JP MORGAN'S NEW LNG SHIPOWNING ARM REGISTERS FIRST DUO UNDER FRENCH FLAG

Orion Global Transport France steps out of shadows as it celebrates first birthday. JP Morgan has put the first two of its rapidly expanding portfolio of LNG carriers under the French flag as it breaks cover on its one-year-old Parisian shipowning company, Orion Global Transport France (OGTF). The venture, which was set up on 19 September 2022, announced today that it had registered its first two vessels, the 173,000-cbm Orion Bohemia and Orion Monet (both built 2022) with the French ship register. OGTF said the X-DF vessels are chartered to "leading global energy companies". Databases and brokers list Shell and BP as charterers of the two ships, respectively. The company named Captain Evelyne Rogge as in command of the Orion Bohemia. "Her notable career, both on board and on shore, illustrates the company's commitment to promoting diversity across the board and the growing role of women in the maritime sector," it said. OGTF said it was founded by institutional investors, advised by JP Morgan Global Alternatives' Global Transportation Group. The new company is headed by president Loic Aballea. He previously worked with the International Association of Classification Societies and Bureau Veritas, but previously spent six years at the French transport ministry. OGTF said its fleet includes five recently delivered LNG newbuildings, without naming the vessels. It added that in the coming years, the company will "own and manage a

significant fleet of modern vessels on charter to leading energy groups". Those following the company indicated that it is probably taking advantage of the French tax lease system. Andrian Dacy, head of JP Morgan Alternatives' Global Transportation Group, said: "France is a leading maritime nation and is the country of choice for a company committed to the global transition to future carbon-efficient fuels and sustainable LNG transportation." JP Morgan has been active in the LNG carrier sector, initially diving in and ordering speculatively and later chartering to energy majors and Qatari interests. The company does not discuss its ship numbers but controls its LNG fleet under Global Meridian Holdings affiliate in Bermuda. source : www.tradewindsnews.com

EVIDENCE POINTS TO QATAR PARTNER IN SEXTET MYSTERY

Indications sug-gest pre-reserved berths have been passed to a QatarEnergy associate. Six LNG carrier newbuildings ordered against berths originally reserved for QatarEnergy appear to have gone missing but evidence is emerging that suggests they have been taken up by an associate. When QatarEnergy kicked off Phase 2 of its huge LNG ship acquisition project last week, by announcing its agreement with Hyundai Heavy Industries on 17 LNG carrier berths worth $3.9bn, the company said it had secured 60 vessels — taken on term charters from shipowners — under a first phase. But stock exchange announcements on LNG carrier newbuildings contracted in 2022 coupled with other statements from brokers and those working on the Qatari newbuildings put the total at 66 vessels for Phase 1 of the Qatari project. They indicate that the "missing" six newbuildings from the booked berth line-up for Phase 1 were taken up by a close QatarEnergy associate, which several name as US major ExxonMobil. The Qatari company is partnered with ExxonMobil on the upcoming Golden Pass LNG project in the US. Analysing the 66 Phase 1 LNG newbuildings contracted under pre-reserved slots, those working with the project pointed to six vessels contracted at Hanwha Ocean or what was then Daewoo Shipbuilding & Marine Engineering. They highlighted four vessels ordered by Japan's Meiji Shipping and a further two by MISC as the likely candidates. MISC contracted two ships at Hanwha on its own, but participated in other orders for QatarEnergy as part of a consortium. In September 2022, MISC said it had secured 10-year time-charter contracts with ExxonMobil's shipping arm, SeaRiver Maritime, on two 174,000-cbm, X-DF LNG carrier newbuildings that deliver in 2026. MISC, which had previously booked two LNG newbuildings for the US major in 2019, did not name the shipbuilder or the price for these vessels. Meiji was something of a surprise lone entry when it was originally linked to the Qatari berth business. But in late 2022, the relatively new LNG shipping entrant was also named as one of the shipowners booking tonnage against ExxonMobil charters.

Outsmarted

One broker described QatarEnergy as having "outsmarted" the South Korean shipbuilders with its apparent berth manoeuvres. TradeWinds has contacted Qatargas, which was handling the tender, QatarEnergy and ExxonMobil about the six LNG carrier newbuildings. Shipbuilding sources said QatarEnergy is expected to declare all the reserved slots it is holding for this next stage of the project. They said the company is sitting on up to 15 berths at Samsung Heavy Industries and 12 at Hanwha

Ocean. It is also believed to have at least four more at Hudong-Zhonghua Shipbuilding (Group) in China, although there is an expectation that these could be used to build the next generation of Q-Max LNG carriers, which QatarEnergy has been seeking. Under the Phase 2 project newbuilding schedule, shipowners have to submit their commercial offers on the LNG carriers by mid-October. QatarEnergy is due to select the owners by the end of November to marry up with its declared berths. The LNG giant then plans to sign shipbuilding and charter contracts on the vessels during December. If all the berths are declared, this would give the company up to 44 LNG newbuildings in South Korea with the possibility of more in China, which would likely top out its chartered fleet under the project at over 100 vessels in total. Source : www.tradewindsnews.com

HANWHA UNVEILS ITS Q-MAX-STYLE LNG CARRIER AS IT WINS DNV AIP

First of South Korean shipbuilders breaks cover with a 270,000-cbm design. South Korean shipbuilder Hanwha Ocean has revealed its supersize LNG carrier ambitions as it has been awarded approval in principle (AiP) for its new design by classification society DNV. The shipbuilder has come up with a design for 270,000-cbm, 345-metre long LNG carrier. The 55-metre beam vessel would be equipped with five cargo tanks, which the yard said will minimise sloshing pressure. The LNG carrier, which would be larger than Qatar's existing 14 Q-Max vessels of 263,000-cbm to 265,000-cbm — currently the world's biggest LNG ships — would be fitted with an X-DF engine and a reliquefaction system. DNV said this combination is designed to give the vessel the best performance and potential to "significantly improve" its Carbon Intensity Indicator. Earlier in 2023, LNG producer QatarEnergy, which is pursuing a huge LNG carrier shipbuilding project, asked the yards it is working within South Korea and China to quote on building its next generation of Q-Max vessels. In September, China's number one LNG carrier builder Hudong-Zhonghua Shipbuilding (Group), unveiled its offering — the 271,000-cbm Q-Type, which won AiPs from four major class societies. Speaking about its offering, Hanwha chief operating officer Jong Seo Kim said: "We believe this AiP marks the dawn of a new era in 270,000-cbm LNG carrier designs and significantly enhances the competitiveness of ships built by Hanwha Ocean. "Our commitment is to align with our clients' needs and adhere to industry regulations, primarily focusing on creating a safer 270,000-cbm LNG carrier." Vidar Dolonen, regional manager for South Korea and Japan at DNV, said: "This innovative design signifies a ground-breaking achievement, pushing the boundaries in size and technological advancement." Source : www.tradewindsnews.com

