



ENERGOS BAGS DYNAGAS DUO IN ‘TRANSFORMATIVE’ DEAL

German-chartered regas units change hands as US infrastructure player steps into the spot-light. Energos Infrastructure has snapped up two floating storage and regasification units controlled by Greek shipowner Dynagas that are on charter to projects in Germany. The US marine LNG infrastructure company, which is controlled by asset manager Apollo, with New Fortress Energy as a minority shareholder, said the two 174,000-cbm, closed-loop FSRUs — the Transgas Force and Transgas Power (both built 2021) — will be renamed Energos Force and Energos Power. No price details were given on the Chinese-built FSRUs. The specialist vessels — Dynagas’ first and only venture into the regas sector — are logged as being ordered in 2016 as the first FSRUs contracted in China. Both are on long-term charters to the German Federal Ministry of Economic Affairs & Climate Change that began in early 2023. The Energos Force is due to operate for the Hanseatic Energy Hub in the port of Stade under the direction of Deutsche Energy Terminal. The Energos Power is scheduled to serve as the import unit in the port of Mukran and has been subchartered to Deutsche ReGas. Energos, which is only slowly emerging on the shipping stage after being set up by Apollo and taking on the bulk of New Fortress’ fleet, said that with the addition of these two vessels, it will own and operate 13 LNG infrastructure vessels: nine FSRUs, two floating storage units and a pair of LNG carriers. “The

addition of the Energos Force and Energos Power in Europe makes Energos the largest owner and operator of LNG marine infrastructure vessels by wholly owned FSRU capacity operating within the continent,” it said. Energos chief executive and director Arthur Regan said: “Reliable energy infrastructure is essential to address the global energy crisis and reduce carbon emissions. “We are pleased to acquire these critical assets in operating service in Germany, which we believe will solidify Energos as a premier LNG maritime infrastructure company and further support our efforts to bring cleaner, more reliable energy to customers around the world.” Apollo partner Brad Fierstein said the company believes the FSRU acquisitions will be “transformative” for Energos and support its continued growth. “Providing enhanced energy security and enabling lower-carbon power generation are core priorities to Apollo’s efforts to help drive a more sustainable future,” he said, “and we believe the implementation of these new vessels can play a significant role in bolstering Germany’s energy independence.” Apollo Capital Solutions performed debt advisory and placement services for the acquisition financing, which was led by BNP Paribas, Credit Agricole CIB, Mizuho Bank and Sumitomo Mitsui Trust Bank. source : www.tradewindsnews.com

AVENIR LOCKS IN MULTI-YEAR BUSINESS

Another pair of specialist LNG carriers finds a home as shortfall looms. Avenir LNG has secured two-year charter deals for a pair of its LNG carriers in its five-ship fleet. The company — a tie-up between Golar LNG, Hoegh LNG and Stolt-Nielsen — said on Thursday last week that it had signed a new time charter agreement with Petronas trading arm Petco Trading Labuan Co on the 7,500-cbm Avenir Advantage (built 2020). The vessel had already been working with Petronas off Malaysia under an earlier five-year deal. Avenir said it will continue to collaborate with Petco by providing LNG as a marine fuel to the Malaysian company’s customers in South East Asia. Avenir also signed a two-year deal on the 7,500-cbm Avenir Accolade (built 2021) with NFE Transport Partners, a subsidiary of US-listed LNG supplier New Fortress Energy. Avenir said the vessel has been serving New Fortress under a bareboat contract and this latest deal will extend the term of the original agreement until the fourth quarter of 2025. The small-scale LNG shipowner said the two charter deals and the optional periods they include strengthen its total charter revenue backlog to \$115m. Avenir managing director Jonathan Quinn said: “It is great to have secured our commercial agreements on our first two vessels. “Doing so with our foundation customers clearly demonstrates their ongoing support in Avenir as the go-to provider in the small-scale market.” The charters take two more small-scale vessels out of the near-term market but could see them potentially redelivering, as demand is forecast to tick up. Analysts and LNG bunkering players have flagged up an upcoming shortage of LNG bunkering vessels, with just one newbuilding being ordered last year and a rise in demand expected from 2026 when a swathe of LNG dual-fuel vessels deliver. source : www.tradewindsnews.com

PROSPECTS IN LNG RANKED ‘AS CLEAR AS MUD’ IN THE YEAR AHEAD

Fundamentals look weak but a wealth of factors could quickly turn the sector’s fortunes. LNG carriers ended 2023 with more of a whimper than the bang of record spot charter rates seen a year ago. But which direction are they headed for 2024?

Asked about the charter market, one shipowner said: “It’s anyone’s guess,” going on to describe the outlook for the sector as “clear as mud”. “For all I know, it could fall off a cliff,” he said, “but that cliff won’t last very long.” His views sum up both the uncertainty and air of fragile balance that appears to be hanging over the LNG shipping sector in the new year. While some on the shipowning side see the first half of 2024 as potentially quite tight, project developers and charterers speak about a constant stream of vessels being offered to them. Another LNG carrier owner said the fundamentals for 2024 do not look great. He said Europe is entering the year well stocked with LNG and there is not much new LNG supply coming to the market in 2024. Flex LNG chief executive Oystein Kalleklev told TradeWinds: “[In 2024], we will see more ships than molecules hitting the water, so we do expect a somewhat softer market until the market balance starts to improve from 2026 onwards as more export capacity, particularly in the US and Qatar, is coming onstream.” But on the flip side, a cold snap in Europe or Asia could draw in more cargoes, soaking up vessels for floating storage in one basin or lengthening tonne-miles with longer voyages to the other. The ongoing dearth of Panama Canal slots and the ever-tightening security fears over the Middle East region are also pushing out voyage times, which will put more pressure on tonnage. Kalleklev also points to the incoming regulations: “We will also see the EU ETS coming into force and, with European buyers still short of natural gas, they will continue to buy a lot of the flexible US spot cargoes which means a flurry of carbon which needs to be bought by owners and charterers.” Newbuilding deliveries for 2024 number 69 ships, according to shipbroker Fearnleys, with the bulk of them skewed towards the second half. But that is nothing compared with the avalanche of new ships due to be disgorged onto the market from 2025 when the broker lists a whopping 88 vessels scheduled for handover, with 73 to follow in 2026. QatarEnergy’s phase 2 shipbuilding programme is expected to add more than 50 more ships to the mix with a question mark still hanging over 17 berths reserved for the TotalEnergies-led Mozambique LNG project. While the bulk of on-order newbuildings is committed to project business, liquefaction start-up delays are making some industry players nervous that some ships could be left in limbo, seeking employment. But the huge elephant in the room for 2024 is the ongoing issue of fleet replacement and how this might unfold. Some believe 2024 will be a year when the future for LNG steam turbine vessels is brought sharply into focus, with one shipping manager describing it as the “big, big question” for the coming year. For LNG steamships of 145,000 cbm and larger, at least one owner feels there will be interest for period business as these are the vessels at the slightly larger end of the capacity spectrum for this ship type. But for the smaller vessels, many say a phase-out is looming large.

Cool Company chief executive Richard Tyrrell said on a December Capital Link webinar that the steamships have had an extra lease of life due to the Russia-Ukraine war when tonnage was needed. But he said that due to the Carbon Intensity Indicator and growing commercial pressures, these vessels may either be idled or exit the market altogether in the future. For those looking at LNG carrier newbuildings, 2024 is likely to prove a year of slim pickings for early delivery slots. Brokers reported that the last of the 2027 berths are now being mopped up with the main delivery windows focused on 2028 — four years out. With prices stubbornly sitting at \$260m-plus per vessel and delivered costs in the \$280m to \$290m range, owners said this will require daily charter rates in the region of \$110,000 to \$120,000, depending on how operating costs are defined. But they report that charterers are offering levels closer to \$95,000 per day, presenting a yawning gulf on newbuilding earnings and making those contemplating new orders particularly wary. The focus on fleet renewal, coupled with high prices at shipyards and lack of early berth capacity, is leading some to reassess their fleets, Fearnley LNG said in a note. “We expect to see more vessels actively marketed for sale and would anticipate that the S&P market in 2024 will be equally active to that of this year,” the broker said. Source : www.tradewindsnews.com

FLOATING LNG SECTOR GATHERS PACE TO MAINSTREAM ADOPTION

Raft of new projects queue for berth space as others prepare to kick off production. Floating LNG production has been poised for lift-off for over a decade, but this year and next are expected to be pivotal in bringing the sector to life and into the mainstream. By 2030, FLNG players calculate that more than 60 million tonnes per annum of LNG could be produced from about 18 FLNG units. There is existing capacity in operation from five projects to produce over 12 mtpa.

