LNG Shipping News

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Ukraine - US and EC sign mega gas deal

Last Friday, the US and EC rubber stamped a historic agreement to ensure that Europe has enough gas storage ahead of the next two winters.

A joint Task Force on Energy Security will be established, which will be chaired by US White House and EC President representatives.

It will focus on:

- Ensuring additional LNG volumes of at least 15 bill cu m this year for the EU with expected increases going forward.
- To reduce the greenhouse gas intensity of all new LNG infrastructure and associated pipelines, through the use of clean energy to power onsite operations, the reduction of methane leakage and the construction of clean and renewable hydrogen ready infrastructure.
- The US will commit to review and act upon applications to permit any additional export LNG capacities to terminate EU dependence on Russian fossil fuels by 2027.
- The EC will also work with EU members to accelerate procedures to approve LNG import infrastructure, including onshore facilities and related pipelines to support imports using FSRUs and fixed LNG import terminals.
- Demand will be pooled through a newly established EU Energy platform for extra volumes between April and October, 2022. Long-term contracting mechanisms will be supported and EU members will partner with the US for the relevant contracting to support final investment decisions (FIDS) on both the LNG export and import infrastructures.
- The EC will also work towards more US LNG until at least 2030 amounting to around 50 bill cu m per annum. The price formula should reflect long-term market fundamentals, demand and supply stability and should be linked to the Henry Hub spot price and other stabilising factors.
- The EC has proposed energy storage regulations to ensure that the existing storage facilities are up to 90% full by 1st November each year, with specific phase-in provisions for 2022. ■

> **"Demand will be pooled through a newly established EU Energy platform for extra volumes between April and October, 2022"**

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Ukraine - Extra US LNG exports - comments

The US LNG deal with Europe has led to more questions than answers (see page 1).

For example, how will the US export the extra gas when its terminals are almost running at full capacity? Can European terminals cope with the extra imports? Are there enough LNGCs to ship the extra gas, given that the Russian controlled fleet is sanctioned?

Rob Thummel, Tortoise Senior PM and Managing Director commented on how to achieve the US' extra LNG exports.

"How to achieve 15 bill cu m of additional LNG exports by the end of 2022? Today, the US is exporting record levels of LNG with Europe the top destination of US LNG for the past three months. The US has become the largest exporter of LNG in the world, surpassing Qatar.

"How about the 50 bill cu m - is it achievable? The US has the natural gas supply and is energy independent in terms of natural gas. In other words, the US produces more natural gas than it consumes domestically and it can produce more natural gas that could be available to export.

"The US will need to build additional infrastructure, such as pipelines and LNG export facilities to facilitate additional LNG exports. In addition, members of the EU will need to build additional LNG import facilities to displace natural gas that is transported via pipeline from Russia.

"What are the companies to watch? Cheniere Energy is the largest exporter of natural gas in the US. Cheniere announced an expansion earlier this month that will add to its LNG export capacity in 2025. Shell is one of the largest LNG companies in the world. Shell buys a lot of LNG, including from Cheniere and sells LNG to countries and companies across the world.

"Currently, LNG prices in Europe are higher than in Asia, so expect an increase in LNG supplies to Europe as a result. In general, LNG prices in Europe and Asia are high - seven times higher than in the US.

"LNG consumers in Asia might elect to switch back to cheaper, domestic coal in the short term, which would allow for additional LNG supplies to be re-directed away from Asia and towards Europe. However, the consequence would be higher global carbon emissions.

"In terms of energy security, the US has a significant supply of natural gas that can be exported to other countries around the world, displacing Russia produced natural gas and enhancing global energy security," Thummel concluded.

Cheniere could benefit from the US/EC deal

Vague agreement

Quinn Kiley, Managing Director and Energy Portfolio Manager at Tortoise said in a podcast that the US/EC agreement was vague and the source of supplies was unclear.

Importantly, FERC announced it would slow walk the implementation of new permitting guidelines that would consider greenhouse gas emissions as part of its process.

It is clear that the US and others must accelerate development of energy supplies quickly to offset the impact of current and future sanctions on Russian energy supply, he said.

Andreas Silcher of law firm, Haynes Boone, added; "This new agreement is significant, as the additional 15 bill cu m to be supplied from this year already can potentially replace all of the Russian gas currently imported by the EU in the form of LNG.

"However, it comes at a high price, as the EU will have to invest heavily, not only in the development of its LNG terminals and regasification facilities but also in intra-European pipelines to transport the regasified LNG.

"I don't know on what terms the additional gas is being sold but it will be interesting to see if its transportation can be managed by diverting existing shipping capacities, or if it will require additional tonnage," he said. ■

Ukraine - Dynagas outlines its position

Due to the ongoing Russian conflicts with Ukraine, the US, European Union (EU), Canada and other Western countries and organisations have announced and enacted numerous sanctions against Russia.

As of 17th March and to Dynagas' knowledge, the Partnership is in compliance with all applicable US and EU sanctions. Current sanctions regimes have exempted certain LNG shipping operations and do not materially affect its business, operations or financial condition, the company said in its results roundup (see page 8).

The Partnership's counterparties are currently performing their obligations under their respective timecharters in compliance with applicable US and EU rules and regulations. Sanctions legislation is changing rapidly and the Partnership said that it is continuously monitoring the ongoing situation.

The full impact of the commercial and economic consequences of the Russian conflict with Ukraine are uncertain at this time. Dynagas said that it could not provide any assurance that any further development in sanctions, or escalation of the Ukraine situation more generally, would not have a significant impact on its business, financial condition or operational results. ■

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Ukraine - UK sanctions SCF

Last week, the UK joined other countries in slapping sanctions on Russia's LNGCs and other ship types operated by SCF.

The company was reported to be already struggling to find berths to discharge its oil and gas cargoes.

Since Moscow's invasion of Ukraine on 24th February, shipping sources told newswires that it has faced growing challenges in concluding charters, as ports, end purchasers, marine insurers and other freight companies stop undertaking Russian business.

Maria Angelicoussis, Angelicoussis Group CEO, told the FT Commodities Global Summit last week that SCF's fleet was "facing issues", while also pointing to the wider trend of "big hesitancy" among shipowners to carry Russian cargoes.

Earlier, the EU had listed SCF among Russian state-owned companies with which it was "prohibited to directly or indirectly engage in any transaction" after a wind down period ends on 15th May.

Canada added SCF to a list of designated entities in February while the US has restricted it from raising capital in its financial markets.

Meanwhile, before the Ukraine invasion, SCF reported a 2021 full year revenue of $1.54 bill, compared to $1.65 bill for the previous year.

Net earnings from trading vessels was $757 mill, compared with 984 mill in 2020, while the adjusted profit for the year was $61.8 mill, compared with $300.6 mill.for the previous year.

EBITDA for 2021 was $678.5 mill, compared to $912.8 mill for the previous 12 months.

A strong performance from the Group's industrial fleet offset weakness in the conventional tanker fleet last year and helped drive the Group's adjusted net profit.

SCF's contract backlog rose by a further $0.4 bill over the reporting period and the total contract backlog stood at $24 bill as of 31st December, 2021, before the Ukraine conflict started.

