CECYGNUS ENERGY GAS&OIL LNG NEWS WEEKLY 10TH NOVEMBER 2024



ATLANTIC LNG SHIPPING RATES DIP TO JUST \$18,250 PER DAY

Atlantic and Pacific (LNG) freight rates continued their downward trend this week, with the Atlantic rates reaching just \$18,250 per day. Last week, LNG shipping rates continued to slide in both basins. "Spark30S Atlantic rates have dropped to record lows, reducing by \$2,500 to \$18,250 per day"

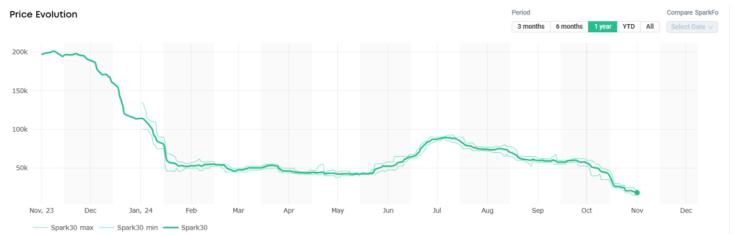
These are the lowest Spark30-174 rates in the last five years. "Similarly, Spark25S Pacific rates continued to decline for a twelfth straight week, falling by \$6,250 to \$30,500 per day," he said. Currently, freight rates in both basins continue to be the lowest in the last five years for this time of the year due to higher intra-basin flows and higher vessel availability, as Spark's netbacks tool currently show the US arb to NE-Asia via the Cape as closed for the next year. Whilst the record-low Atlantic freight rates act to open the arbitrage to Asia, the recent TTF rally has narrowed the JKM-TTF spread and thus kept the US arb (via the Cape) firmly closed, Spark said in a report on Thursday. Currently, Spark30S rates would have to go negative for the front month arb to open again, according to Spark.

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European prices down

In Europe, the SparkNWE DES LNG was lower compared to \$13.104/MMBtu last week. "The SparkNWE DES LNG front month price for December delivery is pricing in at \$12.699/MMBtu," Afghan said.



"The discount to the TTF narrowed slightly, currently assessed at - \$0.215/MMBtu," Afghan said. Data by Gas Infrastructure Europe (GIE) shows that volumes in gas storages in the EU declined slightly compared to the previous week and were 95.20 percent full on October 30. Gas storages were 95.26 percent full on October 23 and 99.10 percent full on October 30, 2023.

JKM

In Asia, JKM, the price for LNG cargoes delivered to Northeast Asia in December settled at \$13.620/MMBtu on Thursday. Last week, JKM for December settled at 13.795/MMBtu on Friday, October 25. Front-month JKM then dropped to 13.775/MMBtu on Monday. It decreased to 13.685/MMBtu on Tuesday and 13.520/MMBtu on Wednesday. State-run Japan Organization for Metals and Energy Security (JOGMEC) said in a report earlier this week that JKM for last week (October 21 - October 25) rose to low-\$14s on October 25 from low-\$13s the previous weekend. "The price was upward trend through the week due to growing supply concerns from unplanned maintenance at the Norwegian gas field and falling US feed gas supplies. JKM hit its highest since this August. Demand in Asia remains low due to high level of their stocks," source: www.lngprime.com

MOL ANCHORS AGEING LNG STEAM TURBINE VESSEL IN THE LAY-UP ZONE

A 20-year-old, steam turbine LNG carrier controlled by Japan's Mitsui OSK Lines has been idled in an area traditionally used for lay-up as prospects for older vessels are slim. Brokers said the 137,661-cbm Moss-type LNG carrier Dukhan (built 2004) had been laid up. Kpler data shows the steamship arrived in Brunei Bay in mid-September and is anchored off Labuan in east Malaysia. The vessel, listed under the control of Tokyo Gas, is last shown as lifting cargo from Australia to Indonesia in August. The Dukhan was famously left out of a purchase of a raft of 10 LNG steamships from a consortium of four Japanese shipowners in 2022 by Qatargas. The Qatari LNG producer bought the vessels at the end of their 25-year time-charter contracts at what was said to be a discounted price close to their then residual values of just over \$10m per ship, as agreed

^{□e}Cygnus Energy

when their original time charters were drawn up. The elderly LNG carrier was at one point touted as the likely floating storage unit that was to be used for Swan Energy's import project in India. But the infrastructure for this development suffered cyclone damage and it has not moved forward. MOL said it could not comment when asked about the vessel's status. The Dukhan is recorded on Clarksons' Shipping Intelligence Network database as "idle". The vessel is by no means among the oldest in the world fleet, which includes almost 40 ships-built pre-2000. SIN records about 20 LNG carriers as idle. The bulk of these are steam turbine LNG carriers with four of the vessels detailed as dual-fuel diesel-electric ships. Five LNG carriers are currently recorded as "laid up". These include the Indonesian-controlled, 126,300-cbm LNG Aquarius (built 1977), which had previously worked as a shuttle ship in tandem with the 125.000-cbm floating storage and regasification unit Nusantara Regas Satu (built 1977), MISC's 137,100-cbm Puteri Delima Satu (built 2002) and the Sinokor Merchant Marine-controlled 126,300-cbm Gulf Energy (built 1978). The more modern 174,100-cbm SK Spica and SK Serenity (both built 2018) are also laid up in Brunei Bay. Offers - for further trading or demolition - have been invited on these two ships, which have experienced issues with their Kogas-designed KC-1 LNG cargo containment systems. Steam turbine LNG carriers were already at a crossroads, but the current dismal charter market has brought their future into sharper focus. The vessels rank as the oldest in the world LNG fleet and are smaller and less efficient than their more modern cousins. Shipowners have already been moving to clean them out of their fleets with sale-and-leaseback deals, straight sales and a drip feed of tonnage being floated on the market to prospective buyers as long-term charter deals end. Some cling to conversion prospects for their vessels. Brokers have expressed a growing expectation that this quiet emergence of tonnage could become a deluge by the year-end. For sellers and brokers, the market for some of these older ships has become something of a minefield after several secondhand steamships have exchanged hands at high prices to buyers connected to Russian interests. There also appears to be a reluctance to scrap LNG vessels, with just three sent to the breakers so far this year. But in the past few weeks, the situation has been further compounded by plummeting charter rates that have seen steamers all but cut out of the chartering picture with rates pegged from zero to \$10,000 per day. source: www.tradewindsnews.com

K LINE NAMED AS OWNER BEHIND LONE CARRIER ORDER

Japanese shipowner K Line is being linked to an order for a single LNG carrier newbuilding announced recently by Samsung Heavy Industries as talk swirls about new long-term business netted for the vessel from Gail (India). SHI said it had won an order priced at KRW 358bn (\$259m) to build an LNG carrier. The company only identified the contracting party as a shipper in Asia but did not name them. The newbuilding is due for delivery in June 2027. K Line is being named by shipping industry sources as the company behind the newbuilding. In the past few weeks, brokers said K Line has emerged as the shipowner selected by LNG buyer Gail to provide a vessel for the company to take on a long-term charter. TradeWinds reported in September that a Japanese owner had been selected for Gail's long-term requirement for modern tonnage following a tender



process. Gail tendered for an LNG carrier to take on charter for a minimum of seven years with the option to extend the hire to the end of 2038. It has floated the option of taking up to a 26% equity stake in the ship. This latest order for SHI, which has been focused on LNG carrier and floating LNG production units, nudges up the shipbuilder's order tally for 2024 to \$5.6bn. This constitutes 58% of the yard's 9.7bn order target for the full year. The company said it is on track to achieve the annual target and is in talks on further LNG carrier and container ship newbuildings. SHI is sitting on an order backlog of \$31.9bn. source: www.tradewindsnews.com

LNG FUEL GATHERS MOMENTUM, SAYS DNV

Shipowners are supporting the surge back towards LNG as a marine fuel with 66 newbuilding orders placed in October, according to classification society DNV. Unveiling monthly figures from its Alternative Fuels Insight platform, DNV said LNG was once again the biggest driver, building on its strong momentum since July with 58 of the 66 orders for alternative-fuelled vessels coming from the container ship sector. DNV also highlighted that October proved to be the strongest month of 2024 for methanol with 29 newbuildings ordered that can use the fuel, 20 of which were bulkers. DNV said 97 new orders for alternative-fuelled vessels were placed in October 2024. The class society said that orders for alternative-fuelled newbuildings contracted in the first 10 months of this year were up 46% on 2023's total, at 464 vessels. DNV's figures show there are currently 609 LNG-fuelled vessels in operation, with a further 632 ships on order. The bulk are container ships comprising 123 existing dual-fuelled LNG vessels with a further 303 under construction. The class society records 54 methanol-dualfuelled ships as in operation with a further 342 on order, again with the majority of those newbuildings - some 216 - being container ships. DNV's statistics show a shift towards alternative fuelling is underway. Of the number of ships in operation, 99.17% use conventional fuels and just 0.83% alternatives, for on-order vessels, the split is 82.31% conventional and 17.69% alternative. Those figures are starker in gt terms, where under-construction conventional vessels account for 56.68% and alternative-fuelled 43.42%.DNV Maritime global decarbonisation director Jason Stefanatos said: "October marked the strongest month ever of new ordering for the alternative-fuelled fleet, maintaining the strong momentum that has been notable in the second half of 2024. "The growth has clearly been led by LNG. Since July, 177 new orders for LNG-fuelled vessels have been placed, compared to 52 in the first six months of the year, primarily driven by an industry-wide uptick in activity from the container segment. "Methanol is also demonstrating some resilience. With 162 orders for methanol-fuelled vessels placed in the first 10 months of the year, the total figure for 2023 has already been surpassed," Stefanatos said. source: www.tradewindsnews.com

