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LNG NEWS WEEKLY 27TH JANUARY'24

TMF SHORTLISTS QUINTET FOR LNGBV PROJECT

Energy major's fuelling arm seeks new LNG supply ship for the Americas. Marine fuelling provider TotalEnergies Marine Fuels is in talks with a select group of shipowners over its requirement for an LNG bunker vessel newbuilding as concerns intensify over a looming gap in the infrastructure required to supply on-order ships. Newbuilding sources said TMF, the French energy major's fuelling arm, had invited several shipowners to offer in on its LNGBV requirement last year.

They said five owners have since been shortlisted.

TMF is aiming to review their offers in February with a view to making a selection on its preferred provider in April to May. Specialist bunker market brokers said TMF approached the market with a requirement for a 15,000-cbm to 18,000-cbm LNGBV. They indicated that TMF, which is not looking at owning the vessel, is offering a charter-hire period of between five and seven years. The newbuilding is expected to be deployed in the Americas. Brokers said the price for an LNGBV of this size would likely be in the region of the high $70m to $90m range. TradeWinds has approached TMF about this ongoing enquiry. There is growing concern in the industry about what is perceived to be a lack of LNGBVs to meet the growing number of LNG dual-fuel newbuildings that will start to flood out from shipyards from 2026 onwards. Industry coalition SEA-LNG detailed in its recent LNG fuelling industry report that the number of LNGBVs had grown from 40 at the end of 2022 to 50. It said new vessels have come into operation in Japan, South Korea, Singapore, the US East Coast, the Gulf of Mexico, northwest Europe and the Mediterranean. SEA-LNG said there are a further 34 LNGBVs on order or under discussion. Clarksons' Shipping Intelligence Network lists 10 LNG carriers of less than 20,000 cbm as under construction, of which nine are labelled as bunkering units. SIN shows that seven LNGBV newbuildings were delivered in 2023.

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However, brokers pointed out that just two LNGBVs were contracted in 2023. TMF has been vocal about the LNGBV supply shortfall. In 2023, TotalEnergies LNG bunkering general manager Dahlia Rifai quantified this. She said that while there is overcapacity in the LNGBV sector as of today, from 2026 onwards there will be a need to supply about 13m tonnes per annum of LNG as bunkers, which equates to 35 large LNGBVs of between 12,000 cbm and 18,000 cbm in size. Rifai, who said TotalEnergies is looking at LNG bunkering infrastructure for the US West Coast, said nominal LNG bunker demand is expected to reach 9m tonnes in 2025, with more than 830 vessels trading. Of these, container ships will account for about 50% of the demand followed by vessels in the cruise and ferry sector and car carriers. TMF already operates two of the world's largest LNGBVs — the 18,600-cbm Gas Agility (built 2020) and Gas Vitality (built 2021) in Rotterdam and Marseille — both of which were built and are owned by Mitsui OSK Lines. In 2023, TMF put the 12,000-cbm LNGBV Brassavola (built 2023), which it shares with Pavilion Energy, into operation in Singapore. source : www.tradewindsnews.com

ADNOC EYES LNG CARRIER ORDERS

UAE's energy giant Adnoc is looking to order liquefied natural gas carriers for its planned LNG terminal in Al Ruwais, according to shipbuilding sources. Sources told LNG Prime that Adnoc recently issued a tender inviting offers from yards in China and South Korea for six firm plus four optional standard-size LNG carrier newbuilds. The vessels will feature the latest technologies and GTT's Mark III Flex+ and NO96 Super+ membrane systems are being considered. The sources said that the LNG carriers are expected to serve Adnoc's second LNG terminal in Al Ruwais, but they did not provide any further information. Adnoc Logistics & Services, a unit of Adnoc, is already working to renew its fleet of LNG carriers and it has six 175,000-cbm vessels on order at China's Jiangnan Shipyard worth more than $1.2 billion. The firm will take delivery of these vessels in 2025 and 2026. These "LNG Jumbo" dual-fuel carriers will feature GTT's Mark III Flex membrane system and a partial reliquefaction system. Adnoc L&S's existing fleet of Moss-type, steam turbine LNG carriers serves the company's 6 mtpa LNG terminal on Das Island.