An SCF LNGC won't be seen at Gate for a little while

The Group's industrial business portfolio, comprising LNG and LPG vessels and harsh environment offshore services (ice class shuttle tankers and icebreaking supply and standby vessels) continued to show stable growth, due to the input from new vessels entering service and employed under long-term contracts with international energy majors.

Industrial business delivered 6.3% year-on-year revenue growth, SCF said. ■

Energy Transfer ties up Chinese buyer

ENN Natural Gas (ENN NG) and ENN Energy Holdings have signed two LNG Sale and Purchase Agreements (SPAs) with Energy Transfer LNG Export, a subsidiary of Energy Transfer (ET), related to the Lake Charles LNG project.

Under the SPAs, ET LNG is expected to supply 1.8 mil tonnes of LNG to ENN NG and 0.9 mill tonnes of LNG to ENN Energy, per annum on a free-on-board (FOB) basis for a price indexed to the Henry Hub benchmark, plus a fixed liquefaction charge.

Both SPAs are for 20 year periods and the first deliveries are expected to commence in 2026. They will become fully effective upon the satisfaction of the conditions precedent by ET LNG, including reaching FID.

"The signing of these long-term SPAs will further enrich ENN's LNG resources, expand resource supply channels, and improve ENN's natural gas supply capacity to meet the rapidly growing natural gas demand in the domestic market," said Zheng Hongtao, President of ENN NG and Vice Chairman of the Board of Directors of ENN Energy Holdings. "It also provides our customers with better resources and services, ensures natural gas supply nationwide, and contributes to the low-carbon transformation of energy structure."

> **"...we are optimistic that we will be in a position to take a positive FID by year end..."**
>
> *- Tom Mason, ET President*

"We are very pleased to have ENN as a customer. The execution of these two SPAs represents a significant event in moving the Lake Charles LNG project towards FID. We are experiencing strong demand for long-term offtake contracts for Lake Charles LNG and we are optimistic that we will be in a position to take a positive FID by year end," added Tom Mason, ET President. "The Lake Charles LNG project is expected to be financed primarily through infrastructure funds and strategic partners, with Lake Charles LNG retaining an equity stake and operatorship of the liquefaction facility," he said.

Lake Charles LNG will be constructed on the existing brownfield regasification facility and will utilise four existing LNG storage tanks, two deepwater berths and other LNG infrastructure.

The site will also benefit from its direct connection to ET's existing Trunkline pipeline system that provides connections to multiple intrastate and interstate pipelines.

ENN NG has an annual LNG distribution capacity of over 10 bill cu m and operates the first large-scale private LNG terminal in China - Zhoushan LNG Terminal.

Last year, ENN NG's total natural gas sales totalled 37.2 bill cu m, accounting for around 10% of China's natural gas consumption. ■

LNGC demurrage and boil-off claims

Demurrage and boil-off claims are common in LNG spot cargo trading transactions.

Law firm, Clyde & Co has investigated claims from sellers regarding DAP (Delivered At Place) or DES (Delivered Ex Ship) deliveries where the seller is responsible for delivering the LNG cargoes and highlighted the tips and pointers for buyers when reviewing these claims *post facto* or when negotiating the relevant provisions of an LNG Master Sale and Purchase Agreement (MSPA).

First, a buyer facing such a claim needs to gather all the relevant documentation. These include the MSPA, the confirmation notice, any email exchanges between the buyer and the seller, which may record the amendments made to the MSPA or Confirmation Notice, the port log, statement of facts issued by the port administration, the notice of readiness and the discharge report.

The MSPA usually includes a 'Disputed Invoices' clause indicating that, in the event a party disagrees with any invoice, the party may pay the portion of the invoice not in dispute or it shall make provisional payment of 100% of the total amount.

The same clause will also set out how long the buyer will have to contest the invoice and notify the seller of the reasons for the disagreement. This can range from 14 to 90 days and will have practical consequences for the buyer to consult with its legal advisor and formulate its response.

Demurrage corresponds to any laytime used in unloading a ship (Used Laytime), which exceeds the laytime to be allowed at the discharge port for the seller to unload the LNG without any additional costs for the buyer (Allowed Laytime).

- **How long is the Allowed Laytime?** - The Allowed Laytime for a specific delivery will be set out in the Confirmation Notice and usually ranges from 24 to 48 hours.
- **What are the starting point and the ending point of the Used Laytime?** - The MSPA's schedule will offer guidance as to the calculation. The beginning of the Used Laytime usually hinges on the delivery window, which may be amended several times between the seller and the buyer before the ship's actual arrival. The consent of the parties may not always be clearly recorded and this is where disputes can arise.

The Used Laytime will usually end when the last unloading arm and vapour arm is disconnected and the LNGC is cleared for departure and able to sail.

- **In which situations can the Used Laytime be extended?** - The MSPA will certainly include provisions by which any time lost as a result of certain events shall be added to Allowed Laytime and the list of such events can vary significantly.

For example, adverse weather conditions can be invoked by the buyer to justify the delay but will need to be properly documented (eg, by a port log). It is important to note that if the adverse weather conditions have only delayed the ship's arrival before the buyer's ship - and not the buyer's ship itself - it will be more arduous to request additional laytime based on this argument alone. In this situation, the exception of 'vessel traffic' would be of a greater help.

- **What is the applicable demurrage rate?** - The demurrage rate will be included by the parties in the Confirmation Notice. They can decide to set out the demurrage rate as a fixed rate per hour or as a simple average of rates published by S&P Global over a certain period prior to the start of the delivery window.

Paying for wasted gas

- **What are the starting point and the ending point of the time on boil-off?** - Depending on the MSPA, the time on boil-off will be calculated similarly to the time on demurrage or differently with an ending point set at the commencement of unloading. In the latter case, the boil-off will then only be due if such time on boil-off exceeds a certain leeway set out in the MSPA - between 24 and 48 hours.
- **In which situations can the time on boil-off be reduced?** - When the time on boil-off and the time on demurrage are calculated separately, the time on boil- off might be significantly shorter than the time on demurrage. However, the exceptions used to increase the Allowed Laytime for the demurrage will not apply to the boil-off.

If the time on demurrage and time on boil-off are calculated in the same manner, certain circumstances applicable to the time on demurrage - such as adverse weather conditions - can be used to minimise the time on boil off as well.

- **What is the applicable boil-off rate?** - The boil-off rate is usually set out in the Confirmation Notice of between 0.1% and 0.15% of the vessel capacity per day *pro rata* on an hourly basis for partial days.

In addition, buyers are advised to put in place a risk management system to allow its legal and commercial teams to manage and co-ordinate the discussions and communications in respect of potential demurrage and boil-off claims. ■

NextDecade and Guangdong Energy sign HoA

NextDecade Corp has signed a binding Heads of Agreement (HoA) with Guangdong Energy Group Natural Gas for the long-term supply of LNG over 20 years.

The LNG will be exported from NextDecade's Rio Grande LNG export project at Brownsville, Texas.

Guangdong Energy will purchase up to 1.5 mill tonnes per annum of LNG indexed to Henry Hub.