NEWBUILDING ACTION SLOWS BUT MORE IN PIPELINE

Rest of this year will be 'all about Qatar', market watchers say. Newbuilding orders for LNG carriers came in slower in the third quarter compared to the first half of 2023. Shipbrokers and market participants record that just 10 LNG carriers were contracted from July to September, bringing the total booked for the year-to-date to 44 ships. Over 170 LNG carriers were

ordered in 2022 in a record year. Among those signing up in the third quarter of 2023 was new LNG entrant Evalend Shipping, which surprised the market with a two-ship order at a firm price. The savvy Greek owner's vessels were ordered on speculation. Another newcomer to the sector was established Hong Kong name Wah Kwong Maritime Transport Holdings, which teamed with CSSC (Hong Kong) Shipping Company and China Gas Holdings under their new joint venture Sea Jade Investment on an order for up to four vessels at Dalian Shipbuilding Industry Co. The two firm vessels are fixed on 20-year charters to an arm of China Gas Holdings. While Middle East LNG-producing giant QatarEnergy snuck in under the wire on 27 September 29, 2023 to firm up a whopping 17 berths at Hyundai Heavy Industries — almost the yard's entire LNG carrier building capacity for a year — the shipbuilding contracts on these slots will only be inked when owners are assigned to them. Industry players in the LNG shipbuilding sector said the final quarter of 2023 will likely be "all about Qatar" and the capacity it may book as QatarEnergy confirms pre-reserved berths for Phase 2 of its massive LNG ship acquisition project. The company is expected to move onto its slots at Hanwha Ocean and Samsung Heavy Industries during the quarter. It may also book additional capacity in China, possibly including Q-Max-sized tonnage. With all eyes on QatarEnergy and yards crammed with LNG carrier newbuildings — Clarksons Research lists 320 vessels on order, equating to almost 52% of the global fleet — those eyeing up orders are likely to be fighting for space, especially for early delivery positions. Brokers said the high prices, which appear to be holding above $260m per ship, will also likely deter independent owners unless they have clear sight to long-term business that would pay a six-figure charter rate. Despite this environment, there remains a demand for more LNG tonnage to support project development or fleet replacement. TradeWinds reported in July that US energy major ConocoPhillips had contacted shipowners about its enquiry for up to eight LNG carriers it requires to lift its US volumes. Industry watchers said upcoming LNG orders may also include at least one, if not two, floating storage and regasification unit and possibly one floating LNG production unit, although the timing for contracting these is more liable to slip. source : www.tradewindsnews.com

DELFIN GETS EXTENSION TO BUILD US FLNG PROJECT

Delfin LNG, a unit of Delfin Midstream and the developer of a floating LNG export project in the Gulf of Mexico, has won more time from the US FERC to put into service the project's onshore facilities in Louisiana. Last year, the FERC granted a one-year extension of time, to September 28, 2023, to Delfin to construct and make available for service the LNG project's onshore facilities. The LNG terminal developer filed a request with the FERC on July 21 this year seeking a four-year extension of time. "Because we find that Delfin has demonstrated good cause for the extension of time, we will grant the requested four-year extension of time to complete the onshore facilities authorized in the 2017 certificate order," the regulator said in a filling dated October 4. Delfin now has time until September 28, 2027, to construct and make available for service the onshore facilities, it said. The company plans to install up to four self-propelled FLNG vessels that could produce up to 13.3 mtpa of LNG or 1.7 billion cubic feet per day of natural gas as part of its Delfin LNG project.

It also aims to install two FLNG units under the Avocet LNG project.