GREECE'S MARAN GAS TO ORDER MORE LNG CARRIERS IN SOUTH KOREA

Greece's Maran Gas, the gas shipping unit of Angelicoussis, is expected to soon place an order for more liquefied natural gas (LNG) carriers at South Korea's Hanwha Ocean, according to shipbuilding sources. Sources told LNG Prime on Thursday that the deal includes two 174,000-cbm LNG carriers powered by ME-GI engines. Hanwha Ocean and Maria Angelicoussis-led



Maran Gas are expected to sign the shipbuilding contract "very soon," the sources said. The contract price and delivery dates have not been revealed. In March 2023, Maran Gas ordered two 174,000-cbm LNG carriers at Hanwha Ocean scheduled for delivery by June 2027. The deal is worth about \$512.5 million or about \$256.2 million per vessel. Including these vessels, Maran Gas has ordered a total of 11 LNG carriers at Hanwha Ocean since November 2021. In addition, Angelicoussis and its units have booked 121 ships with the shipbuilder since 1994, Hanwha Ocean said at the time. Maran Gas booked a single LNG carrier in November 2022 and two LNG carriers in June of the same year. The company recently took delivery of the 174,000-cbm LNG carrier, Maran Gas Kimolos, from Hanwha Ocean. Kimolos is the first in a series of 11 newbuilding LNG carriers on order with Hanwha Ocean to be delivered gradually between 2024 and 2027. This latest series incorporates MGM's ME-GI "Generation 3" specification, incorporating experience from 13 vessels already in service with the MAN ME-GI propulsion system. Maran Gas has 48 ships under management and 10 vessels on order, its website shows. Source: www.lngprime.com

KBR WINS FEED CONTRACT FOR OMAN LNG EXPANSION

US engineer KBR has secured a front-end engineering design (FEED) contract for the expansion of Oman LNG's Qalhat LNG complex in Sur. Under the FEED contract, KBR will provide engineering services for the complex's fourth LNG train, which will have a capacity of 3.8 million tons per annum. The project will involve the addition or expansion of utilities, an LNG tank, the jetty, and associated infrastructure. KBR did not provide the contract price. In July, Oman's Ministry of Energy and Minerals said Oman LNG plans to add a new liquefaction train at its three-train Qalhat complex by 2029. The new train will boost Oman's LNG production to 15.2 mtpa.

Shareholders and supply deals

Last year, Oman LNG signed shareholding deals with international companies, including Shell and TotalEnergies. Besides Oman LNG and Qalhat LNG shareholding agreements, Oman LNG, in which the government of Oman holds 51 percent, also signed a gas supply agreement with state-owned Integrated Gas Company (IGC) to extend the gas supplies beyond 2024. Oman LNG in collaboration with its shareholders, approved the extension of the company's operations beyond 2024 that linked these key agreements for a period of 10 years from 2025 to 2034 for Oman LNG and 2026 to 2029 for Qalhat LNG. As a result of these deals, Oman LNG secured sales term commitments up to 10.4 mtpa through the execution of term sheet agreements with several buyers and shareholders, expanding the company's footprint into new regions across Asian and European markets. Earlier this year, Oman LNG signed a 10-year SPA with its shareholder TotalEnergies for 0.8 mtpa of LNG from 2025, and a 10-year SPA with Botas for 1 mtpa of LNG. Oman LNG signed a 10-year SPA for 1.6 mtpa of LNG with its shareholder Shell, and it also signed a 10-year SPA for 0.8 mtpa of LNG with Japan's Jera, The LNG producer and German gas importer Securing Energy for Europe (SEFE) also finalized their previously announced LNG deal for 0.4 mtpa of LNG between 2026 and 2029. Most recently, Oman LNG signed a 4-year sales and purchase agreement with a unit of Thailand's PTT and with Japan's Kansai Electric Power. Source: www.lnaprime.com

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SEMPRA EXPECTS NON-FTA APPROVAL FOR PORT ARTHUR LNG EXPANSION IN H1 2025

Sempra Infrastructure, a unit of Sempra, expects to secure DOE's non-FTA export approval for the second phase of its Port Arthur LNG export project in Texas in the first half of 2025. Sempra Infrastructure previously won approval from the US FERC for the proposed Phase 2 project, and it also secured the FTA approval from the DOE. DOE still needs to approve Sempra Infrastructure's non-FTA application for the project. The Biden administration said in January it will pause pending decisions on exports of LNG to non-FTA countries until DOE can update the underlying analyses for authorizations. "We're waiting for our DOE non-FTA export permit, and we expect that to be resolved in the first half of next year," Justin Bird, CEO of Sempra infrastructure, said during Sempra's third-quarter earnings call on Wednesday. "We continue to identify sources of financing for the project and advance the other key milestones to put us in a position to take a final investment decision," he said. In July, Sempra Infrastructure and compatriot engineering and construction firm Bechtel finalized a fixed-price engineering, procurement, and construction (EPC) contract for the second phase of the Port Arthur LNG export project. Bechtel is already building the first phase of the Port Arthur LNG export terminal with a capacity of some 13 mtpa under an EPC deal worth about \$10.5 billion. The development of the proposed second phase would increase the total liquefaction capacity of the facility to about 26 mtpa.

Increased interest

In June, Saudi Arabia's energy behemoth Aramco signed a head of agreement with Sempra to buy 5 mtpa of LNG for 20 years from the Phase 2. The HoA further contemplates Aramco's 25 project participation in the project-level equity. Bird said in the previous quarterly call that commercial discussions are progressing "very well" for the sale of remaining offtake volumes from the project. "As noted on our Q2 call, we saw an increased interest in Port Arthur 2, and I'm happy to say that interest has further increased since the call," he said during the third-quarter call. Bird said, "momentum continues to build with commercial discussions for offtake, and project equity is ongoing, and I think we're seeing better terms."

Ahead of Cameron LNG expansion

Sempra's finance chief Karen Sedgwick noted during the call that Sempra is now expecting Port Arthur Phase 2 development timeline to "move ahead of the Cameron expansion." "The timing of an FID decision for Cameron expansion is uncertain at this point. We continue to work with our partners on the optimal timing for expansion," she said. "As we've been in the past, we'll be very disciplined in our efforts to secure quality returns and mitigate risk to capital before making any investment decision," Sedwick said. Bird said in February this year that Sempra Infrastructure expects to take a final investment decision to expand its Cameron LNG plant in the first half of 2025. In March last year, Sempra Infrastructure and its partners TotalEnergies, Mitsui & Co, and Japan LNG Investment, a company held by Mitsubishi Corp and NYK, secured approval from the US FERC for the revised expansion plans for the Cameron LNG export plant in Lousiana. Cameron LNG operates the existing three-train 12 mtpa liquefaction facility and the expansion project includes building the fourth train with a capacity of

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about 6 mtpa. Sedwick said during the call that Cameron LNG continues to "perform well." "Year-to-date, the facility has already loaded 140 cargoes, and lifetime to date, Cameron has now surpassed 840 cargoes," she said. "Notably, the current 2024 production level exceeds the average annual run rate implied since COD (commercial operations date)," Sedgwick said. Source: www.lngprime.com

VENTURE GLOBAL MOVING FORWARD WITH PLAQUEMINES LNG COMMISSIONING

US LNG exporter Venture Global LNG has secured new approval from the US FERC as it continues to progress commissioning activities at its Plaquemines LNG export plant in Louisiana. The regulator said in a filing dated November 6 that it grated Venture Global Plaquemines LNG's request to commission and introduce hazardous fluid to the HP and LP fuel gas systems and the warm flare system. This approval is based on FERC staff's on-site inspection, and review of the information filed on October 25 and November 4, it said. Before this, Venture Global received approval to commission the AGRU system by circulating demineralized water to the clean liquid circuit and operate the AGRU reboiler, and inventory and operate the R134a compressors, according to a separate filing dated November 1. Venture Global recently also secured approval to commission the liquefaction train system block 4 with nitrogen. The FERC granted the commissioning of the liquefaction train system block 2 on September 10, and block 1 on August 23, previous fillings show. Venture Global took a final investment decision in May 2022 on the first phase of the Plaquemines project with a capacity of 13.3 mtpa and the related pipeline. It also secured \$13.2 billion in project financing. In March last year, the company sanctioned the second phase of the Plaquemines LNG export plant in Louisiana and also secured \$7.8 billion in project financing. The full project, including the second stage, will have a capacity of 20 mtpa coming from 36 modular units, configured in 18 blocks. Each train has a capacity of 0.626 mtpa.