Al Ruwais LNG terminal

Last year, Adnoc announced it will build its second LNG terminal in Al Ruwais. The firm previously planned to construct the facility in Fujairah and is yet to take a final investment decision on the project. When completed, the project, which consists of two 4.8 mtpa LNG liquefaction trains with a total capacity of 9.6 mtpa, will more than double Adnoc's LNG production capacity. Last month, Adnoc signed a heads of agreement with a unit of Chinese independent gas distributor ENN to supply the latter with 1 mtpa of LNG for a period of 15 years from its planned terminal in Al Ruwais. This is the first Ruwais LNG supply agreement. The deliveries are expected to start in 2028, upon commencement of the facility's commercial operations. source : www.lngprime.com

ROTTERDAM LNG BUNKERING VOLUMES HIT RECORD HIGH IN 2023

The Dutch port of Rotterdam said its LNG bunkering volumes reached a record level in 2023 as prices dropped from 2022 and demand continues to increase. Europe's largest bunkering port reported LNG volumes of 619,243 cubic meters in 2023, a rise of 53 percent compared to 406,599 cbm in 2022 when volumes dropped considerably due to high prices. However, LNG bunkering volumes also rose 2.6 percent compared to record 603,690 cbm in 2021. During the fourth quarter last year, LNG bunkering volumes reached 148,933 cbm, down from the previous quarter's 204,418 cbm. The port of Rotterdam said that only its LNG bunkering volumes increased last year due to lower prices of the fuel. Last year, shipping firms bunkered less fuel in the port Rotterdam with volumes reaching 9.9 million tonnes, down 6.7 percent from 10.6 million tonnes in 2022, it said. The Rotterdam port is home to Gasunie's and Vopak's Gate LNG import terminal. Gate LNG also handled a record number of vessels last year mainly due to a rise in demand for LNG as fuel. Gate's small-scale jetty, which launched operations in 2016, handled record 151 vessels, loading close to 900,000 cbm of LNG last year. Earlier this month, classification society DNV said that there are now 1006 LNG-powered vessels in operation on order, showing the fuel's continued importance in the maritime energy transition. These statistics do not include dual-fuel LNG carriers and smaller inland vessels. Source : www.lngprime.com

GTT SECURES NEW CONTRACTS FROM CHINA'S JOVO

French LNG containment giant GTT has secured new contracts from Chinese energy firm Jovo to support the latter's LNG carriers. GTT and Jovo signed on January 17 two new technical services agreements in Shanghai, China. According to GTT, the contracts cover GTT's assistance and operational support for LNG carriers operated by Jovo. GTT will provide its field expertise for inspections, maintenance, repairs, and engineering consultancy. Also, Jovo will benefit from access to GTT's emergency hotline to provide rapid technical assistance to crews. GTT said these new partnerships follow a first services contract, still in effect, signed between the two groups in August 2022. Last year, GTT's unit Ascenz Marorka also secured two contracts from Jovo to equip two LNG carriers with its smart shipping solution. Adnan Ezzarhouni, chief of GTT's unit in China, said that these agreements strengthen the collaboration between the two firms. "GTT is pleased to support the growing development of Jovo's LNG shipping activities," he said.

LNG newbuild available for sale or charter

Jovo currently has four LNG carriers in its fleet and these include the 2008-built 154,982-cbm, Arrow Spirit, the 2008-built 138,121-cbm, Pioneer Spirit, and the 2006-built 74,130-cbm, Energy Spirit. In October last year, Jovo's 79,800-cbm mid-scale LNG carrier, Mulan Spirit, completed its gas trials. China's Jiangnan started building this 229.99 meters long dual-fuel LNG carrier with a draft of 10.6 meters in December 2021 following the order by Jovo in August. The shipbuilder launched the vessel equipped with GTT's Mark III Flex membrane containment system in February last year. Jiangnan has not yet delivered the LNG newbuild to Jovo. Shipbuilding sources told LNG Prime that Jovo is working to sell or charter the LNG carrier. VesselsValue data suggests that the LNG carrier is currently worth about $147 million. The sources said that Jovo is probably looking to get between $150 million and $175 million for the vessel. source : www.lngprime.com

SANTOS REPORTS LOWER SALES REVENUE IN Q4

Australian LNG player Santos reported a drop in its sales revenue in the fourth quarter of 2023 due to lower production and prices. The independent LNG producer, which is in merger talks with compatriot Woodside, said on Thursday that its October-December sales revenue reached $1.48 billion. This marks a drop of 21.1 percent compared to $1.88 billion last year, while full-year 2023 revenue of $5.88 billion dropped by 24.4 percent compared to record revenue of $7.79 billion in 2022. Compared to the prior quarter, sales revenue in the fourth quarter rose 3.4 percent. Fourth quarter production of 23.4 mmboe was lower than 25.6 mmboe in the same period last year but it rose 1 percent from 23.3 mmboe in the previous quarter. Full-year production of 92.2 mmboe pre-PSC (91.7 mmboe post-PSC) was lower compared to 103.2 mmboe in 2022.