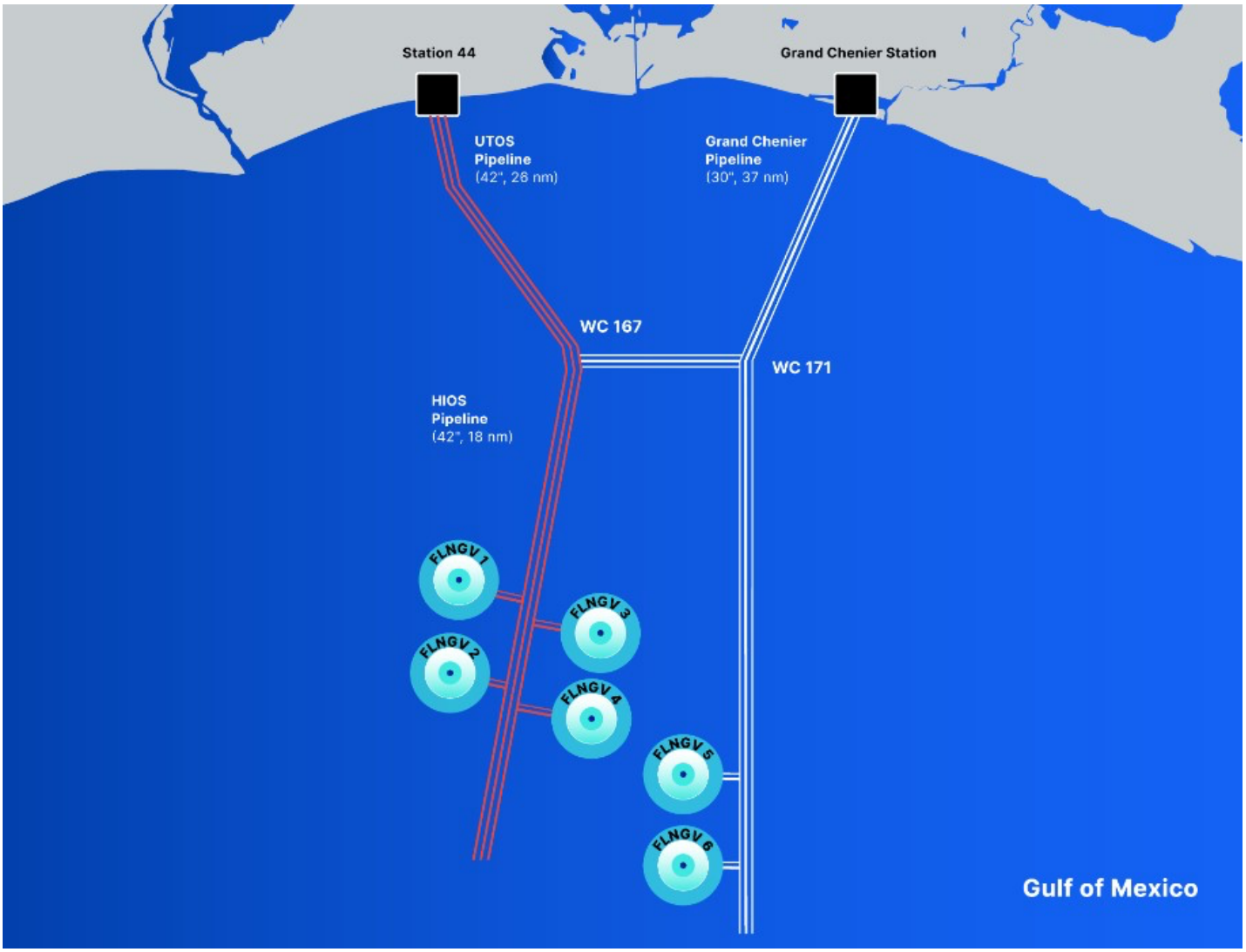

Image: Delfin LNG

In the July filling, Delfin Midstream said it expects to take a final investment decision on its first FLNG in October this year. Delfin also negotiated a binding engineering, construction, and procurement contract with South Korea's Samsung Heavy Industries and US engineer Black & Veatch and said that that it expects to sign this deal by September this year. The firm recently also joined forces with China's Wison Offshore & Marine to develop additional floating LNG producers. Besides the Wison deal, Delfin sealed a supply deal in July with UK-based Centrica worth about $8 billion. Prior to that, the firm secured an investment from Japan's shipping giant MOL and previously signed supply deals with Hartree Partners and Vitol. In addition to these agreements, Delfin LNG entered into a heads of agreement in September last year with US oil and gas producer Devon Energy for long-term liquefaction capacity, but also a pre-financial investment decision strategic investment. Source : www.lngprime.com

ALLSEAS' GIANT VESSEL TO COMPLETE PIPELAY JOB FOR BP'S TORTUE FLNG PROJECT

UK-based energy giant BP has selected Swiss-based offshore contractor Allseas to complete the subsea pipelay scope for the Greater Tortue Ahmeyim FLNG project located offshore Mauritania and Senegal. Allseas said in a statement it will undertake GTA offshore pipelay works early December using what it says is the world's largest construction vessel, Pioneering Spirit. Moreover, installation support will be provided by Allseas' offshore construction support vessel Oceanic. Allseas said the contract covers the installation of about 75 kilometers outstanding on the two 16-inch export pipelines with field termination assemblies (FTAs) in water depths between 1,500 and 2,800 meters, and four 10-inch CRA infield lines with FTAs up to two kilometers long in 2,800 meters of water. The contractor did not provide the price tag of the deal. According to the statement, BP and Allseas commercial and engineering teams "worked tirelessly" to evaluate the technical feasibility of installing the pipelines and subsea structures, which were originally designed for installation with a J-lay solution. The installation of mixed-diameter pipelines and subsea structures in ultra-deepwater is the "perfect fit" for Allseas' S-lay vessel Pioneering Spirit, which boasts a record-breaking 2,000-tonne tension holding capacity, it said. Also, to install the 10 FTAs, the vessel will be fitted with a special 1,000-tonne J-mode installation frame, designed in-house and built at Allseas' Heijningen fabrication yard in the Netherlands, the firm added.

McDermott

Back in 2019, Houston-based McDermott and Baker Hughes won contracts from BP for subsea umbilicals, risers, and flowlines, and subsea production system equipment for the GTA project. McDermott said at the time it will use its Amazon pipelaying vessel and other vessels to support installation. According to its AIS data, Amazon was on Thursday located offshore Las Palmas, Spain, after leaving Nouakchott, Mauritania last month. Media reports suggest that McDermott stopped GTA pipelay work due to a payment dispute with BP. Project partner Kosmos Energy said in August that BP targets first gas in the first quarter of 2024. It attributed this due to a delay in completion of the subsea work scope. "Due to a delay in the subsea workstream, the operator has put in place a plan to finish installation of the infield flowlines and subsea structures in the first quarter of 2024," the company said.

Gimi (Image: Golar LNG)

Tortue FLNG and FPSO

Kosmos also said that Golar LNG's converted floating LNG producer Gimi and the GTA FPSO were expected to arrive on the project's site in the fourth quarter of this year. The 2.5 mtpa Gimi FLNG will serve BP's Greater Tortue Ahmeyim project under a 20-year deal. Golar said in its results report that it had expected Gimi to leave the yard in September 2023. However,

the firm now expects the FLNG to leave the yard in October. As per the project's FPSO, it left Cosco Shipping Heavy Industry's yard in Qidong, China in January this year. The GTA FPSO was on Thursday being towed offshore Durban, South Africa, its AIS data shows. Following completion of commissioning activities at the site offshore Mauritania and Senegal, the FPSO will process natural gas - removing condensate, water, and other impurities - before exporting it by pipeline to the project's FLNG facilities, 10km offshore. With eight processing and production modules, the FPSO will process around 500 million standard cubic feet of gas per day. The FLNG will liquefy majority of the gas, enabling export to international markets. Some of the supplies will help meet growing demand in the two host countries, BP previously said.