The new year signalled action for the sector.

The first major newbuilding order announced for 2024 is for Cedar LNG's 3.3-mtpa FLNG unit priced at a cool \$1.5m, which, including the fabrication and integration of the topsides for the floater, bumps up to \$2.2m in total. A final investment decision, or FID, on the Canadian project, which is based out of the western coastal town of Kitimat, is expected shortly. But engineers working on projects say this is just the start, with at least four more FIDs on FLNG schemes due in the next two years. They list developers such as Delfin Midstream and Western LNG that are lining up first floaters of 3.5 mtpa and 6 mtpa for the US Gulf region and west coast Canada respectively, with subsequent units to follow as part of larger project plans. While it has been slowed by negotiations between energy companies Eni and ExxonMobil, several industry players also highlighted that a decision is expected to be made on the long-awaited Coral North project off Mozambique this year — a potential sister unit for Eni's already operational 3.4-mtpa Coral-Sul FLNG unit. In Asia, Genting Oil & Gas has given limited notice to proceed to China's Wison (Nantong) Heavy Industries to start work on a 1.2-mtpa LNG floater. Others point to Golar LNG's speculative moves to forward the first of its Mark II-design LNG carrier-to-FLNG unit conversions, which involves cutting a Moss-type

vessel in two to install liquefaction units between the hull parts. They hint that the company is working hard to nail a first project for this solution. In Nigeria, UTM Offshore has teamed with the Delta State Government and Nigerian National Petroleum Co on a FLNG project that some think is set to fly. The project partners promise an FID before year-end. Between them, these projects could see more than 19 mtpa more LNG production sanctioned — all of it to be produced from offshore units.

Complexities and competition

But projects are complex, often involving many large counterparties, and sanction dates can slip. Also, dry-dock space to construct large hull structures for FLNG units — which typically require around eight months before they move quayside for the complex outfitting work — remains at a premium and competition for slots is evident. Last year, Delfin, which has been working with Samsung Heavy Industries on its FLNG units, announced it had signed a deal with Chinese shipbuilder Wison Offshore & Marine to give it access to more berth slots. Black & Veatch vice president and managing director offshore & marine industry Javid Talib told TradeWinds: “Our market insights suggest that FLNG capacity could quadruple in the remaining years of this decade.” The engineering company’s liquefaction technology is currently being used or specified for half the FLNG facilities that are in commercial operation, have achieved or are nearing FID, or are in detailed design and construction.

Key year

There are already five FLNG units in operation worldwide with a sixth that started up in one country before being sold on to another project. 2024 will also be key in that this unit and two more are scheduled to start production. Both Eni, which is using the existing Tango FLNG unit to monetise gas fields in the Republic of Congo, and New Fortress Energy, with its innovative converted jack-up rigs set up off Altamira, Mexico, claim to have introduced first gas into their units. Liquefaction is due to follow with a first cargo for export this quarter. Further into the year, Golar LNG’s second LNG carrier-to-FLNG conversion, Gimi, is also set for start-up on the maritime border of Mauritania and Senegal. Three FLNG units are currently on order — one for Petronas’ ZLNG project, another for Eni that will also be deployed off Congo and this week Cedar LNG confirmed its order at Samsung Heavy Industries. The trio are due for delivery dates between 2026 and 2028. source :

www.tradewindsnews.com

SPANISH LNG IMPORTS, RELOADS DIP IN DECEMBER

Spanish liquefied natural gas (LNG) imports and reloads dropped in December last year, while total demand for natural gas in 2023 fell due to lower demand for power generation, according to Enagas. LNG imports fell by 46 percent to about 15 TWh in December and accounted for 40.9 percent of the total gas imports. In November, LNG imports reached some 22.8 TWh. Including pipeline imports from Algeria, France, and Portugal, gas imports to Spain reached about 27.2 TWh last month, down from some 38.1 TWh in December last year, Enagas said in its monthly report. Moreover, national gas demand in December rose by 8.8 percent year-on-year to some 30.4 TWh.

Demand for power generation declined by 23.6 percent year-on-year to about 6.6 TWh last month, while conventional demand rose by 23.6 percent to 23.7 TWh, the LNG terminal operator said. The firm previously said that August of last year marked the first time in its history that Spain has managed to fill 100 percent of its underground storage facilities. Storage facilities were also full in October and November, and they were 91 percent full in December, according to Enagas. Enagas operates a large network of gas pipelines and has four LNG import plants in Barcelona, Huelva, Cartagena, and Gijon. It also owns 50 percent of the BBG regasification plant in Bilbao and 72.5 percent of the Sagunto plant, while Reganosa operates the Mugardos plant. In August, Spanish power group Endesa delivered the first commercial cargo to the El Musel LNG terminal in Gijon. Enagas awarded the logistics services contract to Endesa in July and it also completed the sale of a 25 percent stake in the El Musel LNG terminal to Reganosa.

Russia and US biggest LNG suppliers

The seven operational Spanish LNG regasification terminals, unloaded 17 cargoes last month, down by 14 cargoes compared to December 2022, according to Enagas. Russia was the biggest LNG supplier to Spain in December with about 5.48 TWh, almost flat compared to the same month in the year before, followed by US with 3.7 TWh, a big drop from 12.5 TWh in December 2022. Spanish LNG terminals received 2.62 TWh from Nigeria in December, while Qatari volumes reached 1.7 TWh. Egypt and Algeria also supplied LNG to Spain in December, the data shows. US was the biggest supplier to Spain in October and November, Nigeria was the biggest LNG supplier to Spain in September, and the US was the biggest supplier in August. Prior to that, Russia was the biggest supplier for three months in a row.

LNG reloads and trucking

Spanish LNG terminals loaded about 1.35 TWh in December, down by 66 percent compared to some 3.94 TWh in December 2022 and also down from about 2.79 TWh in November. The Cartagena LNG terminal reloaded about 1.16 TWh of LNG, and the rest was reloaded by the Huelva and Barcelona terminals. Moreover, the number of truck loads at the LNG terminals rose by 17.1 percent year-on-year to 1006, the data shows. The Cartagena LNG terminal completed 203 truck loads in December, while the Huelva terminal completed 194 truck loads and the Barcelona terminal completed 191 truck loads.

Gas demand and imports down in 2023

In 2023, total natural gas consumption in Spain amounted to 325.4 TWh, a decrease of 10.7 percent compared to the previous year, which is due to lower demand for electricity, Enagas said. Conventional demand in private households, businesses and industry reached 229.9 TWh, with the increase largely due to a 3.9 percent rise in industrial consumption, which reached 169.8 TWh. Demand for gas for electricity generation reached 95.6 TWh, down 30.8 percent after reaching its highest level since 2010 in 2022. Enagas data shows that total natural gas imports fell to 397.8 TWh in 2023 from 442.9 TWh in the year before. LNG imports reached some 272 TWh, down from some 318 TWh in 2022. US terminals supplied about 83.8 TWh of LNG to Spain last year, Russian volumes reached 72.6 TWh, and Nigeria supplied about 53.9 TWh.

