



EVALEND DIVES INTO LNG WITH HYUNDAI DEBUT ORDER

Greek company splashes out more than half a billion dollars at major shipbuilder. Greece's Evalend Shipping is diversifying its fleet and paying out more than half a billion dollars to make a major move into the LNG carrier sector. Shipbuilding sources said the Kriton Lendoudis-led company — which does not own any LNG carriers or vessels powered by LNG — is poised to order two LNG carrier newbuildings after signing a letter of intent with South Korea's Hyundai Heavy Industries. They said the company will ink the official contract imminently. Their capacity has not been revealed but brokers believe Evalend is likely to opt for the now standard 174,000-cbm vessels and not the 200,000-cbm ships since they allow for greater trading flexibility. Those familiar with Evalend said the company originally planned to contract the LNG ships at Chinese shipyards but later decided to have them built in South Korea. Officials at HHI were not available for comment, while Evalend did not respond to emails seeking confirmation. Brokers following the South Korean shipbuilder's activities said HHI will deliver the carriers in late 2027. They believe Evalend is paying about \$260m per ship. The orderbook for standard-size LNG carrier newbuildings is about 330 units, according to Clarkson's Shipping Intelligence Network. This is more than 52% of the existing trading fleet. Despite the record orderbook for LNG ships, brokers, owners and analysts have

highlighted the upcoming demand for vessels as the LNG trade continues to expand. Clarksons Research forecasts that this could accelerate from about 4% per annum in the 2023 to 2024 period to “potentially” about 10% in 2025 to 2027. In addition, there is a need for vessels to fill fleet-replacement needs as companies look to phase out the less-efficient, smaller-capacity and higher-emitting steam-turbine LNG carriers, which currently make up around one-third of the global fleet. Evalend has been one of the most active shipowners in the shipbuilding market in recent years. The company started ordering new ships in early 2021 by contracting Hyundai Mipo Dockyard to build two medium gas carriers (MGCs). Evalend’s newbuildings order spree saw the company diversifying into the product tanker arena with 50,000-dwt product carriers and LR1 tankers at China’s Yangzijiang Shipbuilding. It also debuted the suezmax tanker sector with an order of two ships at Hyundai Samho Heavy Industries. Based on TradeWinds’ records, Evalend has splashed out close to \$2bn on orders for about 32 newbuildings since early 2021, excluding the LNG carriers that it will be ordering soon. It contracted four MGCs, 12 VLGCs, two suezmax tankers, four open-hatch handysize bulk carriers, six MR tankers and four LR1 tankers. Several of the newbuildings have been delivered to the company. source : www.tradewindsnews.com

BAKER HUGHES SEES MORE LNG FIDS THIS YEAR

US energy services firm Baker Hughes remains optimistic on the LNG outlook and still expects the market to exceed 65 mtpa of FIDs this year and should see a similar level of activity in 2024, according to the company’s CEO, Lorenzo Simonelli. Following record LNG equipment orders of some \$3.5 billion in 2022, Baker Hughes booked \$1.4 billion in LNG equipment orders in the first quarter this year and \$900 million in the second quarter. During the second quarter, Baker Hughes secured an order for three main refrigerant compressors for NextDecade’s Rio Grande LNG project in Texas. Simonelli said during the company’s second-quarter earnings conference call on July 19 that continued strength in long-term LNG contracts has been a key driver of the momentum in industry FIDs, which have now totaled 53 mtpa so far this year. This includes the recent FIDs for Phase 1 of Next Decade’s Rio Grande project and QatarEnergy’s North Field South project, he said. “Based on the continued development of the LNG project pipeline, we still expect the market to exceed 65 MTPA of FIDs this year and should see a similar level of activity in 2024,” Simonelli said.

2026 and beyond

Sinomelli said that Baker Hughes continues to see the potential for this LNG cycle to extend for several years with a pipeline of new international opportunities expanding project visibility out to 2026 and beyond. He said that Baker Hughes fully expects natural gas and LNG to play a key role in the energy transition as a baseload fuel to help balance against intermittent renewable energy sources. Baker Hughes believes the expanding pipeline of LNG opportunities is tied to the growing recognition of this reality and that the transition will take more time and must be financially viable, the CEO said.

“As you look at 2024 and 2025, you’ve got a number of extensions on brownfield projects activities and coming out of the LNG 2023 meetings last week in Vancouver, a lot of dialogue on the continued need for LNG,” Simonelli told analysts during the call. “And we stay very much with the view that we’re going to need in excess of 800 mtpa by 2030, he said. “And given some of the environment and situation in the marketplace, we’re seeing that pull forward with these FIDs coming in sooner,” Simonelli said. “So it’s really a multiyear cycle where we see consistency in LNG FIDs. And you know the projects as well as I do. You’ve got opportunities from Cameron to Port Arthur to different elements of Commonwealth. You’ve got Tellurian, you’ve got a number of projects out there that are imminently looking at FIDs as we go forward,” he said. Source : www.lngprime.com

DALIAN BAGS DEBUT CARRIER DUO FOR WAH KWONG-LED VENTURE

Trio turn to Dalian Ship-build-ingand secure 2027 delivery slots. New partners Wah Kwong Maritime Transport, China Gas Holdings and CSSC (Hong Kong) Shipping have ordered two LNG carrier newbuildings at Dalian Shipbuilding Industry Co (DSIC). Brokers and industry watchers said the trio, which unveiled their tie-up in the last few days, have signed up with the northern Chinese yard to buy two 175,000-cbm, two-stroke LNG carriers. The vessels are fixed on 20-year periods to serve China Gas Holdings unit China Gas Hongda Energy Trading Co, at rates in the range of \$80,000 to \$100,000 per day. The two ships are due for delivery dates in 2027. Those following the ships said the LNG carriers have been ordered under the name Sea Jade Investment. A price has yet to emerge on the vessels. TradeWinds revealed last week that the three companies were teaming up on a new LNG shipping venture, marking a first move into the sector for 75-year-old independent Hong Kong shipowner Wah Kwong. TradeWinds has asked the shipowner to confirm the details of the new order and speak about its decision to expand into LNG. Wah Kwong is taking the largest stake in the new LNG venture, with its arm Vantage Energy controlling a 45% shareholding. The shift into LNG carrier ownership is also a new step for China Gas Holdings subsidiary China City Gas, which is taking a 30% stake in the new company. Chinese leasing company CSSC Shipping’s Fortune Clean Energy holds the remaining 25%. The venture is being set up with \$100m of capital from the partners and is seeking external financing for its first vessels. China Gas Holdings said earlier that the move will allow it “to secure a stable supply of LNG vessels for its LNG business development and diversified business models”. “The group can use the vessels, leased for a long term at a pre-determined rate, with certainty despite price fluctuation in the vessel chartering market,” it added. These latest orders for DSIC will boost the shipbuilder’s burgeoning LNG carrier orderbook to 10 vessels. To date the yard’s anchor customer for this vessel type has been China Merchants, which has contracted eight LNG carriers at DSIC. By contrast China’s previously only other LNG shipbuilder — before other yards crowded into the sector in the last two years — Hudong-Zhonghua boasts a bulging LNG orderbook of 42 vessels. The yard is crammed full of LNG

orders with delivery dates stretching through from this year into 2028, some of the latest dates contracted for vessels. While much of the LNG business is for Chinese clients, either directly or as charterers or importers, Hudong-Zhonghua's orderbook also includes 12 LNG carriers contracted under QatarEnergy's huge shipbuilding programme. source : www.tradewindsnews.com

