CECYGNUS ENERGY GAS&OIL LNG NEWS WEEKLY 22ND SEPTEMBER 2024



GOLAR INKS ORDER FOR FIRST OF NEXT-GEN FLNG UNITS

Tor Olav Troim-controlled Golar LNG has inked an order for a first of a new breed of LNG carrier-to-floating LNG production unit that will cost about \$2. 2bn.The company signed a planned engineering, procurement and construction (EPC) agreement with Chinese yard CIMC Raffles for the first of its MK II FLNG production vessels. Black & Veatch, having worked with Golar for over 10 years on its first two FLNG units, will provide its licensed PRICO liquefaction technology, handle detailed engineering and process design, specify and procure topside equipment, and offer commissioning support for the vessel's topsides and liquefaction process. Golar has chosen the 148,500-cbm Fuji LNG (built 2004), which it bought in early 2023, for the conversion. The vessel will be cut in two and the liquefaction section inserted amidships with the vessel's Moss tanks being used for storage. Speaking at a signing ceremony in Houston on the opening day of the Gastech meeting, Golar chief executive Karl Fredrik Staubo confided that the company was given final board approval for the order on Tuesday at 10.30am local time in the US. He said the 3.5m tonnes of LNG per annum unit is being ordered on speculation. The company had already reserved a yard slot for the unit due for delivery in the fourth quarter of 2027. Talking to TradeWinds at the event, the CEO pointed to Golar's recontacting deal for its FLNG unit Hilli, which the company announced in July. "The amount of interest we saw for that vessel gives us the confidence to proceed," he said, indicating that there could be room for both units in Argentina.

CECYGNUS ENERGY

Golar has already committed over \$300m for this next-up conversion over the past two years and has kept the market updated on its spend. "This will be the earliest available FLNG unit in the world by two to three years," Staubo said. "For anyone who



wants to monetise gas, this is a very obvious choice to go with." The company has the option to build a second MK II unit for handover in 2028. Golar said the EPC price for the conversion is \$1.6bn, with the total budget for the job coming in at \$2.2bn, including yard supervision, spares, crew, training, contingencies, initial bunker supply and voyagerelated costs to deliver the unit to its operational

site, excluding financing costs. The company said it had already spent \$300m to date, including costs for the conversion candidate, engineering and long-lead items, which are now 63% complete. Yard selection for the MK II FLNG conversion was concluded two years ago. CIMC, Black & Veatch and Golar have subsequently spent approximately 350,000 man-hours optimising the conversion process and derisking project execution. Golar said that based on the potential charter terms on the most recent long-term FLNG deals, the MK II unit has an earnings potential of approximately \$500m of adjusted annual Ebitda, before commodity exposure. Staubo described the order as "a significant milestone" for Golar and partners CIMC and Black & Veatch. He said the floater strengthens Golar's position in FLNG units and increases its controlled liquefaction capacity by about 70% to 8.6m tonnes per annum. He said that with a delivered price of around \$600 per tonne of liquefaction capacity and its fourth quarter 2027 delivery, the FLNG unit is "well positioned to offer prospective clients an attractive time-to-market to enable gas monetisation, whilst driving value for Golar". Commenting on the order, CIMC chief executive and president Wang Jianzhong said: "It demonstrates CIMC's ability to handle large, complex projects that meet the highest industry standards." Black & Veatch's fuels and natural resources sector president Laszlo von Lazar said this is the company's sixth floating LNG project to take a final investment decision. "The MK II demonstrates a clear commitment to reliable, consistent energy through floating LNG, to help meet global demands." source: www.tradewindenews.com

SINOKOR SELLS OLDEST VESSEL FOR SCRAP AFTER LONG LAY-UP

South Korea's Sinokor Merchant Marine has shed one of the world's oldest LNG carriers, selling a 45-year-old vessel for recycling. Brokers said the 126,400-cbm steam turbine-driven Coral Energy (built 1979) has been sold on an "as is" basis at Labuan in east Malaysia. The 30,194-ldt, Moss-type vessel, formerly the LNG Virgo, has specialised materials on board. One source detailed the ship as containing 3,786 tonnes of aluminium. The Coral Energy is the third LNG carrier to be scrapped

^{CE}CYGNUS ENERGY

in 2024, alongside the 19,474-cbm Surya Aki (built 1996) and the 127,125-cbm YK Sovereign (built 1994). Other steam turbine vessels are being circulated for sale with the expectation that one or more of the elderly ships will be scrapped as emissions regulations tighten. They are of significantly smaller capacities than today's 174,000-cbm two-stroke vessels, which rank as the workhorses of the LNG fleet. By contrast, the steamers are stacking up as inefficient with high emissions. There are at least two modern LNG carriers in lay-up, which may also be candidates for scrap sales, due to technical issues with their cargo containment systems.

Prolonged lay-up

The Coral Energy has been laid up, initially in the Philippines and later in Labuan, since December 2013. It is believed that Sinokor never reactivated the ship for trading since buying it seven years ago. Along with three of its original sister vessels, it ranked in the top four oldest LNG carriers in the world fleet, all of which are laid up. Sinokor controls two of the remaining trio. Sinokor bought the Coral Energy, then the LNG Virgo, in 2017 along with two sister ships — the LNG Gemini and LNG Leo (both built 1978) and since renamed the Gulf Energy and Bering Energy, respectively — from US aerospace and defence multinational General Dynamics Corp. All three vessels were Jones Act-certified and at one point there was the expectation in the market that they would make good conversion candidates. The trio was part of the original eight-ship Burmah Gas Transport fleet — sometimes known as the "Zodiac LNG carriers". source: www.tradewindsnews.com

HIGH FOCUS ON LNG BUT FUTURE FUEL CHOICES MAY YO-YO, SAYS CEO

Three months ago WinGD chief executive Dominik Schneiter's customers were all talking about methanol."Then, in just one day to another, it felt like it swapped to LNG," he said. Speaking to TradeWinds during SMM in Hamburg this month, Schneiter confided everyone visiting the WinGD stand was asking about LNG. The company also has owners with questions about switching their vessels' fuelling to LNG. "That's a big discussion," he said, admitting that WinGD has had talks about retrofits from methanol to LNG with customers wanting to know what this might entail."You can do anything," he added. "It's just a question of time and price." "I think it's all about availability and the realisation that with LNG you comply with CII [Carbon Intensity Indicator] grading, ETS [Emissions Trading System] and the Fuel EU tax levy until 2035," he explained. It gives vessels another 10 years of compliance and owners can feel safe with mature technology and an available fuel. "It's a high focus again on LNG but that could move on again," Schneiter said. "What we expect to see in the next few years are several such rapid changes of the 'taste of the month'." Engine retrofits remain a hot topic, Schneiter said, even for a newbuilding the concept of how to do this work is becoming a very important factor in selecting a propulsion system. "This is because of insecurity," he said. "Owners don't know if it is going to methanol, or maybe still LNG or even ammonia." He said this leads to the situation where the shipowner takes the lowest capital risk and invests in conventional propulsion systems with the option to do a retrofit. He said preparedness for those retrofits varies, with some having a clear vision and plan while others simply

^{ce}Cygnus Energy

try to maximise flexibility at the lowest possible cost. Schneiter, like others, is concerned about the industry's capacity to handle the retrofitting work. Shipowners are keen and want to squeeze retrofits into scheduled dry-dockings, he said, but getting the parts there and ensuring there are sufficient crane capacities is complex and "a logistic challenge that has still to be addressed". One of the biggest challenges for WinGD right now is components supply, he said, particularly the injection systems for the increasingly popular dual-fuel engines. "We need to build up more capacity in the industry," Schneiter said. Some shipowners are alert to these issues and try to control the supply chain, he said, whereas others simply assume it is all going to be there. Human resources is another issue. Schneiter said the industry has a big challenge to bring people up to speed to be able to carry out retrofits, commission the systems and make sure they work at a time when crammed newbuilding yards are also struggling to find sufficient labour. WinGD has yet to do any retrofits. But it will undertake its first for Cosco, retrofitting four container ships to methanol dual-fuelled vessels. Engine shop tests are due to take place in February, with the ships back in service in 2025. The company also has another methanol retrofit planned for a small chemical tanker. But Schneitner expects this work to grow as the technology becomes available and expands out to other fuels, including ammonia. Testing, testing, WinGD now plans to run a single cylinder of its test engine on ammonia in October, slightly later than its original plan of June. Schneitner said the test engine is currently being fitted with the equipment. He said the concept work dragged on a bit longer than initially expected and some special material was required for ammonia handling. The CEO shared that the first series of bunkerings for the test engines will be supplied by truck from producer Yara. He said that for the ammonia supply for the testing, WinGD is trying to find solutions with some of the potential future traders and companies it has close contact with such as Yara but also Trafigura. For WinGD's ammonia engine, the first ship remains Exmar's planned ammonia carrier newbuilding. The engine is due to be shop-tested in March 2025, but Schneiter said there is a buffer of almost three months on this schedule. WinGD has added four more ammonia engine orders since June to bring its total to 14 as owners — including Exmar - declare optional newbuildings. The company remains cautious about accepting too many new orders as it wants to see the first systems put into operation safely. But Schneitner said: "We also see that the market is there," adding that some owners and operators are coming up with good proposals. He said the fuel will be very limited in the next five years. "It is not going to be a huge volume." "If the full ammonia case is successful in the industry, we expect a big ramp-up only after 2030. "That gives us the time over the next five to six years to establish the technology to mature it and to make it safe." source : www.tradewindsnews.com