In 2023, Spain led the world's non-producers in LNG re-exports with 22.1 TWh, Enagas said. Reloaded volumes dropped compared to the year before. The company previously said that the loading of LNG carriers from Spanish terminals had increased by 44.9 percent year-on-year in 2022 to 24.8 TWh. source : www.lngprime.com

DUTCH GATE BREAKS NEW RECORD, WORKING ON FURTHER EXPANSION

Dutch Gate LNG terminal in the port of Rotterdam handled a record number of vessels last year, and its owners Gasunie and Vopak are working to further expand the facility with an additional small-scale jetty and a new tank. Launched in September 2011, the terminal has a nameplate capacity of 12 Bcm or 8.8 mtpa of LNG, three LNG storage tanks with a capacity of 540,000 cbm, three truck loading bays, and three jetties, including one small-scale jetty. Following modifications, Gate managed to add 4 bcm of capacity on an interruptible basis, available to users already having a position in Gate. Gate's current users include Shell, Uniper, OMV, and Glencore. Last year, BP and PetroChina booked capacity at Gate as part of the expansion project, while ConocoPhillips secured capacity from September 2031. In August last year, Vopak and Gasunie took a final investment decision to build the fourth LNG tank with a capacity of 180,000 cbm and to add 4 Bcm of additional regasification capacity. Gate's commercial manager, Stefaan Adriaens, told LNG Prime on Wednesday that the terminal regasified 14.35 Bcm in 2023, well above its nameplate capacity. This is flat compared to 2022 when the terminal regasified 14.39 Bcm. Gate's sendout remained at record levels last year despite the launch of the FSRU-based LNG import hub in the Dutch port of Eemshaven, also owned by Gasunie and Vopak, and FSRU-based LNG terminals in Germany, France, and other European countries.

328 vessels

Including unloading and loading operations, the LNG terminal handled record 328 vessels last year. Adriaens said that Gate unloaded a total of 169 LNG cargoes in 2023, compared to 183 shipments in 2022. Out of these, 110 shipments came from US terminals, compared to 96 shipments in the year before. Moreover, the facility loaded 159 cargoes, a jump from 84 cargoes in 2022, mainly because "competitive prices made LNG again interesting as maritime fuel," Adriaens said. Gate's small-scale jetty, which launched operations in 2016, handled record 151 vessels, loading close to 900,000 cbm of LNG. The terminal also completed record 8789 truck loading operations, compared to 8598 operations in the prior year, while work continues to progress on the fourth and the fifth truck loading stations.

Fourth jetty and fifth tank

Due to the high demand for small-scale services, Gate plans to build the second small-scale jetty at the terminal. Adriaens revealed plans for this project back in 2018 but seems that Gate is now ready to push forward with the development. "We would like to progress on the fourth jetty this year, as LNG keeps growing as a maritime fuel," Adriaens said.

The new jetty would be located across the existing small-scale jetty. Adrians said that Gate aims to “introduce permit application” for this jetty later this year. In addition, Gate could also get the fifth LNG tank in the future but this project is still in the early stages of development. “We will work on it but I do not anticipate we will already this year file for a permit,” he said. source : www.lngprime.com

JAPAN’S INPEX TO BOOST ICHTHYS LNG STAKE

Japan’s Inpex plans to enter into a deal with compatriot Tokyo Gas to buy a small stake from the latter in the Inpex-operated Ichthys LNG export project in Australia. Inpex said in a statement it would buy a 1.575 percent stake held by Tokyo Gas in the Ichthys LNG project through Tokyo Gas Australian project subsidiaries. Through this acquisition, Inpex’s project subsidiaries would increase their participating interests in the Ichthys LNG project from 66.245 percent to 67.82 percent. The firm did not reveal the price tag of the deal. The deal includes interest in Block WA-50-L and Block WA-51-L including the Ichthys gas condensate field, shares of Ichthys LNG, a downstream company that owns LNG facilities, and interest in exploration permit WA-285-P. Inpex said this agreement results from the October 2022 decision by Tokyo Gas to sell the shares in its Australian project subsidiary that holds the stake in the Ichthys project to EIG’s MidOcean Energy. In accordance with the relevant joint operating agreements and shareholder’s agreement, Tokyo Gas notified the proposed sale to the projects’ participating interest holders whereupon Inpex exercised its preemptive rights to acquire Tokyo Gas’s participating interest, it said. Inpex added the completion of the acquisition remains subject to the fulfillment of certain conditions, including approval by Australian government regulatory agencies.

Production up

The Japanese company has shipped 96 LNG cargoes from its Ichthys export plant during the January–September period of 2023, 16 cargoes more compared to the same period last year. The facility at Bladin Point near Darwin has two trains and a nameplate capacity of 8.9 mtpa but it is expected to reach a production of about 9.3 mtpa due to debottlenecking. Last year, Inpex said that it plans to ship record 132 cargoes of LNG, or 11 per month, from the Ichthys plant in 2023. Ichthys LNG is a joint venture between operator Inpex and major partner TotalEnergies. Also, other partners include Australian units of CPC, Osaka Gas, Kansai Electric Power, Jera, and Toho Gas. Natural gas arrives to the LNG plant at Bladin Point from the giant Ichthys field offshore Western Australia via an 890 kilometers long export pipeline. Source : www.lngprime.com

GOLAR: FLNG ARRIVES AT GTA SITE

Golar LNG’s converted FLNG, Gimi, has arrived at the site of BP’s Greater Tortue Ahmeyim project offshore Mauritania and Senegal. However, the FLNG will proceed to moor offshore Tenerife until the necessary preparatory activities are complete. According to a statement by Golar, the FLNG, which was converted from a 1975-built Moss LNG carrier with a storage capacity of 125,000 cbm, arrived at the location on January 10. LNG Prime reported on January 8 that the 293 meters long converted

FLNG was expected to arrive in Dakar, Senegal on December 10. It departed Seatrium's yard in Singapore on November 19 and is sailing under its own propulsion, supported by the 88.9 meters long escort tug, ALP Defender. Gimi and ALP Defender were on Thursday morning located offshore Nouakchott, Mauritania, their AIS data shows.

Offshore Tenerife

Golar said in the statement it had notified BP of FLNG Gimi's arrival. Following completion of all preparatory activities FLNG Gimi will be maneuvered to its berth at the hub and for her subsequent connection to the feed gas pipeline. However, Golar and BP have agreed that the FLNG "will proceed to moor offshore Tenerife while awaiting completion of the necessary preparatory activities," Golar said. Back in February 2019, Golar entered into the deal with BP for the charter of the FLNG.

This is the world's second converted floating LNG producer and joins Golar's Hilli, also converted by Seatrium and currently located offshore Cameroon's Kribi. Gimi will produce up to 2.7 million tonnes of LNG per year, using the Black & Veatch "Prico" liquefaction process. Golar CEO Karl-Fredrik Staubo welcomed the arrival of the FLNG at the GTA field offshore Mauritania and Senegal, her home for the next 20 years. "We are excited to integrate the Golar FLNG Facility with the GTA hub, and starting the next phase of our long-term relationship with bp and the GTA partners into LNG production," he said.

Rahman Rahmanov, BP's vice president projects for Mauritania & Senegal, said this is a "major step forward for overall delivery of the GTA1 project in Mauritania and Senegal."

FPSO

As per the project's FPSO unit, it left Cosco Shipping Heavy Industry's yard in Qidong, China in January last year. Kosmos previously said the FPSO was expected to arrive on location in the first quarter of 2024. Earlier this week, the unit was located offshore Dakhla and sailing north. Its AIS data showed on Thursday it was located offshore Tenerife, the largest of Spain's Canary Islands. Following arrival and completion of commissioning activities at the site offshore Mauritania and Senegal, the FPSO will process natural gas - removing condensate, water, and other impurities - before exporting it by pipeline to the project's FLNG facilities, 10km offshore. With eight processing and production modules, the FPSO will process around 500 million standard cubic feet of gas per day. The FLNG will liquefy majority of the gas, enabling export to international markets, while some of the supplies will help meet growing demand in the two host countries, BP previously said.