SHELL'S Q2 PROFIT DIPS TO \$5.07 BILLION, LNG SALES UP

LNG giant Shell reported a drop in its adjusted earnings in the second quarter, while its LNG sales rose when compared to the same period in the year before. The firm said its adjusted earnings reached \$5.07 billion in the quarter, a drop of 55.7 percent compared to \$11.47 billion in the year before. Adjusted earnings dropped by 47 percent compared to \$9.64 billion in the prior quarter. Income attributable to Shell shareholders was \$3.13 billion, compared with \$18.04 billion in the second quarter last year and \$8.7 billion in the previous quarter. Compared to the prior quarter, income attributable to Shell shareholders mainly reflected lower LNG trading and optimization results, lower realized oil and gas prices, lower refining margins, and lower volumes, Shell said in the report. It also included net impairment charges and reversals of \$1.7 billion. Cash flow from operating activities was \$15.1 billion, and included a working capital inflow of \$4.8 billion, and tax payments of \$3.8 billion. The working capital inflow mainly reflected lower prices on inventories, initial margin inflow, a decrease in over-the-counter collateral, and other accounts receivable and payable movements, Shell said. "Shell delivered strong operational performance and cash flows in the second quarter, despite a lower commodity price environment," CEO Wael Sawan said. "Today we are delivering on our Capital Markets Day commitment of a 15 percent dividend increase. We are going further on our buyback guidance by commencing a \$3 billion program for the next three months and, subject to board approval, at least \$2.5 billion at the Q3 2023 results," he said.

LNG sales up, liquefaction volumes down

Shell sold 16.03 million tonnes of LNG in the April-June period, a rise of 5.4 percent when compared to 15.21 million tonnes in the same period last year. Sales dropped by 6 percent compared to 16.97 million tonnes in the prior quarter. Liquefaction volumes dropped to 7.17 million tonnes in the second quarter when compared to 7.66 million tonnes in the same quarter last year and were almost flat compared to 7.19 million tonnes in the prior month. During the first half, Shell's LNG sales dropped by 2 percent to 33 million tonnes, while liquefaction volumes decreased by 8 percent to 14.35 million tonnes. The firm expects liquefaction volumes to reach about 6.3 - 6.9 million tonnes in the third quarter and the outlook reflects scheduled maintenance, including at Prelude and Trinidad and Tobago, it said. Total oil and gas production, compared with the first quarter 2023, increased by 2 percent to 985,000 barrels of oil equivalent per day mainly due to the ramp-up of new fields, and lower maintenance, Shell said.

Integrated gas earnings

The company's integrated gas segment reported adjusted earnings of about \$2.5 billion in the second quarter. This compares to \$3.75 billion in the same period a year ago and \$2.41 billion in the prior quarter. Segment earnings of \$754 million dropped by 64 percent compared to \$2.41 billion in the prior quarter. Segment earnings nosedived from \$8.1 billion in the same quarter last year. Compared with the prior quarter, integrated gas earnings reflected the effect of lower contributions from trading and optimization due to seasonality and fewer optimization opportunities and lower realized prices, and unfavorable deferred tax movements, Shell said. Shell announced on July 7 that it was expecting "significantly lower" trading and optimization results for its integrated gas business in the second quarter of this year compared to the previous quarter. source : www.lngprime.com

TOTALENERGIES SAYS Q2 LNG EARNINGS, SALES DROP

France's TotalEnergies said on Thursday that the company's integrated LNG business logged a decline in its adjusted net operating income in the second quarter of this year due to lower prices. The company's integrated LNG adjusted net income reached about \$1.33 billion, a drop of 40 percent when compared to the second quarter in 2022 and also down when compared to \$2.07 billion in the previous quarter. TotalEnergies attributed the drop mainly due to lower spot and forward LNG prices. Earlier this month, TotalEnergies reported a drop in its average price for LNG equity sales in the second quarter. The average LNG price was \$9.84/MMBtu in the April-June period, logging a significant decrease when compared to the previous three-month period but also year-on-year. Overall, the group reported adjusted net income of \$5 billion in the second quarter, down by 49 percent year-on-year and down when compared \$6.5 billion in the prior quarter. "In a favorable but softening oil and gas environment TotalEnergies once again delivered this quarter robust results, strong cash flow, and attractive shareholder distribution," chief executive Patrick Pouyanne, said. He said that TotalEnergies generated \$8.5 billion in cash flow in the second quarter and \$18 billion in the first half of 2023, while production of 2.5 Mboe/d was up 2 percent year-on-year, thanks to new project start-ups. "The integrated LNG segment posted cash flow of \$1.8 billion, benefiting from the high margins captured in 2022. Adjusted net operating income was \$1.3 billion reflecting lower LNG prices (averaging 10 \$/MMBtu in the second quarter) and softer trading results in less volatile markets," Pouyanne said. The company's board decided the distribution of a second interim dividend for the 2023 financial year in the amount of €0.74/share, up 7.25 percent year-on-year, and authorized the company to buy back shares for \$2 billion in the third quarter of 2023, the CEO added.

LNG sales down due to lower demand in Europe

During the second quarter, TotalEnergies sold 11 million tonnes of LNG, down by 6 percent when compared to the year before and flat compared to the prior quarter. TotalEnergies said LNG sales decreased year-on-year due to lower demand

in Europe and are stable quarter-on-quarter, benefiting from the restart of Freeport LNG. Hydrocarbon production for LNG, excluding Novatek, rose by 8 percent to 438 kboe/d in the same quarter from the same quarter last year due to the increased supply of NLNG following improved security conditions in Nigeria and the restart of Snohvit in Norway during the second quarter 2022, the firm said. During January-June, LNG sales dropped by 12 percent to 22 million tonnes, while hydrocarbon production for LNG rose by 8 percent to 451 kboe/d, it said.