TOTALENERGIES EXTENDS LNG SUPPLY DEAL WITH CHINA'S CNOOC

French energy major TotalEnergies announced on September 19 a five-year extension of its sales and purchase agreement (SPA) with CNOOC, under which it will deliver 1.25mn tonnes of LNG per year to China until 2034. With this agreement, TotalEnergies has reinforced its long-term presence in the growing Chinese market. "We are pleased to strengthen our ties

CECYGNUS ENERGY

with CNOOC, a key partner for the Company in the world's largest LNG importing country. This agreement allows us to continue securing long-term sales in Asia and reduce our exposure to spot market gas prices," said Gregory Joffroy, senior vice president of LNG at TotalEnergies. The announcement follows the French firm's recent signing of an LNG supply deal with Turkish company Botas. That 10-year agreement, signed during Gastech 2024 in Houston, involves the delivery of 1.1mn tonnes per year (or 16 LNG cargoes annually) to Turkey, starting in 2027. source: www.naturalgasworld.com

EQT CEO SEES NATURAL GAS PRICES REMAINING BELOW \$3/MMBTU

HOUSTON, Sept 18 (Reuters) - The CEO of U.S. natural gas producer EQT Corp on Wednesday said U.S. prices for the fuel will remain below \$3 per million British thermal units in the short term. As prices fell to multi-year lows earlier this year, EQT curtailed 1 billion cubic feet per day (bcfd) of its gas output. Several rival U.S. shale gas producers also cut drilling to stem over production. Toby Rice, CEO of the largest U.S. gas producer, said at the Gastech energy conference that he expects production curtailments to ease by next year as demand for U.S. liquefied natural gas exports rise. U.S. gas futures NGC1 fell 4 cents on Wednesday to settle at \$2.284 per million Btus. Rice, whose company has agreements with LNG developers Texas LNG and Commonwealth LNG, said demand for natural gas to feed LNG exports and fuel power plants "has never been more important." He said the U.S. needs to allow market forces to dictate the fuel mix, criticizing what he called political forces hampering gas development. "We need to get back to a place where the most affordable, most reliable, cleanest energy finds its way to the marketplace," said Rice. "The political forces needs to take a backseat." source: www.naturalgasword.com

CHINESE LNG IMPORTS UP 11% IN JANUARY-AUGUST

China imported 50.3mn tonnes of LNG during the January-August period, marking a 10.7% increase compared to the previous year, according to data published by the customs department on September 18. In August alone, LNG imports totalled 6.5mn tonnes, representing a 5.1% year/year increase. China's pipeline gas imports during the January-August period amounted to 36.84mn tonnes, up 14.4% year/year. In August, total pipeline gas imports reached 5.22mn tonnes, an 14.6% increase compared to the same month last year. source: www.naturalgasworld.com

MOL, CHEVRON TO INSTALL FIRST RIGID SAILS ON LNG CARRIER

Japan's Mitsui OSK Lines Ltd (MOL) and Chevron will carry out the first wind-assisted propulsion installation on an LNG carrier. Wind Challenger, a hard sail wind-assisted ship propulsion system developed by MOL and Oshima Shipbuilding, will be installed on a newbuild LNG carrier on long-term charter from MOL Encean - a MOL subsidiary to Chevron Asia Pacific Shipping. The vessel - yet unnamed - is under construction at Hanwha Ocean's Geoje Shipyard in Korea with delivery scheduled in 2026. Last month, MOL obtained an approval in principle from Nippon Kaiji Kyokai (Class NK), a first for an

^{CE}CYGNUS ENERGY

LNG carrier with a wind-assisted ship propulsion system. Wind Challenger uses two 49-m fibre-glass reinforced plastic sails which can be retracted to lower the centre of gravity and keep the ship stable in rough weather. A fully automated control system, complete with proprietary technology, uses sensors to detect the speed and direction of the wind and automatically extends, reduces and rotates the sails. This is not the first trial of Wind Challenger. The first unit was installed on 2022-built, 100,400-dwt coal carrier Shofu Maru. On its maiden voyage with Wind Challenger, MOL said data showed Shofu Maru recorded fuel consumption reductions of 5% on the Japan-Australia route and 8% on the Japan-North America West Coast route, with up to 17% per day fuel consumption reduction when the sails were operated in automatic control mode. In July, MOL outfitted one of its dry bulk ships, 63,896-dwt Green Winds, with an electric hoisting version of the Wind Challenger system. Seven newbuilding bulk carriers and multi-purpose vessels operated by MOL Drybulk Ltd are to be fitted with Wind Challenger wind-assisted systems and MOL plans to launch 25 vessels equipped with the Wind Challenger by 2030 and 80 vessels by 2035. In addition to the design of Wind Challenger itself, additional safety measures include a fully enclosed navigation bridge and a lookout station on the vessel's fore deck to further enhance visibility. For tradability, the installation position of the Wind Challenger aims to minimise the impact on the existing design of membrane-type LNG carriers. It will enable the retention of the existing mooring arrangement to remain unchanged, minimising the impact on ship-shore compatibility, together with a limited impact on the vessel's windage area. "We're proud to partner with MOL in Wind Challenger's industry-first LNG installation," said Chevron Shipping Co president Barbara Pickering, "This is another example of using novel approaches in hard-to-abate sectors to reduce carbon intensity in our LNG fleet." Mitsui OSK Lines president and chief executive Takeshi Hashimoto said, "With the understanding and co-operation of Chevron, we are delighted to be able to extend the Wind Challenger Project to LNG carriers in addition to the two delivered Wind Challenger-equipped bulkers and other ongoing projects." Modern wind propulsion continues to gain traction. The International Wind Ship Association, which promotes wind propulsion for commercial shipping, said it is starting to see shipowners push beyond single, one-off installations and make small fleet orders using the technology. As of July 2024, the number of installations totalled 45 vessels, in addition to 10 wind-ready vessels, with a combined total of over 3M dwt, indicating a three-fold increase in installations over the previous year. The Wind Challenger technology will be exhibited at the MOL booth at Gastech Exhibition & Conference 2024 in Houston, 17-20 September. Source: www.rivieramm.com

HÖEGH LNG BECOMES HÖEGH EVI

Höegh LNG has officially rebranded as Höegh Evi, marking a significant shift in the company's strategic direction. The name change, announced on the company's website, reflects its expanding focus on providing energy solutions with an increased emphasis on environmental sustainability. The adoption of 'Evi,' which stands for Energy, Value, Innovation, signifies the company's ambition to adapt to the evolving energy landscape and prioritise cleaner energy technologies. Höegh Evi will



continue its operations in floating storage and regasification units, while also exploring opportunities in areas such as hydrogen, bioLNG and carbon capture, aligning with the global transition towards greener energy alternatives. By integrating these innovative solutions, the company seeks to maintain its leadership in the energy industry while contributing to global efforts to reduce emissions. The rebrand is positioned as more than just a cosmetic change. It underscores the company's commitment to developing long-term strategies that align with decarbonisation goals. While LNG remains at the core of Höegh Evi's business model, the company aims to leverage its experience in LNG infrastructure to support the growth of alternative fuels and new energy technologies. This strategic evolution is reflective of broader industry trends, where major players are increasingly focusing on reducing their environmental footprint while continuing to meet global energy demands. source: www.rivieramm.com

TOTALENERGIES, BOTAS PEN LONG-TERM LNG SUPPLY DEAL

French energy giant TotalEnergies has signed a long-term LNG supply deal with Türkiye's state-owned natural gas and LNG firm Botas. Türkiye's Energy Minister Alparslan Bayraktar announced the deal on Wednesday. The two firms signed the agreement during the Gastech event in Houston, Texas. According to Bayraktar, the deal is for 10 years and will start in 2017. Under the contract. Botas will receive 16 LNG cargoes or up to 1.6 billion cubic meters per year from TotalEnergies. Botas said in a statement the LNG supply agreement will increase portfolio diversity and flexibility, and the company will gain new competencies in the field of LNG transportation as it will receive LNG from the loading port by ships. TotalEnergies said in a separate statement that the two firms signed a head of agreement for the delivery of 1.1 million tons of LNG per year. Also, this agreement allows TotalEnergies to strengthen its long-term presence in the Turkish LNG market. "We are pleased to initiate a new long-term collaboration with Botas, a key partner for the company in Türkiye," said Gregory Joffroy, senior VP, LNG at TotalEnergies. "This agreement enables us to secure long-term sales and reduce our exposure to spot market gas price fluctuations," he said. Botas recently also signed a sales and purchase agreement with UK-based LNG giant Shell. Under this 10-year deal, Botas will receive 40 LNG cargoes per year, or up to 4 billion cubic meters of LNG. The agreement includes an option for Botas to receive the shipments at European terminals, outside Türkiye. Shell's LNG supplies will come from its US and global portfolio. The supplies will start in 2027. Botas said the deal will enable the company to expand its LNG capacity and use its terminal and pipeline infrastructure to assist Türkiye to diversify its gas resources and become a major regional gas hub.