Supplies will initially be from Rio Grande LNG Train 1, which is expected to start commercial operations in 2026.

Under the HoA, Guangdong Energy and NextDecade will complete a Sale and Purchase Agreement (SPA) in the second quarter of this year.

"We are honoured to have Guangdong Energy as the second foundation customer of our Rio Grande LNG project and our first Chinese customer," said Matt Schatzman, NextDecade's Chairman and CEO. "Guangdong Energy is one of the largest power generation enterprises in Guangdong and we are pleased they have entrusted us to supply their rapidly growing business."

"We are pleased to be entering into a long-term SPA with NextDecade. Henry Hub-linked LNG will be an important part of our LNG portfolio as we transit to a greener future and optimise our resource procurement," added Zhu Zhanfang, Chairman of Guangdong Energy Natural Gas. "We look forward to a long lasting and fruitful co-operation with NextDecade, not necessarily just in LNG supply, but potentially in carbon capture and storage as well."

Assuming it negotiates further LNG contracting and financing, NextDecade said that it anticipated making a positive final investment decision (FID) on a minimum of two trains at Rio Grande LNG in the second half of 2022. ■

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Shell to take Brunsbüttel LNG

German LNG Terminal and Shell have signed a Memorandum of Understanding (MoU) on LNG imports at the planned terminal at Brunsbüttel on the River Elbe.

Shell is to take German LNG

Under the MoU, it was agreed that Shell will make a long-term commitment to offtake a substantial part of the Brunsbüttel terminal's import capacity.

Both parties are currently working towards a binding agreement on the scope and duration of their partnership and hope to complete it as soon as possible, they said.

"The signed MoU with Shell, as well as the noticeable increase in interest from the market, demonstrates the importance of the import terminal in Brunsbüttel," said Dr Michael Kleemiß, German LNG Terminal Managing Director.

"We are looking forward to working with Shell as another partner in the coming years and will do everything in our power to drive planning and implementation forward rapidly. In doing so, the terminal will not only contribute to energy supply security in Germany, but also, in perspective, to the necessary climate-neutral energy supply," he said.

Fabian Ziegler, Shell's German Managing Director, said: "I am delighted with our agreement with German LNG Terminal. It is a key step in contributing to security of supply in Germany in the near term, as well in more widely in Europe.

"LNG is the most flexible form of gas supply, which can adapt quickly to shifting trade patterns and our diverse and flexible global supply portfolio enables us to deliver and import LNG efficiently where it is needed the most.

"With LNG, we are helping to meet energy demand, as well as helping to limit CO2 emissions – a crucial part of the energy transition – as natural gas is the cleanest-burning hydrocarbon. And in future the terminal should be convertible to hydrogen or derivatives, such as ammonia."

Multi-functional terminal

German LNG Terminal plans to build and operate a combined import and distribution terminal at Brunsbüttel. It will have an annual throughput capacity of 8 bill cu m of natural gas.

The terminal will consist of two LNG storage tanks of 165,000 cu m capacity each, a jetty with two berths for LNGCs of up to Q-Max size and smaller LNGCs, as well as facilities for unloading and loading the ships, regasification facilities and subsequent injection into the German high-pressure natural gas grid, as well as facilities for loading into tanker trucks, rail tank cars and LNG bunker ships for distribution.

The future import of hydrogen or hydrogen derivatives will also be taken into account from the outset in order to prepare suitable plant components for the potential import of alternative energy sources.

Earlier this month, the Kreditanstalt für Wiederaufbau (KfW) on behalf of the German government, Dutch Gasunie LNG Holding and RWE signed a MoU to jointly promote the terminal's construction and operation.

The terminal will be operated by Gasunie. ■

Germany turns to Qatar

Germany and Qatar are negotiating a long-term energy partnership, government officials from both countries confirmed last week.

Germany claimed that the partnership had been agreed, but Qatar stopped short of saying a deal had been finalised, Reuters reported.

Russia is the largest supplier of gas to Germany and as a result, German Economy Minister, Robert Habeck, has launched several initiatives to lessen his country's energy dependence on Russia since the invasion of Ukraine.

Germany is looking to Qatar once its terminals are built

Qatar's Emir Sheikh Tamim bin Hamad al-Thani met Minister Habeck on 20th March and the two discussed ways to enhance bilateral relations, particularly in the energy sector, the Emiri Court said in a statement.

Both countries' companies "would re-engage and progress discussions on long term LNG supplies," according to a statement by QatarEnergy, the state-owned oil and gas firm, seen by Reuters.

"The companies that have come to Qatar with (Habeck) will now enter into contract negotiations with the Qatari side," a spokesperson for the German Economics Ministry told the newswire.

In a statement, Qatar said that for years it had sought to supply Germany but discussions had not led to any concrete agreements.

Minister Habeck also met Qatari Minister of State for Energy Affairs, Saad Sherida Al-Kaabi in Doha, where they discussed energy relations and co-operation between Qatar and Germany and ways to enhance them, according to a statement from the Qatari ministry. ■

NFE to take Venture Global LNG

New Fortress Energy (NFE) has signed two 20-year Sale and Purchase Agreements (SPA) with Venture Global LNG for 1 mill tonnes per annum each.

Under the deals, LNG will be supplied on a free on board (FOB) basis from its export facilities at Plaquemines and from the CP2 LNG facility, located in Cameron Parish, adjacent to its existing Calcasieu Pass terminal.

This is the first SPA for the CP2 LNG facility, which Venture Global expects to start building next year. With these agreements, the company has executed over 80% of long-term 20-year contracts signed by US LNG companies since 2017.

"We are pleased to partner with Venture Global as we advance our mission of providing customers around the world with access to low-carbon natural gas and affordable electricity," said Wes Edens, NFE Chairman and CEO. "These volumes support our plan to expand and diversify our stable natural gas supply portfolio to meet the growing needs of our customers in a structurally short global natural gas market."

In December, 2021, Venture Global filed a formal application requesting authorisation from the Federal Energy Regulatory Commission (FERC) to site, construct, and operate the 20 mill tonnes per annum nameplate capacity CP2 LNG terminal.

"Venture Global is proud to enter into a long-term LNG partnership with New Fortress Energy. Our companies share a commitment to keeping energy markets well supplied while also advancing clean energy goals, through the export of low-cost US LNG to emerging economies," said Mike Sabel, Venture Global LNG CEO. "The CP2 LNG facility, adjacent to Calcasieu Pass, will build on our vision of making Louisiana an international hub for innovation to enhance global energy security."

Each agreement is still the subject to customary terms and conditions.

Venture Global also announced several milestones for Plaquemines LNG pre-FID activities:

- Expected to soon take formal FID and close project financing.
- Launched construction in August, 2021, due to historic market demand and robust financial support for the project.
- Sold 14 mill tonnes of the 20 mill tonnes per annum nameplate capacity. The company expects to announce contracts for the remaining capacity in the coming weeks.
- Awarded engineering and procurement contracts to companies, including KZJV, Baker Hughes, UOP Honeywell and CB&I.