Second phase

Besides the first phase, BP and its partners are also working on the second phase. In February, BP and partners confirmed the development concept for the second phase of the GTA LNG project. Besides Kosmos, other partners include Petrosen and SMH. The partnership will evaluate a gravity-based structure (GBS) as the basis for the GTA Phase 2 expansion project. BP said the project will have a total capacity of between 2.5-3 million tonnes per annum. The concept design will also include new wells and subsea equipment, integrating with and expanding on existing GTA infrastructure. Source : www.lngprime.com

TRAFIGURA, VITOL OFFER SPOT LNG CARGOES TO PAKISTAN

State-owned Pakistan LNG has received offers for spot liquefied natural gas shipments from traders Trafigura and Vitol following a recent spot cargo tender. Pakistan LNG released this tender on September 27 for two spot cargoes with deliveries on December 7-8 and December 13-14. The tender closed on October 4 and Pakistan LNG received offers from Trafigura and Vitol Bahrain, according to an evaluation report published by the company. Trafigura was the only firm to submit an offer for the delivery on December 13-14 and it offered a price of $19.3900/MMBtu. Vitol offered the lowest price of 15.9700/MMBtu for the December 7-8 delivery, while Trafigura offered a price of 18.3900/MMBtu, the document shows. Media reports suggest that Pakistan LNG decided only to accept the offer from Vitol for the December 7-8 delivery. In June this year, Pakistan LNG launched two tenders for spot cargoes. The firm received no offers for its tender seeking bids for a total of six spot LNG shipments for delivery in October and December, while Trafigura offered two shipments for the second tender seeking three cargoes over January-February 2024. Trafigura offered a price of $23.4711/MMBtu for the January 3-4 delivery and $22.4722/MMBtu for the February 23-24 delivery. This Trafigura offer was the first bid for spot LNG cargoes Pakistan received for its tenders in about a year. However, several reports said that Pakistan LNG did not take this offer due to high prices. Pakistan gets most of its supplies under long-term contracts from Qatar and on the spot market, however, last year prices surged and Europe took most of the available spot supplies. In July this year, Pakistan also signed a one-year deal to buy one LNG cargo per month from Azerbaijan's Socar. GIIGNL data shows that Pakistan's LNG imports dropped by 16 percent to 6.91 million tons last year due to high prices. The country imported almost all of these volumes under long-term contracts

from Qatar, or some 6.10 million tons, the data shows. Spot prices dropped considerably this year, prompting Pakistan and other Asian countries such as Bangladesh to return to buying spot LNG. The JKM for November settled at $14.245 per MMBtu on Wednesday. source : www.lngprime.com

TOTALENERGIES BUNKERS MARAN TANKERS LNG-POWERED DUO

A unit of French energy giant TotalEnergies has completed its first LNG bunkering operations to two new dual-fueled vessels owned by Maran Tankers, the oil tanker unit of Greece's Angelicoussis, following bilateral short-term supply deals struck on the spot market. On August 23, TotalEnergies Marine Fuels supplied 2,700 metric tons of LNG to Maran Tankers Management's VLCC, Maran Danae, via the 18,600-cbm LNG bunkering vessel, Gas Agility, in Rotterdam, according to statement by the marine unit of TotalEnergies. This LNG bunkering operation followed Gas Agility's supply of MTM's dual-fuel VLCC, Antonis I. Angelicoussis, with 2,700 metric tons of LNG in July. TotalEnergies charters Antonis I. Angelicoussis from MTM. Maran Danae and Antonis I. Angelicoussis are among four new dual-fueled VLCCs that MTM took delivery this year. In January, MTM took delivery of the LNG-powered VLCC, Antonis I. Angelicoussis, the second vessel, Maria A. Angelicoussis, in February, while the third vessel, Maran Danae, joined the fleet in April. The latest vessel, Maran Dione, joined the company's fleet in July. MTM claims the vessels emit 42 percent less carbon dioxide than an equivalent 10-year-old VLCC.

More than 200 LNG bunkering operations

"We are pleased to build on our longstanding partnership with Maran Tankers Management and to support the Angelicoussis Group's decarbonisation goals with these inaugural LNG bunker operations," said Oğuz Önalan, general manager of bunker trading and operations for Europe and Africa, TotalEnergies Marine Fuels. "Importantly, the operations demonstrate TotalEnergies Marine Fuels' ability to serve a broad spectrum of the market's needs promptly and flexibly through our supply network, whether by fulfilling long-term contracts or providing short-term market-sensitive solutions," he said. The company currently charters two 18,600-cbm LNG bunker vessels: Gas Agility, at the port of Rotterdam, Netherlands, and Gas Vitality, at the port of Marseille-Fos, France. Since the start of TotalEnergies Marine Fuels' LNG bunkering operations in November 2020, these two vessels have performed over 200 LNG bunkering operations, according to the firm. source : www.lngprime.com

INDIA'S HINDUSTAN ZINC AND GREENLINE PEN DEAL FOR LNG-POWERED TRUCKS

India's Hindustan Zinc has joined forces with compatriot GreenLine to deploy LNG-powered trucks built by Blue Energy Motors. Hindustan Zinc, a Vedanta group company and India's largest and only integrated producer of Zinc, said in a statement that the deal includes 180 LNG-powered trucks. Moreover, Hindustan Zinc looking to reduce emissions from its operations and this move will help reach its target of net-zero emissions by 2050, it said. Essar Group's GreenLine said in a separate statement it would invest 2 billion rupees ($24 million) to deploy LNG-powered trucks for Hindustan Zinc's road logistics. The company

did not provide the number of the trucks in its statement. GreenLine said its LNG-powered trucks, built by Blue Energy Motors, reduce emissions "significantly" compared to diesel. The firm has collaborated with multiple firms to make LNG trucking a reality in India, it said. These companies include India's top cement maker, UltraTech Cement, and JK Lakshmi Cement. Earlier this year, Blue Energy Motors launched the country's 100th LNG-powered truck at its manufacturing facility in Pune. FPT Industrial, a unit of Italian manufacturer Iveco, is supplying engines for these LNG-powered trucks as part of a deal the two firms signed in July 2022. After that, the two firms unveiled the first LNG truck powered by FPT's 6.7-liter engine in September, while Iveco also agreed to buy a stake in the Indian firm. Blue Energy also recently won an order from state-owned multimodal logistics firm Container Corporation of India (Concor) for the supply of 100 LNG-powered trucks. Source : www.lngprime.com

