



LAID-UP 42-YEAR-OLD SINOKOR SHIP GOES INTO REPAIR YARD

Sinokor Merchant Marine has shifted one of its long-term laid-up LNG carriers from Norway into a Spanish ship repair yard, where it had previously been idled for three years. The Moss-type, 126,400-cbm Bering Energy (ex-LNG Leo, built 1978) arrived at Navantia Shiprepairers Fene-Ferrol in northern Spain late last month from Norway. The steam-turbine ship is understood to have been due for a special survey. But sources said it is expected to remain in the yard for several months, leading to speculation about what business might be lined up for it. Moss-type LNG carriers have proved popular conversion candidates for floating storage and regasification projects due to their sloshing proof tanks, which allow for any filling level.

The Bering Energy has been in various states of lay-up for almost seven years. The vessel and its sistership, Gulf Energy (ex-LNG Gemini, built 1978), spent four years from the fourth quarter of 2013 in what was described at the time as “virtual lay-up” at the Fene-Ferrol yard. The pair, which was then under the control of US-based General Dynamics company American Overseas Marine Group, was shifted to a new lay-up location off Haugesund, north of Stavanger on Norway’s western coast, in December 2016 and remained there until the Bering Energy’s move to Spain in June. The two vessels rank among the five oldest LNG carriers in the global fleet.

South Korea's Sinokor acquired them in 2017 along with sistership Coral Energy (ex-LNG Virgo, built 1979), which has been in lay-up in South East Asia. All three US-built vessels are Jones Act-certified, which could make the Bering Energy an attractive conversion candidate for a US project. The trio was part of the original eight-ship Burmah Gas Transport fleet. One is still in -service as a -shuttle vessel, two are held by a company with conversion plans for them and two have been scrapped.

source: www.Tradewindsnews.no

TITAN BRANCHES INTO BIOFUEL WITH THREE NEW BARGES

Titan LNG is growing its fleet with three new bunkering barges after being granted €11m (\$12.6m) in European Union funding. The Dutch bunkering company has been awarded the cash from the Connecting Europe Facility grant scheme for its project Bio2Bunker to expand a bio-LNG supply chain. The EU programme supports transport infrastructure, connectivity and the switch to greener fuels for transport. Under this, Titan will build and supply three new bunker barges fitted with four tanks, one of which will accommodate bio-LNG. Two of the barges will be similar in size to Titan's 1,500-cbm FlexFueller vessels. One of the new units will be based in the Belgium port of Zeebrugge with a second in Lubeck, Germany. The third, the 8,000-cbm Titan Hyperion — which was announced by the company in December — will work as a mother ship in the Amsterdam-Rotterdam-Antwerp region supplying the FlexFuelers. Titan already operates the FlexFueller001, which is based in Amsterdam and regularly works the Rotterdam region. The FlexFueller002 is under construction for delivery towards the end of this year. The company has not yet made a final investment decision on building the new barge trio. Marine customers will be able to buy bio-LNG or a blend of bio and conventional LNG as bunkers. Titan believes that ultimately the ship operators opting for bio-LNG will be challenged on its origins and this is the most transparent way of delivering it. But bio-LNG is very expensive and checks need to be run to ensure the green credentials of the feedstock and its production. "Titan LNG believes that LNG-fuelled ships are future-proof. LNG combined with BLNG [bio-LNG] and later synthetic liquefied gas, made by combining green hydrogen and CO2, offer a credible and cost-competitive path to decarbonisation while immediately improving local air quality," the company said, acknowledging the fuelling choices facing shipowners at present. "We are thankful that the EU shares our vision and offers this support for overcoming the barriers to scaling up bio-LNG as a fuel." source : www.Tradewindsnews.no