"In today's global market, execution and speed matter, and Venture Global is uniquely positioned to quickly deliver US LNG capacity to meet the world's growing demand for energy," Sabel added. "With that in mind-and building on the successful record of 29 months from FID to first LNG production at Calcasieu Pass- our company has moved forward with an expedited schedule for Plaquemines.

"While we conclude the project financing process, we have taken a number of steps to accelerate our project, including the award of major EPC contracts and launching construction in the fall of 2021," he said. ■

Bechtel gets Driftwood go ahead

Tellurian has issued a limited notice to proceed to Bechtel Energy under its executed Engineering, Procurement and Construction (EPC) contract.

This allows the construction of phase one of the Driftwood LNG terminal to begin near Lake Charles, Louisiana.

President and CEO, Octávio Simões said, "Energy security is a leading concern in many countries today and the US must do our part to supply LNG to the global market as quickly as possible.

"Beginning construction now allows Tellurian to deliver upon our robust schedule for first LNG in 2026 while we complete the project financing. We are well advanced in Driftwood LNG's detailed engineering and major equipment orders, and we have completed all the owners' projects required for us to turn the site over to Bechtel," he said.

Craig Albert, Bechtel's COO, said, "We are very proud and honoured to continue our long partnership with Tellurian on the Driftwood LNG project. It is as apparent as ever that the world needs this reliable source of energy from the US. And we are excited to now shift our focus to the field to begin construction."

"We are pleased to continue our longstanding partnership with Tellurian as we deliver cleaner and more affordable energy for communities around the world. We are honoured to help bring their vision to a reality by commencing the major field work on a project of this magnitude," added Paul Marsden, Bechtel Energy President.

Bechtel's first activities include demolition, civil site preparation and construction of critical foundations, while Baker Hughes will progress the manufacturing two of the natural gas turbines required for phase one of the project.

Driftwood LNG is a planned 27.6 mill tonnes per annum liquefaction export facility. Phase one will include two LNG plants with an export capacity of up to 11 mill tonnes per annum.

The project has received all the major permits required for construction and operation, has progressed detailed engineering to around 30% complete, and has finalised the purchase and lease of about 1,200 acres of real estate. ■

Bechtel gets the nod to start building Driftwood

EIG and Fluxys buy into Chile terminal

Institutional investor, EIG and Belgian LNG importer Fluxys will jointly acquire an 80% equity stake in GNL Quintero, Chile's largest LNG regasification terminal.

The two companies will purchase the stake from Enagas Chile and affiliates of OMERS Infrastructure.

The terms of the transaction were not disclosed.

Operational since 2009, Quintero is Chile's largest terminal discharging facility and has the largest storage and regasification capacity.

The terminal benefits from its strategic location in Quintero Bay, supplying a diverse number of customers in central Chile.

Quintero owns 75% of the country´s LNG regasification capacity and last year, 67% of the total natural gas imports (both LNG and pipeline) arrived through the terminal.

The terminal has a daily regasification capacity of 15 mill cu m, an LNG storage capacity of 334,000 cu m and 2,500 cu m per day of truck loading capacity.

Chile is aiming to become one of the world's three largest green hydrogen producers with plans to install 200 GW of renewable power by 2040 to produce green hydrogen. The country has already signed several agreements to promote the export of green hydrogen, among others with the Belgian ports of Antwerp/Zeebrugge, Germany, the Port of Rotterdam and South Korea.

The transaction is expected to close in the second half of this year, subject to customary closing conditions, including any required merger control and related regulatory approvals.

Citigroup Global Markets acted as financial advisor to EIG and Fluxys, while White & Case served as EIG's legal advisor and Linklaters was Fluxys' legal advisor. ■

Majority stake in Quintero Terminal sold

Dynagas' income increases

Dynagas LNG Partners reported fourth quarter 2021 net income of $16.9 mill, compared to $10.6 mill in the corresponding period of 2020.

This represents an increase of $6.3 mill, or 59.4%, which was mainly attributable to a rise in voyage revenues, as well as to a gain on the interest rate swap transaction entered into in May, 2020.

Adjusted net income for 4Q21 was $11.4 mill, compared to $10.7 mill in 4Q20, representing a net increase of $0.7 mill, or 6.5%, mainly due to the increase in voyage revenues, as well as to the decrease in finance costs, compared to the corresponding period in 2020.

Voyage revenues for the fourth quarters of 2021 and 2020 were $35.7 mill and $34.4 mill, respectively. The Partnership reported average daily hire gross of commissions of around $64,500 per day per vessel in 4Q21, compared to about $62,700 per day per vessel in 4Q20.

Vessel operating expenses were $8.2 mill, which corresponds to daily opex per vessel of $14,799 in 4Q21, compared to $7.1 mill, or daily opex per vessel of $12,940 in the corresponding period in 2020. This increase was mainly attributable to higher expenses related to the vessels' technical maintenance and supply costs.

EBITDA rise

Adjusted 4Q21 EBITDA was $24.7 mill, compared to $24.4 mill for 4Q20. The increase of $0.3 mill was mainly due to the rise in voyage revenues, which was partially offset by the increase in operating expenses.

As of 31st December, 2021, the Partnership reported total cash of $97 mill (including $50 mill of restricted cash). At the same time, the Partnership's outstanding debt under the $675 mill credit facility amounted to $567 mill (gross of unamortised deferred loan fees) of which $48 mill is repayable within a year.

CEO Tony Lauritzen, said: "Our thoughts go out to everyone affected and suffering as a result of the crisis in Ukraine. We continue to closely monitor this ongoing situation, including the implications of economic sanctions, trading restrictions and other considerations that may affect our business.

"All six LNG carriers in our fleet are operating under their respective long-term charters with international gas producers with an average remaining contract term of 6.9 years. As of 17th March, 2022, our estimated contracted revenue backlog is $1.02 bill.

"The earliest contracted redelivery date for any of our six LNG carriers, subject to the terms of the applicable charter, is in the third quarter of 2023 ('Arctic Aurora'), with the second earliest contracted re-delivery date ('Clean Energy') in the first quarter of 2026. We are also pleased to report 100% utilisation of our fleet for the seventh quarter in a row.

"Going forward, we intend to continue our strategy of using our cash flow generation to deleverage our balance sheet and reinforce our liquidity to build equity value over time and enhance our ability to pursue future growth initiatives," he said.

Meanwhile, it has been reported that Dynagas' three 200,000 cu m LNGC recently ordered could be earmarked for German FSRU operation.

Germany is thought to be fast tracking three LNG receiving terminals- two on the River Elbe and one at Wilhelmshaven.

It was rumoured that Uniper was behind the FSRU deals. ■

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Uniper to offtake extra Gate capacity

From 1st October, 2022, Uniper will increase its capacity rights at Rotterdam/Maasvlakte's Gate terminal.

The increase agreed was for 1 bill cu m per year for three years.

This deal complements the agreement signed last year when Uniper and Gate committed to a capacity increase of 1 bill cu m per annum starting 1st October, 2024.

Both of these transactions are in addition to the existing capacity of 3 bill cu m per year that Uniper can tap into since Gate terminal's start up.