First LNG nears

In September, Venture Global received approval from the FERC to start reverse cooldown activities at its Plaquemines LNG export plant. Venture Global posted an image via its social media on August 23 of the 2020-built 174,000-cbm, Qogir, at the Plaquemines LNG export facility. The company said in its August construction report filed with FERC that the LNG carrier docked at the second Plaquemines LNG loading platform (LP2). Qogir left the jetty in September and picked up a cargo at Venture Global's Calcasieu Pass facility, its AIS data provided by VesselsValue previously showed. In August, Venture Global revealed in a FERC filing that it expects to start LNG production at its Plaquemines LNG plant in the fall of this year. Venture Global said at the time that the company's second project had completed nearly 80 percent of its construction. Venture Global is targeting first production of LNG this fall, with "exports of LNG on a pre-commercial operation basis beginning soon thereafter," it said. The company previously said it expects the commissioning process for the Plaquemines LNG terminal to take about 24 months. Source: www.ingprime.com



EXCELERATE INKS MID-TERM LNG DEALS, PLANS FSRU CONVERSIONS

US FSRU player Excelerate Energy has signed medium-term agreements for liquefied natural gas (LNG) purchases and sales. The company is also evaluating FSRU conversion projects and an LNG carrier acquisition. Excelerate revealed these developments in its third-quarter results report. In the third quarter, Excelerate signed medium-term agreements for LNG purchases and sales in "one of the Atlantic Basin regions in which we do business," the company said. "In the aggregate over the terms of these agreements, we will purchase and sell approximately 0.65 million tonnes of LNG, the pricing of which will be based on a major European natural gas index," Excelerate said. Excelerate expects that, under these agreements, the first purchase will be made during the fourth quarter of 2024. The company did not provide further details regarding these deals. Excelerate previously signed two long-term LNG SPAs with QatarEnergy and Venture Global LNG. Under the SPA with QatarEnergy, Excelerate will buy up to one mtpa of LNG to be delivered to FSRUs in Bangladesh for 15 years starting in January 2026. Moreover, under the 20-year SPA with Venture Global, Excelerate will buy 0.7 million tonnes per annum of LNG on a free on board (FOB) basis from the Plaquemines LNG facility in Plaquemines Parish, Louisiana. Exclerate said in its third-quarter presentation that the company's diversified LNG portfolio "supports the development of commercial opportunities in our pipeline and allows us to connect our markets with reliable and affordable LNG supply." According to Excelerate, the company has about 2 million tonnes per annum under contract.

FSRU conversions, LNG carrier purchase

In May, Excelerate revealed a list of 12 prioritized regasification projects saying that a number of these projects will require new FSRUs. Excelerate said 10 of the projects have a price tag between \$50 million and \$400 million, while two projects have CapEx greater than this range. The firm recently revealed more details regarding some of the projects from this list, including the Northern Vietnam LNG terminal and the Alaska FSRU terminal. Excelerate and PetroVietnam Technical Services Corporation (PTSC), a unit of state-owned PetroVietnam, recently also signed a strategic partnership agreement to jointly study FSRU-based technical solutions for LNG imports into Vietnam. The company said in its third-quarter presentation that "several projects in our pipeline require a smaller send-out vessel and would be ideal for an FSRU conversion." Excelerate is currently "analyzing LNG carrier candidates and cost-efficient conversion options for our integrated terminal projects." The company also said it is evaluating a potential LNG carrier acquisition in 2025. "In the near-term, an LNG carrier would support deliveries of LNG volumes in our portfolio," Excelerate said. Excelerate operates ten FSRUs, one of the world's largest fleets of such vessels, and these units are located worldwide. Some FSRUs are located in Finland, Brazil, Dubai, Pakistan, while one FSRU will also start serving the second FSRU-based LNG import terminal in Germany's Wilhelmshaven later this year. In addition to these 10 FSRUs, Excelerate also ordered one 174,000-cbm FSRU at South Korea's HD Hyundai Heavy Industries in 2022. It will pay about \$332 million for the vessel, and the FSRU is scheduled for delivery in June 2026. HD Hyundai Heavy recently held a stell-cutting ceremony for this unit.

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Results

Excelaeraete reported net income of \$45.5 million and adjusted Ebitda of \$92.3 million for the third quarter. The company raised and narrowed full-year 2024 adjusted Ebitda guidance, now expected to range between \$335 million and \$345 million. Excelerate declared a quarterly cash dividend of \$0.06 per share, or \$0.24 per share on an annualized basis, representing a 140 percent increase from the prior quarter. Source: www.lngprime.com

FLEX SECURES CHARTER EXTENSIONS FOR LNG CARRIER

Norwegian shipping firm Flex LNG, the owner of 13 liquefied natural gas carriers, has secured time charter extensions for two of its LNG vessels. Flex said in a statement on Thursday it had agreed with the charterer of Flex Courageous and Flex Resolute, a supermajor, to amend the existing time charter agreements for the two LNG carriers. UK-based energy giant BP is the charterer of the 2019-built 173,400-cbm, Flex Courageous, and the 2020-built 173,400-cbm, Flex Resolute. According to Flex, the parties have agreed a new firm period from 2029 to 2032 which may be extended by an additional seven years in total until 2039. As reported in November 2021, Flex LNG and the charterer then agreed TCs for the two ships with commencement during the first quarter of 2022 where the firm period was three years for each of the LNG carriers and where the charterer could extend each ship by two additional two-year periods. In the event both extension options are declared, the period would thus increase to seven years under each of the TCs i.e. the TCs have a contract structure of 3 years firm plus 2+2 optional years, Flex said. As further announced in January and February this year, the charterer declared the first two-year options to extend the firm period for the ships from the first quarter of 2025, Thex noted. Hence, the charterer currently has remaining options to extend the period for each ship by another two-year period until first quarter of 2029. These two options are declarable in the first quarter of 2026, Flex said. Under the amended TC for both ships, the charterer has added a minimum three-year firm period from 2029 until 2032.

Options

At the same time, the charterer has the option to extend each TC by three additional periods consisting of two periods of each two years while the last period is for three years, Flex said. Hence, the parties have agreed to add an additional contract structure of 3-year firm plus 2+2+3-optional years to the existing TCs from 2029 onwards. In the event, the charterer utilizes all its new extension options, the redelivery of the ships will be 2039, Flex said. The new firm periods, with associated options, are agreed regardless of whether the charterer declares the last existing extension option from 2027 to 2029 for the two ships. However, Flex finds it likely that this extension option will also be utilized given the new firm period from 2029. Source: www.lngprime.com



GERMANY'S HAPAG-LLOYD ORDERS 24 LNG-POWERED CONTAINERSHIPS IN CHINA

Germany's Hapag-Lloyd has signed contracts with two Chinese shipyards for a total of 24 LNG dual-fuel containerships. The deals are worth about \$4 billion. Of these, Yangzijiang Shipbuilding will build 12 vessels each with a capacity of 16,800 teu, according to a statement by Hapag-Lloyd. These units will be used to expand the capacity of services that are already in place. An additional 12 ships, each with a capacity of 9,200 teu, have been ordered from New Times Shipbuilding. Moreover, these vessels will replace older units in the Hapag-Lloyd fleet that will be nearing the end of their service life in this decade. All the newbuildings will be equipped with high-pressure LNG dual-fuel engines that are "extremely" fuel-efficient. In addition, these vessels can be operated using biomethane, which can reduce CO2e emissions by up to 95 percent compared to conventional propulsion systems, Hapag-Lloyd said, adding that the new ships will also be ammonia-ready. Hapag-Lloyd will take delivery of the new vessels between 2027 and 2029. The newbuildings will have a combined capacity of 312,000 TEU and involve a combined investment volume of around \$4 billion. According to Hapag-Lloyd, a long-term financing of \$3 billion has already been committed. "This investment is one of the largest in the recent history of Hapag-Lloyd, and it represents a significant milestone for our company as it pursues the goals of its strategy 2030, such as to grow while also modernizing and decarbonizing our fleet," Rolf Habben Jansen, CEO of Hapag-Lloyd said.

"Operating a fleet of more efficient vessels will also enhance our competitive position, and thanks to the increase in capacity, we will continue to offer our customers a global, high-quality product," he said. Hapag-Lloyd controls 287 containerships with a total transport capacity of 2.2 million teu. It operates the largest fleet sailing under the German flag.