Botas boosting LNG business

Botas has been very active lately in signing supply deals, while the firm also agreed to buy one FSRU. In May, Botas signed a deal with US energy giant ExxonMobil to buy LNG from the latter, and in April it also signed a 10-year SPA with stateowned producer Oman LNG. Before this, Botas and Algeria's LNG producer, Sonatrach, extended their LNG supply deal for three more years. Botas operates the Marmara Ereglisi onshore terminal in Turkey, the FSRU-based Dortyol facility, and the

^{□e}Cygnus Energy

FSRU-based Saros terminal. The company recently agreed to buy the 2020-built 180,000-cbm FSRU, Vasant 1, which serves the Saros terminal, for \$399 million. There is also one other FSRU operating in Türkiye at the privately-owned Etki terminal in Aliaga, Izmir, while Egegaz operates the Izmir Aliaga LNG facility. Türkiye increased its LNG import capacity to boost its energy security and to become an international gas hub. In April last year, Bulgaria's Bulgargaz received the first LNG cargo via Türkiye from the US as part of a deal it signed with Botas. Botas and Bulgargaz signed the deal in January, allowing the latter access to Turkish LNG import terminals and the grid. Source: www.lngprime.com

WOODSIDE CEO SAYS TELLURIAN DEAL WAS 'TOO GOOD TO PASS UP'

Woodside CEO Meg O'Neill said on Tuesday that the company's acquisition of Driftwood LNG developer Tellurian was "too good to pass up." "When the Tellurian opportunity crossed our desk, we thought. this is really too good to pass up." O'Neill said during the Gastech event currently being held in Houston, Texas. "You know 27.6 million tonnes, that is as much LNG capacity as we've built in our 35 years in Australia," she said. This really offers the scale, O'Neill said. According to the CEO, Woodside expects to close the acquisition in October. Woodside announced on July 22 that it has entered into a definitive deal to buy Tellurian. The company said the transaction's consideration is an all-cash payment of about \$900 million, or \$1.00 per share of outstanding Tellurian common stock, while the implied enterprise value is about \$1.2 billion. Tellurian issued a limited notice to proceed (LNTP) to compatriot engineering and construction giant Bechtel for the Driftwood project in March 2022. Under the first phase, Tellurian plans to build two LNG plants near Lake Charles, Louisiana with an export capacity of up to 11 mtpa. The full project would include five plants with a total capacity of about 27.6 mtpa.

Big interest for equity

O'Neill recently said Woodside sees big interest from firms to sell equity in Tellurian's Driftwood LNG export project. She said the proposed acquisition of Tellurian and its Driftwood LNG development positions Woodside as a "leading independent LNG player" with exposure to both the Pacific and Atlantic Basin. Driftwood is "truly advantaged." It is the only fully permitted pre-FID opportunity in US LNG and has Bechtel as the EPC contractor, she noted. "We have a very compelling opportunity for sell-downs," O'Neill said. "Multiple inbounds have been received, and we are in conversations with interested parties," she said. "Importantly, however, we will be focused to find the right strategic partners for this opportunity as we did for Scarborough," she said. O'Neill said that Woodside is working to put together the "dream team" for Driftwood, as well as deciding "how much equity in the plant we want to maintain and how much equity LNG we want to maintain." Woodside may sell up to 50 percent of the stake in the Driftwood LNG project. Source: www.lngprime.com



CHINA BOOSTS AUGUST LNG IMPORTS

China, the world's largest liquefied natural gas importer, reported a rise in its LNG imports in August, according to customs data. Data from the General Administration of Customs shows that the country received 6.54 million tonnes during the last month, up 5.1 percent year-on-year. The data shows that during January-August, China imported 50.29 million tonnes of LNG, a rise of 10.7 percent year over year. This also compares to 51.81 million tonnes China imported during January-August in 2021, which was a record year for China's LNG imports with 78.93 million tonnes. China's growth in LNG imports slowed down in May, and the country received 6.57 million tonnes, up by 3.4 percent compared to the previous year. June imports were down 4.6 percent year-on-year to 5.62 million tonnes, and July imports were up 1.1 percent year-on-year to 5.90 million tonnes. Customs data previously showed that in January this year, China's LNG import terminals took 7.25 million tonnes of LNG, up by 22.9 percent year-on-year. In February, LNG imports rose by 15.2 percent to 5.95 million tonnes, in March, LNG imports increased by 25.1 percent to 6.65 million tonnes, and in April, LNG imports increased by 31.5 percent to 6.22 million tonnes. Natural gas imports, including pipeline gas, during the last month reached about 11.76 million tonnes, rising 8.3 percent compared to 10.85 million tonnes in August 2023, China's pipeline imports rose 14.6 percent year-on-year in August to 5.22 million tonnes. Chinese buyers were buying spot LNG cargoes during this year due to low JKM prices. Asian spot LNG prices were below \$10/MMBtu from the second half of January and until the second half of April. However, front month JKM rose in May for the first time this year above \$12/MMBtu. The JKM for November settled at 13.300/MMBtu on Tuesday. China's LNG imports rose 12.6 percent in 2023, and the country overtook Japan as the world's largest LNG importer. The country received about 71.32 million tonnes in the January-December period. This is a rise compared to about 63.44 million tonnes of LNG in 2022 when imports dropped due to very high spot LNG prices and Covid lockdowns. China's 2023 LNG imports dropped compared to the record in 2021. source: www.Ingprime.com

WISON AND CHART SEAL LNG PACT

Chinese FLNG builder Wison New Energies is strengthening ties with US LNG equipment maker Chart on the development of floating and onshore LNG projects. According to a Wison statement on Wednesday, the two firms signed a strategic frame agreement during the Gastech event in Houston, Texas. This deal sets the foundation for a long-term partnership aimed at enhancing the efficiency and quality of LNG projects, Wison said. It includes a comprehensive set of technical specifications and a contract template with standardized terms and conditions for Chart's cold boxes, which are crucial for the liquefaction process in LNG facilities. Wison said this would streamline the procurement and deployment of these cold boxes into its FLNG and onshore LNG projects. "This partnership is set to deliver significant value by combining Wison's expertise in engineering, procurement, construction, installation, and commissioning (EPCIC) solutions with Chart's integrated pre-cooled single mixed



refrigerant (IPSMR) process technology," the company said. Wison and Chart have already successfully collaborated on multiple FLNG projects including Eni's Congo FLNG and Genting Oil & Gas FLNG, Wison added.

Three FLNGs

Wison recently announced it will build a new yard for offshore facilities in Qidong. The company and the Qidong municipal government of the Jiangsu province signed an investment agreement on August 1 for WNE's new yard in Qidong Lusi Port Economic Development Zone. This new move followed Wison's cooperation deal with Zhoushan CIMC Changhong Shipyard and its announcement saying that it would discontinue all ongoing Russian projects and that it would stop taking any new Russian business. At the same time, Wison said it had decided to sell its entire equity interest in Zhoushan Wison Offshore & Marine. Wison's announcement regarding the Russian business came one day after the firm secured a contract from a unit of Genting to build a floating LNG unit worth about \$1 billion. Following completion in 2026, the 1.2 mtpa FLNG will work in Indonesia. This is Wison's third FLNG contract, after contracts with Exmar and Eni. Also, this will be the first FLNG facility in Indonesia and the ninth FLNG in the world, according to Wison. Wison won a contract from Italy's Eni in December 2022 to build 380 meters long 2.4 mtpa FLNG and officially started work on the project in January last year. The company, in May, completed the installation of all SPB tanks on the FLNG, which will serve the Marine XII offshore FLNG project in Congo.

JAPAN'S LNG IMPORTS UP IN AUGUST

Japan's liquefied natural gas (LNG) imports rose slightly in August, logging a year-on-year increase for the fifth month in a row. According to provisional data released by the country's Ministry of Finance, the country's LNG imports rose 1 percent year-on-year to 5.72 million tonnes last month. LNG imports rose compared to 5.62 million tonnes in July, which marked a 10.4 percent rise year-on-year. Also, Japan imported 4.57 million tonnes in June, 4.87 million tonnes in May, 5.28 million tonnes in April, 5.55 million tonnes in March, 6.02 million tonnes in February, and 6.1 million tonnes in January. Japan's coal imports for power generation rose in August compared to the last year. The data shows that coal imports were up by 10.3 percent to 9.25 million tonnes, and Japan paid about \$1.52 billion for these imports, a drop of 7.2 percent compared to last year.