Uniper CCO, Niek den Hollander, said: "In these challenging times, Uniper continues to broaden the access of its global LNG portfolio into northwest Europe to fortify the security of supply for Germany and the Netherlands.

"Uniper's European regasification capacity includes bookings at Isle of Grain with 1.7 bill cu m per annum, Gate with up to 5 bill cu m and market access in Spain. In 2021, Uniper traded more than 350 LNG cargoes worldwide," he explained.

Gate Managing Director, Wim Groenendijk, added: "This transaction is a prime example of close German/Dutch co-operation with concrete action in times of emergency. We will continue to explore on a daily basis how to best help our customers and society in serving the LNG and gas markets.

"The LNG arriving at Gate terminal is of great importance for the gas supply of the Netherlands and the whole of northwest Europe," he said. ■

Cheniere to export more LNG

The US Department of Energy (DOE) has issued two long-term orders authorising LNG exports from Cheniere Energy's Sabine Pass and Corpus Christi.

They will allow Sabine Pass and Corpus Christi additional flexibility to export the equivalent of 0.72 bill cu ft per day of LNG to any country with which the US does not have a free trade agreement, including the whole of Europe.

While US exporters are already exporting at or near their maximum capacity, with this increase, every operating US LNG export project has DoE approval to export to its full capacity to any country where not prohibited by US law or policy.

The US is now the top global LNG exporter and exports are set to grow by another 20% beyond current levels by the end of this year, as additional capacity comes online.

With the expected rise in LNG exports, the DoE is particularly focused on driving down methane emissions in the oil and gas sector both domestically and abroad, leveraging the department's technical expertise, it said. ■

NEWS NUDGE

CoolCo appoints management team

Cool Company (CoolCo) has recruited a new management team, which will be in place in the second quarter of this year.

Richard Tyrrell will be the new CEO, Johannes (John) P Boots will become CFO and Sarah Choudhry will take up the position of General Counsel.

Tyrrell joins CoolCo from Höegh LNG where he held several senior positions, including Chief Development Officer and Höegh LNG Partners CEO.

Boots most recently served as CFO of Pacific Drilling.

Choudhry has a 15-year background in maritime law. She spent the past three years as legal counsel for Eastern Pacific Shipping, the largest shareholder in CoolCo.

They will be based at the company's London offices.

Hyundai orders TMC compressors

TMC Compressors (TMC) has been contracted by Hyundai Samho Heavy Industries and Hyundai Heavy Industries to deliver marine compressed air systems for five LNGCs under construction for Capital Gas Corp.

Under the terms of the contracts, TMC will deliver a complete marine compressed air system to each of the five 174,000 cu m vessels. The system includes control and service air compressors.

In addition, under separate agreements, TMC will supply feed air compressors to the ships' nitrogen (N2) plant.

TMC will manufacture and assemble the equipment in Scandinavia and then ship it to the South Korean yards.

The LNGCs will be equipped for partial reliquefaction and shaft generators designed to reduce methane emissions.

Port Kembla to come online end 2023

Australia's first LNG import terminal at Port Kembla in New South Wales will be ready to take first gas by the end of 2023.

Developer Squadron Energy commercial director said that earth works had started as had piling for a wharf.

The site "will be ready for first gas in quarter four next year," Evonne Bennett told a gas conference in Sydney (NSW).

Argo FSRU project gets go ahead

Greek energy company Mediterranean Gas' (MedGas) Argo FSRU project in Volos has been given the green light by Greece's Regulatory Authority for Energy (RAE).

In October, 2021, ExxonMobil and Mediterranean Gas signed a MoU to access supply into the proposed LNG regasification terminal at Volos.

According to social media, MedGas has been given permission to construct and operate the €226.5 mill LNG terminal.

The FSRU will have a capacity of between 150,000 to 180,000 cu m.

GTT orders

GTT has received an order from Samsung Heavy Industries for the tank design of four new LNGCs.

The company will design the tanks for the 174,000 cu m LNGCs.

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

The vessels are scheduled for delivery in the first three quarters of 2025.

Hammerfest repairs near completion

Equinor's Hammerfest LNG export terminal is scheduled to come on stream on or about 17th May.

The terminal has been closed since September 2020, following a fire.

Once reopening, the site will provide more than 6 bill cu m of gas per year from the Barents Sea to be loaded on LNGCs. ■

Wärtsilä to optimise Knutsen LNGC's operations

Wärtsilä has signed another service agreement with an LNGC operator.

The latest contract, signed this month, covers the reliquefaction plant of four Knutsen OAS LNGCs and is designed to optimise their day-to-day operational performance.

Under the agreement, Wärtsilä's digital Operim (operational performance improvement & monitoring) system will be utilised. This provides real-time data on Wärtsilä's on board equipment, thus enabling expert management and control to deliver cost-savings and more efficient operations.

Wärtsilä will also provide expert technical support, as well as servicing and spare parts support.

"The digital and technical support provided by Wärtsilä are expected to be extremely valuable to us. Having the cargo plant operating at optimal performance at all times will both increase efficiency and reduce our maintenance costs," said Bjørn Hagland Hansen, Fleet Manager LNG, Knutsen OAS Shipping.

"We are able to monitor the equipment in real-time, and have a daily dialogue with the ships' crews to ensure the best possible performance and deliver any necessary troubleshooting advice. We have enjoyed a long-standing relationship with Knutsen, and this agreement strengthens our collaboration even further," added Sharique Sayed, Business Development Manager, Services, Wärtsilä Gas Solutions

Wärtsilä will also provide advice on reliquefaction plant maintenance and supply spare parts during the vessels' drydockings.

This agreement will enter into effect from June, 2022 and is valid for five years. ■

Wärtsilä to maintain Knutsen reliquefaction plants

NEWS NUDGE

Heng to become Pavilion CEO

Pavilion Energy has appointed Alan Heng as Group CEO, effective 1st April.

Heng is currently serving as Pavilion's Interim Group CEO, a position he has held since 26th August, last year.

He joined Pavilion Energy in 2013 and has had over 34 years of experience in the energy industry, including holding various management positions in Exxon.

Ships - Newbuildings

According to brokers' reports, Venture Global LNG has ordered three 200,000 cu m LNGCs from Daewoo (DSME) for 2025 delivery.

The cost was put at $237 mill each. No further details were revealed.

Earlier, DSME had confirmed that it had won an order for two 174,000 cu m LNGCs for around $430 mill in total.

Brokers said that the order came from BW LNG and were declared options.

Both vessels are to be delivered by the end of 2025.

Small FSRU for Eemshaven

EXMAR has signed a five-year charter for its 600 mill cu ft per day regasification barge FSRU S188 with Gasunie LNG Holdings.

Gasunie will use the small scale FSRU as a floating LNG import terminal at Eemshaven near Groningen, the Netherlands.

This move was mainly down to the European geopolitical developments and governments' increased emphasis on the security of energy supply.