LNG-powered fleet

LNG Prime was the first to report in September, citing shipping sources, that Hapag-Lloyd signed a letter of intent with Yangzijiang Shipbuilding for LNG dual-fuel containerships. These new vessels add to a fleet of LNG dual-fuel ships. In August, the shipping firm took delivery of its seventh of 12 ultra-large LNG-fueled containerships from South Korea's Hanwha Ocean. These giant vessels are about 400 meters long and 61 meters wide. Hapag-Lloyd first ordered six LNG dual-fuel containerships from Hanwha Ocean in 2020, while it added six more sister vessels in 2021. The orders are worth about \$2 billion. Hapag-Lloyd expects to take delivery of the remaining vessels in 2024 and 2025. In addition to newbuild vessels, Hapag-Lloyd operates the converted containership Brussels Express, the world's first ultra-large containership LNG retrofit. In April, this vessel completed what Hapag-Lloyd claims is the largest ship-to-ship bio-LNG bunkering operation in the Dutch port of Rotterdam. Hapag-Lloyd is also working on a synthetic methane project to further reduce emissions from its fleet of LNG-powered containerships. The company's LNG bunker consumption totaled 22,769 tonnes in 2023. This compares to 4,582

tonnes in 2022. Source: www.Ingprime.com



GTT CLINCHES TANK GIG FOR MOL'S FSRU

French LNG containment giant GTT has secured a tank design order for one floating storage and regasification unit (FSRU). According to a GTT statement, the firm won the order from a Korean shipyard and the unit will be built for an Asian shipowner. GTT said the tanks of the FSRU will have a total capacity of 204,000 cbm, while they will feature GTT's NO96 GW containment system. Also, the delivery of the vessel is scheduled for the fourth quarter of 2027. GTT did not provide further details. LNG Prime reported on October 2, citing shipbuilding sources, that MOL and Singapore LNG were behind an order for one 200,000-cbm FSRU at Hanwha Ocean. The contract is worth about \$413 million, the highest price ever for a single FSRU. Hanwha Ocean will deliver the FSRU by October 2027. Singapore LNG, the state-owned operator of the country's first LNG import terminal on Jurong Island, recently signed a deal with MOL to charter the FSRU for Singapore's second LNG terminal. The FSRU will be berthed at Jurong Port and will have a regasification capacity of 5 million tons per annum (mtpa). Moreover, Singapore LNG expects the FSRU-based terminal to start operations by the end of the decade. Singapore's first FSRU will contribute to a stable supply of energy for the country, where about 95 percent of domestic power generation is fueled by imported natural gas. It will boost Singapore's regasification capacity by about 50 percent. Singapore LNG's first terminal has an average gas supply capacity of 9 mtpa and a peak capacity of around 11 mtpa. Source: www.lngprime.com

KUMUL GETS ADVANCE PAYMENT FROM CHEVRON FOR PNG LNG CARGOES

Papua New Guinea's national oil and gas company Kumul Petroleum has received an advance payment for PNG LNG cargoes from a unit of US energy giant Chevron. Kumul said in a statement it recently closed an agreement with Chevron USA (Singapore Branch) that will further Kumul's goal of acquiring additional equity in the PNG LNG project in Papua New Guinea. Under the agreement, Chevron will make an advance payment to Kumul, in exchange for LNG and condensate cargoes over the next two years. Kumul did not provide the number of cargoes. Since the introduction of equity marketing at the start of 2024, KPHL has sold four LNG cargoes on the spot market. Kumul said this term sale will provide more security for the company. Australian LNG player Santos just completed the previously announced sale of a 2.6 percent stake in the PNG LNG project to Kumul. Santos received the final payment of \$241 million, taking total cash consideration to \$602 million. In addition, Kumul will assume about \$90 million of existing project finance debt associated with the sale interest. The two firms executed the binding sale agreement for the stake sale in August last year. In February 2024, Kumul and Santos agreed to amend the terms of sale to allow partial completion of the transaction. The amendment provided additional time for Kumul to pay the remaining purchase price of \$241 million. Besides this, Santos has agreed to grant Kumul a call option to acquire a further 2.4 percent participating interest in PNG LNG for a cash purchase price of \$524 million, plus a proportionate share of project finance debt, source: www.lngprime.com



UAE'S ADNOC, GERMANY'S SEFE FINALIZE RUWAIS LNG SUPPLY DEAL

UAE's Adnoc has signed a sales and purchase agreement with German gas importer Securing Energy for Europe (SEFE) to supply the latter with liquefied natural gas from its LNG terminal in Al Ruwais. According to Adnoc, the SPA converts the previous heads of agreement between Adnoc and SEFE announced in March into a definitive agreement. Under the 15-year deal, Adnoc will supply 1 million tonnes per annum of LNG to SEFE Marketing and Trading Singapore, a subsidiary of SEFE. Also, the LNG supplies will primarily be sourced from the Ruwais LNG project, with deliveries expected to start in 2028 upon the start of its commercial operations. "Natural gas accounts for over a quarter of Germany's energy supply and we are very pleased to support the country's energy security through this landmark agreement with SEFE for the lower-carbon Ruwais LNG project," Fatema Al Nuaimi, executive VP, downstream business management at Adnoc, said. Egbert Laege, CEO of SEFE said this partnership with Adnoc "supports our efforts to responsibly diversify our energy sources, enhance security of energy supply for Germany and Europe, and to support our customers on their decarbonization journey."

Over 7 mtpa of Ruwais LNG capacity committed

This is the first definitive agreement for the supply of LNG from the 9.6 mtpa Ruwais LNG project. To date, over 7 mtpa of the LNG project's production capacity has been committed to international customers through long-term agreements, Adnoc said. State-owned Adnoc recently signed a head of agreement with Indian Oil and it signed a deal with Japan's Osaka Gas. Adnoc announced in June the final investment decision on the Ruwais project and the EPC award to a joint venture led by France's Technip Energies. Prior to that, Adnoc issued in March this year a limited notice to proceed for early engineering, procurement, and construction activities to the joint venture. Besides this EPC deal, Adnoc Gas also awarded US energy services firm Baker Hughes a contract for the LNG export terminal. Baker Hughes will provide two electric liquefaction systems (e-LNG) for the Ruwais LNG project. Moreover, BP, Mitsui & Co., Shell, and TotalEnergies agreed to buy a 10 percent equity stake in Adnoc's LNG export terminal. Adnoc will retain a 60 percent majority stake. The LNG project will more than double Adnoc's existing UAE LNG production capacity to around 15 mtpa, as the company builds its international LNG portfolio. Adnoc currently owns a 70 percent stake in Adnoc LNG, which currently produces about 6 mtpa of LNG from its facilities on Das Island. source: www.Ingprime.com

NYK SAYS LNG CARRIER EARNINGS REMAIN STEADY

Japan's shipping giant NYK reported steady earnings for its large fleet of liquefied natural gas (LNG) carriers in the first half of fiscal 2024. In the first six months of the fiscal year ending March 31, 2025, NYK's consolidated revenues rose 12.7 percent year. On-year to 1,316.8 billion yen (\$8.54 billion), while operating profit increased 17 percent to 148.4 billion yen. NYK's energy business, which includes the LNG carrier business, reported revenues of 91 billion yen, up 11.8 percent year-on-year, while recurring profit was almost flat at 21.8 billion yen. According to NYK, the results for the LNG carrier business were



"steady on support from the long-term contracts that generate stable earnings." The LNG carrier business is expected to "remain stable, backed by stable earnings from medium- to long-term contracts and new projects," NYK said.

89 LNG carriers

NYK said its fleet of operational LNG carriers stood at 89 vessels at the end of September this year. NYK had 91 operational LNG carriers at the end of March this year and 86 operational LNG carriers at the end of September last year. According to a presentation by NYK, its LNG carrier fleet included 76 owned or co-owned LNG carriers and 13 chartered vessels by the end of September this year. NYK previously said it has "obtained new long-term stable contracts in the LNG carrier business and expanded the number of vessels involved to more than 120 by FY2027." This includes pre-delivery vessels with long-term charters.

LNG fuel

Besides LNG carriers, NYK is expanding its fleet of "environment-friendly" vessels, including LNG-fueled vessels, LPG-fueled vessels, and methanol-fueled vessels. According to NYK, it had 17 LNG-fueled vessels and two LNG bunkering vessels in its fleet at the end of September this year. This includes 13 LNG-powered car carriers, two LNG-powered bulkers, and two LNG-powered shuttle tankers. NYK previously said it plans to introduce 20 LNG-fueled PCTCs in its fleet by 2028. The shipping firm is positioning LNG fuel as one of the bridge solutions until future zero-emission ships are realized. It took delivery of Japan's first LNG-powered PCTC, Sakura Leader, in October 2020, followed by the delivery of its second PCTC, Plumeria Leader, in March 2022. source: www.lngprime.com

ARAMCO WORKING ON FURTHER LNG EXPANSION

Energy behemoth Aramco is working to build further its LNG positions that give the company access to LNG offtake, according to executive vice president and CFO Ziad Al-Murshed. Saudi Arabia's Aramco made its first international investment in LNG last year to capitalize on rising LNG demand. In September 2023, Aramco agreed to buy a minority stake in MidOcean Energy, the LNG unit of US-based energy investor EIG for \$500 million. Aramco recently also entered a deal to increase its interest in MidOcean to 49 percent, and it helped MidOcean to boost its stake in LNG producer Peru LNG to 35 percent. Moreover, Aramco previously signed a head of agreement with US LNG exporter Sempra to buy 5 mtpa of LNG for 20 years from the second phase of the latter's Port Arthur LNG export project in Texas. Aramco also signed a head of agreement with NextDecade to buy 1.2 mtpa of LNG for 20 years from the planned fourth Rio Grande LNG train in Texas.