60 LNG cargoes

The Australian LNG player said its average realized LNG price of $12.33 per MMBtu in the fourth quarter rose compared to 12.02 per MMBtu in the prior quarter but it dropped from 16.92 per MMBtu in the same quarter in 2022. According to Santos, average realized LNG prices were slightly higher than the prior quarter, with higher realized prices from Darwin LNG and PNG LNG spot sales, offsetting marginally lower oil-linked sales contracts from lagged Japan Customs-cleared Crude (JCC) prices. Three-month lagged JCC averaged $83.08/bbl in the fourth quarter of 2023 and compares to $84.04/bbl in the third quarter. Moreover, Santos' LNG projects shipped 60 cargoes in the fourth quarter, of which nine were sold on a JKM-linked basis, two from Darwin LNG, six from PNG LNG, and one from GLNG. In November 2023, the last LNG cargo produced from the Bayu-Undan gas field has sailed from the Santos-operated Darwin LNG plant in Australia's Northern Territory.

Barossa 66.4 percent complete

Santos managing director and CEO, Kevin Gallagher, said that the fourth quarter "brought free cash flow for the full year to $2.1 billion, an outstanding achievement in what has been a challenging year." "Free cash flow of $1.6 billion year-to-date positions the company well to deliver shareholder returns, backfill and sustain our existing business, while also investing in our major projects and progressing our decarbonization plans," Gallagher said. "It positions us well to deliver shareholder returns, backfill and sustain our existing business, complete our major projects, Barossa and Pikka, progress

our decarbonization plans and grow our Santos Energy Solutions business," he said. Back in 2021, Santos took a final investment decision for its $3.6 billion Barossa project to secure feed gas for the Darwin LNG plant. Natural gas would be extracted from the Barossa field, located in Commonwealth waters about 285 kilometers offshore north-north west from Darwin, and transported via a pipeline to the existing DLNG facility. Earlier this month, the Federal Court of Australia dismissed an application and discharged the injunction that prevented pipelay activities along the Barossa gas export pipeline. Gallagher said the Barossa pipelaying and drilling activities were now fully under way with first gas still expected in 2025. The Barossa gas project is now 66.4 percent complete. "Given the challenges of the past two years, we have updated our cost and schedule guidance for the project. The team has done a great job in keeping Barossa close to the original schedule and managing the costs of delay," he said. source : www.lngprime.com

TOKYO GAS AND PARTNERS FORM JV FOR LNG-TO-POWER PROJECT IN VIETNAM

Japan's city gas supplier and LNG importer, Tokyo Gas, has formed a joint venture with two other firms to develop its second LNG-to-power project in Vietnam. Besides Tokyo Gas, the Thai Binh LNG Power joint venture (TBLP) consists of Japan's Kyuden and Vietnam's Truong Thanh Viet Nam. Tokyo Gas said in a statement that the partners established TBLP to initially conduct feasibility study for the LNG-to-power project in Thai Thuy District, Thai Binh province, Vietnam, which includes an offshore LNG receiving terminal and a 1.5 GW natural gas-fired power plant. According to Tokyo Gas, the scope of the project ranges from development, construction, and operation of the power plant and an LNG receiving terminal, LNG procurement to selling electricity to Vietnam Electricity. TBLP will assess the economic and technical feasibility, select EPC contractor, and develop LNG procurement strategy during feasibility study phase. Tokyo Gas said the partner aim to start the project's commercial operation in 2029, but it did not provide any additional details. Last month, the three firms received an investment licence from the Vietnamese government to develop the $1.99 billion LNG-to-power project in the northern province of Thai Bin. This is the second LNG-to-power project for Tokyo Gas in Vietnam, following the onshore LNG receiving terminal and natural gas-fired power plant project in Quang Ninh province. In November 2022, Tokyo Gas and Marubeni joined forces with PetroVietnam Power and Colavi to establish Quang Ninh LNG Power as part of their plans to build an LNG-to-power project in Vietnam's Quang Ninh province. This move followed an investor registration certificate received from the Vietnamese government on July 11, 2022.

Vietnam started importing LNG last year

Vietnam became an LNG importer in 2023. PetroVietnam Gas, a unit of state-owned PetroVietnam, launched in October 2023 its Thi Vai LNG import terminal, the country's first such facility. The Thi Vai LNG import facility consists of one 180,000-cbm LNG tank, a jetty, and regas area. The terminal has a capacity of 1 mtpa in its first phase, but PetroVietnam Gas plans to boost the capacity to 3 mtpa in the next stage. It will be an important link in supplying gas to consumers, including the Nhon Trach 3 and 4 power plants. According to the Vietnamese government, the country is planning to develop up to 13 LNG power plants with a combined capacity of 22.4 GW by 2030. source : www.lngprime.com