Average LNG price in Q3 between \$9 and \$10 per MMBtu

TotalEnergies said that European natural gas prices are currently around \$10/MMBtu due to high inventories in Europe, while demand recovery in Asia and tension on supply capacities in Europe support forward prices above \$15/MMBtu for the winter of 2023/2024. Given the evolution of oil and gas prices in recent months and the lag effect on price formulas, TotalEnergies anticipates that its average LNG selling price should be between \$9 and \$10/MMBtu in the third quarter 2023. For the third quarter 2023, TotalEnergies expects hydrocarbon production of around 2.5 Mboe/d, notably supported by the start-up of Absheron field in Azerbaijan. The company confirmed 2023 guidance of net investments between \$16 and \$18 billion, including \$5 billion in low-carbon energies. Source : www.lngprime.com

TECHNIP ENERGIES COMPLETES ARCTIC LNG 2 EXIT

Paris-based LNG engineering giant Technip Energies has completed exiting Novatek's Arctic LNG 2 project in Russia. The company's CEO Arnaud Pieton said in October last year that the company signed a deal to exit the Arctic LNG 2 project and said in May this year that company was on track to complete the exit in first half. Pieton confirmed in the company's first-half results report on Thursday that Technip Energies has completed the planned exit. The Arctic LNG 2 project located on the Gydan peninsula includes the construction of three LNG trains with a capacity of 6.6 Mtpa, each, using gravity-based structure platforms. Novatek recently sent the first gravity-based structure platform from its yard near Murmansk to the site of the Arctic LNG 2 project located on the Gydan peninsula. The unit, with a total weight of more than 640,000 tons, will travel along the Northern Sea Route and is expected to arrive at the Arctic LNG 2 site next month.

Record backlog, revenue down

Technip Energies said its adjusted backlog increased by 41 percent year-over-year to 18.9 billion euros (\$20.9 billion). Adjusted order intake for the first half amounted to 8.96 billion euros, while adjusted order intake in the second quarter amounted to 8.24 billion euros, which included a major LNG contract for the North Field South project by QatarEnergy. Technip Energies said its adjusted half-year revenue fell to 2.83 billion euros from 3.27 billion euros in the same period last year. "The continued ramp-up of activity on Qatar NFE and strong volumes in downstream projects, including ethylene, were more than offset by significantly lower revenue contribution from LNG projects in Russia following the completion of the warranty phase on Yamal LNG in 2022 and the close out activities on Arctic LNG 2," the firm said. Pieton said in the report

that Technip Energies is currently executing about 35 percent of global LNG capacity under construction. “The NFS award and continued order momentum for TPS have delivered robust order intake of 9 billion euros year-to-date, leading to a backlog of 19 billion euros, our highest level since the company’s inception,” he said. “This provides excellent multi-year visibility, equivalent to approximately three times our annual revenues,” Pieton said. Source : www.lngprime.com

HYUNDAI SAMHO LAUNCHES LNG CARRIER FOR ALPHA GAS

South Korea’s Hyundai Samho Heavy Industries has launched the 174,000-cbm LNG carrier, Energy Fortitude, for Greece’s Alpha Gas. Alpha Gas announced the launching of the vessel in a short social media post on Wednesday. The LNG carrier owner expects to take delivery of this XDF vessel in the first quarter of 2024. Hyundai Samho is building in total three 174,000-cbm LNG carriers for Alpha Gas and this is the last vessel in this batch. In April this year, the shipbuilder delivered the first LNG carrier in this batch, Energy Fidelity, and launched the second vessel, Energy Endurance, earlier this month. The first vessel serves Jera Global Markets, a joint venture of Japan’s Jera and France’s EDF, under a charter deal. Prior to this new delivery, Alpha Gas welcomed the 174,300-cbm Energy Intelligence into its fleet in June 2021. This LNG carrier and its sister carrier Energy Integrity are on charter to a unit of SEFE, previously known as Gazprom Germania and now controlled by the German government. In addition to these vessels, Alpha Gas took delivery of Energy Endeavour in 2021, Energy Pacific in 2020, and Energy Atlantic in 2015. Source : www.lngprime.com

GTT CONFIRMS YANGZIJANG TANK ORDER FOR TEN LNG-POWERED GIANTS

France’s GTT said it had secured a large tank design order from Chinese shipyard Yangzijiang for ten LNG-powered containerships. LNG Prime reported on June 26, citing shipbuilding sources, that CMA CGM ordered ten LNG-powered containerships at Yangzijiang and the vessels will feature MAN ME-GI engines and GTT’s LNG fuel tanks. This order is worth about \$2.4 billion. According to a statement by GTT, it received the order from Yangzijiang to design the fuel tanks for ten vessels with a capacity of 24,000 teu in July, but it did not name the owner. These ten container vessels each will have one single LNG fuel tank, with a capacity of 18,600 cbm. These are some of the world’s largest LNG fuel tanks, such as the ones installed in CMA CGM’s nine 23,000-teu giants built by Hudong-Zhonghua and Jiangnan. GTT said the tanks will be fitted with the Mark III membrane containment technology, offering a low and guaranteed boil-off Rate (BOR) for improved vessel operations. In addition to the engineering services and technical assistance to the shipyard, GTT will assist the operator through every step of its LNG-fueled project. This includes commissioning of the LNG tank, first LNG bunkering operations, further operations and maintenance of the vessels. GTT will also provide LNG training for the crews, supported by its proprietary G-Sim training simulator, which replicates the future LNG operations of the vessels, as well as its HEARS emergency response service. Moreover, GTT will fit these ten vessels with Ascenz Marorka digital solutions, to monitor and

optimize the operational performance of the vessels and further reduce their energy consumption and environmental footprint, Yangzijiang will these vessels between the second quarter of 2026 and the first quarter of 2028, GTT said. source : www.lngprime.com

MOL, MAGNI PARTNERS ORDER LNG-POWERED VLCCS

Japan's shipping giant MOL and Tor Olav Troim's firm Magni Partners have ordered LNG-powered very large crude carriers in China, according to brokers. In August last year, MOL signed a shipbuilding contract with Japan's Kawasaki Heavy Industries for two 309,000-dwt LNG-fueled VLCCs. China's Dalian Cosco KHI Ship Engineering (Dacks), jointly operated by KHI and Cosco Shipping, will build these 339.5 meters long and 60 meters wide VLCCs and deliver them in 2025 and 2026. Last month, MOL added two more LNG-powered VLCCs to this order, several shipbrokers said. The deal is worth \$260 million, or \$130 million per vessel, and MOL is expected to take delivery of these ships in 2026. As per the order by Magni Partners, the management consulting company ordered two 320,000-dwt LNG dual-fuel VLCCs at China's New Times Shipbuilding. This order also includes four options. According to the broker, Magni Partners will pay about \$138 million per vessel and take delivery of the ships in 2026 and 2027. Troim's Himalaya Shipping already has twelve 210,000-dwt Newcastlemax LNG dual-fuel bulk carriers on order at NTS. The Chinese shipbuilder recently delivered the fifth LNG-powered bulker in this batch. source : www.lngprime.com