Expanding LNG business

Speaking on Tuesday during Aramco's third-quarter conference call, Al-Murshed said the company continued to expand its international LNG portfolio and enhance its trading capabilities, which will capture opportunities from growing gas demand. During the call, Al-Murshed was asked to comment on the rationale behind the Peru LNG deal, as the plant's entire offtake is



booked by shareholder Shell. "Our ambition is to create an LNG business that is tied through trading of LNG. We fully realize that the value is in the offtake, and that's what we're after," he said. Peru LNG "does not have today an opportunity for offtake, but going forward, it opens a door for us to get access to this offtake in the next few years," he said. "In general, we are trying to build LNG positions that give us access to offtake, and we are ramping up LNG trading capability in Aramco trading to be able to capture this value from this portfolio," he said. "Also, we can tie it to our domestic gas business. We do look at it as one business," he said. "As we said earlier, we earmarked a considerable volume of the gas that is coming out for the production of blue ammonia, blue hydrogen," Al-Murshed said. Ho noted that Aramco also said that it will only proceed if the company secures commercial long-term offtake. However, if ammonia agreements do not proceed, Aramco would also evaluate "the option of LNG to the extent that these volumes are over and above of domestic demand." Al-Murshed said Aramco continues to work on discussions with offtakers for blue ammonia. However, "unless this is tied to long-term commercial offtake, we're not able to proceed with these projects," he said. Source: www.lngprime.com

NEW FORTRESS SEEKING STRATEGIC PARTNERS

US LNG firm New Fortress Energy is seeking strategic partners for one or more of its core businesses to boost the company's liquidity. Last month, NFE announced a series of financing transactions that upon closing are intended to increase the company's liquidity and financial flexibility. "In furtherance of these goals, the company has begun work to identify strategic partners for one or more of its primary businesses, including projects in Brazil, Puerto Rico, Jamaica, Mexico, Nicaragua, FLNG 1, and Klondike," NFE said on Tuesday. The company expects to explore financings, commercial ventures, or asset sales with potential strategic partners. NFE said it "cannot provide assurance that its exploration will result in pursuing a transaction or that any transaction, if pursued, will be completed on attractive terms." The company recently shipped the third LNG cargo from its FLNG project off Mexico's Altamira to its operation in Puerto Rico. In September, NFE shipped the first full LNG cargo from its first FLNG project to Europe. This shipment onboard the 138,000-cbm Energos Princess recently arrived at the Dutch Gate LNG terminal in the port of Rotterdam. Before this, NFE loaded the first Altamira LNG cargo in August. This partial shipment was delivered to NFE's La Paz. Mexico terminal. The company previously said the FLNG project adds more than \$2 billion of infrastructure to its asset base. In addition to this project, NFE closed in July its previously announced \$700 million loan for its second FLNG unit which it aims to install onshore in Altamira. NFE reported a net loss of \$87 million and an adjusted Ebitda of \$120 million in the second quarter of 2024. Adjusted Ebitda was well below NFE's expectation of \$275 million, largely due to delays in placing its FLNG 1 project into service. The company plans to release third-quarter results on November 7. Source: www.Ingprime.com



PERU LNG EXPECTS TO LOAD 57 CARGOES THIS YEAR

Peru LNG expects to load 57 liquefied natural gas cargoes at its 4.45 mtpa Pampa Melchorita LNG plant in 2024, a spokesman for operator Hunt Oil told LNG Prime. US-based Hunt operates the LNG plant with a 35 percent stake. The spokesman said the LNG plant loaded 45 LNG cargoes so far this year. Peru LNG revised its previous target for 2024 by three cargoes as it said in January that it expects to load 60 cargoes this year. Last year, Peru LNG loaded 55 vessels. In 2022, 51 vessels berthed to load LNG at the plant, 38 vessels in 2021, 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.

October LNG shipments

Peru LNG's liquefaction plant shipped four LNG cargoes in October, two less than in the previous month, according to the shipment data provided by state-owned Perupetro. Perupetro said the LNG plant sent two shipments to the UK and one shipment each to France and the Netherlands in October. However, the 174,000-cbm GasLog Gibraltar delivered one Peru LNG cargo to Chile's Mejillones LNG terminal last month and is currently on its way with another cargo to the Dutch Eemshaven terminal, its AIS data shows. The data also shows that the 174,000-cbm SM Kestrel is expected to deliver a Peru LNG cargo to France's Dunkirk LNG terminal this week, while the 174,000-cbm New Nature recently delivered a Peru LNG cargo to the Dutch Gate terminal. Peru LNG also shipped its first November cargo onboard the 170,200-cbm Kool Baltic, its AIS data shows. The LNG terminal operator shipped four LNG cargoes in August and four LNG cargoes in July this year. The Perupetro data previously showed that the Peru LNG plant sent seven LNG cargoes in a row to the Dutch Gate terminal in the port of Rotterdam from the end of May until mid-July.

MidOcean increased stake in Peru LNG

UK-based LNG giant Shell holds 20 percent in Peru LNG and offtakes all the volumes, while Japan's Marubeni has 10 percent in the LNG terminal operator. MidOcean Energy, the LNG unit of US-based energy investor EIG, recently completed the previously announced deal to buy an additional 15 percent interest in Peru LNG from Hunt Oil. MidOcean's interest in Peru LNG now stands at 35 percent. Earlier this year, MidOcean completed its purchase of a 20 percent stake in Peru LNG from a unit of South Korean conglomerate SK. Bedies liquefaction facilities, Peru LNG's assets consist of a fully-owned 408kilometer pipeline with 1,290 mmcf/d capacity, two 130,000-cbm storage tanks, a fully-owned 1.4-kilometer marine terminal, and a truck loading facility with a capacity of up to 19.2 mmcf/d. source: www.lngprime.com

GLADSTONE LNG EXPORTS UP IN OCTOBER

Liquefied natural gas (LNG) exports from the Gladstone port in Australia's Queensland rose 1.9 percent year-on-year in October, according to the monthly data by 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. About 2.15 million tonnes of LNG or 33 cargoes left the three Gladstone terminals on Curtis Island last month, GPC's data shows. This compares to about 2.11 million tonnes of LNG or 32 cargoes in October 2023. October LNG exports rose compared to the month before when LNG exports reached some 1.99 million tonnes of LNG or 31 cargoes. Most of October's LNG exports (1.03 million tonnes) were shipped to China, a 24.5 percent decrease from 1.36 million tonnes last year. On the other hand, Gladstone LNG exports to South Korea jumped to 569,302 tonnes from 239,985 tonnes in October 2023. Other destinations for Gladstone LNG exports in October include Malaysia (242,842 tonnes), Singapore (123,413 tonnes), Philippines (122,270 tonnes), and Japan (64,421 tonnes). GPC's data shows that volumes to Malaysia rose in October compared to 184,572 tonnes last year, while volumes to Japan dropped compared to 190,354 tonnes in October 2023. The three Gladstone terminals shipped about 22.97 million tonnes of LNG or 350 cargoes in 2023. This compares to about 22.64 million tonnes of LNG or 354 cargoes in 2022. It is worth mentioning here that the Australian Competition and Consumer Commission (ACCC) recently said Queensland LNG producers may need to commit more gas to the east coast market to mitigate the risk of shortfalls. The gas supply surplus in the Australian east coast gas market is forecast to be between 12 and 27 petajoules (PJ) in the first quarter of 2025. ACCC said the exact size of the surplus would largely depend on how much uncontracted gas Queensland LNG producers would export. source: www.ingprime.com

GUYANA AND SURINAME COULD PROVIDE 12 MMTPA OF LNG IN 2030S

Several gas developments are underway in Guyana and Suriname that could offer new competitive LNG supply sources early next decade, according to a new report from Wood Mackenzie. Wood Mackenzie's report says Guyana and Suriname could supply up to 12 million metric tonnes per annum (mmpta) of LNG by the next decade. Guyana's Haimara cluster and Suriname's Block 52 (Sloanea) are estimated by Wood Mackenzie to hold 13 trillion cubic feet (tcf) of discovered non-associated gas. These sources could deliver this potential LNG supply at a breakeven, excluding shipping and regasification costs, of about \$6/MMBtu (FOB NPV10 breakeven), the report said. The positive economic results are supported by high well productivity and upstream partners experienced in LNG commercialization. This comes at a time when the global market still needs 105 mmtpa of pre-final investment decision (pre-FID) LNG to fill the supply/demand gap by 2035, according to the report. In August, Malaysian energy giant Petronas said it would explore developing a standalone FLNG project in Suriname's offshore Block 52. Petronas has achieved success in Suriname with the Sloanea-2 appraisal well in Block 52 which was drilled in June. This accomplishment has bolstered Petronas' prospects in the basin and opens the possibility of developing a standalone FLNG project at the field in the future, Petronas said.