LNG import bill climbs

The August LNG import bill of about \$3.83 billion increased by 8.3 percent compared to the same month last year. JOGMEC said in a report earlier this month that the arrival-based and contract-based prices were not disclosed as less than two companies imported spot LNG. Also, the confirmed figures for July 2024 were not changed from the preliminary figures, with the contract-based price at \$12.1/MMBtu and the arrival-based not disclosed, JOGMEC said.



LNG inventories

METI previously announced that Japan's LNG inventories for power generation stood at 1.91 million tonnes as of August 4, down from 2.14 million tonnes the previous week. According to METI, inventories stood at 1.99 million tonnes on August 11, 1.93 million tonnes on August 18, 2.06 million tonnes on August 25, 1.83 million tonnes on September 1, 2.09 million tonnes on September 8, and 1.88 million tonnes on September 15.

Deliveries to Japan

As per LNG shipments going to Japan in August, deliveries from Asia increased by 1.1 percent to 1.26 million tonnes, the ministry's data shows. Middle East LNG shipments rose by 11.4 percent to 780,000 tonnes in August. Moreover, shipments from Russia rose by 49 percent to 585,000 tonnes, while US deliveries decreased by 40.8 percent to 383,000 tonnes in August.

Second largest LNG importer

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, and the country imported some 5.17 million tonnes of LNG more than Japan in 2023. During January-August this year, China imported 50.29 million tonnes of LNG, a rise of 10.7 percent year-on-year. Japan imported some 6.5 million tonnes of LNG less than China during the January-August period. _{Source:} www.lngprime.com

WOODSIDE, JERA SEAL LONG-TERM LNG SUPPLY DEAL

Australian LNG player Woodside has signed a long-term LNG supply deal with Japan's power firm and LNG trader Jera. According to a Woodside statement, under the sales and purchase deal (SPA), Woodside will supply about 0.4 million tonnes, or six cargoes, of LNG per year over 10 years on a delivered basis to Japan, starting in April 2026. This follows a non-binding deal the two firms signed earlier this year. LNG delivered to Jera under the SPA will be sourced from volumes across Woodside's global portfolio. Woodside executive VP and chief commercial officer Mark Abbotsford said the execution of the SPA strengthened the commitment to explore business opportunities alongside Jera. "This LNG offtake agreement is Woodside's first long-term sale to JERA from our global portfolio and delivers on one of the core elements of our strategic relationship outlined earlier this year," he said. "We understand the demand from our customers in the Asian region for reliable energy. LNG continues to be an important energy source for Japan, one which can support the country's efforts to decarbonize," Abbotsford said.

Scarborough deal

In July, Woodside entered into a non-binding head of agreement for the sale and purchase of LNG. The deal was announced as part of a binding agreement under which Woodside will sell Jera a 15.1 percent non-operating interest in the Scarborough



JV for about \$1.4 billion. Woodside expects to complete the Scarborough equity sale to Jera before the end of 2024. In November 2021, Woodside took a final investment decision on the Scarborough and Pluto LNG Train 2 developments. The projects also include new domestic gas facilities and modifications to the first train. Woodside's Pluto LNG terminal currently has one train with a capacity of 4.9 mtpa and Woodside and US engineer Bechtel started building the second Pluto train last year. Pluto Train 2 will get gas from the Scarborough gas field, located about 375 km off the coast of Western Australia, through a new trunkline long about 430 km. At the end of the second quarter, Woodside's Scarborough and the second Pluto LNG train project were 67 percent complete. Woodside also said the project's price tag rose 4 percent to \$12.5 billion from \$12 billion. The schedule remains unchanged, with first LNG cargo targeted for 2026. Source: www.lngprime.com

GTT'S SMART SHIPPING UNIT BAGS CONTRACT FOR GAZOCEAN'S LNG CARRIERS

GTT's unit Ascenz Marorka has secured a contract from France's Gazocean to equip the latter's six managed LNG carriers with its smart shipping solution. According to a statement by GTT, the contract includes access to Ascenz Marorka's smart shipping platform for managing vessel performance and monitoring LNG cargoes, along with automatic data collection from onboard sensors across the fleet. This data will be used to produce performance and environmental reports for Gazocean, as well as its shipowner and charterer clients, with the goal of optimizing energy efficiency. GTT said the automation of these reports would "significantly" reduce the administrative burden on the crew, allowing them to focus on critical operational tasks. Additionally, the French LNG containment giant said shore-based teams would benefit from enhanced data quality and less time spent on manual checks and report formatting. The contract also covers weather routing services and provides access to Ascenz Marorka's fleet center, which, it said, aims to improve route safety and operational efficiency. Before this deal, Ascenz Marorka won contracts for BGC's LNG carrier, GasLog's LNG fleet, and Jovo's LNG carriers. Gazocean is a unit of NYK. Besides the six LNG vessels, it operates four LPG carriers. France LNG Shipping (FLS), a 50/50 joint venture between NYK and France's Geogas LNG, owns the six LNG carriers. Infrastructure fund CVC DIF, which owns a stake in Geigas LNG, recently agreed to sell a stake in FLS to KKR-backed Ocean Yield. The FLS LNG carriers are the 174,000-cbm Elisa Larus and Elisa Aquila, both chartered by units of French state-owned utility EDF, and LNG Adventure, LNG Endeavour, LNG Endurance, and LNG Enterprise, all chartered by French energy giant TotalEnergies. source: www.ingprime.com

LITHUANIA'S KN FORMS GERMAN LNG UNIT

Lithuanian LNG terminal operator KN Energies has formed a German LNG unit, KN Energies Deutschland. KN said on Wednesday the new company will be responsible for performing its commitment to state-owned German LNG terminal operator Deutsche Energy Terminal (DET) in the field of technical O&M services for the second floating LNG import terminal in



Wilhelmshaven. Similarly to KN's Brazilian subsidiary KN Açu Servicos de Terminal de GNL, all shares in the German subsidiary are held entirely by companies within the KN Energies group. The new company is registered in Wilhelmshaven, Lower Saxony. According to the Lithuanina firm, KN Energies Deutschland, which will implement the contractual obligations for DET, will involve specialists in human resources, health, safety, and environment (HSE), mechanical, electrical, and automation engineering, operations, as well as maintenance management. KN said active recruitment of team members is currently being conducted. Once the terminal starts commercial operation, the KN Energies group of companies will be responsible for the technical operation and maintenance of the terminal's infrastructure—the berth, its equipment, and the pipeline—the organization of technical teamwork, and the coordination of preventive actions.

DET to launch two FSRU terminals by end of 2024

KN Energies won the DET tender launched in the spring of 2024 to provide services for the Wilhelmshaven 2 terminal. The contract with DET was signed for a pre-operational period up to the start of commercial operation of the terminal, followed by a five-year technical operation and maintenance period, with the possibility to extend the contract, KN Energies said. DET recently told LNG Prime it still expects to launch its next two FSRU-based LNG import terminals in Stade and Wilhelmshaven by the end of this year. The firm currently operates the first Wilhelmshaven LNG terminal, which features the 170,000-cbm Hoegh Esperanza, and the LNG terminal in Brunsbüttel, which features the 170,000-cbm Hoegh Gannet. DET's third LNG import facility in Stade features the 174,000-cbm FSRU Energos Force, while the second terminal in Wilhelmshaven will host Excelerate's 138,000-cbm FSRU Excelsior. source: www.lngprime.com

DEUTSCHE REGAS IN FIRST MUKRAN LNG RELOADING OP

German LNG terminal operator Deutsche ReGas has completed the first reloading operation at its FSRU-based LNG terminal in the German port of Mukran. Deutsche ReGas confirmed the first reloading operation in a statement on Tuesday. Coral Energy, a small-scale LNG carrier built in 2013, reloaded the LNG cargo on Monday at the Mukran terminal, which features two floating storage and regasification units, Energos Power and Neptune. According to AIS data provided by Vessels Value, Anthony Veder's 15,000-cbm vessel should arrive in Brofjorden, Sweden, on Tuesday. Finnish state-owned energy firm and LNG supplier Gasum charters this small-scale LNG carrier from the Dutch shipping firm.