SHELL LINES UP LNG CARRIER DUO FOR SECONDHAND SALES

Shell is set to bring two 10-year-old LNG carriers to the market this month. Brokers said the company is expected to float a tender to sell the 170,000-cbm Methane Patricia Camila and Methane Mickie Harper (both built 2010) with -charter-back deals on offer for both. The membrane-type, tri-fuel -diesel-electric (TFDE) LNG carriers, which are among some of the -earliest to be fitted with on-board reliquefaction systems, were two of the vessels Shell inherited when it took over BG Group and its LNG shipping assets in 2016. They are listed as due for special surveys in October and December this year, respectively. TradeWinds understands that the two ships are connected to the BG Group pension fund. It is unclear why they are coming up for sale at this time. Both LNG carriers appear to be trading, with ship tracking data showing them shipping -cargoes from

Peru and Australia. When asked about potential LNG carrier sales during a recent interview, shipping and maritime vice president Grahaeme Henderson said it would be part of Shell's -general portfolio review. The Methane Patricia Camila and Methane Mickie Harper were ordered by BG Group at Samsung Heavy Industries in 2008.

At the time, they were the largest ships contracted by the company, which decided to up its specifications to include onboard reliquefaction to maximise delivered cargo volumes at an extra cost of \$50m per vessel. When Shell finalised its \$53m buyout of BG Group four years ago, it told TradeWinds that it would be integrating more than 30 LNG -carriers into its then 40-ship fleet after the takeover. The ships expected to be offered for sale are not the oldest Shell took on, and are likely to -generate lively discussions about their value. Sales of secondhand LNG carriers are not common and there can be a wide divergence between buyers and sellers' expectations and the price pegs applied to the pair by independent parties, due to the -differing ship technologies and the lack of benchmark deals. One of four TMS Cardiff Gas sister-ships, the 160,000-cbm Corcovado LNG (built 2014), was recently recirculated for sale.

The TFDE vessel, which came up for grabs last year along with its three sisterships, is being marketed for sale after a fund originally set up to finance the ships matured, prompting asset manager MatlinPatterson to try to sell its stake in the quartet. Some brokers valued the vessel at \$80m. Others working more closely with the ships estimated its value to be in the range of \$110m to \$130m. Those eyeing the Shell duo pointed out that they are slightly larger vessels but are four years older than the TMS Cardiff ship. This month, a 174,000-cbm LNG carrier newbuilding resale with gas-injection propulsion delivering in 2022 was reported sold for \$160m. source : www.Tradewindsnews.no

FRENCH TOTAL SIGNS MOZAMBIQUE LNG FINANCE DEAL

French major Total has signed a \$14.9bn senior debt financing agreement for Mozambique LNG - the country's first such export facility and Africa's biggest such deal - it said July 17. The debt covers three quarters of the total cost. It includes the development of the Golfinho and Atum natural gas fields in Offshore Area 1 concession and the construction of a two-train liquefaction plant with a total capacity of 13.1mn metric tons (mt)/yr. Mozambique LNG represents a total post-final investment decision investment of \$20bn. The project financing includes direct and covered loans from eight export credit agencies, 19 commercial bank facilities, and a loan from the African Development Bank. The ECAs participating in the financing include Export Import Bank of the US, Japan Bank for International Corporation, Nippon Export and Investment Insurance, UK Export Finance, Servizi Assicurativi del Commercio Estero of Italy, Export Credit Insurance Corporation of South Africa, Atradius Dutch State Business and Export-Import Bank of Thailand.

Total's CFO Jean-Pierre Sbraire said that the agreement was signed less than one year after assuming the role of operator of Mozambique LNG and showed the confidence placed by the financial institutions in the long-term future of LNG in Mozambique. The previous operator, Anadarko, which discovered the gas, was bought by Occidental Petroleum, which sold the project on to Total. Total is operator with 26.5%; state upstream regulator ENH Rovuma Area Um has 15%; Japanese Mitsui has 20%; India's ONGC Videsh Rovuma, Beas Mozambique and BPRL Ventures each have 10%; and Thai PTTEP has the remaining 8.5%. source : www.naturalgasworld.com