Subsea work

Golar said in its third-quarter report that commissioning is expected to take about six months from the commissioning start date with commercial operations (COD) expected thereafter. This means that the commercial launch of the project could be achieved in the third quarter of 2024. Golar and the GTA partners are "working on initiatives to further optimize the commissioning period in order to achieve COD as early as possible," it previously said. BP's interim CEO Murray Auchincloss told analysts during BP's third-quarter earnings call that the company is "hopeful" that it will launch the first phase of its Greater Tortue Ahmeyim FLNG project in the first quarter of 2024. The company pushed back the start of the project

due to a delay in the subsea scope. However, US firm and project partner Kosmos said in its third-quarter report that the delivery of first gas from the first phase of the project has the potential to slip into the second quarter of 2024. In October, BP selected Swiss-based offshore contractor Allseas to complete the remaining subsea pipelay scope for the FLNG project, replacing previous contractor Houston-based McDermott. Allseas said in December that it has started GTA offshore pipelay work using what it says is the world's largest construction vessel, Pioneering Spirit. Allseas' offshore construction support vessel Oceanic is providing installation support. Pioneering Spirit will complete the pipelay scope, which covers the approximately 75 km outstanding on the two export gas lines and four CRA infield lines, with multiple structures, Allseas said.

Source : www.lngprime.com

HUDONG-ZHONGHUA LAYS KEEL FOR MOL'S LNG TANKER

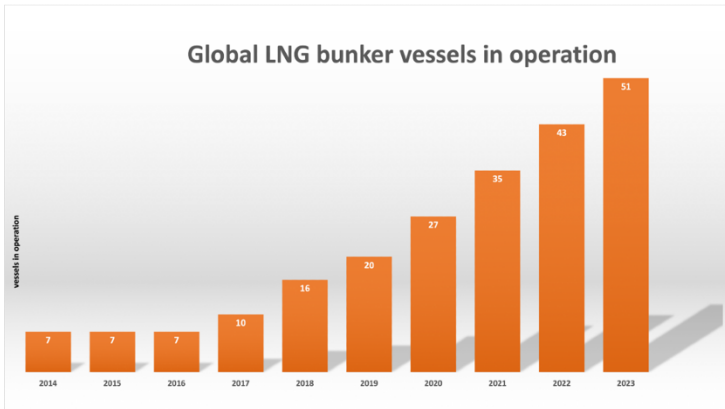
Chinese shipbuilder Hudong-Zhonghua has laid the keel for the second of six 174,000-cbm LNG carriers it is building for Japan's MOL and compatriot CNOOC. Hudong-Zhonghua held the keel-laying ceremony for the vessel with a working name H1881A on January 5, according to a statement by CNOOC's gas and power unit. CNOOC Gas & Power said the vessel is scheduled to be delivered at the end of August 2025. Hudong-Zhonghua kicked off construction on this LNG carrier on June 28, 2023. The shipbuilder started building the first LNG vessel in this batch of six in August 2022 and launched this ship which will be named Greenergy Ocean in July last year. This vessel is expected to be delivered in May this year, CNOOC Gas & Power said. MOL, in a partnership with COSCO Shipping's unit CSLNG, ordered these six vessels from Hudong-Zhonghua in January 2022 for about \$1.17 billion. All of the ships will serve CNOOC Gas & Power under long-term charter deals. Part of Hudong-Zhonghua's fifth-generation Changxeng series, the 299 meters long vessels will feature WinGD's X-DF dual-fuel engines and GTT's NO96 Super+ containment system. The Chinese shipbuilder will deliver all of the vessels until 2026. source : www.lngprime.com

FIRST LNG BUNKER VESSEL DESTINED FOR PANAMA LAUNCHED

The LNG bunker vessel (LNGBV) will be the first of its type to be based in the Panama region when it is delivered in 2024 by the Chinese shipbuilder. As previously reported in October, Seaspan and energy firm AES inked a memorandum of understanding aimed at providing LNG bunkering services to ships crossing the Panama Canal. The two firms will also explore options to provide similar services in regional markets close to the Costa Norte LNG terminal, owned by AES, located in Colón, Panama. The second Seaspan Energy LNGBV newbuild, targeted for operation on the West Coast of North America, will be delivered this year, followed by a third in 2025. Seaspan Energy, formerly called Seaspan LNG, developed the LNGBV in close co-operation with Canada's Vard Marine Inc.

“There is significant global interest in developing and investing in LNG bunkering solutions and Seaspan Energy is uniquely positioned to provide leadership in this growing market because of our advanced LNG capabilities and expertise,” said Seaspan

Energy president Ian McIver. “Developing an LNG bunkering business is a natural progression for Seaspan, as the company already provides traditional fuelling services and is a highly experienced LNG vessel operator with a fleet of hybrid ferries that operate primarily on LNG.” Designed for ship-to-ship bunkering and coastal small-scale LNG transport, Seaspan Garibaldi has an overall length of 113 m, beam of 19 m, draught of 5 m, with a design speed of 13 knots, and is destined ready to be upgraded with batteries.



Growing LNG bunkering fleet

Seaspan Garibaldi is part of a growing fleet of LNG bunker vessels. In November, Titan added Alice Cosulich, an 8,200-m³ LNG bunker vessel for operation in Amsterdam–Rotterdam–Antwerp area, and Clean Everglades, a 5,500-m³ LNG articulated tug barge vessel was delivered to Seaside LNG for operation in Florida. Overall, the global operational LNGBV fleet now stands at 51, with another 23 under construction, according to DNV Alternative Fuels Insight. 73% of the global LNGBV fleet is 5,000 m³ in capacity and above, with 40% within the 5,000 to 10,000 m³ capacity range. source: DNV Alternative Fuels Insight,

www.rivieramm.com

NOVATEK ISSUES FORCE MAJEURE CLAUSE TO ARCTIC LNG 2 BUYERS

Novatek is Russia’s second-largest natural gas producer behind Gazprom and its highly anticipated Arctic LNG 2 project, a 19.8M tonne per annum (mta) behemoth, was due to start operations December 2023. The notifications were issued after the United States imposed sanctions on the Arctic LNG 2 project late last year, which looks set to jeopardise the international partners’ participation in the project. Novatek received a force majeure notice from the three-train Arctic LNG 2 project in late November, which said the facility was unable to fulfil its production and delivery obligations due to the sanctions which have also led to a shortage of LNG vessels for loadings. Novatek has a 60% operating stake in Arctic LNG 2, which will give it access to 11.88 mta of supply across three trains. The company has since passed on the force majeure notice to term buyers whose contracts specified offtake from Arctic LNG 2. Major firms Shell, Vitol, Repsol, Gunvor and China’s ENN, Zhejiang Energy and Shenergy all have sale and purchase agreements with Novatek. It also has a strip deal with Japan’s JERA Global Markets for six Arctic LNG 2 cargoes, with deliveries to start in 2024.