COSCO AND PETROCHINA INK DEAL WITH HUDONG-ZHONGHUA FOR LNG CARRIER DUO

Cosco Shipping Energy Transportation and PetroChina have signed a shipbuilding deal with Hudong-Zhonghua for the construction of two 174,000-cbm LNG carriers. LNG Prime reported on July 3, citing shipbuilding sources, that Hudong-Zhonghua will build two more LNG carriers for United Liquefied Gas Shipping, a joint venture in which Cosco Shipping has an 81 percent stake and partner PetroChina holds the rest. Cosco Shipping said in a statement that United Lucky LNG and United Propitious, both units of United Liquefied Gas Shipping, entered on July 25 into contracts with Hudong-Zhonghua and China Shipbuilding Trading. According to Cosco Shipping, the deals for the two LNG carriers are worth 3.33 billion yuan (\$465.5 million), or about 1.66 billion yuan (\$233 million) per vessel. Shipbuilding sources previously said that each of the vessel is worth almost \$245 million, the highest price in China for a single 174,000-cbm LNG carrier. The delivery of the two vessels is expected to take place in the second half of 2025 and the first half of 2026. Following delivery, both of the vessels will go on long-term charter to PetroChina. Also, the vessels will have WinGD X-DF dual-fuel engines and GTT's NO96 L03+ containment system, such as the previous six ships under the PCI program. This is the third stage of the Cosco Shipping-PetroChina project. Hudong-Zhonghua delivered the first and the second LNG carrier under the PCI project, Shaolin and Wu Dang, last year, and the third carrier, Kun Lun, in March this year. The shipbuilder recently launched the

fourth LNG carrier as well. These 295 meters long ships each have a price tag of about \$185 million and will serve PetroChina under charter contracts. source : www.lngprime.com

EDISON SAYS H1 PROFIT DOWN DUE TO LNG DELIVERY DELAY FROM VENTURE GLOBAL

Italian energy firm Edison, a unit of EDF, said that its profit declined in the first half due to a delay in liquefied natural gas deliveries from Venture Global LNG's Calcasieu Pass plant in the United States. Edison closed the first half of 2023 with a net profit of 187 million euros (\$207.1 million), down 7 percent compared to a net profit of 201 million euros in the first half of 2022. The firm attributed this decline to expenses attributable to territorial regeneration activities on the ex-Montedison sites and said that these overall results were also affected by a "strong negative impact" deriving from the delay in the LNG deliveries from the US, which led the company to start an arbitration dispute. It did not provide more details regarding the impact from deliveries. Edison said it launched arbitration proceedings in May this year against US LNG exporter Venture Global at the LCIA in London, for the failure of LNG deliveries from the US. Back in 2017, Edison agreed to buy 1 million metric tons per annum of LNG for a period of 20 years from Venture Global's Calcasieu Pass LNG export facility in Cameron Parish, Louisiana.

BP, Shell, Repsol

Besides Edison, Reuters reported that energy giants BP and Shell also launched arbitration proceedings against Venture Global regarding the delay in LNG cargo deliveries. BP and Shell each have 20-year deals with Venture Global for 2 mtpa of LNG from the Calcasieu plant. Both Shell and BP declined to comment. "We have no comment on the existence or status of any arbitration proceedings," a Shell spokesperson said. Spain's Repsol also signed a 20-year SPA with Venture Global for 1 mtpa of LNG from the same plant. The firm last month asked the US FERC for a rehearing over its previously denied motion to secure access to filings regarding the commissioning of the plant. Repsol says that Venture Global continues to export cargo after cargo of LNG from the export terminal, but it has not declared that construction and commissioning of the project have been completed and that commercial operation has been achieved. The firm said granting the motion would allow it access to critical filings regarding commissioning and construction that Venture Global has filed as privileged, so that Repsol, as a long-term customer, can "assess whether Venture Global is complying with the requirements of the 2019 authorization order."

First commissioning cargo left in Q1 2022

Calcasieu Pass produced its first LNG on January 19, 2022, moving from FID to LNG production in 29 months, and the first commissioning cargo left the facility on March 1. In July last year, Venture Global received FERC approval to introduce fluids into the Block 9 liquefaction modules at its Calcasieu Pass plant. With this, Venture Global received approvals to commission all the 18 modular units configured in 9 blocks. The plant has a capacity to produce 10 mtpa of LNG or 1.3 billion cubic feet

per day (Bcf/d). Besides Shell, BP, Edison, and Repsol, Calcasieu Pass has contracts with Galp, PGNiG, Sinopec's unit Unipec, as well as CNOOC.

"Phased commissioning process"

In March this year, Venture Global said it had shipped 128 commissioning cargoes from its Calcasieu Pass plant since the first quarter of last year, mostly to Europe, while the firm still works to launch commercial operations at the facility. "As a first-of-its-kind facility, Calcasieu Pass's commissioning process has looked different than any other American LNG facility to come before it," the firm told FERC in a filing. "In particular, because of its modular, midscale design and on-site power generation (among other reasons), the facility requires substantial testing and a phased commissioning process before it can be expected to be fully operational and confirmed to be prepared to reliably meet its long-term contractual obligations," Venture Global said. While Calcasieu Pass is able to produce LNG, it remains in the commissioning phase because it continues to face "periodic reliability challenges impacting the facility," it said. LNG Prime invited Venture Global to comment on the Edison statement and to provide an update regarding the launch of commercial operations at the Calcasieu Pass plant. source : www.lngprime.com

ROTTERDAM LNG BUNKERING VOLUMES JUMP IN Q2

The Dutch port of Rotterdam reported a jump in its LNG bunkering volumes in the April-June period as prices dropped considerably from last year. Europe's largest bunkering port said LNG volumes reached 179,804 cubic meters in the second quarter, a rise of about 60.4 percent compared to 112,069 cbm in 2022. LNG volumes doubled compared to the previous quarter's 86,088 cbm. During January-June, these volumes reached 265,892 cbm, compared to 214,648 cbm during the same period last year. In 2022, LNG bunkering volumes stood at 406,599 cbm, a 32.6 percent decline compared to the year before. Last year's volumes were lower mainly due to high prices. However, prices dropped considerably this year and now the volumes are back on similar levels seen in 2021. LNG throughput in the port of Rotterdam also rose by 9.8 percent in the first half of this year, boosted by shipments from the US. The port, home to Gasunie's and Vopak's Gate LNG import terminal, recently said that total LNG throughput reached 5.94 million tonnes in the first half, compared to 5.41 million tonnes in the January-June period last year. source : www.lngprime.com