ALPHA GAS TAKES DELIVERY OF LNG CARRIER ENERGY ENDURANCE IN SOUTH KOREA

South Korea's Hyundai Samho Heavy Industries has delivered the 174,000-cbm LNG carrier, Energy Endurance, to Greece's Alpha Gas. Alpha Gas announced the delivery of the vessel in a short social media post on Tuesday. Energy Endurance is the second XDF LNG carrier to join Alpha Gas fleet, from a series of three to be delivered to the Greek owner by HSHI within 2023-2024, it said. The firm did not provide any additional information. HSHI launched this LNG carrier in July last year. In April last year, the shipbuilder delivered the first LNG carrier in this batch, Energy Fidelity, and this vessel serves Jera Global Markets, a joint venture of Japan's Jera and France's EDF, under a charter deal. HSHI also launched in July last year the third LNG carrier, Energy Fortitude. Prior to these deliveries, Alpha Gas welcomed the 174,300-cbm Energy Intelligence into its fleet in June 2021. This LNG carrier and its sister vessel Energy Integrity are on charter to a unit of SEFE, previously known as Gazprom Germania and now controlled

by the German government. In addition to these vessels, Alpha Gas took delivery of Energy Endeavour in 2021, Energy Pacific in 2020, and Energy Atlantic in 2015. Following delivery of Energy Fortitude later this year, Alpha Gas will have eight LNG carriers in its fleet. source : www.lngprime.com

TOTALENERGIES WRAPS UP MILESTONE LNG BUNKERING OP IN FRANCE

A unit of French energy giant TotalEnergies has recently completed the 100th LNG bunkering operation with its chartered vessel, Gas Vitality, in Marseille. The 135 meters long 18,600-cbm LNG bunkering vessel, owned by Japan's MOL, completed the milestone operation on January 1, 2024 in the Port of Marseille-Fos, according to V.Group, which manages the vessel via its unit V.Ships France. The bunkering involved a transfer of 8,000 cbm of LNG to MSC's containership with a capacity of 15,000 TEU, MSC Freya, it said. Concurrently, the 2023-built MSC Freya performed cargo handling operations. VesselsValue data shows that EPS is the owner of MSC Freya while MSC charters the ship.

First LNG bunkering vessel to be based in France

Chinese shipbuilder Hudong-Zhonghua has held a naming ceremony for Gas Vitaly in October 2021 and the vessel arrived in France in December the same year. It is the first LNG bunkering vessel to be based in France. Gas Vitality has similar specifications as its sister ship, Gas Agility, which works for TotalEnergies from the Dutch port of Rotterdam. Since November 2020, TotalEnergies Marine Fuels has completed more than 200 LNG bunkering operations with the two vessels, it said in October last year. source : www.lngprime.com

CNOOC COMPLETES BINHAI LNG TANK TESTING

China National Offshore Oil Company (CNOOC) has completed hydro testing of all of the six giant LNG storage tanks at its Binhai LNG import terminal in Jiangsu. The state-owned energy giant is building the 270,000 cbm tanks under the Phase I expansion project of its "Yancheng Green Energy Port". These are world's largest onshore LNG storage tanks, such as the operational tank at Sinopec's Qingdao LNG import terminal and the five tanks at CNOOC's Zhuhai LNG import terminal. The six tanks at CNOOC's LNG terminal located in Yancheng Binhai Port Industrial Park add to the already four existing tanks with a capacity of 220,000 cbm. In September last year, CNOOC completed raising the roofs on all of the six 270,000 cbm LNG storage tanks and in October the firm hydrotested one of the tanks. On January 20, 2024, the company completed hydro testing of all of the six LNG storage tanks, 71 days earlier than the original plan, according to a statement by CNOOC Gas & Power said. This procedure, also known as hydrostatic testing, ensures LNG tank safety and reliability. The successful completion of the tests lays a solid foundation for the mechanical completion of the entire project on schedule, CNOOC's unit said. In August last year, CNOOC received the 30th cargo of LNG at its Jiangsu-Binhai LNG import terminal since September 2022. The LNG terminal received its 15th cargo in May, while LNG producer Qatargas, now QatarEnergy LNG, delivered the first LNG cargo on September 26, 2022. The terminal currently has a nominal capacity of three million tonnes of LNG per annum and can receive vessels with a capacity of between 80,000 cubic meters and 266,000 cubic meters. source : www.lngprime.com

EEMSHAVEN LNG TERMINAL GETS 82ND CARGO, PLANS TO START MAINTENANCE THIS WEEK

The FSRU-based LNG import facility in the Dutch port of Eemshaven, owned by Gasunie and Vopak, has received 82 shipments since its launch in September 2022, mostly from the United States. Operated by EemsEnergyTerminal, the LNG hub consists of two chartered floating storage and regasification units – the 170,000-cbm FSRU Energos Igloo, owned by Energos Infrastucture, and the 26,000-cbm barge-based FSRU Eemshaven LNG, owned by Exmar. The terminal has a capacity of 8 billion cubic meters and supplies natural gas to capacity holders UK-based Shell, Czech utility CEZ, and France's Engie. Shell booked 4 bcm per year of the capacity, CEZ reserved 3 bcm per year, and Engie booked the rest.