JAPAN'S LNG IMPORTS RISE 1.2% IN JUNE

After witnessing a steep 18.9% yr/yr drop in May, Japan's LNG imports in June saw a modest increase. The country's imports last month stood at 5.26mn metric tons, up 1.2% yr/yr, according to the provisional data released by the country's finance ministry on July 20. Month on month, imports were up 16.6%. Despite the declining trend in imports in recent months due to coronavirus outbreak, Japan remains the world's biggest LNG importer. For the 12 months to March 31 (fiscal 2019-2020), the country imported 76.5mn mt of LNG, down 5% yr/yr. source : www.naturalgasworld.com

RUSSIAN LNG OUTPUT SLUMPS 10% IN JUNE

Russian LNG production in June was 10.1% lower than the same month last year, state statistics agency Rosstat reported on July 16, marking the first year-on-year decline in 2020. Russian LNG output totalled 2mn mt during the month, which also represented a 20.8% fall from the level in May. Production over the first six months of the year was up 7.2% at 15.4mn mt, however. Russia produced 29.5mn mt of LNG last year, up 47.7% thanks to the launch of Yamal LNG's three 5.5mn mt/yr trains, operated by Novatek, between late 2017 and late 2018. Russia's other main source of LNG supply is the 11mn mt/yr Sakhalin-2 plant in the Far East, managed by Gazprom. Overall Russian dry gas production came to 48.2bn m3 in June, down 13.3% yr/yr and 8.5% month on month. It totalled 294bn m3 in the first six months of the year, marking a decline of 11.1%. Extraction of associated petroleum gas (APG) stood at 7.4bn m3 last month, down 1.1% yr/yr and 7.2% m/m. Production in the first half came to 48.2bn m3, up 3.7%. While Rosstat did not disclose reasons for production decline, Gazprom and Novatek have both cut exports in response to the collapse in gas demand earlier this year, triggered by the coronavirus pandemic. US LNG production is also falling, as spot prices in both Europe and Asia have eroded any profits. This has led to cargoes being cancelled in June and July. However unlike the US, Russian LNG sales contracts are mostly linked to crude oil prices. source : www.naturalgasworld.com

SOUTH AFRICA'S RENERGEN HOLDS TENDER FOR LNG SUPPLIES

South Africa's Renergen announced on July 20 the launch of the country's first auction for LNG supplies, from a production plant it aims to complete next year. The Virginia gas project, 250 km southwest of Johannesburg, will produce both LNG and helium, using gas from local fields. The main customer base for the LNG is expected to be logistics companies operating trucks along the country's main highways. In February, Renergen agreed to supply LNG to South Africa's Bulk Hauliers International Transport. And in June, Renergen signed a deal with France's Total on joint marketing and distribution of LNG at filling stations. LNG offers a clean energy source for transportation, power generation and industrial use, Renergen said. Companies that want to take part in the auction will have to sign a mutual confidentiality agreement, so that all details relating to the auction remain confidential. The identity of the winners will only be revealed if there is a mutual agreement. source : www.naturalgasworld.com

NATURGY EARNINGS FALL 14% IN H1

Spanish utility Naturgy saw a 11.1% year-on-year decline in core earnings (Ebitda) in the first half of this year, it said on July 22, on weaker demand for gas and power. The company's Ebitda came in at €1.87bn (\$2.16bn) in the six-month period, down from €2.18bn a year earlier. Net income slumped to €334mn, from €592mn, while free cash flow dropped to €1.1bn, from €1.45bn. Naturgy blamed these weaker numbers on coronavirus lockdowns, which led to lower demand and depressed prices. Its gas sales in Spain were down 13.2% at 107.4 TWh, while its electricity sales fell 9.9% to 15.7 TWh. Sales of international LNG were up 4.4% in volume terms, but revenues plunged 43% to €90mn, with the collapse in prices. Currency devaluation in key Latin America countries was also a key factor, Naturgy said. Naturgy, a major buyer of LNG, said it had managed to terminate long-term contracts early for the annual supply of 20 TWh of LNG this year, and expected to reach more agreements on cancelling volumes during the second half. It also expects to achieve its €500mn efficiencies target by the end of 2020, two years ahead of schedule, as part of its 2018-2022 strategic plan. The company will hold a capital markets day in the final quarter, when it will update its targets. It said it would continue to prioritise shareholder remuneration, "reaffirming its commitments with the dividend." But it has put its buyback programme on hold until the economic outlook becomes clearer.