Gasunie plans to have the terminal up and running by the end of the third quarter of this year. ■

Monthly Large LNGC Values*

Newbuildings (174,000 cu m)	$206.58 mill
Five years old (174,000 cu m)	$164.55 mill
Total Fleet (541 ships)	$65.99 bill
Orderbook (192 ships)	$41.48 bill

Source: VesselsValue (31/03/22)

*The above is updated each month courtesy of VesselsValue

LNG rate assessments

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

Region	This week	Change*
East of Suez	$37,000	-
West of Suez	$45,000	+$6,000
12 mos T/C	$102,500	+$3,500

*Since last report (17/03/22)

Source: Fearnleys (30/03/22)

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

Data last updated = 8th February 2022 | For more information please visit http://small-lng.com.

Small-LNG.com

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2018	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2018	Bunker Breeze	1,200	LNG	Barcelona	Yes	Suardiaz Energy Shipping
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2019	SM Jeju LNG1	7,500	LNG	Korea	Yes	Korea Line
2019	Gas Agility	18,600	LNG	NWE	Yes	MOL
2019	Flexfueller 001	1,480	LNG	Amsterdam	Yes	Titan LNG
2020	Avenir Advantage	7,500	LNG	Mediterranean	Yes	Avenir LNG
2020	Avenir Accolade	7,500	LNG	Mediterranean	Yes	Avenir LNG
2020	Avenir Aspiration	7,500	LNG		Yes	Avenir LNG
2020	Kaguya	3,500	LNG	Japan	Yes	CLS
2020	CNTIC VPOWER Global	28,000	LNG	Myanmar	Yes	Dalian Inteh Group
2020	Ecobunker Tokyo Bay	2,500	LMG	Japan	Yes	Ecobunkers
2020	Optimus	6,000	LNG	NWE	Yes	Elenger
2020	FueLNG Bellina	7,500	LNG	Singapore	Yes	FuelLNG
2020	SM Jeju LNG2	7,500	LNG	Korea	Yes	Korea Line
2020	Q-LNG 4000	4,000	LNG	US Coast	Yes	Q-LNG Transport/Harvey Gulf
2020	Flexfueller 002	1,480	LNG	Antwerp	Yes	Titan LNG
2021	Xin Ao Pu Tuo Hao	8,500	LNG	China	Yes	ENN
2021	Avenir Ascension	7,500	LNG		Yes	Avenir LNG
2021	Avenir Allegiance	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	PE TBN	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
2023	Cryopeak TBA	4,000	LNG	West Canada	Yes	Cryopeak
2023	Kuntsen TBN	12,500	LNG	Spain	Yes	Knutsen OAS
2023	SM Jeju LNG3	7,500	LNG	Korea	Yes	Korea Line
2023	Pan Ocean TBN	18,000	LNG	USG	Yes	Pan Ocean Co
2023	Krios	4,200	LNG	Benelux	Yes	Titan LNG
2023	Fratelli Cosulich TBN	8,000	LNG	Mediterranean	Yes	Fratelli Cosulich
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	Kanfer TBN	6,000	LNG	Worldwide	Yes	Kanfer Shipping
2023	K Line TBN	18,000	LNG	Korea	Yes	K Line
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	???
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG
2026	Avenir TBN (option)	20,000	LNG	Worldwide	Yes	Avenir LNG

Data last updated = 8th February 2022 | For more information please visit http://small-lng.com.

WORLD LNG CARRIER ORDERBOOK

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Clean Cajun	Unknown	XDF	Hyundai Heavy	Q1, 2022	200000	Dynagas
Elisa Aquila	Gtt Mkiii Flex	XDF	Hyundai Samho	Q1, 2022	174000	NYK
Global Sealine	Gtt96 Gw	XDF	DSME	Q1, 2022	173400	Nakilat
Maran Gas Kythira	Gtt96 Gw	XDF	DSME	Q1, 2022	174000	Maran Gas Maritime
Orion Sea	Gtt Mkiii Flex	XDF	Samsung	Q1, 2022	174000	JP Morgan
Orion Star	Gtt Mkiii Flex	XDF	Samsung	Q1, 2022	174000	JP Morgan
Alexey Kosygin	Gtt Mkiii	TFDE - Azipod	Zvezda SSK	Q1, 2023	172600	Smart LNG
Asterix I	Gtt Mkiii Flex	XDF	Hyundai Heavy	Q1, 2023	174000	Capital Gas
Hudong-zhonghua H1837a	Gtt96 L03+	XDF	Hudong-Zhonghua	Q1, 2023	79960	Shenzhen Gas
Hyundai Ulsan 3243	Unknown	XDF	Hyundai Heavy	Q1, 2023	174000	Knutsen
Samsung 2364	Gtt Mkiii Flex+	XDF	Samsung	Q1, 2023	174000	MISC
Samsung 2365	Gtt Mkiii Flex+	XDF	Samsung	Q1, 2023	174000	MISC
United Glory	Unknown	XDF	Hudong-Zhonghua	Q1, 2023	174000	ULT
DSME 1/4	Unknown	ME-GA	DSME	Q1, 2024	174000	MOL
Hudong-zhonghua H1829a	Gtt96 L03+	XDF	Hudong-Zhonghua	Q1, 2024	170520	CSSC
Hyundai Samho 8148	Unknown	XDF	Hyundai Heavy	Q1, 2024	174000	Knutsen
Hyundai Samho 8149	Unknown	ME-GA	Hyundai Samho	Q1, 2024	174000	Knutsen
Hyundai Ulsan 3244	Unknown	XDF	Hyundai Heavy	Q1, 2024	174000	Knutsen
Hyundai Ulsan 3292	Unknown	ME-GA	Hyundai Heavy	Q1, 2024	200000	Dynagas
Hyundai Ulsan 3293	Unknown	ME-GA	Hyundai Heavy	Q1, 2024	200000	Dynagas
Hyundai Ulsan 3294	Unknown	XDF	Hyundai Heavy	Q1, 2024	174000	Hyundai LNG Shipping
Hyundai Ulsan 3297	Unknown	XDF	Hyundai Heavy	Q1, 2024	174000	Hyundai LNG Shipping
Samsung 2461	Gtt Mkiii Flex	ME-GA	Samsung	Q1, 2024	180000	Celsius Shipping
Samsung Sovcomflot 4/4	Gtt Mkiii Flex	XDF	Samsung	Q1, 2024	174000	NYK
SHI Oct 1/4		Other/unknown	Samsung	Q1, 2024	174000	JP Morgan
ULT #5	Gtt96 L03+	XDF	Hudong-Zhonghua	Q1, 2024	174000	ULT
ULT #6	Gtt96 L03+	XDF	Hudong-Zhonghua	Q1, 2024	174000	ULT
BW DSME 1/2		ME-GA	DSME	Q1, 2025	174000	BWGas
Hudong-Zhonghua QP #3	Unknown	Other/unknown	Hudong-Zhonghua	Q1, 2025	175000	Qatar Petroleum
Qatar DSME 1/4	Unknown	MEGI	DSME	Q1, 2025	174000	Qatar Petroleum
Qatar HHI 1		Other/unknown	Hyundai Heavy	Q1, 2025	174000	Qatar Petroleum
Qatar HHI 2		Other/unknown	Hyundai Heavy	Q1, 2025	174000	Qatar Petroleum
Qatar SHI 1/2		ME-GA	Samsung	Q1, 2025	174000	Qatar Petroleum
Qatar SHI 2/2		ME-GA	Samsung	Q1, 2025	174000	Qatar Petroleum
Clean Copano	Unknown	XDF	Hyundai Heavy	Q2, 2022	200000	Dynagas
Grace Freesia	Gtt Mkiii Flex	XDF	Hyundai Samho	Q2, 2022	173000	NYK
Hudong-zhonghua H1788a	Gtt96	XDF	Hudong-Zhonghua	Q2, 2022	79960	K-Line
Lagenda Serenity	Gtt96 L03+	XDF	Hudong-Zhonghua	Q2, 2022	79960	K-Line
Samsung 2337	Gtt Mkiii Flex	XDF	Samsung	Q2, 2022	174000	JP Morgan
Vivit Arabia Lng	Gtt Mkiii Flex	XDF	Hyundai Samho	Q2, 2022	174000	H-Line
Daewoo 2515	Unknown	TFDE - Azipod	DSME	Q2, 2023	172500	Sovcomflot
El Ferrol Knutsen	Unknown	XDF	Hyundai Heavy	Q2, 2023	174000	Knutsen
Extremadura Knutsen	Unknown	XDF	Hyundai Heavy	Q2, 2023	174000	Knutsen
Hudong-zhonghua H1833a	Unknown	XDF	Hudong-Zhonghua	Q2, 2023	174000	ULT
Samsung 2426	Unknown	XDF	Samsung	Q2, 2023	174000	Pan Ocean
Daewoo 2522	Unknown	MEGI	DSME	Q2, 2024	174000	Hyundai LNG Shipping
DSME 2/4	Unknown	ME-GA	DSME	Q2, 2024	174000	MOL
Hudong-zhonghua H1830a	Gtt96 L03+	XDF	Hudong-Zhonghua	Q2, 2024	170520	CSSC