Reuters reported that Repsol said it did not have a firm gas supply contract and the company had not received any force majeure notification. Novatek also operates the Siberia-based Yamal LNG plant which sends cargoes mainly to Europe which is a facility that has so far not faced United States sanctions. Arctic LNG 2 is a key effort to increase Russia's LNG supply market share to a fifth by 2030 (up from 8% today). The first LNG tankers from the project were expected to set sail in Q1 this year. And Russia's Deputy Prime Minister Alexander Novak reportedly confirmed, in an interview with the state-run Rossiya 24 TV channel, that the first train of the Arctic LNG 2 project has started operating and first shipments are due in Q1 2024. Other stakeholders in the project include French major TotalEnergies, China's CNOOC and PetroChina, and a Japanese joint venture comprised of Mitsui and Jorgmec. TotalEnergies is expected by some to be ready to exit its Russian LNG businesses. The Chinese and Japanese stakeholders, meanwhile, were heard to have commenced the long process of applying for sanctions waivers from the US Office of Foreign Assets Control. China has continued to support the project. Two heavy-lift vessels, Audax and Pugnax, departed from Penglai, China on 6 January and will arrive in Murmansk, Russia. Poten believes the Chinese and Japanese stakeholders are applying for sanctions waivers from the US Office of Foreign Assets Control while Total may exit the business altogether. All three trains of Arctic LNG 2 are expected to come online by 2026. A direct blacklist of the entire Arctic LNG 2 project is the latest in a string of US sanctions targeting the facility. The US had earlier sanctioned two floating storage units (FSUs) that were to be deployed at Kamchatka and Murmansk to facilitate and optimise Arctic LNG 2 deliveries. The operator of the two FSUs, Arctic Transshipment, and a host of other companies providing engineering, technology and/or construction services to the project were also sanctioned. source : www.rivieramm.com

SAMSUNG HEAVY INDUSTRIES LANDS US\$1.5BN CEDAR LNG FLNG CONTRACT

Cedar LNG is a proposed floating liquefied natural gas (FLNG) facility, a partnership between pipeline operator Pembina Pipeline Corp and Haisla Nation. As part of the deal, SHI will be responsible for the hull and topside plant processes of the FLNG. The order is estimated at some 2Tn Won (US\$1.5Bn). The EPC contract is subject to a final investment decision (FID) being taken. Located in Kitimat, British Columbia, the FLNG will have the capacity to export 3M tonnes per year of LNG. The project's location will allow it to leverage existing natural gas infrastructure, including the Coastal GasLink pipeline, with which Cedar LNG has a long-term transport agreement, a deepwater port, roads, and other infrastructure. Cedar LNG also received its first permit from the BC Energy Regulator for the 8.5-km pipeline that will connect the project into the Coastal GasLink pipeline. "This is a critical milestone on our path towards a FID for Cedar LNG, the first Indigenous majority-owned LNG project in the world," said Cedar LNG chief executive Doug Arnell. "We have secured world-class FLNG expertise and look forward to working with SHI and Black & Veatch to build the LNG facility." Black & Veatch chairman and chief executive Mario Azar said, "Our role in helping Cedar LNG make history on this world-class facility aligns with our commitment to deliver a

reliable and resilient global energy supply as a leader in the world's energy transition.” The project now has major regulatory



approvals, signed MoUs for long-term liquefaction services for the project's total LNG capacity, and with the achievement of this milestone, the project is at an advanced stage of planning and development with the operator expected to take a FID by the end of Q1 2024. Subject to a positive FID, onshore construction work for the project could commence as early as Q2 2024, with the delivery of the FLNG and substantial completion expected in 2028.

British Columbia is home to massive natural gas reserves, estimated at over 2,900 Tn cubic feet, and intends to exploit it. The C\$40Bn LNG Canada export terminal near Kitimat counts Shell, Petronas and PetroChina as partners. The project is one of the largest-ever investments in Canada's history and the first tugs that will assist the gas carriers calling at the facility are nearing completion. source : www.rivieramm.com

CYPRLOT GROUP TAKES 18% STAKE IN CAPITAL PRODUCT PARTNERS

Capital Product tankers sold 10M common shares at US\$16 per share. Founded in 2019, Yoda said in a statement its investment is part of plan to “further invest and expand its activities in the shipping sector,” adding, “CPLP is an international shipping company engaged in the seaborne transport of natural gas and we expect the investments it holds shall assist the company in achieving its long-term shipping investment plans.” Capital Maritime now has a 54% stake in CPLP while Capital Gas maintains a 2% holding. CPLP is a leading listed owner of two-stroke LNG carriers with eight currently operational and another 10 to be delivered within the next three years. Yoda believes the company is poised to take advantage of the strong fundamentals of the LNG industry with six LNG carriers arriving between 2026-2027, at a time when natural gas demand is expected to rise. Yoda's investment is one of the first since Mr Marinakis' company made its big move into the LNG business, acquiring 11 gas ships for a combined US\$3.1Bn in November 2023. Capital Product Partners' also appointed an LNG veteran, ex-Inpex executive Atsunori Kozuki as Capital's head of LNG business development and marketing. Capital New Energy Carriers holds the right of first refusal on two ammonia carriers and two 22,000-m³ liquefied CO₂ carriers on order by Capital Maritime, and future two-stroke LNG vessels and charters from Capital Maritime. source : www.rivieramm.com

ENERGOS INFRASTRUCTURE BUYS TWO DYNAGAS FSRUS

The two 174,000-m³ closed-loop FSRUs will be renamed Energos Force (ex-Transgas Force) and Energos Power (ex-Transgas Power). Each 294 m x 47 m FSRU combines all the functions of a traditional LNG carrier and land-based receiving station with LNG transport, receiving, storage and regasification functions. The FSRUs' hull lines incorporate an advanced multi-objective optimisation design concept and can reach speeds of up to 19 knots, according to the builder, China State Shipbuilding Corp. The design incorporates open seawater glycol heating and a closed-steam glycol composite heating system, which can be applied to sea areas with various temperatures. Each regas unit has a capacity of 250M standard cubic feet per day with the rated send-out capacity standing at nearly 500M standard cubic feet per day. Earlier in 2023, the FSRUs commenced long-term charter contracts with the German Federal Ministry of Economic Affairs and Climate Change. Energos Force is operating in the port of Stade for Deutsche Energy Terminals, while Energos Power is operating in the port of Mukran and has been subchartered to Deutsche Regas. With these two high-specification LNG regasification vessels added to its platform, Energos Infrastructure will own and operate 13 LNG infrastructure vessels consisting of nine FSRUs, two floating storage units and two LNG carriers. Energos Infrastructure chief executive Arthur Regan said, "Reliable energy infrastructure is essential to address the global energy crisis and reducing carbon emissions." He added, "We are pleased to acquire these critical assets in operating service in Germany, which we believe will solidify Energos as a premier LNG maritime infrastructure company and further supports our efforts to bring cleaner, more reliable energy to customers around the world." Apollo partner Brad Fierstein said, "We are pleased to support the Energos team in executing this FSRU acquisition, which we believe will be transformative for the platform and support its continued growth. Providing enhanced energy security and enabling lower carbon power generation are core priorities to Apollo's efforts to help drive a more sustainable future and we believe the implementation of these new vessels can play a significant role in bolstering Germany's energy independence." Apollo Capital Solutions performed debt advisory and placement services for the acquisition financing, which was led by BNP Paribas, Cr dit Agricole CIB, Mizuho Bank and Sumitomo Mitsui Trust Bank. source : www.rivieramm.com

HOEGH SECURES CHARTER EXTENSION FOR COLOMBIA-BASED FSRU

H egh LNG and Colombian LNG importer Spec LNG have extended their partnership for LNG access and energy resilience in Colombia. For the past seven years, the floating storage regasification unit (FSRU) H egh Grace has delivered LNG storage and regasification services to Spec's import terminal in Cartagena, Colombia. Noting that Colombia faces a significant shift in its power requirements and a decline in domestic gas supply, H egh said LNG is positioned to continue supporting electricity generation and offsetting the projected natural gas deficit for industrial and residential demand. The South American nation has been suffering a drought and has turned to gas-fired generating capacity as a replacement for hydroelectric power. To that end, H egh has now secured a charter extension and expansion of its services that will see H egh Grace work offshore

Colombia through at least 2031, enabling continuity and increasing energy supply with imports being ramped up to nearly 3.8M tonnes per annum. “The renewal of our longstanding co-operation with Spec LNG demonstrates how valuable floating terminals can be, as reliable, sustainable and scalable infrastructure solutions. We are pleased to help Colombia secure access to international LNG markets and ensure the reliability of its energy system,” said Höegh chief executive Erik Nyheim. “This positive news arrives at a crucial moment for Colombia. The extension of the FSRU services and the possibility of utilising the regasification capacity of Spec LNG up to 533M standard cubic feet per day will contribute to the long-term supply of natural gas and strengthen energy reliability in the country,” said Spec LNG managing director Jose Maria Castro. source : www.rivieramm.com