source : www.naturalgasworld.com

PETRONET PLANS TO CANCEL 10-YEAR LNG IMPORT TENDER

Petronet invited bids to buy LNG with pricing linked to Henry Hub natural gas futures in the United States and Dutch TTF gas futures and shipped on a delivered ex-ship basis. India's top gas importer Petronet LNG is set to cancel its offer to buy an annual 1 million tonnes of liquefied natural gas (LNG) for 10 years, two sources said, as signing long-term contracts are not attractive in the current scenario. India is scouting for cheap gas for price-sensitive consumers as Prime Minister Narendra Modi wants to raise the share of natural gas in the national energy mix to 15 per cent by 2030 from the current 6.2 per cent

to reduce pollution. Earlier this year, Petronet invited bids to buy LNG with pricing linked to Henry Hub natural gas futures in the United States and Dutch TTF gas futures and shipped on a delivered ex-ship basis. "This month in an internal committee it was decided to cancel the tender. Soon the proposal will be placed for approval by the board," said one of two sources familiar with the matter who both confirmed the plan to end the tender. "Long-term deals don't make sense in current scenario. Doesn't make sense to lose precious foreign exchange," the source added. GAIL (India) is struggling to sell its costly LNG sourced under long term deals with US companies. Asian spot LNG prices <LNG-AS> have been languishing near record low levels, which were first reached in May, due to new supply entering the market from the United States and the coronavirus pandemic slamming gas demand globally.

Petronet's chief executive Prabhat Singh last month said his firm was close to finalising the deal with prices near to spot markets. It is renegotiating pricing under long-term deals with Qatargas after spot prices declined. Petronet has deals to annually buy 7.5 million tonnes of LNG from Qatar. Petronet did not respond to an emailed request for comment on plans to cancel the tender. GAIL and Italy's ENI were the only two companies that qualified for Petronet's long term LNG tender, the two sources said. Singh last month said 13 companies had submitted bid for the tender. GAIL and ENI did not respond to emails seeking comment on whether they were frontrunners for the tender. source : www.energy.economicstimes.indiatimes.com

CHINA'S LNG IMPORTS IN JUNE JUMP 29%

China's LNG imports in June totalled 5.79mn metric tons, up 29.2% yr/yr, customs department data published July 23 showed. Month on month, imports were up 10.7%. The country's LNG imports during the first six months of the year were up 10.2% yr/yr at 31.18mn mt. Meanwhile, China's pipeline gas imports in June were 2.54mn mt, down 15% yr/yr and 2.7% month on month, the data showed. Pipeline gas imports in the first six months were 17.18mn mt, down 7.4% yr/yr. source : www.naturalgasworld.com

TELLURIAN RAISES \$35MN IN SHARE SALE

Tellurian Energy, the US firm developing the Driftwood LNG export project in Louisiana, has raised \$35mn from the sale of shares to institutional investors, it said on July 22. The offering should close on or around July 24 and will net \$32.5mn after expenses, Tellurian said. Roth Capital Partners is acting as a placement agent. Driftwood LNG aims to produce up to 27.6mn mt/yr of LNG in phases. Tellurian has secured all necessary permits to begin construction, but is yet to take a final investment decision following long delays. Most recently the project suffered a setback in May when a preliminary deal for India's Petronet to take its 5mn mt/yr of its LNG expired without the pair finalising a supply contract. That agreement has now been renewed until the end of December, however, sources told Reuters on July 21. Neither Petronet nor Tellurian have confirmed this: Tellurian declined to comment, while Petronet did not reply to NGW.