"There is a supply window in the mid-2030s"

"Guyana and Suriname projects are firming up at an interesting time," said Amanda Bandeira, research analyst, Latin America upstream oil and gas for Wood Mackenzie. "US and Qatar LNG dominance is rapidly growing, but there is a supply window in the mid-2030s coming in part from the US President Biden's pause on approving new US LNG export projects," Bandeira said. "In this environment, Guyana and Suriname can offer a new cost-competitive LNG supply source and serve as regional suppliers, holding shipping costs advantage to address Caribbean and South American demand. They are also on par with US Gulf and West Africa projects to deliver to the main demand centers in Southeast Asia," Bandeira said. However, these developments face uncertainty as commercial structure and fiscal terms remain unclear. "In Suriname, there is still no set terms for non-associated gas developments, but we expect this project to move forward swiftly – with first gas in 2031 – as the government and project partners have agreed to a 10-year tax break," said Luiz Hayum, principal analyst, Latin America upstream. "In Guyana, the government and upstream partners alignment on fiscal terms and commercial structure are less advanced, and any disputes could delay the project first gas beyond 2031," Hayum said. Source: www.ingprime.com

DIVIDED BALLAST TANKS ELIMINATE FILLING LIMITS ON LNG CARRIER DESIGN

France-headquartered LNG containment specialist GTT has secured an approval in principle (AiP) from classification society ClassNK for its design of a 30,000-m³ LNG carrier. The carrier's unique configuration, incorporating two identical tanks, aims to address operational challenges by optimising cargo capacity while managing operating costs. ClassNK's AiP assessed the vessel design's innovative 'ballast-split' principle, in which the ballast tanks are divided into lower bottom and separated upper-side sections to improve stability under all conditions. This configuration, where water is pumped first into upper ballast tanks during operations, is expected to reduce the vessel's metacentric height and roll acceleration, thereby lowering the risk of sloshing loads — a crucial factor for regional LNG feeder transport. ClassNK noted the approval confirms the technical soundness and operational benefits of GTT's design, indicating it aligns with the industry's push for safer and more adaptable LNG carriers. Additionally, comprehensive liquid motion studies support the concept's effectiveness in reducing the stresses on cargo containment, enabling unrestricted filling levels without the need for filling limitations imposed by traditional strength assessments. ClassNK's review also addressed conditions and guidelines for shipyards and operators, ensuring the design's operational feasibility under the IGC Code standards. With this AiP, GTT's design paves the way for a new generation of LNG carriers that promise enhanced flexibility for operators navigating smaller-scale LNG delivery channels. The design integrates GTT's Mark III Flex membrane containment system, and the endorsement highlights the system's capacity for unrestricted global operations, particularly suited to regional markets or terminals with limited access. source: www.informm.com

CECYGNUS ENERGY

EPC DEAL PUSHES TEXAS LNG EXPORT TERMINAL CLOSER TO FID

Texas LNG's planned 4M tonnes per annum (mta) liquefied natural gas export terminal in Brownsville, Texas, is set to proceed with Kiewit as its chosen engineering, procurement and construction (EPC) partner. Glenfarne Energy Transition, Texas LNG's parent company, said Kiewit's role will cover both preliminary and pre-final investment decision (FID) engineering, marking a key step toward FID readiness, as Texas LNG secures the necessary offtake agreements. Glenfarne founder and chief executive Brendan Duval noted Texas LNG attracted proposals from several major contractors, but Kiewit's capability to execute and manage complex projects along the US Gulf Coast proved decisive. Kiewit's leadership welcomed the partnership, with Kiewit Energy Group executive vice president Eric Gutierrez expressing the company's commitment to developing what he described as a "crucial LNG project for the region." The Texas LNG terminal, which aims to integrate electric motor drives, represents Glenfarne's broader commitment to energy transition infrastructure. The company also manages the Magnolia LNG project in Lake Charles, Louisiana, an 8.8-mta facility poised to become part of its expanding LNG portfolio. source: www.rivieramm.com

DNV: 66 LNG-POWERED VESSELS ORDERED IN OCTOBER

Classification society DNV added 66 LNG-powered ships, mostly container vessels, to its Alternative Fuels Insight platform in October. The strong momentum continues following orders for 111 LNG-powered vessels in July-September. The latest figures from DNV's platform show that a total of 97 new orders for alternative-fueled vessels were placed last month. LNG was once again the biggest driver, building on its strong momentum since July. DNV said 58 of these 66 LNG-powered vessel orders were from the container segment. Some 29 orders were also placed for methanol-fueled vessels, with 20 of these coming from the bulker segment. According to DNV, this marks the strongest month for methanol-fueled vessels so far in 2024. Overall, a total of 464 new orders for alternative-fueled vessels have been registered in the first 10 months of 2024, representing significant year-on-year growth of 46 percent. "October marked the strongest month ever of new ordering for the alternative-fueled fleet, maintaining the strong momentum that has been notable in the second half of 2024," Jason Stefanatos, global decarbonization director at DNV Maritime, said. "The growth has clearly been led by LNG. Since July, 177 new orders for LNG-fuelled vessels have been placed, compared to 52 in the first six months of the year, primarily driven by an industrywide uptick in activity from the container segment," he said. DNV previously said that there were 117 orders for LNG-powered vessels during July-September. The previous estimate was reduced by six vessels to 111 vessels. During January-October, there were 229 orders for LNG-powered vessels, a rise of 106 percent compared to the last year. "Methanol is also demonstrating some resilience. With 162 orders for methanol-fueled vessels placed in the first 10 months of the year, the total figure for 2023 has already been surpassed," Stefanatos said.



609 LNG-powered ships in operation

DNV's platform shows that there are now 609 LNG-powered ships in operation and 632 LNG-fueled vessels on order. Moreover, 123 LNG-powered containerships and 78 LNG-powered crude oil tankers are in operation, followed by 68 oil/chemical tankers and 57 bulk carriers. As per vessels on order, LNG-powered containerships account for a big part of the orders with 303 units. Shipping firms also ordered 156 car carriers, 48 crude oil tankers, 45 oil and chemical tankers, and 26 cruise ships. These statistics do not include smaller inland vessels or dual-fuel LNG carriers.

61 LNG bunkering vessels and 263 LPG-powered ships

Besides LNG-powered vessels, there are 61 LNG bunkering vessels in operation and 13 on order, the platform shows. In addition to 1241 confirmed LNG-powered ships, the fleet powered by alternative fuels includes 396 methanol-fueled vessels, 263 LPG-powered ships, 40 hydrogen-fueled vessels, and 27 ammonia-fueled vessels. Source: www.lngprime.com

PIL CONFIRMS NEW ORDER FOR LNG-POWERED CONTAINERSHIPS

Singapore's Pacific International Lines has ordered LNG dual-fuel containerships from China's Hudong-Zhonghua. PIL said on Tuesday it is accelerating the renewal of its fleet with the latest order for five 9,000 teu LNG dual-fuel container ships. It brings the company's newbuild vessels ordered since 2022 to 18. Hudong-Zhonghua will deliver the vessels in 2027 and 2028. PIL did not provide further information regarding the order. "With 18 newbuild vessels ordered in the last couple of years, PIL is demonstrating our commitment to renew, expand, and modernize our fleet," said Lars Kastrup, CEO of PIL. "Our aim is to replace up to half our fleet in the next decade with modern new ships and charters," he said. Hudong-Zhonghua said in a separate statement the new ships will have 274 meters in length, a beam of 45.6 meters, and a depth of 24.8 meters, Moreover, they will have a maximum capacity of 9,040 teu and can carry 1,308 reefer containers. Equipped with LNG dual-fuel power propulsion system, the vessels will feature Hudong-Zhonghua's 7600 cbm type B LNG fuel tanks.

LNG-powered fleet

LNG Prime reported on November 1, citing shipbuilding sources, that PIL was preparing to place a new order for LNG-powered containerships in China. The price for each vessel is said to be about \$140 million or \$900 million for the entire order. In August, PIL ordered five LNG dual-fuel containerships with a capacity of 13,000 teu at Hudong-Zhonghua. The neo panamax-sized vessels are expected to be delivered progressively from end-2026. These vessels will be equipped with dual-fuel engines and auxiliaries able to run on LNG and low-sulphur fuel oil. Also, they will be equipped with 12,000-cbm B-type LNG fuel tanks developed by the shipbuilder.In addition to these vessels, PIL previously ordered four 14,000 teu and four 8,200 teu LNG dual-fuel container vessels. The firm recently named its first two LNG-powered container vessels in a ceremony at China's Jiangnan. PIL named the first vessel Kota Eagle and the second Kota Emerald. With a capacity of 14,000 teu, they are the largest vessels in PIL's fleet and the first to run on LNG. Source: www.lngprime.com

SANDP@CYGNUS-ENERGY.COM GAS@CYGNUS-ENERGY.COM (SALE AND PURCHASE) (GAS PROJECTS)



HOEGH EVI PLANS FRENCH HYDROGEN Terminal

Norwegian FSRU player Hoegh Evi, previously known as Hoegh LNG, is joining forces with the French port of Port-La Nouvelle to develop a floating terminal for hydrogen imports. In that regard, Hoegh Evi and the port signed a memorandum of understanding for the project. Hoegh Evi said hydrogen will be imported from producers located in the Middle East, North Africa, and the Americas. The terminal at Port-La Nouvelle will accelerate the shift to "clean energy in Europe by becoming a vital hub for importing large volumes of hydrogen," it said. It will facilitate the import of up to 210,000 tonnes of hydrogen per year as early as 2030, according to the project timeline and dependent on the readiness of France's hydrogen pipeline. According to Hoegh Evi, the partners are now collaborating on a feasibility assessment and design of the infrastructure solution within the port. In collaboration with European projects such as the HySoW Hydrogen and the gas pipeline operator Teréga, the floating import terminal will connect Port-La Nouvelle to major hydrogen transport infrastructures, thereby strengthening the industrial and energy attractiveness of the Occitanie region and promoting job growth, Hoegh said. CEO Erik Nyheim said Hoegh Evi is leveraging its "extensive expertise to enable Europe to import significant volumes of clean molecules within this decade." "With its strategic location and well-established marine infrastructure, Port-La Nouvelle is ideally positioned to become a key entry point for hydrogen and low-carbon fuels," he said.