QATARENERGY, HUDONG-ZHONGHUA SEAL DEAL FOR GIANT LNG CARRIERS

State-owned LNG giant QatarEnergy has signed a shipbuilding deal with China’s Hudong-Zhonghua for the construction of eight Q-Max LNG carriers as part of its shipbuilding program, according to shipbuilding sources. The giant vessels will have a capacity of 271,000 cubic meters and are scheduled to be delivered in 2028 and 2029, shipbuilding sources told LNG Prime on Tuesday. LNG Prime reported in September last year that QatarEnergy was looking to order Q-Max LNG carriers in China and South Korea. The price tag of the new deal has not been revealed. Regular LNG carriers in China are now priced at more than \$235 million, and in South Korea at about \$265 million. However, the vessels previously ordered as part of the shipbuilding program in China and South Korea were booked below market prices. These Q-Max vessels could be each worth more than \$300 million. QatarEnergy will now sign time charter parties with shipowners for these LNG carriers, the same as the firm did for the previous vessels which were ordered as part of the first phase of the shipbuilding program, the sources said. Back in 2020, QatarEnergy entered into an agreement with Hudong-Zhonghua to reserve LNG ship construction capacity in China for its future LNG carrier fleet requirements, including for the North Field expansion projects. In April 2022, QatarEnergy signed charter deals for four Hudong-Zhonghua LNG carriers with Japan’s MOL, completing the first batch of charter contracts awarded under its massive shipbuilding program. After that, QatarEnergy signed charter deals with MOL for three new carriers, and five LNG carriers with a consortium of Japan’s NYK, K Line, Malaysia’s MISC, and China LNG Shipping. Including these eight Q-Max carriers, Hudong-Zhonghua will build in total 20 LNG carriers as part of the shipbuilding program.

344 meters

In September last year, Hudong-Zhonghua received approvals in principle from classification societies for what it said is the world’s largest LNG carrier. According to Hudong-Zhonghua, the 271,000-cbm LNG carrier is 344 meters long, 53.6 meters wide, and has a design draft of 12 meters. It features dual-fuel propulsion, a reliquefaction system, an air lubrication system, and GTT’s NO96 Super+ containment tech. The vessel has five storage tanks.

Despite its size, the vessel would be able to dock at more than 70 LNG terminals along the main trade route, the shipbuilder said.

Expansion

Currently, the world's largest LNG carriers are Qatar's Q-Max vessels which are about 345 meters long and have a capacity of 263,000–266,000 cbm. Qatar's Nakilat owns 14 Q-Max LNG carriers built by Hanwha Ocean (DSME) and Samsung Heavy between 2008 and 2010, and they all transport LNG from the giant Ras Laffan LNG complex in Qatar to customers around the globe. QatarEnergy LNG, previously known as Qatargas, currently operates 14 LNG production trains with a capacity of about 77 Mtpa in Ras Laffan. However, QatarEnergy is significantly increasing its LNG production from the North Field, and needs to secure shipping capacity for these projects. This first phase of the North Field expansion project will increase Qatar's LNG production capacity from 77 to 110 Mtpa, while the second phase will further boost capacity to 126 Mtpa. Besides the vessels at Hudong-Zhonghua, QatarEnergy also booked LNG carriers at South Korea's Samsung Heavy, HD Hyundai Heavy Industries, and Hanwha Ocean. Under the first phase, QatarEnergy contracted 60 LNG carriers at the four shipbuilders. Last year, QatarEnergy also signed a deal for 17 LNG carriers with HD Hyundai Heavy Industries, kicking off the second phase of the shipbuilding program. The contract is valued at about \$3.9 billion. This puts the price tag for a single vessel at about \$229 million, much lower than the current average price for a newbuild LNG carrier in South Korea. The Korean vessels that were ordered as part of the first phase of the shipbuilding program were priced at about \$215 million. QatarEnergy is expected to award more contracts under the shipbuilding program this year. source : www.lngprime.com

GLADSTONE LNG EXPORTS SLIGHTLY UP IN 2023

Liquefied natural gas (LNG) exports from the Gladstone port in Australia's Queensland rose 1.4 percent in 2023 compared to the previous year, according to Gladstone Ports Corporation. Curtis Island is home to the Santos-operated GLNG plant, the ConocoPhillips-led APLNG terminal, and Shell's QCLNG facility. These are the only LNG export facilities on Australia's east coast. The three terminal shipped about 22.97 million tonnes of LNG or 350 cargoes in 2023, GPC's data shows. This compares to about 22.64 million tonnes of LNG or 354 cargoes in 2022, the data shows. In December 2023, LNG exports reached some 2.25 million tonnes of LNG or 32 cargoes, up from 1.84 million tonnes of LNG or 29 cargoes in December 2022, and also a rise from about 1.82 million tonnes of LNG or 28 cargoes in the prior month. Most of 2023 LNG exports (13.46 million tonnes) landed in China, marking a rise compared to 12.38 million tonnes last year, the data shows. Volumes to South Korea dropped to 3.42 million tonnes last year from 3.84 million tonnes in 2022, while volumes to Japan decreased to 1.98 million tonnes from 2.66 million tonnes. GPC's data also shows that Malaysian volumes were almost flat in 2023 reaching 2.21 million tonnes, while Singapore volumes rose to 1.51 million tonnes from 1.27 million tonnes in 2022. During 2023, the three plants also sent 289,962 tonnes to Thailand and 67,400 tonnes to the Philippines, the data shows. In August,

LNG giant Shell supplied the commissioning cargo to First Gen's FSRU-based terminal in Batangas, Philippines. The Shell-operated QCLNG plant recently also shipped its 1000th cargo since it started operations in May 2015. This is the first of the Queensland projects to reach 1,000 cargoes, according to Shell's QGC. Source : www.lngprime.com

FINLAND'S GASUM DELIVERS ANOTHER LNG CARGO TO INKOO FSRU

Finnish state-owned energy firm Gasum has delivered another liquefied natural gas (LNG) cargo to the Inkoo FSRU-based terminal operated by Gasgrid. Gasum said that the LNG cargo of about 800 GWh has arrived from USA on Tuesday, and it was supplied by the company's new LNG trading partner SEFE Marketing & Trading, a unit of Germany's SEFE and previously known as Gazprom Marketing and Trading. According to its AIS data, the 2008-built 149,700-cbm, Amur River, delivered the LNG shipment from Venture Global LNG's Calcasieu Pass export plant in Louisiana to Excelebrate Energy's 150,900-cbm FSRU Exemplar, which serves Gasgrid's import facility in Inkoo under a charter deal. Amur River is owned by Dynagas LNG Partners and serves a charter with SEFE.