ASIA'S LNG DEMAND TO RESUME UPWARD TRAJECTORY POST-2023

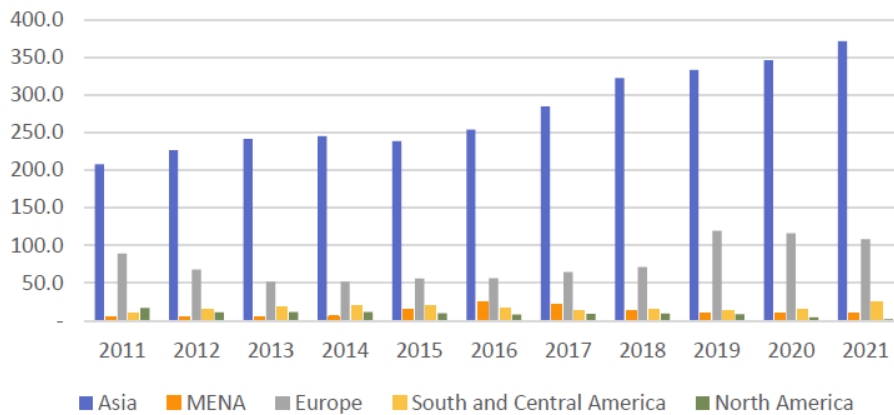
Asian LNG demand has underwhelmed so far in 2023, after a lacklustre 2022, but structural growth in the region's LNG import capacity, backed by investment in transmission and distribution infrastructure is strong. New countries are entering the market, China's regasification capacity is expanding rapidly, while India remains committed to boosting substantially gas'

share of the energy mix at the expense of coal. As a result, Asian LNG demand should return to growth but is also shifting towards more price-sensitive and less creditworthy markets (see figure 1).

Two countries in the region have or are about to receive their first LNG cargoes. In April, the Philippines saw the arrival of LNG carrier Golar Glacier, which delivered a commissioning cargo for the country's first LNG terminal located in Batangas Bay near Manila. The terminal has a capacity of 3mn mt/yr and is

FIGURE 1 Asia's LNG demand trajectory should resume post-2023 (bn m3)

Source: BP Statistical Review of World Energy 2023



expected to be followed by a second floating storage and regasification unit (FSRU) also in Batangas this year, adding a further 5mn mt/yr of capacity. Developer First Gen Corp, which owns four gas-fired power plants with capacity of 2 GW, expects to receive the commissioning cargo for the second FSRU in September and put in place a medium-to-long term supply deal from the start of 2024. The two FSRUs, two of seven approved LNG projects in the country, will provide gas for existing and new power plants as domestic gas resources, primarily from the Malampaya gas field, decline. The field is expected to run dry sometime between 2024 and 2027, although a new operating contract for the field was signed in May. New drilling could extend the field's lifetime, but production is unlikely to return to the levels of the past. Meanwhile, following a long and convoluted path to market entry, Vietnam has announced the completion of its first LNG import facility, Thi Vai, and received authorisation from the ministry of trade and industry for its first imports. A tender was launched in late April to secure a commissioning cargo for the terminal which starts with a capacity of 1mn mt/yr. Operator PetroVietnam Gas intends to expand capacity to 3mn mt/yr in coming years. The terminal's primary function is to import gas for two under-construction gas-fired power plants, Nhon Trach 3 and 4 with a combined capacity of 1.5 GW. Two other gas-fired power sites will add to LNG demand, given the country's declining domestic gas output, both of which are slated for start-up by 2025, the 1.2-GW Hiep Thuoc-1 plant and the 0.8-GW Bac Lieu plant.

“Asian LNG demand should return to growth but is also shifting towards more price-sensitive and less creditworthy markets.”

Debate continues within Vietnam as to how much LNG the country will need. It appears likely to fall short of the 30mn mt/yr once projected, but will still represent a substantial addition to the demand side of the LNG market. The government is targeting renewables and gas in the period to

2035 as the primary means of reducing the country’s intensive coal use. Electricity from coal-fired generation grew from 19.9 TWh in 2011 to 114.1 TWh in 2021, largely the result of new coal plant construction financed by international lenders, an option which has been sharply curtailed. The government’s adoption of a net zero carbon target by 2050 necessitates significant curbs in coal use. LNG is expected to fill that gap on a transitory basis at least. In the renewables sector, Vietnamese solar generation is growing strongly, jumping from 10.9 TWh in 2020 to 25.8 TWh in 2021 and the country holds significant potential for offshore wind. Solar generation may be variable, but it is nicely aligned with the demand profile of the country’s large manufacturing sector.

“Recent market volatility and its current energy crisis does not appear to have deterred Bangladesh from its focus on LNG.”

Bangladesh signs long-term supply deal

Despite severely limiting LNG purchases in 2022 as a result of a dearth of affordable bids, recent market volatility and its current energy crisis does not appear to have deterred Bangladesh from its focus on LNG. Of particular importance was the announcement in early June of a new long-term supply contract with Qatar, starting from 2026. The deal is between state company PetroBangla and QatarEnergy for 1.8mn mt/yr of LNG

over 15 years. The long-term deal should better insulate Bangladesh from spot market price volatility, providing it with more security for the expansion of its LNG imports. Moreover, PetroBangla announced plans for the construction of three new LNG import terminals earlier this year, which together are expected to have capacity of between 15.5–23mn mt/yr. The country currently has two FSRUs in operation at Moheshkhali each with a capacity of 5bn m³/yr (3.7mn mt/yr). The new terminals are planned for Payra in the country’s southwest, Matarbari in the southwest and an additional facility at Moheshkhali. Bangladesh is in the grip of its worst energy crisis in decades. Hot weather has sent electricity demand spiralling and several major power plants have been forced to curtail or suspend generation, owing to a lack of fuel, including coal. Like Vietnam, domestic gas production has stalled, but power demand continues to rise rapidly. Unlike Vietnam, Bangladesh’s renewable energy deployment remains very limited.