Expanding services

Deutsche Regas noted in the statement reloading involves using smaller LNG tankers to deliver LNG to locations in the region that do not have a connection to the pipeline system. This can ensure security of supply for northern European regions that receive gas via smaller regional regasification plants, it said. Moreover, with the launch of the new service at the 'Deutsche Ostsee' energy terminal, Deutsche ReGas can now provide a further infrastructure offering that will enable neighboring northern European countries to participate in the supply from this energy hub, it said. With the service, customers of Deutsche ReGas

^{□e}Cygnus Energy

can also realize smaller LNG deliveries throughout the Baltic Sea region "cost-efficiently and competitively." Deutsche ReGas' reload infrastructure offering is part of the exemption pursuant to Section 28a EnWG of the Federal Network Agency, the company said. "It is a great success for Deutsche ReGas that the reload service is already being utilized by major customers immediately after the start of regular operations,' said Laurent Moriceau, head of commercial operations at Deutsche ReGas. Deutsche ReGas in first Mukran LNG reloading op

Mukran FSRU terminal

The German firm recently launched commercial operations at its Murkan LNG terminal, which can handle up to 13.5 cbm per year. This came after the unloading of a US LNG cargo at the Mukran facility. The 2021-built 174,000-cbm LNG carrier, Hellas Diana, owned by Latsco and chartered by Trafigura, delivered the LNG cargo from the Freeport LNG terminal in Texas. Deutsche ReGas claims this marked a world first for a concurrent LNG delivery into the two interconnected FSRUs, so-called triple banking. The privately financed LNG terminal has a storage capacity of over 300,000 cubic meters of LNG and is also the largest feed-in point of all German LNG terminals with a firm capacity of 16 GWh/h, Deutsche ReGas said. Around 15 percent of Germany's total natural gas demand can be fed from the terminal into the OAL, NEL, and EUGAL gas pipeline system. The pipelines enable gas transport from the German Baltic coast onwards within Germany, Austria, and also to the neighbouring Eastern European countries, it said. Worth mentioning here, France's TotalEnergies and Switzerland-based MET previously booked capacity at the Deutsche ReGas-operated Lumbin FSRU terminal. MET booked 1 bcm per year and TotalEnergies took 2.6 bcm per year of the regasification capacity for a total of 3.6 bcm. source: www.ingprime.com

VENTURE GLOBAL BOOKS CAPACITY AT GASTRADE'S ALEXANDROUPOLIS FSRU TERMINAL

US LNG exporter Venture Global LNG has booked long-term capacity at Gastrade's FSRU-based LNG import terminal off Alexandroupolis, Greece. Under the binding terminal use agreement, Venture Global has secured about 1 million tonnes per annum (mtpa) of LNG regasification capacity at the terminal for five years, beginning in 2025. Venture Global's capacity will account for about 25 percent of the total terminal capacity, or about 12 LNG cargoes annually, the US LNG producer said in a statement on Tuesday. The firm said the deal enables the regasification and sale of LNG from Venture Global's terminals in Louisiana to markets in Central and Eastern Europe. Venture Global CEO Mike Sabel said the company is "thrilled" to expand its European regasification capacity at Greece's new Alexandroupolis LNG terminal. Earlier this year, Venture Global booked long-term capacity at National Grid's Grain LNG import terminal in the United Kingdom. Under this deal, Venture Global will have the ability to access 3 mtpa of LNG storage and regasification capacity at the Isle of Grain LNG receiving terminal for sixteen years beginning in 2029. Sabel said this capacity booking at the Alexandroupolis terminal "further integrates our business by growing our assets across the LNG supply chain, including LNG production, shipping, and regasification." "As a

^{□e}Cygnus Energy

major point of entry for LNG into Central and Eastern Europe, this strategically important infrastructure will be a game changer for the region's ability to diversify their energy and access a secure and reliable energy supply. Venture Global is proud to support these efforts as a strategic partner with volumes from both Plaquemines LNG and the future CP2 LNG," he said.

Plaquemines LNG and CP2 LNG

Venture Global LNG recently received approval from the US FERC to start reverse cooldown activities at its Plaquemines LNG export plant in Louisiana, as part of the terminal's commissioning phase. The company expects to start LNG production at its Plaquemines LNG plant in the Fall of this year. 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. Besides Plaquemines LNG, the US FERC has given the green light to Venture Global in June for its proposed CP2 LNG project in Louisiana. The CP2 LNG plant will be located next to Venture Global's existing Calcasieu Pass liquefaction plant in Louisiana, which is still in the commissioning phase. It will have 18 liquefaction blocks, each with a capacity of about 1.1 mtpa of LNG, and also four 200,000-cbm full containment LNG storage tanks. Besides the FERC approval, CP2 LNG also needs the non-FTA export authorization from the US Department of Energy.

Alexandroupolis FSRU to launch commercial ops

Gastrade recently told LNG Prime that the Alexandroupolis FSRU has completed final tests following an issue with the project's pipeline. "The COD (commercial operation date) is still planned for October 1, 2024, to coincide with the start of the next gas year," the company said. Greece's converted FSRU arrived in Alexandroupolis from Singapore on December 17, 2023, while mooring hook-up was completed on December 23. The 2018-built 174,000-cbm LNG carrier, GasLog Hong Kong, delivered on February 18 the commissioning cargo from the US to the 153,600-cbm FSRU, Alexandroupolis. Gastrade's shareholders include founder Copelouzou, DESFA, DEPA, Bulgartransgaz, and GasLog. This is Greece's first FSRU and the second LNG import facility, adding to DESFA's import terminal located on the island of Revithoussa. The Alexandroupolis LNG terminal will have a capacity of 5.5 bcm. The FSRU is located in the sea of Thrace at a distance of 17.6 km SW from the port of Alexandroupolis and 10 km from the nearest coast of Makri. It is connected to a high-pressure subsea and onshore gas transmission pipeline. source: www.lngprime.com

INDIA'S PETRONET, NTPC TO COOPERATE ON LNG SUPPLY

India's largest power utility, NTPC, is partnering with Petronet LNG, the country's largest LNG importer, to supply liquefied natural gas to one of its power plants. According to a statement by NTPC, the two firms signed a memorandum of understanding on September 12 to explore new business opportunities, including the supply of LNG/RLNG. "Sustainable gas supply to the Kayamkulam plant shall be explored through this MoU," NTPC said. State-owned NTPC did not provide further information.



NTPC's website shows the company has a total installed capacity of 76,294 MW, including joint ventures. Established in 1975, NTPC is aiming to become India's largest integrated power company and targets to become a 130 GW firm by 2032, it said. The Kayamkulam gas power plant in Kerala has a capacity of 360 MW, the website shows. Petronet operates the Kochi LNG terminal in Kerala with a capacity of 5 mtpa. However, the Kochi terminal is currently operating at about 20 percent capacity due to lack of connectivity. Petronet expects the Kochi-Bangalore pipeline to be completed by the end of this year or by the end of March next year and this will substantially boost the utilization of the facility. Besides Kochi, Petronet is currently expanding its 17.5 mtpa Dahej LNG terminal with about 5 mtpa of new capacity. This deal with NTPC follows a recent memorandum of understanding Petroent signed with Sri Lanka's LTL. Under this deal, Petronet will supply LNG to LTL's dual-fueled power plant(s) in Kerawalapitiya. Colombo. The duo has agreed to develop an LNG supply chain from Petronet's LNG import terminal in Kochi to Kerawalapitiya. Petronet said the proposed supply of LNG from the Kochi LNG terminal would be through LNG ISO tank containers involving a multi-modal transport system. source: www.lngprime.com

LOW GAS PRICES, LNG DEMAND IN SPOTLIGHT AT GASTECH CONFERENCE

Top energy executives and ministers will meet in Houston this week for the annual Gastech conference, with U.S. markets in focus as booming liquefied natural gas (LNG) exports help wean Europe off Russian gas and as Asia moves away from coal. The U.S., once an importer of LNG, has surpassed Qatar as the world's top exporter, with new technology allowing America's shale producers to tap massive reserves. Both countries have major LNG expansion projects underway, playing greater importance in global markets from Europe to Asia. The conference comes to the U.S. for the first time since 2019 as the country has also become the world's biggest natural gas producer. U.S. natural gas production grew 4% last year to 125 billion cubic feet per day (Bcf/d). Exports of the super-cooled gas jumped 12% to 11.9 Bcf/d. Gastech expects to host some 50,000 attendees from 125 countries, with sessions on everything from gas markets and decarbonization to Artificial Intelligence (AI) and energy security. Surging supply has pushed U.S. gas prices to multi-decade lows this year, hampering producers but benefiting consumers and LNG firms using record amounts of gas. By 2026, U.S. LNG exports should be double their 2024 levels, with annual feed gas requirements averaging 19.7 Bcf/d in two years' time, said Matthew Palmer, executive director at S&P Global Commodity Insights. "Natural gas prices will be significantly higher in 2025" as new LNG export projects boost demand, said Jim Simpson, CEO of energy research firm, East Daley Analytics. In the U.S., new export capacity growth will support Europe's commitment to divest away from Russian gas following its invasion of Ukraine, while offering Asian buyers a greener option for power generation. Venture Global, whose CEO, Mike Sabel will speak to attendees about the role of LNG in Europe's energy supply mix, is among those firms. The company's Plaquemines LNG export facility in Louisiana will have



an export capacity of up to 20 million metric tonnes per year and is expected to begin operations this year. The U.S. exported some 7.48 million metric tons of LNG in August, roughly 43% of which went to Asia, according to LSEG data.