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 = 9th December 2021

Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Hyundai Ulsan 3295	Unknown	XDF	Hyundai Heavy	Q2, 2024	174000	Hyundai LNG Shipping
Samsung 2579	Gtt Mkiii Flex	ME-GA	Samsung	Q2, 2024	180000	Celsius Shipping
SHI Oct 2/4		Other/unknown	Samsung	Q2, 2024	174000	JP Morgan
BW DSME 2/2		ME-GA	DSME	Q2, 2025	174000	BWGas
Hudong-Zhonghua QP #4	Unknown	Other/unknown	Hudong-Zhonghua	Q2, 2025	175000	Qatar Petroleum
Hyundai Ulsan 3320	Unknown	ME-GA	Hyundai Heavy	Q2, 2025	174000	JP Morgan
Qatar DSME 3/4		MEGI	DSME	Q2, 2025	174000	Qatar Petroleum
Qatar HHI 3		Other/unknown	Hyundai Heavy	Q2, 2025	174000	Qatar Petroleum
Samho Capital 1/3	Mark III Flex	ME-GA	Hyundai Samho	Q2, 2025	174000	Capital Gas
Samho Capital 2/3	Mark III Flex	ME-GA	Hyundai Samho	Q2, 2025	174000	Capital Gas
Bw Cassia	Gtt96 Gw	MEGI	DSME	Q3, 2022	174000	BWGas
Bw Iris	Gtt96 Gw	MEGI	DSME	Q3, 2022	174000	BWGas
Prism Diversity	Unknown	XDF	Hyundai Heavy	Q3, 2022	180000	SK Shipping
Santander Knutsen	Unknown	XDF	Hyundai Heavy	Q3, 2022	174000	Knutsen
Sm Albatross		XDF	Hyundai Heavy	Q3, 2022	174000	Korea Line
Sm Bluebird		XDF	Hyundai Heavy	Q3, 2022	174000	Korea Line
Daewoo 2516	Unknown	TFDE - Azipod	DSME	Q3, 2023	172500	Sovcomflot
Daewoo 2517	Unknown	TFDE - Azipod	DSME	Q3, 2023	172500	MOL
H-line #3	Gtt Mkiii Flex	XDF	Hyundai Samho	Q3, 2023	174000	H-Line
Hudong-zhonghua H1838a		XDF	Hudong-Zhonghua	Q3, 2023	79960	K-Line
Hyundai Samho 8105	Gtt Mkiii Flex	XDF	Hyundai Samho	Q3, 2023	174000	Sovcomflot
Hyundai Ulsan 3290	Unknown	ME-GA	Hyundai Heavy	Q3, 2023	200000	Dynagas
Lng Harmony	Unknown	XDF	Hyundai Heavy	Q3, 2023	174000	JP Morgan
Orion Sage	Unknown	XDF	Hyundai Heavy	Q3, 2023	174000	JP Morgan
Samsung 2425	Unknown	XDF	Samsung	Q3, 2023	174000	Maran Gas Maritime
Samsung 2459	Gtt Mkiii Flex	ME-GA	Samsung	Q3, 2023	180000	Celsius Shipping
Samsung Sovcomflot 1/4	Gtt Mkiii Flex	XDF	Samsung	Q3, 2023	174000	NYK
Sm Golden Eagle	Unknown	XDF	Hyundai Heavy	Q3, 2023	174000	Korea Line
Zvezda 042	Gtt Mkiii	TFDE - Azipod	Zvezda SSK	Q3, 2023	172600	Smart LNG
DSME 3/4	Unknown	ME-GA	DSME	Q3, 2024	174000	MOL
DSME 4/4	Unknown	ME-GA	DSME	Q3, 2024	174000	MOL
DSME MOL	Unknown	ME-GA	DSME	Q3, 2024	174000	MOL
Hyundai Ulsan 3221	Unknown	XDF	Hyundai Heavy	Q3, 2024	174000	Pan Ocean
Hyundai Ulsan 3224	Unknown	ME-GA	Hyundai Heavy	Q3, 2024	174000	Pan Ocean
Hyundai Ulsan 3296	Unknown	XDF	Hyundai Heavy	Q3, 2024	174000	Hyundai LNG Shipping
Hyundai Ulsan 3298	Unknown	XDF	Hyundai Heavy	Q3, 2024	174000	Hyundai LNG Shipping
Maran DSME	Gtt96 Gw	MEGI	DSME	Q3, 2024	174000	Maran Gas Maritime
Samsung 2473	Unknown	XDF	Samsung	Q3, 2024	174000	Maran Gas Maritime
Samsung 2474	GTT Mark III Flex	XDF	Samsung	Q3, 2024	174000	Maran Gas Maritime
Samsung 2584	Gtt Mkiii Flex	ME-GA	Samsung	Q3, 2024	180000	Celsius Shipping
Samsung 2585	Gtt Mkiii Flex	ME-GA	Samsung	Q3, 2024	180000	Celsius Shipping
SHI Oct 3/4		Other/unknown	Samsung	Q3, 2024	174000	JP Morgan
Sovcomflot #1	Gtt Mkiii Flex	XDF	Hyundai Samho	Q3, 2024	170520	Sovcomflot
Sovcomflot #2	Gtt Mkiii Flex	XDF	Hyundai Samho	Q3, 2024	170520	Sovcomflot
Zvezda 046	Unknown	TFDE - Azipod	Zvezda SSK	Q3, 2024	172600	Smart LNG
Zvezda 047	Unknown	TFDE - Azipod	Zvezda SSK	Q3, 2024	172600	Smart LNG
Hyundai Samho 8102	Unknown	ME-GA	Hyundai Heavy	Q3, 2025	174000	Knutsen
Hyundai Ulsan 3321	Unknown	ME-GA	Hyundai Heavy	Q3, 2025	174000	JP Morgan
Qatar DSME 2/4		MEGI	DSME	Q3, 2025	174000	Qatar Petroleum
Qatar HHI 4		Other/unknown	Hyundai Heavy	Q3, 2025	174000	Qatar Petroleum