China: woke giant continues to stretch

China has been the largest single source of LNG demand growth over the last decade and will continue to play a leading role in the next. However, the much-predicted bounce back in demand this year, following the lifting of its zero tolerance COVID-19 policies has not so far been realised, although LNG imports were higher year on year in March, April and May. High prices for spot LNG emphasise the marginal role the fuel plays in the Chinese energy mix. A key reason why Chinese demand for LNG has not jumped is that the ending of its restrictive pandemic policies has not been accompanied by a rebound in economic activity. China's manufacturing purchasing managers index dropped in May to 48.8, down from 49.2 in April – a reading below 50 implies contraction. Factory gate inflation in May fell 4.6% year on year, again indicating very challenging economic conditions for Chinese manufacturers. Moreover, Chinese industry cannot expect to gain a big boost from export orders as growth slows elsewhere in the world economy and particularly in the advanced economies. In April, the International Monetary Fund predicted that growth in the advanced economies would drop to just 1.3% this year from 2.7% in 2022. In addition, while spot LNG prices in the Asia-Pacific market, as represented by the Japan-Korea Marker, have fallen to around \$9/mn Btu, they are not particularly low for the summer season and should firm up over the winter period. As a result, and in addition to increased competition from coal, renewables and pipeline gas, Chinese LNG imports are unlikely to return to peak levels this year. However, at the same time, China's coal-to-gas switching plans are likely to regain impetus as gas supply improves. The country continues to build new regasification capacity at a fast rate with more companies entering what has become a more domestically-open market. Zhejiang Energy Group, for example, will start commissioning operations at its 3mn mt/yr regasification terminal in Wenzhou in June. This is the provincial company's first

such facility.

“Asia will add over 100bn m3 of new LNG import capacity by 2025, more than half of which will be in China.”

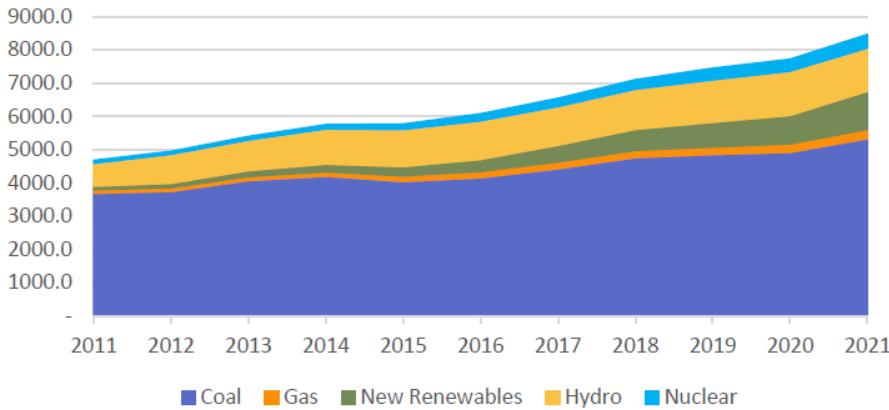
In addition to terminals under construction, the government last year approved four new projects, Jiangsu Huadian Ganyu LNG, Huizhou LNG,

Putian LNG and Yingkou LNG. Together the four facilities will have a combined import capacity of just over 20mn mt/yr. Construction of the 3mn mt/yr Jiangsu Huadian Ganyu terminal started in February. The prime movers behind the projects are all power companies rather than Chinese state oil and gas companies. Hong Kong's entry to the LNG market is also imminent with the final commissioning of the Hong Kong offshore LNG terminal. State oil company PetroChina supplied the commissioning cargo in May to the MOL-owned FSRU Challenger, which will be renamed Bauhinia Spirit. The project has been developed by HK Electric and Castle Peak Power, which is majority owned by CLP Power Hong Kong. The Bauhinia Spirit is the world's largest FSRU and will supply regasified LNG to the Black Point and Lamma power stations. The construction of new LNG terminals is being accompanied by other midstream and transmission infrastructure, which will facilitate the use of imported gas. A recent report by GlobalData said that of 89 midstream projects likely to start operations

in China by 2027, 41 would be regasification terminals, with the largest being Tangshan II Phase I, Zhoushan III and Qingdao Phase III.

FIGURE 2 Chinese gas-fired generation small but rising (TWh)

Source: BP Statistical Review of World Energy 2023



According to the International Energy Agency (IEA), Asia will add over 100bn m3 of new LNG import capacity by 2025, more than half of which will be in China. The agency also noted that despite the volatility in LNG markets, China approved twice as much gas-fired generation capacity in 2022 than in the previous year. Most of this new capacity is planned for the country’s densely-populated southeastern coastal regions closer to LNG import facilities than

China’s main import pipelines, which bring gas in from Russia in the far north and Central Asia in the far west. The direction of policy with regard to gas-fired generation is interesting as the fuel has played a very limited role in the Chinese power sector to date. Weak LNG demand at present reflects low industrial demand. China generated only 273 TWh of electricity from gas in 2021, compared with 5,339 TWh from coal and 1,153 TWh from renewables, not including large hydro (see figure 2).

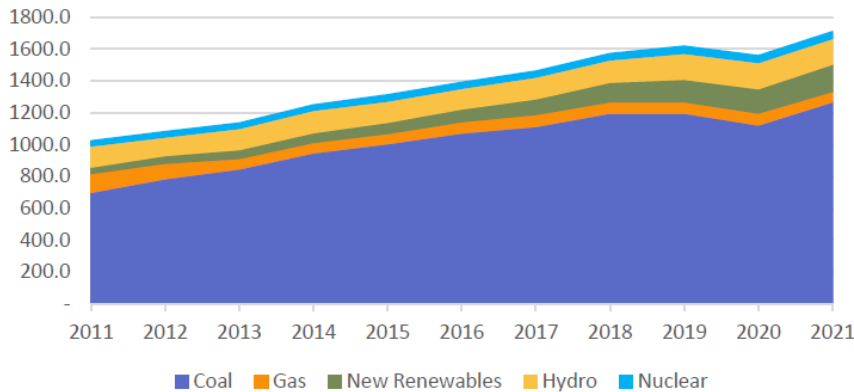
Dhamra LNG adds to India’s import capacity

India, which like China last year curtailed its LNG imports in the face of fierce competition for available volumes, is also gearing up for more imports in future. India’s LNG imports totalled about 22mn mt last year, a large majority supplied under long-term contract, while regasification capacity stood at 32.5mn mt/yr. This is expected to rise to 55mn mt/yr by 2025, and potentially move as high as 70–80mn mt/yr by 2030, according to some estimates, accompanied by significant investment in domestic transmission and distribution capacity.