The deal's revival comes after US Secretary of Energy Dan Brouillette held a virtual meeting on July 17 with Indian oil minister Dharmendra Pradhan. Tellurian did not say what it would use proceeds from the share offering for. The company laid off 70% of its workforce in March and swung to a net loss of \$40.7mn in the first quarter. source : www.naturalgasworld.com

FORMER EXCELERATE EXECUTIVES PLAN GALVESTON LNG BUNKERING PORT

Houston-based Pilot LNG has filed regulatory applications to develop Galveston LNG Bunker Port. Located on Pelican Island, the facility infrastructure will be designed around floating LNG (FLNG) technology to be engineered and constructed by Pilot LNG's partner, Wison Offshore & Marine. Wison Offshore is the builder behind Tango FLNG, the FLNG vessel that operates in Bahia Blanca, Argentina, allowing the country to begin exporting LNG in 2019. Tango FLNG has a nameplate capacity of 0.5 mta of LNG. Pilot LNG's FLNG vessel will use similar technology. FID for the project is expected in H2 2021, with operations starting in 2024.

Pilot LNG chief executive Jonathan Cook, co-founder of Excelebrate Energy and its one-time chief operating officer and ex-Flex LNG CEO, said Galveston LNG Bunker Port would "provide clean-burning LNG to one of the US's largest port complexes." Mr Cook's co-founder of Pilot LNG is Shaun Davison, who serves as its chief development officer. Mr Davison and Mr Cook have extensive experience with floating storage and regasification units (FSRUs), LNG shipping, terminals and other parts of the LNG supply chain. Mr Davison most recently served as NextDecade senior vice president of development and regulatory affairs. Pilot LNG told LNG Shipping & Terminals that the Galveston LNG Bunker Port expects to load LNG onto LNG bunker vessels similar to Q-4000 or Clean Jacksonville operating out of Florida. "The US Jones Act bunker barges will be the vessels then running to the cruise ships or other vessels requiring LNG bunkers in Galveston Bay," said Pilot LNG. Galveston is home to the fourth busiest cruise port in the US, and the cruise shipping industry has been an early adopter of LNG as a fuel. Pilot LNG expects to benefit from using FLNG technology as the basis of Galveston LNG Bunker Port. By building the FLNG vessel in a shipyard - a major component of the terminal - Pilot LNG expects to have significantly lower capex as compared with a similar capacity onshore LNG bunker terminal. As outlined by Pilot LNG, the boxed-shaped FLNG vessel would have a length of 148 m, beam of 32 m, depth of 21 m, with a design draft of 6 m. Permanently moored, the vessel would have a liquefaction capacity of 0.5 mta, with storage of 18,000 m3 in an IMO Type C tank.

"Wison is pleased to be part of this breakthrough US project by designing and building the liquefaction unit that will supply LNG to the end-user market in the Galveston, Houston and Texas City port complex", said Wison Offshore & Marine in North America head Vivian Li. "Since delivering the world's first FLNG facility currently operating in Argentina, Wison has developed numerous floating solutions across the LNG value chain, with a focus on promoting a cleaner energy infrastructure alternative to the global market."

As international regulators tighten emissions standards, the maritime industry is increasingly turning towards LNG as the marine fuel to comply. When used as a marine fuel, LNG significantly reduces vessel emissions, including eliminating virtually all SOx emissions and particulate matter, while reducing NOx emissions by 80%-90% compared to traditional fossil marine fuels. Pilot LNG's Galveston facility would be the first LNG bunkering facility in Texas and second such facility on the US Gulf Coast. Harvey Gulf International Marine operates an LNG bunkering facility in the Port of Fourchon, Louisiana. source : www.rivieramm.com

MARINE CONSTRUCTION WORKS TO BEGIN FOR MOZAMBIQUE LNG

Belgium's Besix Group, in partnership with Portugal's Mota-Engil SA, will start constructing the marine facilities for the Mozambique LNG gas development project this year, including one of the world's longest jetty structures. Works include executing the engineering, procurement and construction (EPC) of the LNG load-out jetty and the material offloading facility. The LNG load-out jetty and wharf comprise a 2,700-m-long access jetty, with a width varying between 34 and 90 m, leading to a 1,900-m-long wharf out at sea. The wharf will notably be equipped with five berths/platforms, including four for LNG and the one for condensate, with berthing and mooring facilities to accommodate two Q-Max and two Q-Flex vessels.