GAS PRODUCERS BIDE THEIR TIME

U.S. shale gas firms are betting on new LNG terminals to boost their market and prices. Poor returns have forced some to cut production this year. "The next nine months have more chance of being over-supplied than under-supplied because the LNG projects do not arrive in force until late next year," said the president of Aegis Hedging, Matt Marshall. U.S. producers generally need Henry Hub natural gas prices above \$3 per million British thermals units (mmBtu) to generate cash flow for more drilling, said S&P Global's Palmer. Gas prices are currently around \$2.33 per mmBtu and have only traded above \$3 a few times this year. Henry Hub gas prices are expected to average \$2.19 per mmBtu this year, the U.S. Energy Information Administration (EIA) said this week in a monthly report, lowering its estimate by 11 cents from the prior forecast. "The overall story here is that a producer of natural gas should not expect this market to turn outrageously bullish with the turn of the year. It is going to take time and this market is vulnerable to lower prices really until next summer," said Aegis' Marshall. Major U.S. producers, including Chesapeake and EQT were preparing to curtail production and defer well completions in the second half of 2024 in August, after prices sank nearly 40% over the two months prior. As those new LNG projects come online and take in more shale gas, prices are anticipated to improve. The U.S. EIA is forecasting an average Henry Hub price of \$3.14 next year. "Our expectation is that as LNG exports increase, the market will return to equilibrium, moving Henry Hub into the \$3-4/MMBtu range that will support an increase in production," said Marshall. source: www.naturalgaswortd.com

WOODSIDE ENERGY IN TALKS WITH POTENTIAL PARTNERS FOR DRIFTWOOD LNG, CEO SAYS

Woodside Energy is in discussions with onshore U.S. gas producers, pipeline companies and companies that share its outlook and view of liquefied natural gas to partner with its Driftwood LNG project, company CEO Meg O'Neill said on Monday. Speaking at an investor conference in New York, O'Neill said there was a lot of frustration by U.S. gas producers earning lower Henry Hub prices for gas that is then turned into LNG and sold at higher global prices. Partnering with gas producers would increase their revenue and allow Woodside access to a gas supply, O'Neill said. Woodside wants to have clarity on the partnering approach before it takes a final investment decision, although it is unlikely to have signed all the agreements by the first quarter of 2025, she said. Woodside agreed in July to buy U.S. liquefied natural gas developer TellurianTELL.A, including its U.S. Gulf Coast Driftwood LNG export project, for \$1.2 billion including debt. The agreement could strengthen the position of the U.S. as the world's largest producer of the superchilled gas by securing the completion of Tellurian's 27.6 million metric ton per annum facility in Lake Charles, Louisiana. The sale is expected to be completed by the end of the year after which Woodside said it will be able to give contractor Bechtel a notice to proceed. Woodside said the interest in Driftwood included infrastructure developers and strong counterparties in Asia and other places. One of the most attractive features is that the

^{CE}CYGNUS ENERGY

Driftwood project was not impacted by the Biden administration's decision to pause the approval of applications to export LNG and it gives Woodside a year's advantage over other projects, O'Neill said. Increased global LNG supplies toward the end of the decade are unlikely to impact LNG demand or prices, she said, adding that higher global production will be offset by growing demand and a projected glut is unlikely to happen. The present economic challenge in China is short term and Woodside thinks the long-term trajectory would see strength in demand for LNG especially due to the switch from coal to gas, said Woodside's chief commercial officer, Mark Abbotsford. source: www.naturalgasworld.com

MIDOCEAN TO ACQUIRE ADDITIONAL 15% INTEREST IN PERU LNG FROM HUNT OIL

MidOcean Energy, a subsidiary of EIG, and Hunt Oil Company announced on September 16 that they have entered into a definitive agreement for MidOcean to acquire an additional 15% interest in Peru LNG (PLNG) from Hunt. Upon completion of the transaction, MidOcean's stake in PLNG will rise from 20% to 35%. Aramco played a key role in the deal, carrying out essential technical and commercial due diligence, and working with stakeholders to secure transaction approval. The acquisition will be fully funded by Aramco, which will increase its interest in MidOcean to 49%. This further investment strengthens both MidOcean and Aramco's presence in the global LNG market and enhances their exposure to South America's only LNG export project, with Aramco gaining an indirect stake of 17.2% in PLNG. In addition to EIG and Aramco, Mitsubishi Corporation is also an investor in MidOcean. Hunt's ownership in PLNG will decrease from 50% to 35%, though it will remain the operator of the project. Hunt also retains a 25.2% interest in the Camisea upstream project in Peru. PLNG, based in Pampa Melchorita, 170 km south of Lima, operates the only LNG export facility in South America. Its assets include a natural gas liquefaction plant with a processing capacity of 4.45mn tonnes per year, a 408-kilometre pipeline, two 130,000 m³ storage tanks, a 1.4 km marine terminal, and a truck loading facility. The facility is one of only two LNG production plants in Latin America and is operated by Hunt Oil Company. source: www.naturalgasworid.com

THAILAND'S PTT SIGNS 5-YEAR LNG DEAL WITH OMAN LNG

Thailand's largest energy firm, state-controlled PTT, has signed a five-year deal to buy liquefied natural gas (LNG) from Oman. The deal will be for 300,000 metric tons of LNG per year, and will begin in 2025, PTT said in comments to Reuters on Monday. PTT also said it was in talks with Oman LNG for a further nine-year supply contract for 800,000 tons per year beginning in 2026. The deal is still under negotiation, it added. Thailand is Southeast Asia's largest importer of LNG and imported a record volume of 11.7 million tons last year, according to data from Kpler. source: www.naturalgasworld.com



BRUNEI LNG INKS FIRST SUPPLY DEAL WITH THAILAND'S PTT

LNG producer Brunei LNG has signed a sales and purchase agreement with a unit of Thailand's PTT. This is the first LNG supply deal between the two firms, according to PTT. PTT International Trading (PTTT), a unit of state-owned PTT, signed the LNG sale and purchase agreement with Brunei LNG on September 5 in Brunei. The five-year deal will start in 2025 and end in 2029. It said this contract will enhance PTT's international trade potential, support the growth of the LNG market, and prepare the country to become an LNG trading hub in the ASEAN region, in line with PTT's mission to create energy security. PTT did not provide further information regarding the deal. Brunei LNG said in a separate social media post it is "committed to building a robust and lasting partnership with its first Thai counterpart, PTTT." "This partnership represents our commercial achievement, and a strategic collaboration that amplifies the link between Brunei and Thailand, highlighting Brunei LNG's steadfast commitment to maintain its reputation as a reliable supplier for energy security, addressing Thailand's rising LNG demand," it said. Prior to this deal, PTT's unit signed a five-year deal with Oman LNG, but it also did not provide the volumes. Local media reports suggest Oman LNG will supply 300,000 tonnes of LNG per year. Thailand imports LNG via two import terminals operated by PTT. These terminals include the first Map Ta Put LNG terminal (LMPT 1) with a capacity of 11.5 mtpa and the second Map Ta Phut LMPT2 LNG terminal, also known as the Nong Fab LNG terminal, with a capacity of 7.5 mtpa. On the other hand, Brunei LNG's export plant in Lumut, one of the world's oldest LNG export facilities, has a capacity of 6.7 mtpa. Shell and Mitsubishi each have a 25 percent share in the facility, while the Brunei government holds 50 percent. This facility mostly ships LNG to Japan. Source: www.lngprime.com

INDIA UPS LNG IMPORTS IN AUGUST

India's liquefied natural gas (LNG) imports rose in August compared to the same month last year. According to preliminary data from the oil ministry's Petroleum Planning and Analysis Cell, the country imported about 2.79 billion cubic meters, or about 2.1 million metric tonnes, of LNG in August via long-term contracts and spot purchases, a rise of 2.4 percent compared to the same month in 2023. PPAC's data previously showed that LNG imports rose in July and June this year compared to the previous year. During April-August, India took 15.06 bcm of LNG, or about 11.2 million metric tonnes, up by 17.4 percent compared to the same period last year, according to PPAC. India paid \$1.2 billion for August LNG imports, up from \$1.1 billion in August last year. The country paid \$6.1 billion in the April-August period, up from \$5.4 billion in the same period last year, PPAC said. India's natural gas production reached about 3.04 cbm in August, a drop of 3.7 percent from the corresponding month of the previous year. Natural gas production of 15.18 bcm in April-August was up by 2.2 percent compared to the same period in 2023. Currently, India imports LNG via seven facilities with a combined capacity of about 47.7 million tonnes. These include Petronet LNG's Dahej and Kochi terminals, Shell's Hazira terminal, and the Dabhol LNG, Ennore LNG, Mundra LNG, and Dhamra LNG terminal. The Chhara LNG import terminal in Gujarat should receive its commissioning cargo later this year after it failed to unload the cargo from the 2015-built 159,800-cbm, Maran Gas Mystras. India's Hindustan Petroleum, a unit



of state-owned ONGC, aims to launch its delayed Chhara LNG import terminal in November or early December this year, according to its management. PPAC said that during April-July this year, the 17.5 mtpa Dahej terminal operated at 106.8 percent capacity, while the 5.2 mtpa Hazira terminal operated at 50 percent capacity. The 5 mtpa Dhamra LNG terminal operated at 27.9 percent capacity, the 5 mtpa Dabhol LNG terminal operated at 40.8 percent capacity, the 5 mtpa Kochi LNG terminal operated at 22.5 percent capacity, and the 5 mtpa Ennore LNG terminal operated at 25.2 percent capacity. source: www.lngprime.com