FIGURE 3

Indian gas-fired generation struggles to be competitive (TWh)

Source: BP Statistical Review of World Energy 2023



This may seem an overly optimistic outlook, considering the setbacks to a number of Indian LNG projects last year as Europe attracted the bulk of available FSRUs. In addition, major transmission and distribution projects in the country have more than a tendency to fall behind project timetables. However, India's LNG plans are likely to move back on track as LNG markets normalise and developers start to secure more offtake agreements

for the large amount of new liquefaction capacity expected to come onstream from 2026, with Qatar and the US playing lead roles as suppliers. With existing spare capacity and the start-up of the Dhamra LNG terminal in eastern India in April, Indian LNG imports have ample capacity to rise if market conditions provide affordable volumes of LNG. Dhamra LNG, a joint venture between France's TotalEnergies and India's Adani Group, has capacity of 5mn mt/yr and is expected to import 2mn mt in its first year of operation. Moreover, the government remains committed to its goal of increasing gas consumption as a share of the energy mix to address its heavy dependence on coal (see figure 3). Prime Minister Narendra Modi recently said the country's gas consumption would rise five-fold in coming years, as the fuel's share of the energy mix grows from 6% to 15% by 2030. A large part of this will have to come from LNG, given the lack of other import options and limited apparent opportunities to boost domestic gas production. Source : www.naturalgasworld.com

VENTURE GLOBAL LNG'S CALCASIEU PASS 2 PROJECT GETS FINAL U.S. ENVIRONMENTAL NOD

Venture Global LNG's proposed Calcasieu Pass 2 (CP2) project in Louisiana on Friday received the U.S. Federal Energy Regulatory Commission's (FERC) environmental approval, clearing the way for a final vote by the commission on expanding the company's natural gas liquefaction facility. CP2 was the first U.S. liquefied natural gas (LNG) project in 2023 to receive a final investment decision as the country seeks to expand exports of the super-chilled gas to meet growing global demand. FERC said the potential impacts of the project would not significantly affect local resources, adding that the commission had developed specific mitigation measures for the construction and operation of the project. Implementation of mitigation

measures would avoid or reduce the impact of CP2 and CP Express, of a proposed connecting natural gas pipeline from Texas to the LNG facility, the regulator said in its environmental impact statement. The construction and operation of the project would increase the atmospheric concentration of greenhouse gases, but the FERC said it would not classify it as "significant or insignificant" and instead would make several recommendations to reduce its effects. Venture Global said the decision puts the company on track for a commission vote and commencement of construction later this year. About 9.25 million tonnes per annum (mtpa) of CP2's 20 mtpa nameplate capacity have been sold under 20-year sales and purchase agreements, with discussions ongoing for the remaining capacity, the company said in its statement. CP2's LNG customers include oil majors ExxonMobil, Chevron and Japan's top liquefied natural gas buyer JERA among others, the company added. Source : www.naturalgasworld.com

INPEX, PERTAMINA SIGN MOU TO PURSUE ABADI LNG PROJECT

Japan's Inpex Corporation has signed a memorandum of understanding (MoU) with Pertamina to pursue the implementation of the Abadi LNG project in Indonesia, it said on July 25. This comes after the sales and purchase agreement (SPA) between Shell and Pertamina, along with Petronas, concerning the transfer of Shell's participating interest in the Abadi LNG project to Pertamina Hulu and Petronas, pending certain joint venture procedures and Indonesian government approval. Inpex is currently preparing the Abadi LNG project for development in the Masela block in the Arafura Sea, Indonesia, where it operates. The MoU between Inpex and Pertamina aims to establish a strategic collaboration focusing on various aspects of the Abadi LNG project's value chain. This includes opportunities for collaboration on LNG and other product offtake and transportation, hydrogen and ammonia production, and meeting the needs of local stakeholders. Upon the completion of the transfer of Shell's participating interest to the new partners, Inpex plans to resume project activities, including on-site preparations. Inpex had previously submitted a revised plan of development (POD) for the Abadi LNG Project, which incorporates a carbon capture and storage (CCS) component, to Indonesian government authorities. Inpex said it plans to revise the production sharing contract (PSC) accordingly once the POD is approved. The company will proceed with preparations required to reach a final investment decision (FID), including front-end engineering and design (FEED) work, marketing, and financing activities while ensuring invertibility. The Abadi LNG project is expected to produce 9.5mn tonnes/year of LNG, accounting for over 10% of Japan's annual LNG imports, Inpex said. Source : www.naturalgasworld.com

DELFIN EXPECTS TO TAKE FID ON FIRST FLOATING LNG PRODUCER IN OCTOBER

Delfin midstream, the us developer of a floating lng export project in the gulf of mexico, expects to take a final investment decision on its first floating lng producer in october this year. Earlier this year, delfin said in its march corporate presentation that it expected that technical, commercial, and financing workstreams for the first flng were “on track” for an fid in the second quarter. Delfin 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. The firm also aims to install two flng units under the avocet lng project.

\$18 BILLION

Delfin has been quite busy this year and it recently sealed a supply deal with uk-based cetnrica 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. According to a filing with ferc dated july 21, delfin’s unit delfin lng expects to execute “very soon” a binding lng offtake agreement with devon as part of the larger agreement announced in september. The deal is for 1 mtpa of lng. Taken together, all these four lng offtake agreements will provide revenue to delfin lng of about \$18 billion over their contract terms, the firm told ferc.

EXTENSION

Last year, the us 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. Now delfin is asking ferc to extend that for another four years by september 28, 2027. Delfin said that the offtake contracts already executed "amply support" fid for its first floating lng producer. Based on additional ongoing negotiations, delfin expects that the fid for its second flng will follow "soon" after the first. Delfin expects to announce "very soon" its agreement with major infrastructure investors to provide the needed equity for its first two flngvs and has begun discussions with a consortium of banks (led by delfin's financial advisor citigroup) to provide the project debt financing, it said. Furthermore, delfin lng has not only completed the ffd for the flng construction with south korea's samsung heavy industries and us engineer black & veatch, but also has negotiated a binding engineering, construction and procurement contract with those counterparts that is expected to be executed by september this year, the firm said. Delfin has been in active discussions with marad and the us coast guard concerning satisfaction of the conditions of the marad rod and expects the issuance of its final deepwater port license "soon" as well. "given all this significant progress, delfin lng is confident that it is nearing fid on its first flngv and expects the fid to occur this october," it said. "accordingly, delfin lng respectfully urges the commission to act on this request expeditiously and to grant the requested extension prior to the current condition deadline of september 28, 2023, to facilitate the expected fid in october," the firm said.