Name change

In September, the FSRU player changed its name to Hoegh Evi. Standing for "energy vector infrastructure," the name Evi reflects the recent expansion of Hoegh's focus beyond LNG import terminals to encompass "innovative and tangible clean energy solutions," the company said. Hoegh recently said its focus remains on developing a new Dutch FSRU-based facility with VTTI, while the company is working on other projects as well. The group's fleet comprises ten FSRUs and three LNG carriers. Hoegh LNG's entire fleet operates under long-term contracts, except the LNG carrier Hoegh Gandria, which is currently employed on a five-month LNGC charter ending in September 2024. In December last year, Rotterdam-based storage terminal owner VTTI, co-owned by Vitol, IFM, and Adnoc, joined forces with Hoegh LNG to develop and operate the Zeeland energy terminal, in the Vlissingen port area, southern Netherlands. The terminal will be based on an FSRU, which in time, plans to transition from import of LNG to hydrogen, the partners said. Hoegh and German LNG terminal operator Deutsche ReGas recently also signed a deal to develop a floating hydrogen import terminal in the German port of Lubmin. The partners claim this terminal will be the world's first floating import terminal for the industrial-scale conversion of green ammonia to green hydrogen. Deutsche ReGas expects the facility to go into operation from early 2026. Source: www.ingprime.com

SANDP@CYGNUS-ENERGY.COM (SALE AND PURCHASE) (GAS PROJECTS)

IMPORT



AES, SEASPAN TO LAUNCH PANAMA LNG BUNKERING OPS IN MARCH 2025

US energy firm AES and Canada's Seaspan plan to launch LNG bunkering operations in Panama in March next year. In October 2023, the two firms joined forces to provide LNG as fuel for vessels from the AES-operated Costa Norte LNG terminal in Panama. The two firms will use the 7,600-cbm LNG bunkering vessel, Seaspan Garibaldi, to fuel LNG-powered ships. China's Nantong CIMC Sinopacific Offshore & Engineering delivered this vessel in August this year. According to a notice to shipping dated October 28, AES is inviting firms to submit expressions of interest for LNG bunkering services in Panama. The company is inviting all shipping agents, vessel owners, and operators of LNG-powered vessels transiting the Panama Canal or calling at ports on the Atlantic side of Panama. The service will be provided by Panam LNG Bunkering, a company of AES Corporation in partnership with Seaspan Energy. It plans to commence operations in March 2025. AES said this notice initiates the process for securing LNG bunkering slots through spot contracts for the 2025 calendar year. It also provides a detailed overview of the service, including defined service area boundaries, eligible vessel types, and key regulatory compliance requirements to support planning for LNG bunkering operations in Panama. AES said LNG bunkering operations are expected to take place either at a local terminal (SimOps) or at a designated LNG bunkering anchorage specified by the Panama Canal Authority (ACP) or the Panama Maritime Authority (AMP). Source: www.ingrime.com

ORIGIN REPORTS HIGHER APLNG REVENUE

The Australia Pacific LNG project generated more revenue during the quarter ending September 30 than in the same quarter last year, according to shareholder Origin Energy. Origin said in its quarterly report that APLNG revenue reached about A\$2.64 billion (\$1.74 billion) in the July-September period. Compared to the September quarter of 2023, APLNG revenue increased 12.8 percent, while it rose 1 percent compared to the prior quarter. Origin said that APLNG revenue rose primarily due to higher LNG sales volumes. The project's LNG revenue of about A\$2.24 billion rose 4 percent compared to the prior quarter and 11 percent compared to the same quarter in 2023. Origin attributed the rise to higher LNG volumes and higher realized export prices. The company's share of APLNG revenue for the September quarter was A\$615 million, up 4 percent compared with the prior quarter and a rise of 11 percent compared to the same quarter in 2023. Origin owns a 22.5 percent in the project and is the upstream operator, while China's Sinopec owns a 25 percent share in APLNG. US energy giant ConocoPhillips has a 47.5 percent share in the APLNG project and operates the 9 mtpa LNG export facility on Curtis Island near Gladstone. Earlier this year, APLNG shipped its 1000th LNG cargo since it started operations in 2016.

34 LNG cargoes

Origin said that APLNG shipped LNG cargoes during July-September, up by three cargoes compared to the same quarter in 2023 and up by one cargo compared to the prior quarter. The project delivered three spot LNG cargoes during the period. APLNG's September quarter realized average LNG price was \$11.95/MMBtu, compared to 11.62/MMBtu in the same quarter

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last year and 11.70/MMBtu in the prior quarter, while average domestic price was A\$9.59/GJ. Production of 173.5 PJ dropped 1 percent compared to the previous quarter and compared to the same quarter last year. Origin CEO Frank Calabria said that "continued good operational performance at Australia Pacific LNG enabled steady production, while sales volumes and revenue increased compared with prior year to date." "Australia Pacific LNG continues to provide material volumes of gas to the domestic market, supporting the needs of manufacturers," he said. Source: www.lngprime.com

TORTUE FLNG TO START PRODUCTION AT END OF FOURTH QUARTER

Golar LNG's FLNG Gimi, which serves BP's Greater Tortue Ahmeyim FLNG project offshore Mauritania and Senegal, is expected to start production around the end of the fourth quarter of 2024, according to project partner Kosmos Energy. In February, the 2.5 mtpa FLNG, which was converted from a 1975-built Moss LNG carrier with a storage capacity of 125,000 cbm, arrived at the GTA hub. After that, the project's floating production, storage, and offloading (FPSO) unit also arrived at the GTA project off the coasts of Mauritania and Senegal in May. Texas-based Kosmos said in its third-quarter results report on Monday that "cool down and commissioning of the FLNG vessel has commenced with first LNG expected around the end of the fourth quarter of 2024." Kosmos previously said that first LNG is expected in the fourth quarter of 2024. The company said in the update that the FPSO is "ready for startup shortly with first gas expected thereafter." Kosmos also said that drilling of the first batch of four wells had been completed with expected production capacity "significantly higher" than is required for first gas. In addition, the firm noted that the subsea work scope for first gas is mechanically complete.

"Good progress"

BP CEO Murray Auchincloss recently said the company is making "good progress" with the commissioning of its delayed FLNG project, but he did not provide a timeline for the start-up. He confirmed that the FLNG received a pre-commissioning cargo to accelerate the cooldown of the unit. Auchincloss said at the end of July that BP expects to achieve first gas from the project over the next three or four months. BP operates the first GTA phase along with its partners Kosmos, PETROSEN, and SMH. In 2020, the partners signed a sales and purchase agreement under which BP Gas Marketing will offtake 2.45 million tonnes per annum of LNG from the first phase of the GTA project for an initial term of up to 20 years. BP's unit is the sole offtaker of the project's volumes. It is worth mentioning here that BP recently won an arbitration against its partner Kosmos over a dispute related to the project's LNG sales. The final, binding award prohibits Kosmos from selling LNG cargoes to third-party buyers during the contract term of the LNG sales agreement.

Second phase

In February last year, the partners confirmed the development concept for the second phase of the GTA LNG project, which they will take forward to the next evaluation stage. The partnership will evaluate a gravity-based structure (GBS) as the basis



for the GTA Phase 2 expansion project (GTA2) with total capacity of between 2.5-3 million tonnes per annum. GBS LNG developments have a static connection to the seabed with the structure providing LNG storage and a foundation for liquefication facilities. The concept design will also include new wells and subsea equipment, integrating with and expanding on existing GTA infrastructure. Source: www.lngprime.com

QATARENERGY HOLDS LNG TALKS WITH SOUTH KOREA'S KOGAS

State-owned LNG giant QatarEnergy has held supply talks with South Korean LNG importer and its long-standing customer Kogas. Qatar's energy minister and QatarEnergy's CEO, Saad Sherida Al-Kaabi, held talks with top energy leaders during a visit to South Korea, according to a statement on Monday. Al-Kaabi was accompanied by a delegation of senior executives from QatarEnergy and QatarEnergy LNG. During his visit, Al-Kaabi met with Choi Yeon-Hye, CEO of Kogas, to discuss "enhancing bilateral cooperation and expanding business relations," QatarEnergy said. QatarEnergy said Kogas is an "important" buyer of Qatari LNG. The firm did not provide further information. South Korea's Minister for Trade, Industry and Energy Dukgeun Ahn also met with Al-Kaabi, MOTIE said in a separate statement on Monday. As of 2023, Qatar is Korea's second-largest supplier of LNG, the ministry said. "The meeting served as an opportunity to reaffirm both countries' commitment to stabilizing the energy supply amid recent Middle East tensions and rising global interest towards energy supply issues," it said. "Sharing a high regard for their close LNG ties, the two sides agreed to maintain them going forward and further discussed measures for expanding the scope of collaboration based on their successful LNG partnership to push cooperation in renewable energy, hydrogen, and such clean energy sources," MOTIE said.

