hyundai Heavy	16/01/2023	200,000	XDF	01/11/2026
Hyundai Samho 8202	Capital Gas	Hyundai Samho	18/01/2023	174,000	ME-GA	01/09/2026
Hyundai Samho 8203	Capital Gas	Hyundai Samho	18/01/2023	174,000	ME-GA	01/11/2026
DAEWOO 2580	MOL	DSME	13/02/2023	174,000	ME-GA	01/03/2027
DAEWOO 2574	Maran Gas Maritime	DSME	01/03/2023	174,000	MEGI	01/09/2026
DAEWOO 2575	Maran Gas Maritime	DSME	01/03/2023	174,000	MEGI	01/12/2026
Samho Mar 1	NYK	Hyundai Samho	02/03/2023	174,000		01/08/2027
Samho Mar 2	NYK	Hyundai Samho	02/03/2023	174,000		01/10/2027
Samho Mar 3	NYK	Hyundai Samho	02/03/2023	174,000		01/12/2027

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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	Seapeak Unikum	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2015	JS Ineos Ingenuity	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Insight	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Intrepid	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	JS Ineos Independence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Innvovation	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Inspiration	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	Anthony Veder
2017	Coral EnergICE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	Coral Encanto	30,000	LNG	China	Yes	Anthony Veder
2017	JS Ineos Invention	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	JS Ineos Intuition	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	Oizmendi	600	LNG	Spain	Yes	Itsas Gas
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	Green Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	New Frontier 1	6,500	LNG	Northwest Europe	Yes	Shell
2018	Kairos	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	LNG London	3,000	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2018	Bunker Breeze	1,200	LNG	Barcelona	Yes	Suardiaz Energy Shipping
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang

Data last updated = 5 June 2023 | For more information please visit http://small-lng.com.

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Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2019	Blue Whale	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	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	Xin Ao Pu Tuo Hao	8,500	LNG	China	Yes	ENN
2022	Coral Nordic	30,000	LNG	Worldwide	Yes	Anthony Veder
2022	Avenir Achievement	20,000	LNG	Worldwide	Yes	Avenir LNG
2022	Haugesund Knutsen	5,000	LNG	Spain	Yes	Knutsen OAS
2022	Clean Cañaveral	5,400	LNG	USG	Yes	PNE
2022	K.Lotus	18,000	LNG	Korea	Yes	K Line
2023	Cryopeak TBA	4,000	LNG	West Canada	Yes	Cryopeak
2023	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	Alice Cosulich	8,000	LNG	Mediterranean	Yes	Fratelli Cosulich
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	PNE TBN	5,500	LNG	USG	Yes	PNE
2023	FueLNG Venosa	18,000	LNG	Singapore	Yes	FuelLNG
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2024	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2024	TBN	30,000	LNG	Australia	Yes	Anthony Veder ?
2024	Crowley TBN	12,000	LNG	US Coast	Yes	Crowley Maritime
2024	CNOOC TBN	12,000	LNG	China	Yes	CNOOC
2024	TBN	12,500	LNG	Worldwide	Yes	???
2024	Keys TBN	3,500	LNG	Japan	Yes	Keys Bunkering West Japan Co
2024	Seaspan TBN 1	7,600	LNG	Canada	Yes	Seaspan ULC
2024	Fratelli Cosulich TBN	8,000	LNG	Mediterranean	Yes	Fratelli Cosulich
2024	Anhui Changjiang TBN	14,000	LNG	China	Yes	Anhui Changjiang LNG
2024	LNG Erasmus	8,000	LNG	NWE	Yes	Shell
2025	Seaspan TBN 2	7,600	LNG	Canada	Yes	Seaspan ULC
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG

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