68 LNG shipments in 2023

In September 2022, the Eemshaven terminal received its first LNG cargo from the US onboard the Shell-chartered 173,000-cbm Murex LNG carrier. The terminal started delivering regasified LNG to the Dutch grid in a record time during the same month, but the facility did not deliver gas to the grid during two periods since the launch due to maintenance and the unavailability of the heat connection. Dutch gas grid operator Gasunie said in March last year it completed all the planned work at the terminal and signed a deal in April with compatriot storage firm Vopak to sell 50 percent of the LNG hub. The partners completed the deal in December. A Gasunie spokeswoman told LNG Prime on Tuesday that the Eemshaven LNG terminal has received 12 cargoes in 2022, 68 LNG cargoes in 2023, and 2 cargoes this year up to date. Each LNG carrier delivers an average quantity of around 160,000 cbm of LNG, but this does not mean that this quantity is actually brought in every time, she said. The Eemshaven facility is the first FSRU-based terminal in the Netherlands and the second LNG import terminal in the country after Gate. The Gate LNG import terminal in the port of Rotterdam, also operated by Gasunie and Vopak, handled record 328 vessels last year. Gate unloaded 169 LNG cargoes last year, and most of this shipments came from the US as well.

Capacity boost and maintenance

Gasunie previously said that EemsEnergyTerminal's ambition is to be able to handle 9 Bcm of natural gas before the end of 2023, and then to grow to 10 Bcm. The terminal operator said it aims to achieve this by 'technical optimization' of the existing installations, including debottlenecking. "The process has now been optimized to the extent that we can technically achieve the 9 Bcm. It is up to the market to realize these quantities," the spokeswoman said. "We are currently still investigating the technical possibilities for 10 Bcm," she said. In addition, EemsEnergyTerminal plans to start maintenance activities at the LNG hub, starting this Sunday. The spokeswoman said that "major maintenance" is expected to begin on January 27 and last until until February 7. source : www.lngprime.com

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JAPAN'S LNG IMPORTS DOWN 8.1 PERCENT IN 2023

Japan's liquefied natural gas imports dropped 8.1 percent in 2023, and the country lost its position as the world's top LNG importer to China. According to the provisional data released by the country's Ministry of Finance, Japan imported 66.15 million tonnes of LNG last year. This compares to 71.99 million tonnes in 2022, which marked a decline compared to the year before. LNG imports in December rose 7.2 percent year-on-year to 6.49 million tonnes. They also rose compared to 5.33 million tonnes in November. Japan's coal imports for power generation decreased 8.1 percent in December to 8.31 million tonnes, while coal imports dropped 11.9 percent to 101.54 million tonnes in 2023. Japan's power utilities such as Kansai Electric increased

their nuclear power utilization rate in 2023. The Institute of Energy Economics, Japan (IEEJ) said in a recent report that due to the restart of some nuclear power plants and an increase in solar photovoltaics capacity, coupled with a rise in coal-fired power generation capacity, Japan's LNG imports are expected to decline below 60 million tonnes in FY2024.

LNG import bill down

Japan paid about $44.2 billion for LNG imports in 2023, a decrease of 22.6 percent compared to 2022. According to the data, the December LNG import bill of about $4.43 billion decreased 19.6 percent compared to the same month last year. State-run Japan Oil, Gas and Metals National Corp (JOGMEC) only published the arrival-based monthly spot LNG price in December. It did not release the contract-based price. The average price of spot LNG cargoes that were delivered in Japan within the month of December regardless of the month when the contract was made was $16.9/MMBtu. JOGMEC also said in a report this week that the "Northeast Asian assessed spot LNG price JKM for the previous week (January 15 -January 19) fell to mid $9s on January 19 from low $10s the previous week as inventories remain high with weak demand." METI announced on January 17 that Japan's LNG inventories for power generation as of January 14 stood at 2.58 million tonnes, up 0.07 million tonnes from the previous week.

LNG deliveries

As per LNG shipments going to Japan in 2023, deliveries from Asia decreased 10.2 percent to 16.1 million tonnes, the ministry's data shows. Middle East LNG shipments decreased 11.7 percent to 5.95 million tonnes in 2023. Moreover, shipments from Russia dropped 10.7 percent to 6.13 million tonnes, while US deliveries increased 33.6 percent to 5.52 million tonnes in 2023. The data does not include spot volumes.