Securing supply during winter

Gasum said this is the fourth large LNG cargo the company has delivered to the Inkoo FSRU since the Balticconnector gas pipeline between Finland and Estonia suffered a rupture and was shut down in early October. In addition, Gasum delivered a "smaller 100 GWh cargo with its own LNG vessel Coral Energy early January to Gasgrid to ensure system balancing and mitigating the risk of inadequate gas during the extraordinarily cold period," it said. While the pipeline is being repaired, all Finnish natural gas demand must be met through imports of LNG, Gasum noted. "We have been working hard to secure supply of natural gas during the winter season to our customers, whose operations depend on a steady supply of gas," **Jouni Liimatta**, head of trading and optimizing at Gasum, said. "The cold period has increased local gas demand and thus, we are very pleased that we were able to secure the required ice-classified LNG vessels for the winter season with the offer coming from SEFE Marketing & Trading Ltd. This transaction highlights the importance of a broad cooperation network in challenging situations", Liimatta said. In addition to this delivery, Gasum has reserved another slot at the Inkoo FSRU for the latter part of the winter season. These two cargoes will ensure that Gasum can meet the natural gas demand of its customers until spring 2024, Gasum said. Besides Gasum, Eesti Gas, a unit of Estonian investment firm Infortar, said in November last year it would deliver three more LNG cargoes to the FSRU-based terminal during the winter. Source : www.lngprime.com

GTT SECURES NEW LNG TANK GIGS

French LNG containment giant GTT has secured new orders from two South Korean shipyards. GTT said in a statement the orders were received in 2023 and the 174,000-cbm vessels would be built for a Japanese owner. According to GTT, the first LNG carrier will be realized by Hanwha Ocean, previously known as DSME. This vessel will be fitted with the NO96 GW membrane containment system, while the delivery of the vessel is scheduled for the third quarter of 2027. Hanwha Ocean secured orders for five LNG carriers in 2023, compared to record 38 LNG carriers in 2022. Japan's MOL ordered three LNG carriers at Hanwha Ocean and Greece's Maran Gas ordered two vessels last year. As per the second LNG carrier, GTT said it would be built by Samsung Heavy Industries. This vessel will incorporate GTT's Mark III Flex membrane containment system, while the delivery of the vessel is scheduled for the third quarter of 2026. Samsung Heavy received in total seven LNG carrier orders last year, compared to record 36 LNG carrier orders in 2022. MOL ordered five LNG carriers at Samsung Heavy and US-based Chevron ordered two vessels. Source : www.lngprime.com

18 LNG-POWERED VESSELS ORDERED IN DECEMBER, 2023 ORDERS DROP

Classification society DNV has added 18 LNG-powered ships to its Alternative Fuels Insight platform in December. In total, 130 LNG-powered vessels were ordered last year, down from 222 in 2022. DNV said that a total of 298 ships with alternative fuel propulsion were ordered in 2023 – an 8 percent increase compared to the last year. These include orders for 138 methanol-powered vessels, 130 LNG-powered vessels, and 11 ammonia-powered vessels. DNV said that methanol proved the most popular alternative fuel choice in 2023. However, when looking at newbuilds alone LNG would be in the lead as a considerable proportion of methanol orders were for retrofits, it said. Last year also saw LNG finally break the 1000 vessel barrier (excluding LNG carriers), showing the fuel's continued importance in the maritime energy transition, DNV said. In 2023, the containers segment was the most active (48) for LNG, followed by car carriers (40), and tankers (30). "Investments in alternative-fueled vessels have been heavily driven by the container and car carrier newbuild boom over the last three years. It remains to be seen if this trend continues into 2024," Martin Wold, principal consultant in DNV's maritime advisory business, said. The 18 orders for LNG-powered vessels in December compare to four in November and six in October. DNV reported orders for eight LNG-powered ships in September, 21 vessels in August, and 14 vessels in July, while in June there were orders for 26 LNG-powered ships, the highest monthly number of vessels last year. The January–May period of 2023 was slow for LNG-powered newbuild orders after a record 2022 with 222 orders. DNV's platform shows that there are now 469 LNG-powered ships in operation, while owners placed orders for 537 LNG-fueled vessels. LNG-powered crude oil tankers lead the way with 74 in operation, followed by 71 containerships, 50 oil/chemical tankers, and 43 car and passenger ferries. As per vessels on order, LNG-powered containerships account for a big part of the orders with 201 units. Shipping firms also ordered

151 car carriers, 48 oil and chemical tankers, 35 crude oil tankers, and 31 bulk carriers. These statistics do not include smaller inland vessels or dual-fuel LNG carriers.

52 LNG bunkering vessels and 213 LPG-powered ships

Besides LNG-powered vessels, there are 52 LNG bunkering vessels in operation and 15 on order, the platform shows. In addition to 1006 confirmed LNG-powered ships, the fleet powered by alternative fuels also includes 234 methanol-fueled vessels, 213 LPG-powered ships, and 30 hydrogen-fueled vessels, according to the platform. Source : www.lngprime.com

PERU LNG'S 2023 EXPORTS RISE

Peru LNG, the operator of the 4.4 mtpa LNG plant at Pampa Melchorita, has increased its exports last year compared to the year before, and it also expects to boost the number of shipments in 2024. US-based Hunt Oil holds a 50 percent operating stake in the Pampa Melchorita LNG plant, while SK and Marubeni have 20 percent and 10 percent, respectively.

LNG giant Shell also holds a 20 percent stake and takes all the volumes produced at the facility. "In 2023, 55 vessels were loaded, totaling 3,692,637 metric tons," Peru LNG told LNG Prime in emailed comments. This compares to 51 vessels, totaling 3,474,259 metric tons, in 2022, it said. Data by state-owned PeruPetro shows that the LNG plant shipped six cargoes in December to Mexico, South Korea, Japan, Canada, and UK. Peru LNG shipped four LNG cargoes in November, four cargoes in October, and five cargoes in September. The plant sent two cargoes in August after it completed scheduled maintenance, operator Hunt Oil previously told LNG Prime. Peru LNG said that the main destinations in 2023 were United Kingdom and South Korea, and also Japan, China, Spain, France, Netherlands, and Canada. "Regarding 2024, 60 vessels and 218 Tbtus are expected to be loaded," Peru LNG said. According to Peru LNG's 2022 annual report, the plant loaded more than 60 vessels only in 2016 and in 2017. In 2021, 38 vessels berthed to load LNG at the plant, 55 vessels in 2020, 58 vessels in 2019, 57 vessels in 2018, 64 vessels in 2017, 70 vessels in 2016, 56 vessels in 2015, 60 vessels in 2014, 57 vessels in 2013, 53 vessels in 2012, 55 vessels in 2011, and 23 vessels in 2011 when operations began. source : www.lngprime.com

STENA ORDERS ANOTHER LNG-FUELED FERRY IN CHINA

Sweden's Stena RoRo has ordered another LNG-powered ferry from China Merchants Jinling Shipyard in Weihai. The RoPax-class E-Flexer vessel will be delivered in the first quarter of 2026 to France's Corsica Linea and will operate between Marseille and Corsica. This is Stena RoRo's thirteenth vessel in the E-Flexer series and the first to be delivered to the Mediterranean region. Stena RoRo did not reveal the price tag of the new order. It said that a total of six vessels will now be under construction at the shipyard at the same time. Prior to this this ship, France's Brittany Ferries will take delivery of two LNG-powered ships, the 11th and the 12th in these series, in 2024 and 2025. The newest E-Flexer vessel will be 203 meters long, and will have a capacity for 1000 passengers and 2500 cargo meters of freight. It will be designed with the classification

society notation “battery power” which means that in the future the vessel will also be able to utilize batteries as a means of propulsion. For Corsica Linea, with this vessel it will further slash its emissions. The new vessel adds to Corsica Linea’s, A Galeotta, its first LNG-powered ferry. Corsica Linea took delivery of this vessel in December 2022. source : www.lngprime.com

AUSTRALIA PACIFIC LNG PENS NEW DOMESTIC GAS DEAL

Australia Pacific LNG, the operator of the 9 mtpa LNG export facility on Curtis Island near Gladstone, has signed a deal to supply additional gas to the domestic market. According to a statement by APLNG, the producer has signed a contract to extend the supply of gas to mining and infrastructure solutions provider Orica to 2025. Orica produces explosives, blasting systems, and mining chemicals used to mobilize the earth’s resources. Under the contract, APLNG will supply an additional 2.92PJ of gas in 2025. APLNG’s CEO Khoa Dao said the agreement was a “further demonstration of Australia Pacific LNG’s commitment to supplying the east coast gas market.” Orica’s current contract was struck as a result of tenures granted to APLNG that included domestic supply conditions specifically focused on supporting manufacturing. At the end of 2023, APLNG contributed over 142 PJ of supply to the domestic market and expects to supply a further 151 PJ in 2024. In 2022, US energy giant ConocoPhillips completed the purchase of an additional 10 percent shareholding interest in APLNG from Origin Energy for about \$1.64 billion. ConocoPhillips has a 47.5 percent share in the project but it also operates the LNG export facility on Curtis Island and the export sales business. Origin Energy operates APLNG’s gas fields and holds a 27.5 percent share, while China’s Sinopec owns a 25 percent share in APLNG as well. Source : www.lngprime.com