PIONEERING FLNG PROJECT TO BE PRESENTED IN LONDON

Mr Rone provided valuable insights into the challenges faced by the first FLNG project in Nigeria, ahead of his upcoming appearance at the prestigious LNG Shipping & Terminals Conference, to be held in London 14-15 November 2023. One challenge has been navigating the governance and regulatory laws surrounding this groundbreaking project. Additionally, establishing investor confidence and trust has been a priority, considering it is the first of its kind in the country. The project has also faced high capex due to global supply chain challenges, which have required careful management. To ensure compliance and smooth operations, several regulatory bodies are overseeing the project, highlighting the complexity of the venture. The FLNG facility, set to be completed by 2026, will encompass a range of crucial components such as a turret mooring system, gas pretreatment modules, LNG production modules, living quarters, self-contained power generation and utilities, and storage and offloading capabilities.Last year, UTM Offshore secured the front-end engineering and design contract in collaboration with renowned companies Kellogg Brown and Root, Japan Gas Corp and Technip Energies. Excitingly, a final investment decision (FID) is on the horizon. Mr Rone suggested FID might be made as early as Q4 this year, with project start-up scheduled for Q4 2026. Overall, UTM Offshore's FLNG project in Nigeria represents a significant milestone in the country's energy sector, with the potential to revolutionise the LNG industry. He said, "When completed, it will produce 1.7M tonnes per annum of LNG and 300,000 tonnes of LPG which will be fully dedicated to the domestic market. The project is estimated to provide direct employment for 3,000 Nigerians and indirect employment for an additional 4,000 people. The LPG produced will help bring down the price of cooking gas, improve the socioeconomic wellbeing of Nigerians, and reduce deforestation and carbon emissions." source : www.rivieramm.com

TRAFIGURA SEALS US$400M CREDIT TO PURCHASE US LNG CARGOES

The new financing involves two revolving credit facilities totalling US$400M, supported by insurance from the Export-Import Bank of the United States. LNG cargoes will be purchased from US exporters to supply primarily European customers, as Trafigura put it ,"providing energy security through replacement of Russian gas due to the war in Ukraine." The signing of the agreements follows approval by the US EXIM board of directors of two Financial Institution Buyer Credit (FIBC) policies issued to two financial institutions, for short-term facilities being extended to Trafigura. Citibank was named as one lender, the other went unnamed. Trafigura chief financial officer Christophe Salmon said, "We're delighted to have successfully closed the first LNG-based facilities backed by US EXIM's FIBC insurance policy, which supports American jobs by facilitating US exports." source : www.rivieramm.com

ALEXANDROUPOLIS FSRU: €106M IN AID TO FINISH PROJECT

Under EU state aid rules, the EC approved a €106M (US$111M) Greek measure to be granted to Gastrade to support the construction of its liquefied natural gas (LNG) terminal in Alexandroupolis. The measure is aimed at enabling Gastrade to complete construction of the terminal on schedule by the end of 2023, according to the EC and Gastrade. The aid will take the form of a direct grant and is in addition to an earlier Greek public support measure of €167M that was approved by the Commission in June 2021. "The Commission found the measure is necessary and appropriate to continue with the project as planned. When approving the initial public support, the Commission had already considered that the project is needed to secure gas supply for Greece and the southeastern Europe region and will contribute to the REPowerEU strategic objective to achieve diversification of energy supplies and end dependence on Russian fossil fuels. The Commission concluded the positive effects of the measure outweigh any possible negative effects on competition and trade in the EU," a statement from the EC said. Gastrade took its final investment decision and started constructing the terminal in early 2022, just before Russia's invasion of its neighbour Ukraine. The project has seen the first conversion of a former LNG carrier, Gaslog Chelsea, into a working FSRU under the Greek flag for operation in the Aegean Sea. The 153,500-m^3 capacity FSRU will have a nominal regasification and send-out capacity of 5.5 bcm per year and a peak technical regasification and send-out capacity of 22.8 mcm per day. The FSRU is expected to be operational by the end of 2023 and will be connected to Greece's national natural gas transmission system via a 28-km pipeline supplying gas to Greece, Bulgaria and the wider region - Romania, Serbia and North Macedonia, all the way to Moldova and Ukraine. The terminal's contracted regasification capacity has already reached 60% of its total capacity of 5.5 bcm per annum. The gas pipeline will consist of an approximately 24-km subsea section and a 4-km onshore section and will connect the FSRU to the NNGTS near the village of Amphitriti, about 5 km northeast of Alexandroupolis. Source : www.rivieramm.com