China overtakes Japan

Japan was the world's top LNG importer in 2022, overtaking China, but both of the countries took fewer volumes compared to the year before. China has overtaken Japan to become the world's top importer of LNG last year. China's LNG imports rose 12.6 percent to about 71.32 million tonnes in the January-December period. This means that China imported some 5.17 million tonnes of LNG more than Japan in 2023. source : www.lngprime.com

CHINESE JV TO ORDER TWO MORE LNG CARRIERS AT DSIC

A joint venture consisting of China Gas, Wah Kwong Maritime Transport, and CSSC Shipping is expected to order two more liquefied natural gas (LNG) carriers from Dalian Shipbuilding Industry (DSIC) this year, according to shipbuilding sources. China Gas has a 30 percent stake in Sea Jade Investment, Wah Kwong owns 45 percent, and CSSC Shipping owns 25 percent. The JV ordered two 175,000-cbm LNG carriers at DSIC in August last year. Besides two firm LNG carriers, the deal also included two optional vessels. Sources told LNG Prime on Wednesday that Sea Jade Investment is expected to exercise the option for the two LNG carriers by the end of March. CSSC's DSIC and the JV extended the letter of intent (LoI) for the two optional vessels from the end of 2023 to the end of March, according to the sources. The first two vessels will feature WinGD dual-fuel low-speed engines with integrated ICER system, a reliquefaction unit, and GTT's Mark III Flex membrane containment system. DSIC is scheduled to deliver the first two vessels in 2027, and each of these ships were tipped to be worth about $235 million. The sources said that the optional vessels are also for delivery in 2027, while the price tag could reach more than $235 million per vessel. Following delivery, the first two LNG carriers will serve China Gas Hongda Energy Trading, a unit of China Gas, under 20-year charter deals, Hong Kong-based natural gas operator and distributor, China Gas, previously said. The charter hire for each LNG carrier will be at a daily hire rate of about $80,000 to $100,000 per month, it said.

DSIC's LNG carrier orders

If the contract is confirmed, DSIC will have 15 175,000-cbm LNG carriers on order. In June last year, DSIC kicked off the construction of the first of eight 175,000-cbm LNG carriers for compatriot China Merchants Energy Shipping (CMES), a unit of China Merchants Group. Back in March 2022, CMES placed an order for two dual-fuel LNG carriers, DSIC's first order for large LNG carriers, and after that added six more vessels. Besides these orders, DSIC will build three LNG carriers for a joint venture consisting of units of Cosco Shipping Energy Transportation and Sinopec. source : www.lngprime.com

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Jiangnan has not yet delivered the LNG newbuild to Jovo. Shipbuilding sources told LNG Prime that Jovo is working to sell or charter the LNG carrier. VesselsValue data suggests that the LNG carrier is currently worth about $147 million. The sources said that Jovo is probably looking to get between $150 million and $175 million for the vessel. source : www.lngprime.com

CONDOR RECEIVES FEEDGAS ALLOCATION FOR KAZAKHSTAN LNG PROJECT

Condor Energies Inc., a Canadian based energy transition company, has received a natural gas allocation from the Government of the Republic of Kazakhstan. The gas allocation will be used as feed gas for the company's first modular LNG production facility. The feed gas will be liquefied to produce up to 350 tpd (210 000 gal./d) of LNG, which can fuel approximately 125 rail locomotives or 215 large mine haul trucks (150 t haul capacity). The carbon emission reductions associated with using this LNG volume to displace diesel fuel equates to removing over 31 000 cars from service annually. The company has also acquired 12 ha. of industrial land where the first modular LNG facility will be constructed. FEED is complete and detailed engineering will commence shortly. Discussions are underway with end-users to confirm LNG volume commitments and the company is reviewing project funding alternatives before proceeding with construction. Don Streu, President and CEO of Condor, commented: "We are very happy and appreciative to receive this gas allocation that advances our vision of producing Kazakhstan's first LNG. This is a significant milestone as Kazakhstan has been experiencing natural gas shortages, which was impacting our ability to secure a long-term LNG feedstock gas supply contract. "Our LNG initiative fully supports the Government's strategy to materially expand the Trans-Caspian International Transport Route (TITR), which links a major Asian trade route with Europe. Our LNG can be used as a domestically produced low carbon fuel as a substitute for diesel to address the increased usage of rail locomotives and transport trucks between China and the Caspian Sea, and the marine vessels used to cross the Caspian Sea. Given the geopolitical situations in Russia and the Middle East, the TITR is even more vital to expedite timely trade and transportation between Asia and Europe. Condor is working closely with Kazakhstan's national railway and marine companies to implement an LNG solution in 2025. "Our LNG initiative also supports the Government's strategy to implement technological transformations for decarbonisation to achieve the country's net-zero carbon goal as per its Strategy on Achieving Carbon Neutrality by 2060 adopted in 2023." source : www.lngindustry.com