LNG supplies

Back in July 2021, QatarEnergy, previously known as Qatar Petroleum, entered into a 20-year deal to supply LNG to Kogas. Under the sales and purchase agreement, QatarEnergy will deliver 2 million tons per year of LNG to Kogas' receiving LNG terminals, starting in 2025. Due to "competitive price" and "favorable contract conditions", the new deal would save Kogas \$1 billion throughout the period of 20 years, MOTIE said at the time. In addition, the contract gives Kogas the right to boost, reduce, or cancel a certain amount of the annual LNG supplies, MOTIE said. Qatar supplies about 9 million tons of LNG to South Korea per year via multiple long-term deals with Kogas. In 2024, contracts totaling some 4.9 million tons would end while the new deal would make up for some of these volumes, the ministry said in July 2021. QatarEnergy is currently working on the giant North Field LNG expansion program, which includes the North Field South and North Field West projects. Together, these will raise Qatar's LNG production capacity from the current 77 mtpa to 142 mtpa in 2030. In February, QatarEnergy also announced the North Field West project which will add 16 mtpa of LNG to the overall expansion of the North Field. The company signed many supply deals related to these first two expansion projects, including 27-year SPAs with Sinopec, Eni, Shell, and TotalEnergies. Source: www.lngprime.com



INDONESIA'S LAMPUNG FSRU COMPLETES 65TH STS LNG TRANSFER

Hoegh Evi's Lampung FSRU, which serves Pertamina's Perusahaan Gas Negara off the southeast coast of Sumatra in Indonesia, has completed its 65th ship-to-ship transfer since it started operations in 2014. PGN LNG, a unit of PGN and the operator of the floating LNG import facility offshore Lampung, said on Monday that the new delivery sets a record for the 170,132-cbm FSRU. With this LNG shipment, PGN LNG completed three LNG STS transfers within one month, a new record for the terminal. The 2004-built 138,000-cbm LNG carrier, Prima Concord, previously known as Methane Kari Elin, delivered the 65th shipment from BP's Tangguh LNG export project in Indonesia's Papua Barat province. PGN LNG said the cargo of about 125,000 cbm was transferred during October 28-30. The regasified LNG from the FSRU-based facility goes for power generation and industrial users in West Java. Connected to a tower yoke mooring system, the FSRU delivers gas via a 21 km-long offshore pipeline. The underutilized 2.7 mtpa facility received its 30th cargo in March 2021 and the 52nd shipment in November last year since it started operations in 2014. The unit serves a 20-year charter deal PGN has with Hoegh Evi, previously known as Hoegh LNG. Earlier this year, Norwegian FSRU player Hoegh LNG resolved a dispute with PGN over issues related to the Lampung FSRU charter. Hoegh said that the two firms have agreed to "finally and irrevocably settle all of the disputes, claims, and counterclaims between the parties that gave rise to the said arbitration proceedings and agreed to terminate the arbitrations with immediate effect." Back in July 2021, Hoegh LNG Partners, now part of Hoegh, received a letter where PGN said it would start arbitration to "declare the charter null and void, and/or to terminate the charter, and/or seek damages." After that, Hoegh LNG Partners filed a countersuit against PGN. Source: www.lngprime.com

CROWN LNG BUYS KAKINADA AND GRANGEMOUTH ASSETS

US-listed Crown LNG completed two strategic acquisition deals forming the basis of its entry into the global LNG infrastructure network. According to a statement by Crown LNG, the first agreement finalizes the acquisition of all shares of KGLNG, which owns the operating license for the company's planned LNG import terminal in Kakinada, India. Moreover, the second agreement finalizes the acquisition of LNG import terminal assets in Grangemouth, Scotland from GBTron Lands Limited. Total consideration for the KGLNG acquisition will be made in shares of Crown LNG equal to \$60 million, while total consideration for the GBTron acquisition will be made in shares of Crown LNG equal to \$25 million. The Kakinada project, located on the East coast of India, is licensed to operate 365 days a year, which is the first for a harsh weather-prone area. Crown LNG said imported gas from the planned terminal would reach demand centers via the East-West pipeline, helping to support the Indian government's drive to more than double the share of natural gas in the country's energy mix to 15 percent by 2030. The Grangemouth project, located on the East coast of Scotland, seeks to support the UK's increasing drive for energy security post-Brexit and in the context of geopolitical impacts on energy markets. Currently, the UK relies on just three facilities for all of the country's LNG imports, which increased 74 percent from 2021 to 2022, Crown LNG said. "We are excited and proud



to announce the execution of these two transactions and move these two projects down the path," said Swapan Kataria, CEO of Crown LNG. "With Crown LNG and our subsidiaries now firmly in control of the Kakinada and Grangemouth projects, we look forward to driving the success of these two transformative projects for both India and the UK," he said.

FID on Scottish FSRU terminal in Q2 2025

Crown LNG recently said it expects to make a final investment decision to build its planned FSRU-based LNG import terminal in the Firth of Forth, Scotland in the second quarter of 2025. The company delayed the decision on the Grangemouth FSRU project, as it said in July it expects to decide on the facility in late 2024. In July, the company selected UK-based IKM Engineering & Environmental Consultants as its partner for the design and engineering of the FSRU project. Moreover, IKM's mandate will include the pre-FEED and FEED (front end engineering and design) phases, including project management and execution planning. The Grangemouth FSRU project will have a capacity of 5 mtpa and will cost about \$533 million. It will supply a natural gas-fired power plant. In July, Crown LNG and Catcha Investment completed their previously announced agreement for a business combination that resulted in Crown becoming a US publicly listed company. Crown said at the time it is advancing development of two projects toward FID – Kakinada, and Grangemouth. Crown LNG re-affirmed its target of Q3 2025 for the project in Kakinada, India. This terminal will utilize gravity-based structure (GBS) facilities and will have a capacity of 7.2 mtpa. It is expected to cost about \$1 billion. Source: www.lngprime.com

CHENIERE SETS METHANE EMISSIONS TARGET FOR ITS LNG TERMINALS

US LNG exporting giant Cheniere said it had set a voluntary, measurement-informed scope 1 annual methane intensity target for its Sabine Pass and Corpus Christi liquefaction facilities. According to Cheniere, the methane target builds upon the company's climate strategy and leverages data from its multi-scale emissions measurement and mitigation programs. "The methane target is consistent with the requirements to achieve Gold Standard under Cheniere's membership in the United Nations Environment Programme's (UNEP) Oil & Gas Methane Partnership (OGMP) 2.0.," the company said. Cheniere aims to consistently maintain a scope 1 annual methane emissions intensity of 0.03 percent per tonne of LNG produced across its two US Gulf Coast liquefaction facilities by 2027. Using measured emissions data to inform methane targets represents an "important element" in Cheniere's strategy and moves the industry forward in its climate performance, the company said. Cheniere's quantification, monitoring, reporting and verification (QMRV) projects — including data from about 50 aerial measurements of the company's operations at its liquefaction facilities performed over a 16-month period — informed the process of establishing the methane target. In addition, Cheniere has updated its peer-reviewed LNG life cycle assessment (LCA), originally published in 2021. Cheniere said the new study had been accepted by a "top-tier academic journal" and is expected to be published soon "The updated LCA finds that in all cases the supply-chain specific GHG emissions intensity of Cheniere's LNG is lower than those presented in the U.S. Department of Energy's National Energy Technology Laboratory



(NETL) 2019 study," the company said. Cheniere's broader climate strategy focuses on a data- and science-based approach to identifying potential emissions reduction opportunities, the company added. Cheniere's Corpus Christi plant in Texas currently liquefies natural gas at three operational trains, each with a capacity of about 5 mtpa, while its 30 mtpa Sabine Pass terminal in Louisana has six trains. The company shipped 479 LNG cargoes during the first nine months of this year, 11 cargoes more than in the same period in 2023. Cheniere also expects to start introducing gas into the first train of the Corpus Christi expansion project in the coming weeks, according to CEO Jack Fusco. In June 2022, Cheniere made the final investment decision on the Corpus Christi Stage 3 expansion project, worth about \$8 billion. The project includes building seven midscale trains, each with an expected liquefaction capacity of about 1.49 mtpa. Source: www.lngprime.com

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