US LNG FIRM NEW FORTRESS ENERGY NEARS LAUNCH OF ALTAMIRA FLNG PROJECT

NFE has said it is closing in on the launch of its first floating LNG (FLNG) project off Altamira, Mexico despite a delay in the expected timeline the company announced in a statement in June. On 26 September, NFE's liquefaction rig, Pioneer II, set sail from the Kiewit Offshore Services shipyard in Ingleside, near Corpus Christi, Texas, in the US, under tow and en route to Altamira. Jack-up rig Pioneer II will join two other FLNG rigs already on site in Altamira for final installation and commissioning, with a target completion date in late October or early November, according to an NFE statement issued last week. NFE's first utility and accommodation rig, Pioneer III, arrived off Altamira last month, and the other two rigs making up the project have quickly followed in the US$1.3Bn FLNG project, which consists of Pioneer I, Pioneer II and Pioneer III, dedicated to gas treatment, liquefaction and utilities and accommodation, respectively. The company's 160,000-m^3 floating storage unit NFE Penguin (formerly Golar Penguin) is also destined for Altamira. VesselsValue's AIS data shows the converted LNG carrier currently anchored near Kingston, Jamaica. During the company's Q2 earnings call in August, NFE head of finance Chris Guinta said the company had expected to introduce the first gas from the Altamira so-called Fast LNG project in September, sell the inaugural LNG cargo in October and had planned to install Pioneer I and Pioneer II in August. As part of its operations, NFE received an export permit for its Altamira Fast LNG facility from Mexico's Ministry of Energy in early June, calling the permit "the final piece of the puzzle for launching our first Fast LNG in Altamira". Under this permit, NFE is authorised to export up to 7.8M tonnes through April 2028, providing more than enough capacity to support the operations of the 1.4M tonnes per annum Fast LNG facility throughout the permitted period. In 2022, NFE signed agreements with CFE and Pemex to install LNG production units off the coast of Altamira, creating a new FLNG hub. And NFE inked a letter of intent with CFE earlier in 2023 to install second and third units onshore at the existing Altamira terminal. The transformation of the LNG import terminal into an export facility follows the legacy of Sabine Pass nearly a decade ago, as NFE aims to tap into the potential of the Mexican LNG market. "NFE is at an inflection point as our core infrastructure projects enter service," NFE chairman and chief executive Wes Edens said. "Our projects are entering service after years of buildout, and we now look forward to cash generation, deleveraging and organic growth opportunities." source : www. rivieramm.com

QATAR BREAKS GROUND ON WORLD'S LARGEST LNG EXPANSION PROJECT

Qatar, the world's largest LNG exporter, held a groundbreaking ceremony on October 3 for the North Field expansion project, which will raise the country's LNG production capacity from 77mn tonnes/year to 126mn tonnes/year by 2026. The project includes six new LNG trains, each with a production capacity of 8mn tonnes/year. Four of the trains will be part of the North Field East expansion project, and two will be part of the North Field South expansion project. The project is being developed by QatarEnergy in partnership with TotalEnergies, Shell, ConocoPhillips, ExxonMobil, Eni, Sinopec, and CNPC. Speaking at

the groundbreaking ceremony, Saad Sherida Al-Kaabi, CEO of QatarEnergy, said, "This major expansion comes at a crucial time, as natural gas occupies a pivotal position in the energy mix in a world facing geopolitical turbulences and is in dire need of clean energy sources that are in line with the global environmental goals." In addition to LNG, the North Field expansion project will also produce 6,500 tonnes/day of ethane, 200,000 barrels/day of liquefied petroleum gas (LPG), 450,000 barrels/day of condensates, helium, and pure sulfur. source : www.naturalgasworld.com

FREEPORT LNG WORKING TO PLACE SECOND LNG JETTY BACK IN SERVICE

Freeport LNG, the operator of the three-train 15 mtpa liquefaction plant in Texas, is working to secure approvals to place back its second jetty in service and to return the export facility to full commercial operations. In February this year, the LNG terminal operator shipped the first cargo from its LNG export plant in Texas since the shutdown in June 2022. Freeport received regulatory approvals from both the US FERC and PHMSA during the first quarter to restart Phase I operations, which consists of three liquefaction trains, two LNG storage tanks (tanks 1 and 2) and a single LNG jetty (dock 1). These approvals did not grant authorization to Freeport to commission or place LNG tank 3, Loop 2, and Dock 2 back into service. In order to continue Freeport's sequential plan to return the export facility to full commercial operations, Freeport has requested authorization from FERC for the nitrogen cooldown of the Loop 2 LNG rundown piping system and the introduction of hydrocarbons to Loop 2 to complete its cooldown and commissioning. "These activities are necessary to move into Phase II operations, which would return Dock 2 to service," Freeport said in a filling with FERC dated September 30. Freeport noted that any authorization pursuant to this request will be limited to the nitrogen cool down of the Loop 2 LNG rundown piping system and introduction of LNG into the Loop 2 piping. Subsequent approvals will be necessary to fully return Dock 2 to service, the LNG terminal operator said. "Given the close coordination that Freeport, PHMSA, and FERC have maintained over the course of the Phase II restoration activities, Freeport would greatly appreciate FERC's response to this request by October 6, 2023," it said. source : www.lngprime.com

SHELL PUTS LARGE LNG BUNKERING NEWBUILD TO WORK IN CARIBBEAN

LNG giant Shell has completed the first liquefied natural gas bunkering operation in the Caribbean with the 18,000-cbm bunkering vessel, New Frontier 2. In July, Shell and South Korea's Pan Ocean named this LNG bunkering vessel. South Korea's Hyundai Mipo built the ship. Shell's unit Shell NA LNG previously entered into a six-year charter deal worth about $55 million for the newbuild and Shell said it will deploy the ship in the Americas. According to a social media post on Monday by Shell's head of downstream LNG, Tahir Faruqui, the firm has put New Frontier 2 to work in the Caribbean with the completion of its first operation in Jamaica. The vessel bunkered the oil and chemical tanker Solar Catie during the operation. Shell joined forces with the Maritime Authority of Jamaica and the Port Authority of Jamaica for this bunkering operation. Faruqui said this

operation also "signified an important milestone for us in Jamaica where we conducted our first ship-to-ship LNG bunkering in Portland Bight." Earlier this year, Shell and Israel's shipping firm Zim completed the first LNG bunkering operation in Jamaica as part of their 10-year bunkering deal. This LNG bunkering vessel is Shell's third ship deployed in the Americas and "is part of our expansive lineup of 12 bunker vessels," Faruqui added. Shell has been lately quite busy with its LNG bunkering business. Last month, the firm started delivering LNG to Hapag-Lloyd's giant LNG-powered containerships in the Dutch port of Rotterdam under a deal signed earlier this year. In addition, Shell and its partners recently completed what they say is the first-ever cruise ship LNG bunkering in the port of Gibraltar. Shell recently also added two more LNG bunkering locations in Europe, Flushing, and Antwerp. With this, the company expanded its network to 19 locations across 12 countries. source : www.lngprime.com