SOURCE : WWW.LNGPRIME.COM

TAMBORAN AWARDS NTLNG CONTRACT TO WOOD

Australian firm Tamboran has awarded UK-based John Wood Group a contract to undertake the concept select engineering phase for the proposed NTLNG plant in Australia's Northern Territory. This initial engineering phase will evaluate the technical and commercial opportunity to construct a 6.6 mtpa LNG plant at the Middle Arm Sustainable Development Precinct in Darwin, subject to establishment of commercial flow rates from Tamboran's Beetaloo Basin assets, according to a statement by Tamboran. The concept select phase is expected to be completed during the first half of 2024, ahead of entering pre-front-end engineering and design during 2024. Also, Tamboran said the scope of the studies includes evaluation of the proposed three-train concept, liquefaction technology selection including the evaluation of e-drives powered by renewables and carbon capture and storage infrastructure, site configuration, and initial cost estimates. "Tamboran is excited to be working closely with one of the world's most experienced engineering and consulting businesses, as we advance the development of the proposed NTLNG project," Tamboran's managing director and CEO, Joel Riddle, said. He said the start of this engineering phase with Wood signals Tamboran's intent to design and develop a "best-in-class, low emissions" facility to process low-reservoir CO2 Beetaloo gas for global LNG customers. Tamboran recently entered into two non-binding memorandums with units of energy giants Shell and BP to supply LNG from the NTLNG plant. Moreover, Shell Eastern Trading and BP Singapore would each purchase up to 2.2 million tonnes of LNG per annum over a 20-year period.

Tamboran is targeting first LNG production from its proposed plant by 2030. Source : www.lngprime.com

SHELL SELLS MASELA STAKE TO PERTAMINA AND PETRONAS FOR UP TO \$650 MILLION

Indonesia's Pertamina and Malaysia's Petronas will pay up to \$650 million to buy Shell's 35 percent stake in Indonesia's Masela PSC, which includes the planned Abadi LNG project. Shell Upstream Overseas Services (SUOS), a subsidiary of Shell, has agreed to sell its participating interest in the PSC to PT Pertamina Hulu Energi and Petronas Masela, according to a statement issued by Shell on Tuesday. Following completion of the deal, Pertamina will own a 20 percent stake and Petronas will have a 15 percent stake in the PSC. The base consideration for the sale is \$325 million in cash with an additional contingent amount of \$325 million to be paid when the final investment decision (FID) is taken on the Abadi LNG project, it said. Shell said the transaction has an effective date of January 1, 2023 and is targeted to be completed in Q3 2023, subject to completion of conditions, which include among others, regulatory approval to be obtained from the Indonesia's Ministry of Energy and Mineral Resources. "The decision to sell our participation in the Masela PSC is in line with our focus on disciplined capital allocation," Zoë Yujnovich, Shell's integrated gas and upstream director, said. "We wish to thank all stakeholders, especially the government of Indonesia for their support throughout the sales process. Shell remains active in Indonesia and continues to contribute to the country's energy transition journey," Yujnovich said.

Abadi LNG

Japan's Inpex holds 65 percent operating interest in Masela PSC and is the operator of the Abadi LNG project. This is located in the Masela Block, 150 kilometers offshore Saumlaki in Maluku province, Indonesia. Earlier this year, Inpex submitted a revised plan of development to the Indonesian government for the planned Abadi LNG project. The plan submitted by Inpex Masela on behalf of the joint venture with Shell incorporates a carbon capture and storage (CCS) component. The Inpex-operated project has seen many changes over the years and initially, the development of the Masela offshore block involved a floating LNG plant, while it now includes a 9.5 mtpa onshore LNG plant with an estimated cost of about \$20 billion.

Inpex signs MoU with Pertamina

Inpex said in a separate statement on Tuesday that it has signed a memorandum of understanding with Pertamina on a strategic collaboration to proactively pursue the implementation of the Abadi LNG project in a new partnership. Moreover, Inpex and Pertamina will seek to collaborate strategically on a wide range of fields under the deal with a focus on the Abadi LNG project's value chain, it said. Specifically, the companies will pursue opportunities to collaborate on the offtake and transportation of LNG and other products, the production of hydrogen and ammonia and the provision of the needs of local stakeholders. The two firms will also seek to secure the long-term competitiveness and sustainability of the Abadi LNG project as well as further improvement of project value while generating

synergistic effects, Inpex said. Upon completion of the transfer of Shell's participating interest to the new partners, Inpex plans to resume project activities, including on-site preparation activities, it added Source : www.lngprime.com

NOVATEK: ARCTIC 2 LNG GBS ON WAY TO GYDAN

Russian LNG exporter Novatek has sent the first gravity-based structure platform from its yard near Murmansk to the site of the Arctic LNG 2 project located on the Gydan peninsula. Novatek announced on July 21 that the GBS, or LNG train, left the Belokamenka yard under tow. The unit, with a total weight of more than 640,000 tons, will travel along the Northern Sea Route and is expected to arrive at the Arctic LNG 2 site next month. Novatek receives modules from China and installs them on the GBS at its construction yard in Belokamenka. The Arctic LNG 2 project located on the Gydan peninsula includes the construction of three LNG trains with a capacity of 6.6 mtpa, each. Following arrival of the first GBS, Novatek is planning to launch production by the end of the first quarter of 2024. The resource base of the Arctic LNG 2 project is the Utrenneye field located on the Gydan Peninsula in the YaNAO, about 70 km from the Yamal LNG project across the Gulf of Ob. Novatek is the LNG project's operator with a 60 percent stake, France's TotalEnergies owns 10 percent, while CNPC and CNOOC of China have 10 percent, each. Japan Arctic LNG, a consortium of Mitsui & Co and Jorgmec, owns a 10 percent stake in the project as well. TotalEnergies wrote down its 19.4 percent interest in Novatek last year and withdrew its representatives of the company from the board of Novatek due to European sanctions imposed on Russia and Russian companies. It also said it would not provide any more capital for the Arctic LNG 2 project.

LNG FSUS

Besides Arctic LNG 2, Novatek is also set to launch transshipment operations near Murmansk following the arrival of the 361,600-cbm Saam FSU at the site in Ura Bay. The FSU arrived in Ura Bay in the Barents Sea during the night on June 26-27. The second giant FSU, named Koryak, also arrived in Bechevinskaya Bay where Novatek's second transshipment terminal is located, its AIS data shows. Novatek previously said that these transshipment terminals will reduce voyage costs and greenhouse gas emissions. It currently operates the large Yamal LNG project and the medium-scale Vysotsk facility. The firm is also working to develop the Murmansk LNG project and has obtained a Russian patent for its proprietary technology called "Arctic Mix" for large-scale natural gas liquefaction using mixed refrigerants. Source : www.lngprime.com

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