GOLAR’S FLNG EXPECTED TO ARRIVE IN SENEGAL THIS WEEK

Golar LNG’s converted FLNG, Gimi, which will serve the first phase of BP’s Greater Tortue Ahmeyim project offshore Mauritania



and Senegal, is expected to arrive in Dakar this week, according to shipping data. The FLNG, which was converted from a 1975-built Moss LNG carrier with a storage capacity of 125,000 cbm, departed Seatrium’s yard in Singapore on November 19. Golar said at the time that it expects the voyage to take around 60 days, including refueling stops in Mauritius prior to rounding the Cape of Good Hope and in Namibia prior to its arrival. The 293 meters long converted FLNG is sailing under its own propulsion, supported by the 88.9 meters long

escort tug, ALP Defender, according to Golar. Gimi and ALP Defender were on Monday located offshore Guinea and are

expected to arrive in Dakar on January 10, their AIS data shows. Upon arrival, Gimi will notify BP that it is ready to be moored and connected to the GTA hub, which is expected to trigger the start of contractual cash flows under the 20-year lease and operate agreement on the GTA field, Golar previously said. Back in February 2019, Golar entered into the deal with BP for the charter of the FLNG. This is the world's second converted floating LNG producer and joins Golar's Hilli, also converted by Seatrim and currently located offshore Cameroon's Kribi. Gimi will produce up to 2.7 million tonnes of LNG per year, using the Black & Veatch "Prico" liquefaction process.

Project delayed due to subsea work

Following arrival of the FLNG and the FPSO at the GTA hub, BP will start upstream commissioning and supply of gas to the FLNG. Golar said in its third-quarter report that commissioning is expected to take about six months from the commissioning start date with commercial operations (COD) expected thereafter. This means that the commercial launch of the project could be achieved in the second or third quarter of 2024. Golar and the GTA partners are "working on initiatives to further optimize the commissioning period in order to achieve COD as early as possible," it said. BP's interim CEO Murray Auchincloss told analysts during BP's third-quarter earnings call that the company is "hopeful" that it will launch the first phase of its Greater Tortue Ahmeyim FLNG project in the first quarter of 2024. The company pushed back the start of the project due to a delay in the subsea scope. However, US firm and project partner Kosmos said in its third-quarter report that the delivery of first gas from the first phase of the project has the potential to slip into the second quarter of 2024. In October, BP selected Swiss-based offshore contractor Allseas to complete the remaining subsea pipelay scope for the FLNG project, replacing previous contractor Houston-based McDermott. Allseas said in December that it has started GTA offshore pipelay work using what it says is the world's largest construction vessel, Pioneering Spirit. Allseas' offshore construction support vessel Oceanic is providing installation support. Pioneering Spirit will complete the pipelay scope, which covers the approximately 75 km outstanding on the two export gas lines and four CRA infield lines, with multiple structures, Allseas said.

FPSO

As per the project's FPSO unit, it left Cosco Shipping Heavy Industry's yard in Qidong, China in January last year. Kosmos previously said the FPSO was expected to arrive on location in the first quarter of 2024. Its AIS data showed on Monday that it was located offshore Dakhla and heading north, not south toward Mauritania. Following arrival and completion of commissioning activities at the site offshore Mauritania and Senegal, the FPSO will process natural gas – removing condensate, water, and other impurities – before exporting it by pipeline to the project's FLNG facilities, 10km offshore. With eight processing and production modules, the FPSO will process around 500 million standard cubic feet of gas per day. The FLNG will liquefy majority of the gas, enabling export to international markets, while some of the supplies will help meet growing demand in the two host countries, BP previously said. source : www.lngprime.com

FLEX LNG'S CARRIER WILL BE AVAILABLE FOR CHARTER LATER THIS YEAR

Flex LNG's 2019-built 173,400-cbm, Flex Constellation, will be available for charter later this year after a trading house decided not to utilize its extension option. In May 2021, the shipping firm controlled by billionaire John Fredriksen announced a three-year charter for this ME-GI LNG carrier with the trading house, said to be Trafigura, with an option for three more years. However, the charterer has decided not to utilize its extension option, and Flex LNG expects to take redelivery of the ship during the second quarter of 2024. Flex LNG's chief executive, Øystein Kalleklev, said the redelivery of the vessel "fits well" with its scheduled five-years special survey which is due during second or third quarter of 2024. For 2024, Flex LNG has two ships scheduled for drydock, in contrast to four ships during 2023, and the charter coverage for the company is 95 percent following the redelivery of Flex Constellation.

Flex LNG expects to earn more from new charter

Kalleklev said that Flex Constellation has been on a time charter with a fixed rate of \$80,000 per day, in line with the time charter equivalent guidance for the company's fleet in 2023. "The term rates for one to ten years charters are currently being quoted at \$90-100,000 per day according to most brokers. Consequently, we believe the vessel is well positioned to be recontracted at more attractive levels than the previous contract," he said. "Once we have completed the special survey of Flex Constellation, we will market her for short- and long-term opportunities ahead of the winter season which we consider a good timing," Kalleklev said. Flex LNG owns 13 LNG carriers, and 12 of these vessels are on fixed hire time charters, including to US LNG exporter Cheniere, while one ship, Flex Artemis, is on a variable time charter. The firm reported higher revenue and lower net income in the third quarter compared to the same period last year, and it expects a further increase in revenue in the fourth quarter. Source : www.lngprime.com

NEXTDECADE ENTERS LOAN AS IT WORKS ON FID FOR FOURTH RIO GRANDE LNG TRAIN

US LNG firm NextDecade has entered into a credit agreement as it works to take a final investment decision to build the fourth liquefaction train at its Rio Grande LNG export project in Texas. The company's unit NextDecade LNG has entered into a credit agreement with MUFG Bank as lender and administrative agent that provides for a \$50 million senior secured revolving credit facility and a \$12.5 million interest term loan. NextDecade said borrowings under the credit facility may be utilized for general corporate purposes, including development costs related to Rio Grande train 4. Also, the firm said that borrowings under the interest term loan may be utilized to pay interest expense, fees, and other expenses related to the revolving credit facility. The credit facility and the term loan mature at the earlier of two years from the closing date or 10 business days after

an FID on train 4 at the Rio Grande LNG facility. NextDecade expects the credit facility to provide “meaningful” liquidity and capital resources as the company progresses toward a positive FID of train 4, it said.

Train 4 FID in H2 2024

The firm has started the front-end engineering and design (FEED) and EPC contract processes with Bechtel Energy for train 4 and expects to finalize the EPC contract in the first half of 2024. NextDecade said it is progressing “numerous discussions” with potential buyers of LNG to provide commercial support for the fourth train and is targeting a positive FID on the project in the second half of 2024. The firm said in a project update in November last year that it expects to sanction the fourth liquefaction train in the second half of 2024. In July, NextDecade took the final investment decision on the first three Rio Grande trains and completed \$18.4 billion project financing. It awarded the \$12 billion EPC contract to Bechtel. The firm also closed a joint venture agreement for the first phase which included about \$5.9 billion of financial commitments from Global Infrastructure Partners (GIP), GIC, Mubadala, and TotalEnergies. Phase 1, with nameplate liquefaction capacity of 17.6 mtpa, has 16.2 mtpa of long-term binding LNG sale and purchase agreements. These include deals with TotalEnergies, Shell, ENN, Engie, ExxonMobil, Guangdong Energy Group, China Gas Hongda Energy Trading, Galp, and also Itochu. TotalEnergies also has LNG purchase options of 1.5 mtpa for each of train 4 and train 5. Including trains 4 and 5, the Rio Grande LNG facility would have a capacity of 27 mtpa. source : www.lngprime.com

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