PERU LNG TERMINAL SHIPPED FIVE CARGOES IN SEPTEMBER

Peru LNG's liquefaction plant at Pampa Melchorita has shipped five cargoes in September, three shipments more compared to August when it completed planned maintenance. According to data by state-owned Perupetro, during September the LNG plant sent two shipments each to the UK and France and one cargo to Japan. The shipments loaded onboard the LNG carriers Maran Gas Roxana, Minerva Psara, Pan Asia, Alicante Knutsen, and Murex equal about 370,518 tonnes. These five LNG cargoes loaded at the Peru LNG plant in September compare to three cargoes in September last year, while Peru LNG shipped two cargoes in August this year after it completed scheduled maintenance, operator Hunt Oil previously told LNG Prime. Peru LNG shipped 41 LNG cargoes during January-September, compared to 37 shipments during the same period last year, the Perupetro data shows. In total, the 4.45 mtpa LNG plant sent 738 LNG cargoes since 2010, according to the data. US-based Hunt Oil holds a 50 percent operating stake in the Pampa Melchorita LNG plant, while SK and Marubeni have 20 percent and 10 percent, respectively. LNG giant Shell also holds a 20 percent stake and takes all the volumes produced at the facility. source : www.lngprime.com

ADNOC GAS AWARDS $615 MILLION CONTRACT FOR HABSHAN CCUS PROJECT

Adnoc's gas and LNG unit, Adnoc Gas, has awarded a $615 million contract to Petrofac Emirates for the Habshan carbon capture, utilization, and storage (CCUS) project. Under the engineering, procurement and construction (EPC) contract, Petrofac Emirates will build carbon capture units, pipeline infrastructure, and a network of wells for carbon dioxide (CO2) injection at the Habshan gas processing plant, as part of Adnoc's accelerated decarbonization plan, according to a statement by Adnoc Gas. UAE's Adnoc Gas said the Habshan CCUS project is one of the largest carbon capture projects in the Middle East and North Africa (MENA) region. The project will have the capacity to capture and permanently store 1.5 million tons per annum (mtpa) of CO2 within geological structures deep underground. Moreover, CO2 will be injected and placed for permanent storage in Adnoc Onshore's Bab Far North Field, located southwest of Abu Dhabi. Adnoc Gas will be responsible for building, operating, and maintaining the project on behalf of its parent Adnoc.

Boosting carbon capture capacity

Building on Adnoc's landmark carbon capture facility, Al Reyadah, which has the capacity to capture up to 800,000 tons of CO2 per year, the Habshan CCUS project could support enhanced oil recovery of low carbon-intensity barrels and the production of low-carbon feedstocks such as hydrogen, to help customers decarbonize their operations, the firm said. The Habshan CCUS project will triple Adnoc's carbon capture capacity to 2.3 mtpa, equivalent to removing over 500,000 gasoline-powered cars from the road per year, Adnoc Gas said. The firm expects to launch the Habshan CCUS project in 2026.

Adnoc launched Adnoc Gas on January 1 as it looks to further expand its international presence. This year, Adnoc Gas signed LNG supply deals with France's TotalEnergies, India's top state oil refiner Indian Oil, Japan Petroleum Exploration (Japex), and the most recent deal with PetroChina. Adnoc owns a 70 percent stake in Adnoc LNG, that currently produces about 6 mtpa of LNG from its facilities on Das Island. Besides this terminal, Adnoc is also working on the second LNG export plant in Al Ruwais. According to Adnoc, the LNG terminal would have two 4.8 mtpa LNG trains, boosting the company's LNG production capacity by 9.6 Mtpa, as it looks to respond to the growing global demand for natural gas. source : www.lngprime.com

HONG KONG JOINS THE LNG IMPORTER RANKS

Hong Kong's formal launch of its maiden LNG terminal this summer represents a long-awaited embrace of the cleaner-burning fuel by the Asian financial hub, which is leaning on greater gas burn to underpin a drive away from coal-fired power generation.

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> **Public policy expert**

The offshore LNG terminal - the largest of its kind in the world - received its first LNG shipment under a long-term supply agreement between Shell and local power companies CLP Power Hong Kong and Hong Kong Electric, the two utilities announced on July 13. CLP Power and Hong Kong Electric own respective stakes of 49% and 30% in the project. The remaining 21% interest is owned by China Southern Power Grid, one of two state-owned grid monopolies in mainland China. Regasified LNG is now being sent to CLP Power's Black Point Power Station and HK Electric's Lamma Power Station, raising the low-carbon generation capability and fuel supply security of the power companies in support of Hong Kong's energy transition.

"Hong Kong will be able to access international gas supply and not just rely on mainland China, which will make local gas prices more competitive and provide greater resilience from international energy price fluctuations," a public policy expert in Hong Kong told NGW. "It also can help Hong Kong to figure out if it can upgrade the terminal to a hydrogen receiving terminal in the future."

LNG to drive coal-to-gas switching

The floating storage and regasification unit-based (FSRU) terminal was built under the development structure of Hong Kong's Climate Action Plan 2050 unveiled in October 2021. The plan pledged to halve carbon emissions before 2035 compared with 2005 levels, and to achieve carbon neutrality before 2050. Achieving this will require deep cuts in fossil fuels in Hong Kong's power sector - the source of two-thirds of the city's greenhouse gas emissions. Hong Kong's newfound status as an LNG importer means its decarbonisation targets remain "on track", a Hong Kong-based energy analyst told NGW. "More gas will be available, more choices and more flexibility," said the analyst, who at the same time cautioned: "Let's not get ahead of ourselves. This is a step on a lengthy journey, of course." Hong Kong's gas consumption in 2022 declined for the second year in a row, falling by 6.4% to 4.5bn m^3 in 2022, although this came after exceptional growth of 58.2% in 2020, according to the Energy Institute's Statistical Review of World Energy 2023. Power generation accounted for the lion's share as the residential, commercial and industrial sectors only consumed a combined 800mn m^3 in 2022, according to Hong Kong and China Gas Company, the city's gas distribution monopoly. Gas dominates Hong Kong's power generation fuel mix, making up 48% of the total in 2020, according to official statistics. Non-fossil fuel sources including imports from the Daya Bay nuclear power plant in neighbouring Guangdong province and renewable energy projects represented a combined 28%, while coal accounted for the remaining 24%. The Climate Action Plan 2050 calls for Hong Kong to stop burning coal for daily electricity generation by 2035, replacing the dirtiest fossil fuel with low- to zero-carbon energy sources. This ambitious target means that while it is early days for Hong Kong's new terminal, it will likely be kept busy by rising demand for gas-fired power generation. In mid-2019 CLP and Hong Kong Electric signed a contract with Shell to supply the project - the volume and term length were not disclosed but reports at the time indicated 1.2mn metric tons/yr would be supplied for 10 years starting after 2020.