KOSPO LAUNCHES TENDER FOR ONE LNG CARGO

Korea Southern Power (KOSPO) has released a tender inviting firms to submit bids for one spot LNG shipment for delivery in November. KOSPO is seeking up to 3.7 trillion British thermal units (TBtu) of LNG on a delivered ex-ship (DES) basis. Moreover, the delivery window is November 7-15, and the volumes will be delivered to a Kogas-operated LNG import terminal or an alternate LNG terminal in South Korea, according to KOSPO. The price will be linked to JKM, but the "buyer may, at any time prior to and/or after selecting the preferred bidder, request to convert JKM-linked price to fixed-price, " it said. "LNG suppliers, including LNG producers, portfolio sellers or traders with successful track record of supply of at least one LNG cargo exceeding 60,000 metric tonnes to a Kogas terminal in the recent 60 month period shall be able to participate in this bid, " KOSPO said. Bids can be submitted by September 19, 2024. Kospo and the preferred bidder(s) are expected to enter an MSA by no later than October 18, 2024, it said. According to Kospo's website, the firm has seven LNG power plants, and these are Shinincheon, Busan, Namjeju, Yeongwol, Andong, ShingSejong, and Hanlim. Last year, KOSPO agreed to buy 0.4 mtpa of LNG from Cheniere Marketing on a delivered ex-ship (DES) basis from 2027 through 2046, with a smaller annual quantity to be delivered starting in 2024.

Korean LNG imports

Kogas operates 77 LNG storage tanks at five LNG import terminals in South Korea. The large terminals include Incheon, Pyeongtaek, Tongyeong, and Samcheok, while the firm has a small-scale regasification terminal at the Aewol port on Jeju Island as well. In addition to these facilities, the firm is building a large terminal in the western port city of Dangjin and expects to launch the first phase in 2025. Kogas recently completed lifting the roofs on all four 270,000-cbm tanks at its Dangjin LNG import facility. According to customs data, during January-August, South Korean LNG terminals took 30.35 million mt, a rise from 29.11 million mt in the same period last year. Australia was the biggest supplier during the period with 7.38 million mt of LNG, and the country was followed by Malaysia with 3.57 million mt and Oman with 2.97 million mt, the data shows. source: www.lngprime.com



FSRU PLAYER HOEGH LNG CHANGES NAME

Norwegian FSRU player Hoegh LNG has 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 on Monday. Hoegh Evi is "accelerating the energy transition with floating infrastructure for ammonia and hydrogen, as well as carbon transport and storage (CCS), in addition to LNG," it said. Also, Hoegh LNG Holdings Ltd. will change its company name to Hoegh Evi Ltd. Along with the new name, the company has adopted a new logo and visual identity. "In a world of rapid change and evolving energy ambitions," Erik Nyheim, president & CEO of Hoegh Evi, said. "Hoegh Evi will continue to be a leading provider of floating LNG infrastructure while we are also applying our skills and experience to bring marine infrastructure for clean molecules into operation by the end of this decade," he said.

FSRUs, hydrogen import terminal

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. "The terminal will be the world's first floating green ammonia cracker, producing around 30,000 tons of hydrogen per year that will be fed into the hydrogen core network via the existing feed-in point at the Deutsche ReGas terminal in the port of Lubmin," Deutsche ReGas said. Source: www.ingrime.com

SINGAPORE LNG BUNKERING VOLUMES CONTINUE TO INCREASE

Singapore's liquefied natural gas (LNG) bunkering sales continued to increase year-on-year in August, according to Singapore's Maritime and Port Authority. Preliminary bunkering data on MPA's website shows LNG bunkering sales in the world's largest bunkering port reached 45,590 mt last month. This marks a 193 percent increase compared to 15,560 mt in August 2023. LNG bunkering volumes also rose compared to 43,176 mt in July this year. However, they were lower than the record 51,662 mt in June this year and were the third highest ever after 48,752 mt in May this year. LNG bunkering sales in January this year reached 10,420 mt, 26,883 mt in February, 38,618 mt in March, and 35,552 mt in April. During January-August, LNG



bunkering volumes reached 301,443 mt, 172 percent more compared to 110,850 mt during the entire last year when LNG bunkering sales jumped compared to 16,300 mt in 2023 and 49,190 mt in 2022.

LNG bunkering operations in Singapore

LNG bunkering volumes in Singapore continue to increase due to new bunkering vessels working in the Singapore port, the growth of the global fleet of LNG-powered vessels, and lower LNG fuel prices. In June, Singapore's FueLNG, a joint venture consisting of Shell and Seatrium, completed its 200th ship-to-ship (STS) LNG bunkering operation. FueLNG Bellina is Singapore's first LNG bunkering vessel. In March 2021, it completed its first operation with a CMA CGM container vessel. In June last year, the 18,000-cbm FueLNG Venosa completed its first LNG bunkering operation to the 210,000-dwt bulk carrier, Mount Tai. This is FueLNG's second bunkering vessel and the JV charters it from Korea Line LNG, a unit of SM Group's Korea Line. In addition to these two vessels, Singapore's Pavilion Energy, which is being acquired by Shell, completed the first bunkering operation with MOL's LNG bunkering vessel, Brassavola, in February this year. The newbuild, which has a capacity of 12,000 cbm, is on charter to Pavilion LNG Bunker I, a wholly owned subsidiary of Pavilion. Since receiving a license from MPA in 2016, both FueLNG and Pavilion have completed hundreds of truck-to-ship LNG bunkering operations in Singapore. TotalEnergies Marine Fuels, a unit of France's TotalEnergies, is also among three licensed suppliers of LNG bunkering fuels in the port. Under a long-term agreement with Pavilion, Brassavola will supply its customers. source: www.Ingprime.com

AUSTRALIAN LNG EXPORT REVENUE DROPS IN AUGUST

Australian liquefied natural gas (LNG) export revenue decreased by 5.1 percent year-on-year in August, according to EnergyQuest. The consultancy estimates Australian LNG export revenue reached A\$5.57 billion (\$3.73 billion) in August. EnergyQuest said this was higher than the \$5.13 billion in July but reflected a decrease compared to August 2023, when revenue was \$5.87 billion. Western Australia projects earned export revenue of A\$3.43 billion, Queensland projects brought in A\$1.67 billion, and Northern Territory projects earned A\$0.47 billion.

LNG shipments

According to the consultancy, Australia's August 2024 shipments were 80.7 Mtpa on an annualized basis, compared to 81.1 Mtpa for the calendar year 2023 and 76.6 Mtpa for July 2024. August 2024 shipments represented 91.1 percent of nameplate capacity. West coast (WA and NT) shipments were higher at 4.80 Mt in August, up from 4.60 Mt in July. Also, there were 68 LNG cargoes in August, compared to 65 in July, the consultancy said. A year ago, the west coast shipped 71 cargoes totaling 4.94 Mt. The consultancy said west coast projects operated at 90.4 percent of nameplate capacity during August. Queensland LNG shipments were higher at 2.05 Mt in August compared to 1.91 Mt in July. There were 30 cargoes during August, compared to 28 in July 2024, and two more than the 28 cargoes of 1.91 Mt in August 2023, it said. The Queensland projects operated at 92.6 percent of nameplate capacity during August.



Competition for Asian LNG markets heating up

The consultancy said in the report competition for Asian LNG markets is heating up. Australian LNG imports to China fell 0.6 Mt (-24 percent) in July 2024, compared to June 2024, with Qatar and USA picking up the volumes. For Korea, Australia lost its position as Korea's largest LNG supplier to the USA, it said. Australian import volumes to Korea fell 0.3 Mt (-38 percent), and the USA gained 0.5 MT (+230 percent). EnergyQuest added that Taiwan and Japan import from Australia were largely unchanged. Source: www.lngprime.com

SAIPEM SCORES \$4 BILLION NORTH FIELD JOB FROM QATARENERGY LNG

Italian contractor Saipem has secured a contract worth about \$4 billion from LNG producer QatarEnergy LNG, a unit of QatarEnergy. Saipem said in a statement on Sunday it won an offshore EPC contract for the combined COMP3A & COMP3B of the North Field Production Sustainability Offshore Compression Program. The program aims to sustain the production of the North Field offshore natural gas reservoir, which is located off the northeast coast of Qatar. Saipem's scope of work encompasses the engineering, procurement, fabrication, and installation of six platforms. The work also includes 100 km of corrosion resistance alloy rigid subsea pipelines of 28" and 24" diameter, 100 km of subsea composite cables, 150 km of fiber optic cables, and several other subsea facilities. This "important" contract follows the EPC package for the North Field Production Sustainability Offshore Compression Complexes Project (COMP 2), awarded to Saipem in October 2022 and currently being executed. Saipem said at the time this award represented the largest single offshore contract by total value in the company's history. It followed the award in early 2021 related to offshore facilities for extraction and transportation of natural gas for the same field.