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Name	Containment system	Propulsion	Yard	Delivery date	Capacity	Primary Owner
Samho Capital 3/3	Mark III Flex	ME-GA	Hyundai Samho	Q3, 2025	174000	Capital Gas
Zvezda 051	Unknown	TFDE - Azipod	Zvezda SSK	Q3, 2025	172600	Smart LNG
Zvezda 052	Unknown	TFDE - Azipod	Zvezda SSK	Q3, 2025	172600	Smart LNG
Tenergy	Gtt Mkiii Flex	XDF	Hyundai Heavy	Q4, 2021	174000	Tsakos Energy Navigation
Vivirt City Lng	Gtt Mkiii Flex	XDF	Hyundai Samho	Q4, 2021	174000	H-Line
Alicante Knutsen	Unknown	XDF	Hyundai Heavy	Q4, 2022	174000	Knutsen
Daewoo 2514	Unknown	TFDE - Azipod	DSME	Q4, 2022	172500	Sovcomflot
Hudong-zhonghua H1831a	Not Applicable	XDF	Hudong-Zhonghua	Q4, 2022	174000	ULT
Huelva Knutsen	Unknown	XDF	Hyundai Heavy	Q4, 2022	174000	Knutsen
Lng Prosperity		XDF	Hyundai Heavy	Q4, 2022	174000	JP Morgan
Malaga Knutsen	Unknown	XDF	Hyundai Heavy	Q4, 2022	174000	Knutsen
Minerva Amorgos	Gtt Mkiii Flex+	XDF	Samsung	Q4, 2022	174000	Minerva Marine
Orion Song		XDF	Hyundai Heavy	Q4, 2022	174000	JP Morgan
Amore Mio I	Gtt Mkiii Flex	ME-GA	Hyundai Heavy	Q4, 2023	174000	Capital Gas
Axios II	Gtt Mkiii Flex	ME-GA	Hyundai Heavy	Q4, 2023	174000	Capital Gas
Daewoo 2518	Unknown	TFDE - Azipod	DSME	Q4, 2023	172500	MOL
Daewoo 2519	Unknown	TFDE - Azipod	DSME	Q4, 2023	172500	MOL
Daewoo 2520	Unknown	MEGI	DSME	Q4, 2023	174000	MOL
Daewoo 2521	Unknown	MEGI	DSME	Q4, 2023	174000	Hyundai LNG Shipping
Hyundai Samho 8101	Unknown	XDF	Hyundai Heavy	Q4, 2023	174000	Knutsen
Hyundai Samho 8139	Unknown	XDF	Hyundai Samho	Q4, 2023	174000	Knutsen
Hyundai Ulsan 3291	Unknown	ME-GA	Hyundai Heavy	Q4, 2023	200000	Dynagas
Jiangnan H2637	Gtt Mkiii Flex	XDF	Jiangnan	Q4, 2023	79800	Jovo Energy
Samsung 2460	Gtt Mkiii	ME-GA	Samsung	Q4, 2023	180000	Celsius Shipping
Samsung Sovcomflot 2/4	Gtt Mkiii Flex	XDF	Samsung	Q4, 2023	174000	NYK
Samsung Sovcomflot 3/4	Gtt Mkiii Flex	XDF	Samsung	Q4, 2023	174000	NYK
Sm Kestrel	Unknown	XDF	Hyundai Heavy	Q4, 2023	174000	Korea Line
ULT #4	Gtt96 L03+	XDF	Hudong-Zhonghua	Q4, 2023	174000	ULT
Zvezda 043	Gtt Mkiii	TFDE - Azipod	Zvezda SSK	Q4, 2023	172600	Smart LNG
Zvezda 044	Gtt Mkiii	TFDE - Azipod	Zvezda SSK	Q4, 2023	172600	Smart LNG
Zvezda 045	Unknown	TFDE - Azipod	Zvezda SSK	Q4, 2023	172600	Smart LNG
DSME Gaslog 1/4		MEGI	DSME	Q4, 2024	174000	GasLog
DSME Gaslog 2/4		MEGI	DSME	Q4, 2024	174000	GasLog
Hudong-Zhonghua QP #1	Unknown	Other/unknown	Hudong-Zhonghua	Q4, 2024	175000	Qatar Petroleum
Hudong-Zhonghua QP #2	Unknown	Other/unknown	Hudong-Zhonghua	Q4, 2024	175000	Qatar Petroleum
Hyundai Samho 8100	Unknown	XDF	Hyundai Heavy	Q4, 2024	174000	Knutsen
Hyundai Ulsan 3222	Unknown	XDF	Hyundai Heavy	Q4, 2024	174000	Pan Ocean
Hyundai Ulsan 3225	Unknown	ME-GA	Hyundai Heavy	Q4, 2024	174000	Pan Ocean
Hyundai Ulsan 3299	Unknown	XDF	Hyundai Heavy	Q4, 2024	174000	Hyundai LNG Shipping
Maran DSME 2	Gtt96 Gw	MEGI	DSME	Q4, 2024	174000	Maran Gas Maritime
Orion Sky	Unknown	XDF	Hyundai Heavy	Q4, 2024	174000	JP Morgan
SHI Oct 4/4		Other/unknown	Samsung	Q4, 2024	174000	JP Morgan
Zvezda 048	Unknown	TFDE - Azipod	Zvezda SSK	Q4, 2024	172600	Smart LNG
Zvezda 049	Unknown	TFDE - Azipod	Zvezda SSK	Q4, 2024	172600	Smart LNG
Zvezda 050	Unknown	TFDE - Azipod	Zvezda SSK	Q4, 2024	172600	Smart LNG
DSME Gaslog 3/4		MEGI	DSME	Q4, 2025	174000	GasLog
DSME Gaslog 4/4		MEGI	DSME	Q4, 2025	174000	GasLog
Qatar DSME 4/4		MEGI	DSME	Q4, 2025	174000	Qatar Petroleum
Zvezda 053	Unknown	TFDE - Azipod	Zvezda SSK	Q4, 2025	172600	Smart LNG
Zvezda 054	Unknown	TFDE - Azipod	Zvezda SSK	Q4, 2025	172600	Smart LNG
Zvezda 055	Unknown	TFDE - Azipod	Zvezda SSK	Q4, 2025	172600	Smart LNG

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