SEASIDE LNG ANNOUNCES TWO MILESTONE FIRST DELIVERIES

Seaside LNG has announced its first delivery to the Carnival Jubilee, an LNG propelled cruise ship stationed in Galveston, Texas. After entering into a term bunkering agreement with Carnival Corp. & plc, the delivery took place on 30 December 2023, after months of careful coordination with all parties involved, including the Port of Galveston. This operation marked the first in port ship-to-ship LNG bunkering delivery not only in Galveston, but also along the entire US Gulf Coast. Seaside's barge, the Clean Jacksonville, was moved from Jacksonville, Florida, to operate out of Galveston and serve the Texas Gulf Coast. The Clean Jacksonville has safely completed more than 350 bunkering operations to date. In related news, the Clean Everglades, the newest member of the Seaside LNG fleet, made its first delivery week commencing 15 February 2024. The delivery was made to Isla Bella at the TOTE Maritime's terminal near Jacksonville, Florida. The operation was a regularly scheduled delivery per TOTE's long-term service contract with Seaside's maritime transportation company, Polaris New Energy. Seaside took delivery of the Clean Everglades, an articulated tug barge that holds 5500 m3 of LNG, in October 2023. In addition, TOTE Services acts as Seaside's operating partner for both the Clean Jacksonville and Clean Everglades. "The Seaside LNG team is excited to start 2024 off strong with these two deliveries. We appreciate the trust our customers put in us to arrange these important fuelling operations. We also recognise TOTE Services for their contributions as a reliable operating partner," noted Tim Casey, CEO of Seaside LNG. "As the demand for LNG as a cleaner maritime fuel continues to grow, our team and barge fleet are ready to deliver." source : www.lngindustry.com

GEOPOLITICS AND SUPPLY DISLOCATION SPUR DEMAND FOR FLEXIBLE FLOATING ENERGY ASSETS

Floating energy assets represent a large-scale commitment from owners and operators, as well as requiring deep expertise from the yards contracted to build them. The dividend this commitment delivers is the flexibility they can provide, especially at times of changing energy supply and political disruption. Floating liquefied natural gas (FLNG) units have seen demand spike, as energy supply and demand patterns have shifted since the start of the Ukraine-Russia conflict. These units can be built in shipyards under controlled conditions and towed to site for hookups. FLNGs are in reality an 'LNG version' of a floating production storage and offloading (FPSO) unit and just like FPSOs, they can easily be redeployed and hence have a low risk of becoming stranded assets. As an example of their flexibility, Tango FLNG was built and designed for operations in Columbia, moved to Argentina and is now in the process of being moved to the Congo after being acquired by ENI. Petronas has also proved that FLNGs can be redeployed when necessary, with the move of its first FLNG from one field to another within Malaysia.

"There is a continuous push to make both FLNGs and FSRUs viable in smaller sizes"

There are good prospects for small- and medium-sized FLNGs going forward, enabling more regional LNG supply from stranded gas pockets. Tightness in the LNG carrier (LNGC) market is due to a much higher level of newbuilding orders and increasingly tighter environmental regulatory standards for shipping, which also impact LNG shipping. There are more yards coming into the LNGC space, but the newbuilding market is still fairly tight. As the containment systems are very similar for LNGCs and FLNGs, there are also limitations for newbuild FLNG capacity. Conversions have played an important role for FLNGs and this will most likely continue while geopolitical uncertainty remains. Of the main regasification players, only Golar has delivered FLNG conversions, but there are likely opportunities for both newbuild and conversion projects for FLNGs as well.

In 2020, FSRU Excelerate had a send-out capacity of 1.06 BCF of natural gas - an industry record.

FSRUs: swing trading

Floating storage and regasification units (FSRUs) are, for the most part, specialised ships that can trade as gas carriers and also serve as floating regasification terminals. This means that FSRUs can be ordered speculatively and do not have to be tailor-made for each project and can trade in the LNG shipping market until they are needed for a regasification assignment. Most of the significant players in the FSRU space have ordered regasification vessels or conversions on a speculative basis, knowing that they can trade as LNGCs until a regasification project is available.

"Some regulations, such as the Carbon Intensity Index, are not applicable for FSRUs"

FSRUs are also typically used to open up new markets or provide seasonal supply to markets characterised by large swings in energy demand and/or local energy production. When Europe needed new regasification supply to come on-stream quickly, it was in the fortunate situation that several FSRUs were trading as ships and could be made available for regasification projects quickly. The main elements that need to be in place before FSRU operations are pipeline connection, jetty/mooring and LNG transfer systems through either loading arms or hoses. FSRUs are all typically built to international shipping regulations, such as IMO's IGC Code and any additional requirements from class or flag. This means that they are very flexible in terms of location of service and can easily be redeployed to another location following the completion of a charter. Typically, this means that the regasification vessel satisfies regulatory requirements 'as-is' and the main local regulatory needs are related to environmental issues, such as emissions and local labour regulations. FSRUs have to pay similar attention to changes in maritime regulation as other ships, though some regulations, such as the Carbon Intensity Index (CII), are not applicable for FSRUs as they operate in a single location. They do not trade cargoes and will only move away from bad weather or switch locations. Local regulators are however looking to tighten pollution regimes as far as possible and there is a focus on both air and water emissions. As a result, the use of shore power, rather than onboard power generation, is becoming more common. FLNGs are following the trend of other upstream and midstream assets in seeking to improve their energy efficiency as well as minimise emissions, efforts that are pushed by both regulators and financiers. There is also a focus on the impact of agents used in seawater loops in LNG vaporisation, as well as in cooling water loops for liquefaction assets, if agents are subsequently released into the ocean. There is a desire to minimise the impact on the marine environment, both by the release of chemicals and temperature changes. source :www.rivieramm.com