Giant LNG expanion

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. The first two projects include six mega trains, each with a production capacity of 8 mtpa of LNG. Four of these are part of the North Field East expansion project, and two are part of the North Field South expansion project. 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. QatarEnergy officially started constructing its North Field expansion project in the giant Ras Laffan complex in October last year. QatarEnergy LNG, previously known as Qatargas, currently operates 14 LNG production trains with a capacity of about 77 mtpa in Ras Laffan. Also, QatarEnergy's partners in the expansion project are Shell, ConocoPhillips, ExxonMobil, TotalEnergies, Eni, Sinopec, and CNPC. Technip and Chiyoda won the EPC award for the North Field East project, while QatarEnergy awarded the contract for the North Field South project to a joint venture of Technip Energies and Consolidated Contractors Company. Source: www.lngprime.com



ADNOC'S LNG CARRIER NEARS DELIVERY IN CHINA

Adnoc's first 175,000-cbm LNG carrier, AI Shelila, has completed its sea trials in China, according to CSSC's Jiangnan Shipyard. Jiangan said the LNG carrier started its sea trials on August 25, just two months after its launch. Following completion of the trials, the vessel returned to the shipyard on September 4. Jiangnan said the data collection and experience accumulation of this routine trial voyage laid the foundation for the upcoming gas trial voyage. It did not say when it expects to deliver the LNG carrier. The shipbuilder previously said it aims to deliver Adnoc's LNG carrier in December this year, one month ahead of schedule. This is the first of six LNG carriers Adnoc L&S ordered during 2022 from Jiangnan, and they will all be delivered by the end of 2026. The entire order is worth more than \$1.2 billion. These "LNG Jumbo" dual-fuel carriers feature GTT's Mark III Flex membrane system and a partial reliquefaction system. Adnoc is investing heavily in its LNG business and in June it took a final investment decision to build its LNG export terminal in Al Ruwais. The LNG project will consist of two 4.8 mtpa trains with a total capacity of 9.6 mtpa, more than doubling Adnoc's existing UAE LNG production capacity to around 15 mtpa, as the company builds its international LNG portfolio. Adnoc L&S's existing fleet of Moss-type, steam turbine LNG carriers serve its terminal on Das Island. The company recently also selected two South Korean shipbuilders to build six LNG carriers following a tender. These LNG carriers are expected to serve Adnoc's second LNG terminal in Al Ruwais. Source: www.Ingprime.com

MET GROUP EYES "CONSIDERABLE" EXPANSION IN LNG PORTFOLIO

Switzerland-based MET Group is looking to considerably expand its LNG portfolio, building on its current capacity, as it seeks to strengthen its foothold in the European energy market. Gyorgy Vargha, CEO of MET International, shared these ambitions in a recent interview with NGW, where he talked about the importance of growing the company's LNG presence in response to increasing market demand. MET Group has been proactive in securing long-term LNG supply agreements, which are critical for its growth strategy. Last year, the company signed a 20-year Heads of Agreement with US-based Commonwealth LNG for 1mn tonnes/year of LNG. More recently, in July 2024, MET entered a 10-year free-on-board deal with Shell to purchase US LNG, behind its European customer base. Alongside bolstering security of supply for MET's customers, this flexible LNG supply enables its diversification ambitions, allowing the company to extend its geographical scope to new regions such as Asia. These deals reflect MET Group's strategy of securing diverse and long-term supply sources to meet Europe's growing demand for LNG, as the region looks to enhance its energy security and reduce its reliance on traditional fossil fuels. MET Group also holds long-term regasification capacity in Germany, Croatia, and Spain, and has delivered LNG cargoes to eight European countries in recent years, including Greece, Italy, the UK, Belgium and Finland. In 2023 alone, MET delivered more than 30 LNG cargoes to the continent. As its LNG business activities expand, Vargha expects the company's regasification volumes to increase in tandem – in line with European LNG import needs. The company focuses on optimising its LNG imports

^{□e}Cygnus Energy

from various sources in America and Africa, including the US, Algeria and Nigeria. "We've been importing from several different supply sources. We do not focus on specific supply sources. Our focus is to maintain and optimise our LNG import," Vargha explained. Vargha also highlighted the crucial role that LNG plays in Europe's energy mix, especially as the continent continues to transition away from coal and other high-emission energy sources. "LNG is the most interesting import fuel into the European energy mix," he said. Vargha argued that any integrated energy company that is not active in LNG trading risks being out of touch with the key drivers of Europe's energy market, whether from a sales, trading, or asset investment perspective.

LNG demand in Europe will be determined by the weather

While MET Group's LNG expansion plans are ambitious, Vargha noted that European LNG imports in 2023 have been slower than last year due to a combination of factors, including weaker industrial demand and unusually warm weather. "The European LNG imports have been substantially lowering this year so far simply because the demand was not there," he said. Vargha explained that Europe entered the summer with gas storage levels around 55–58%, leaving less room for LNG imports during the warmer months. Looking ahead, Vargha said the amount of LNG Europe will import this year will largely depend on the weather, especially during the winter months. "If there's going to be a normal cold weather over this winter, so not as warm as over the last two to three years, then substantially higher LNG imports are going to be required in order to balance the European gas markets or to come up to this 40–45% storage level that will keep the market comfortably balanced," he said.

MET Group Asian business as a key pillar for the company's expansion

Beyond Europe, MET Group is gradually expanding its presence in Asia. In 2023, the company established an office in Singapore to focus on LNG trading and asset investments in the region. MET Asia, a subsidiary owned 90% by MET Group and 10% by Singapore's listed company Keppel Infrastructure, who is also a 10% shareholder of the Group as a whole, aims to grow MET's LNG portfolio beyond Europe and tap into the rapidly growing Asian energy market. "We opened an office and we're growing steadily in this. LNG is a market where there's always something happening," Vargha said. Vargha believes Asia, led by China and India, will be a key driver of global energy demand in the coming years, with significant opportunities for switching from coal to natural gas. "There's a tremendous place for Indian and Chinese natural gas usage growth, which can be LNG," he said.

Natural gas will have a role to play in energy transition

Finally, Vargha underscored the continued importance of natural gas in the global energy transition, now that renewable energy sources like solar and wind gain traction. He argued that natural gas remains a vital bridge fuel due to its flexibility and cost-effectiveness compared to renewable projects. MET Group clearly believes that natural gas will continue to play an important role in the energy mix – it will remain as an essential energy source in Europe for the foreseeable future. The growing amount of solar and wind energy being installed into the grid makes matching the supply and demand of energy more challenging, and – as long as batteries remain uneconomical on a large scale – natural gas remains the main provider of the necessary

^{CE}CYGNUS ENERGY

flexibility. "Natural gas supports the coal-to-gas transition and backs up weather-dependent, intermittent renewable sources," Vargha said. While MET Group is actively investing in solar power, Vargha stressed that natural gas will continue to play a crucial role in the energy transition for the foreseeable future, particularly in regions where coal remains a dominant energy source. "We firmly believe in solar and wind, but natural gas offers an attractive bridge fuel in the years to come compared to other fossil fuels," he concluded. source: www.naturalgasworld.com

DISCLAIMER: The news, opinions, reports, updates and data or views contained on the Reports page may not represent the opinions or views of CYGNUS ENERGY, ITS employees or its agents or affiliates. CYGNUS ENERGY makes no representation, warranty or guarantee as to the accuracy or completeness of the information contained in any News, Research, Analysis o r Opinion provided by this service. the information has been taken and credited and cited to the sources as per the citation given in the report/newsletter herein. Under no circumstances will CYGNUS ENERGY, its owners, employees, gents or affiliates be held liable by any person or entity or institution or company for decisions made or actions taken by any person or entity that relies upon the information provided here. While every care has been taken to ensure that the information in this publication is accurate, CYGNUS ENERGY, can accept no responsibility for any errors or omissions or any consequences arising therefrom. Figures are based on latest available information, which is subject to subsequent revision and correction. The views expressed are those of CYGNUS ENERGY and do not necessarily reflect the views of any other associated company. NEWS AND SOURCE: LNGWORLDNEWS, LNG INDUSTRY, NATURAL GAS WORLD, LNG JOURNAL, RIVIERAMM, THE HINDU BUSINESS, ARGUS MEDIA, PETROWATCH, REUTERS, IGU LNG REPORT, TRADEWINDS, MONEYCONTROL LNG, IOURNAL, BIVIERAMM, LNG, IOURNAL, BIVIERAMM

CYGNUS ENERGY

GAS & OIL

LEVEL 43/44, CHAMPION TOWER, 3 GARDEN ROAD, CENTRAL, HONG KONG sandp@cygnus-energy.com (SALE N PURCHASE) gas@cygnus-eneryg.com (GAS PROJECTS)