A marine support base for the Mozambique LNG project development, the material offloading facility, comprises quay wall structures and mooring and berthing facilities for cargo ships. The project, which will be operated by French energy company Total, is located in the Cabo Delgado Province, near the coastal town of Palma on the Indian Ocean coastline of Mozambique. Besix expects to begin works mid-2020 using its marine construction equipment fleet comprising two self-elevating platforms and crane barges. Besix engineering department director Fabian Boucher said work began on the Mozambique LNG project in 2014. He said Besix will provide 'value engineering', which he called "creative solutions that combine the client's specific interests with our specialised equipment (jack-up barges) commonly used for this type of work." Added Mr Boucher, "Our full BIM integration will also benefit the functional objectives and the entire lifecycle of the project." CCS JV and Besix have implemented a collaborative approach regarding the design of the facilities. This has allowed Besix's inhouse engineering department to "significantly optimise the design and improve the project's risk management" said the company. source : www.rivieramm.com

ACTIVE LNG FLEET				ACTIVE FSRU FLEET			
PROPULSION	SIZE CBM	SHIP/SIZE	TOTAL	PROPULSION	SIZE CBM	SHIP/SIZE	TOTAL
MEGI	150,000 - 160,000	1	47	MEGI	170,000 - 180,000	1	1
	170,000 - 180,000	45		TFDE	150,000 - 160,000	1	11
	250,000 - 300,000	1			160,000 - 170,000	3	
STAGE	160,000 - 170,000	3	170,000 - 180,000		6		
	170,000 - 180,000	5	250,000 - 300,000	1			
XDF	170,000 - 180,000	14	14	DFDE	140,000 - 150,000	2	11
STEAM REHEAT	150,000 - 160,000	9	12		160,000 - 170,000	3	
	160,000 - 170,000	3			170,000 - 180,000	6	
TFDE	140,000 - 150,000	2	100	STEAM	120,000 - 130,000	5	15
	150,000 - 160,000	40			130,000 - 140,000	5	
	160,000 - 170,000	21			150,000 - 160,000	5	
	170,000 - 180,000	36		TOTAL		38	
	180,000 - 200,000	1		NEW BUILDING LNG FLEET			
DFDE	150,000 - 160,000	23	64	PROPULSION	SIZE CBM	SHIP/SIZE	TOTAL
	160,000 - 170,000	12		MEGI	170,000 - 180,000	28	28
	170,000 - 180,000	27		XDF	170,000 - 180,000	88	91
	20,000-45,000	2			20,000-45,000	1	
SSDR	160,000 - 170,000	1	49		75,000 - 100,000	2	
	170,000 - 180,000	4		DFDE/TFDE	160,000 - 170,000	2	8
	200,000 - 250,000	31			170,000 - 180,000	3	
	250,000 - 300,000	13			20,000-45,000	1	
STEAM	120,000 - 130,000	16	209		75,000 - 100,000	2	
	130,000 - 140,000	77		TOTAL			127
	140,000 - 150,000	87		NEW BUILDING FSRU FLEET			
	150,000 - 160,000	20		NO. OF N/B FSRU			
	170,000 - 180,000	2		12			
	45,000 - 75,000	3					
	75,000 - 100,000	4					
TOTAL			503				

FLNG	SIZE MT	SHIP/SIZE	TOTAL	FLNG	SIZE MT	SHIP/SIZE	TOTAL
EXSISTING	30,00,000	1	4	NEW BUILDING	30,00,000	1	4
	24,00,000	1			24,00,000	1	
	1,200,00	1			22,00,000	1	
	5,00,000	1			15,00,000	1	

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