ENGINE SPECIFICATIONS SET 'FOR NEARLY HALF' OF QATAR'S NEXT ROUND OF LNG CARRIER ORDERS

Swiss-headquartered WinGD said the number of engines it received orders for in the first phase of newbuildings in 2023 will be eclipsed in 2024.

The company said its projection is "based on initial decisions" by the state-owned energy company. QatarEnergy is believed to have increased the number of shipbuilding slots it has reserved at Samsung Heavy Industries, Hanwha Ocean and Hudong Zhonghua Shipbuilding shipyards, with reservations for its second newbuilding phase currently totalling 40 slots, according to multiple reports. The company signalled the start of its second round of newbuilding orders by signing a deal with South Korea's Hyundai Heavy Industries in September 2023 for 17 LNG carriers, worth US$3.9Bn. Together with the more than 60 ships contracted in phase one, the agreement brought the estimated total number of confirmed LNG vessels set for delivery to QatarEnergy and its affiliates to around 80 or more. QatarEnergy's LNG shipbuilding programme will support its expanding LNG production capacity from the North Field LNG expansion in the Middle East and Golden Pass LNG export projects in the US as well as its long-term fleet replacement requirements. Some 49M tonnes per annum (mta) of new capacity is considered likely to come online during 2027 and 2028, increasing Qatar's liquefaction volume from 77 mta to 126 mta, and requiring more than 90 LNG carriers holding an average of 170,000-m^3 of cargo capacity to transport. QatarEnergy also plans to offtake 70% of the capacity from the US' Golden Pass LNG project, with the remaining 30% to be marketed by ExxonMobil. In total, Qatar reserved 151 newbuilding slots across Asian shipyards to meet its upcoming cargo transport needs. WinGD said it is "expecting to secure the majority of dual-fuel engine orders for LNG carriers being built in the second phase of QatarEnergy's newbuilding project". The company called its engines "the preferred choice" for "most vessels", noting it had received orders to supply engines for 25 vessels in the first phase of ship orders. source : www.rivieramm.com

KSI LISIMS LNG SIGNS FIRST SALE AND PURCHASE AGREEMENT

This is a major step for the Ksi Lisims LNG Limited Partnership (Ksi Lisims LNG), a co-development of the Nisga'a Nation, Rockies LNG Limited Partnership and Western LNG LLC, which will utilise cutting-edge floating LNG production units constructed by Samsung Heavy Industries. Employing an all-electric process designed by Black & Veatch further distinguishes the project as the lowest-emitting LNG facility globally – a significant achievement in an era where environmental responsibility has become a top priority. At the heart of the planned LNG export facility are two near-shore floating LNG

units that will be built by SHI and incorporate Black & Veatch's PRICO liquefaction technology to produce a combined 12 mta of LNG.The combined capacity of the two vessels will make "this the largest floating LNG export facility in the world," said a Black & Veatch executive, who noted the two FLNG vessels will be equipped with three trains capable of producing 2 mta LNG each for a total of 6 mta. Ksi Lisims LNG's total capacity of 12 mta nearly matches the total nameplate capacity (12.1 mta) of the five FLNG vessels operating as of April 2023 and is more than three times the capacity of the largest of those, Shell's Prelude FLNG. Located in the Browse Basin off the coast of Western Australia, Prelude FLNG has a nameplate liquefaction capacity of 3.6 mta. Western LNG LLC president and chief executive Davis Thames said, "Ksi Lisims LNG will play an important role in the long-term economic growth of the Nisga'a Nation and other nations with which we work, and we remain committed to being good partners with them. Our work with the Nisga'a Nation and Rockies LNG has produced a unique value proposition for our customers, and we look forward to growing our sales portfolio in the near future." Shell Energy executive vice president Steve Hill said, "LNG is a critical pillar of global energy security and global demand is set to increase in the years to come. We are pleased to sign this agreement with Ksi Lisims LNG which will help Shell to continue providing a diverse and flexible LNG supply to its customers." source : www.rivieramm.com

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