Offshore behemoth

Located 25 km offshore southwestern Hong Kong, the terminal comprises the 263,000 m^3 Bauhinia Spirit - the world's biggest FSRU, jointly owned and operated by Mitsui O.S.K. Lines and Vopak - and the first offshore all-steel jetty to berth two LNG carriers simultaneously, according to contractor Offshore Oil Engineering, a Shanghai-listed subsidiary of Chinese state-owned CNOOC. The 345-m long Bauhinia Spirit vessel has a nominal regasification capacity of 600mn f^3/d (16.8mn m^3/d) with a maximum capacity of 800mn f^3/d, while the wharf is designed for a 50-year service life - twice as long as conventional offshore LNG receiving stations. Also part of the project is an onshore LNG terminal and two undersea pipelines spanning a length of 63 km. The Maran Gas Coronis carrier finished unloading a commissioning cargo from PetroChina/CNPC for the terminal on May 14, marking the start of trial operation and Hong Kong's maiden receipt of an LNG shipment. CLP purchased an LNG cargo for May delivery back in March, with the price linked to the Japan-Korea Marker. The Hong Kong government had hoped to start importing LNG three years ago, but its plans were scuppered by the start of COVID-19 in early 2020. The

project's start-up was first delayed until the end of 2020 — a year later than originally planned — following a setback to the start of construction, which began in 2020. A months-long Omicron outbreak in early 2022, coupled with last year's global energy shortages, then delayed first gas from March 2022 to this summer.

A long time coming

The terminal has been two decades in the making. Hong Kong's gas needs were initially met by CNOOC's Yacheng 13-1 gas field located in the Yinggehai Basin offshore China's southern island province of Hainan. Yacheng 13-1 was one of China's four largest offshore gas fields when it started commercial production in 1996 but output peaked at 3.0bn m³/yr early on and had dwindled to a fraction of this by late 2019. Amid fears that Yacheng 13-1 would start to become depleted as early as 2012, CLP concluded in 2003 that an LNG terminal was "the only viable means of providing an adequate, secure and reliable supply of gas within the necessary time frame to meet Hong Kong's requirements". In 2008 the Hong Kong government signed a memorandum of understanding (MoU) with China's National Energy Administration (NEA) on enhancing support on gas supply to Hong Kong in the following 20 years. Under the MoU, the NEA said it would support a renewal of CNOOC's supply agreement with Hong Kong for an additional 20 years. Under the MoU, the feasibility of supplying piped gas to Hong Kong via the second West-East pipeline (WEP2) - owned by PetroChina at the time - would be studied, while China's central government would work with Hong Kong to build an LNG terminal to supply the city. In the end, the LNG terminal sought by CLP was shelved in favour of WEP2, which started transmitting gas to the city in mid-2013. WEP2 mainly supplies expensive gas to Hong Kong that was originally imported from Central Asia by PetroChina, and LNG imports would have worked out to be cheaper over the same period, an industry source told NGW. "Still, better late than never," the source added.

Compensating for limited renewable potential

More gas burn will be critical going forward if Hong Kong is to meet its climate targets while keeping the lights on. The government's Climate Action Plan 2050 is targeting an increase in the share of renewables in Hong Kong's power mix to 7.5-10% by 2035 or earlier, rising to 15% gradually thereafter, while 60-70% of zero-carbon electricity supply should be sourced via closer cooperation with neighbouring areas.

But upping the contribution of solar and wind energy will be difficult as deployment is constrained by Hong Kong's geography and resources. Renewables presently meet less than 1% of local power demand, and analysis from the World Resources Institute (WRI) has found renewables could supply no more than 4% of Hong Kong's electricity demand by 2030 and 10% by 2050. Coal-to-gas switching in the power sector has already helped Hong Kong make in-roads in decarbonisation. Emissions data for 2020 released last year showed that emissions from electricity generation and other energy industries stood at 20.4mn mt of CO2 equivalent in 2020, down by 22% from 26.3mn mt in 2019.

> *"Hong Kong can reduce generation from coal while maintaining secure supply and setting up further future options and decisions on decarbonisation pathways."*
>
> **Energy analyst**

A long-term bet on gas?

Hong Kong's embrace of LNG would appear to suggest the city has settled on a gas-based energy mix as its preferred route to a net-zero power system, but insiders said this is not necessarily the case. "The answer is yes and no. It mainly means that Hong Kong can reduce generation from coal while maintaining secure supply and setting up further future options and decisions on decarbonisation pathways," said the energy analyst. "Hong Kong will eventually need to find other energy sources or resources, but LNG and higher-efficiency generation units are a reasonable start given the lack of alternatives for now, the opportunity to reduce coal-fired generation further, and the vital importance of energy security as well." Continuing to burn gas around after this decade could require Hong Kong to deploy carbon capture, utilisation and storage (CCUS). But gas likely has no future towards the middle of this century, when Hong Kong is aiming to achieve carbon neutrality. A power mix 65%-based on unabated gas in 2050 would perform the worst in terms of economic competitiveness, carbon emissions and air pollution, associated health concerns and supply diversity, according to a 2021 report from the WRI. source : www.naturalgasworld.com

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