

GERAB

BULLETIN

Weekly News



EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent prices are trading lower by 5% WTD and Crude Oil WTI prices are trading lower by 4% WTD and they are trading lower by 34% and 36% respectively than a year ago.
- Iron ore prices are in uptrend and trading higher by 30% 6MTD but still trading lower by 15% than a year ago prices.
- Steel HRC (FOB China) prices in uptrend and trading higher by 14% 6MTD.
- Steel HRC(North America) prices are in uptrend and is trading higher by 75% 3MTD
- Natural Gas prices are in downtrend and is trading lower by 54% YTD

The Currency summary

- Euro has gained strength against USD and is stronger by 13% 6MTD
- The US Dollar to CNY is stronger by more than 7% YTD

The Rig count summary

- The Rig counts in Europe have gone down by 6% MTD and the rig counts in North America have gone down by 4% MTD.

Project summary

- Australian firm Fortescue Metals plans 300 MW green ammonia plant in Kenya
- Conjuncta and Infinity Power Holding sign MoU with Mauritania to develop \$34bn green hydrogen plant
- ExxonMobil working on larger Rovuma LNG export project in Mozambique
- Afreximbank poised to help Senegal raise \$500m
- Tanzania kickstarts contract preparations for \$30B LNG project
- GE wins equipment order for Alexandroupolis power plant in Greece
- Aker BP drops Trolldhaugen, to move ahead with nine other NCS projects
- SSE to invest £100m in 1500MW Coire Glas pumped hydro project in UK
- Contractor in talks with Brazil's Petrobras over \$1 billion titanium riser project
- HydrogenPro to establish 500-MW manufacturing facility in Texas
- ExxonMobil boosts fuel supply with \$2 billion Beaumont refinery expansion
- Biden-Harris Administration announces \$750m to cut clean hydrogen costs

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	10,411.83	0.16	-1.30	2.84	7.49	-8.50
Coal	USD/MT	191.80	-3.33	-21.23	-56.61	-60.37	-49.36
Cobalt	USD/MT	35,163.73	2.24	0.47	-20.44	-36.70	-57.46

Copper	USD/MT	8,747.50	-1.22	-2.64	3.84	14.06	-14.36
Crude Oil	USD/BBL	72.00	-4.46	-10.17	-8.05	-17.92	-34.83
Crude Oil Brent	USD/BBL	74.67	-4.78	-10.46	-7.51	-17.93	-33.72
Crude Oil WTI	USD/BBL	69.33	-4.11	-9.84	-8.62	-17.91	-35.98
Iron Ore	USD/MT	128.01	-1.56	2.61	16.51	29.80	-15.17
Molybdenum	USD/MT	70,119.00	-0.47	-13.80	32.08	91.09	65.83
Natural Gas	USD/MCF	2.38	-11.01	-98.25	-61.39	-70.98	-53.63
Nickel	USD/MT	22,475.00	-2.33	-17.31	-22.92	-3.78	-39.48
Steel HRC (FOB China)	USD/MT	652.00	-1.81	2.20	13.48	13.52	-24.33
Steel HRC (N. America)	USD/MT	1,254.24	0.46	39.80	75.48	41.89	-0.54
Steel Rebar	USD/MT	663.60	-4.45	0.59	9.06	8.24	-22.97
Steel Scrap	USD/MT	440.00	-2.11	0.08	14.77	22.01	-31.71

Source: Investing.com / Trading Economics / London Metal Exchange / MarketIndex.com.au / OilPrice.com

CURRENCY EXCHANGE RATE

Code	Description	Country	Units	Latest Exchange Rates	WTD%	MTD%	3MTD%	6MTD%	YTD%
EURUSD	1 EUR to USD	Euro Area	USD	1.0898	2.77	2.86	2.68	12.52	-0.98
USDCNY	1 USD to CNY	China	CNY	6.8342	0.88	1.20	2.43	4.19	-6.95

Source- Trading Economics

CRUDE OIL STOCK

Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,19,566	-0.64	-0.64	2.66	-1.09	-5.12

Source: US Energy Information Authority

SELECTIVE COMMODITY TRADERS AND PIPE MANUFACTURERS STOCK PRICES

STOCK PRICES

Name	Latest Value	Units	WTD%	MTD%	3MTD%	6MTD%	YTD%
ArcelorMittal SA	27.95	USD	2.87	-6.68	4.84	37.48	-15.89
Glencore PLC	450.25	GBP	6.39	-8.91	-19.31	-2.45	-11.92
NYSE American Steel Index	1,792.86	Index	0.07	-9.07	2.27	30.32	-9.15
Rio Tinto PLC	5,307.00	GBP	0.49	-9.06	-8.63	13.46	-8.50
Tenaris SA	28.86	USD	-0.31	-15.29	-18.70	18.81	-5.28
Tubacex SA	2.40	EUR	-	2.13	21.21	18.23	25.65
Woodside Energy Group	32.52	AUD	4.62	-5.37	-9.30	2.34	0.70

Source- Trading Economics / Wall Street Journal / CNBC

INTERNATIONAL RIG COUNTS

ACTIVE RIG COUNTS BY REGION

Region	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
United Arab Emirates	53	*	1.92	3.92	6.00	55.88
GCC	217	*	1.88	-2.69	6.90	16.04
Middle East	322	*	2.22	-1.53	5.23	12.20
Africa	86	*	1.18	3.61	21.13	14.67
Asia-Pacific	188	*	-1.05	0.00	3.30	5.03
Europe	103	*	-5.50	8.42	6.19	9.57
Latin America	181	*	6.47	-2.16	5.85	19.08
North America	958	-0.83	-3.72	11.27	-1.84	18.56
Total	1,838	*	-1.39	5.69	1.94	15.24

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE

- Rivals lock horns for giant Adnoc LNG export terminal project**
 Two leading international contracting groups are preparing to bid for a huge contract from Abu Dhabi National Oil Company (Adnoc) for work on the Fujairah liquefied natural gas export terminal in the United Arab Emirates. Adnoc set the ball rolling for a tender on the multibillion-dollar engineering, procurement and construction package comprising two liquefaction trains, with bids likely to be submitted within a month or two. Those familiar with the development have now pointed to the front runners. Located about 250 kilometres from Abu Dhabi, the Fujairah LNG export facility is crucial to the UAE's ambition to emerge as a key gas exporter in the coming years. **20th March 2023**
- SEWA Connects Gas Lines to 8 Development Projects**
 Sharjah Electricity, Water and Gas Authority (SEWA) has implemented the connection of natural gas service to eight development projects in Sharjah, in addition to six new projects for the extension of natural gas lines in various sectors and regions in 2022. Amna bin Haddah, Director of the Natural Gas Department at SEWA, explained that the authority is keen to intensify its efforts to expand the implementation of the natural gas project and deliver services to all regions in Sharjah to take advantage of the multiple benefits it achieves compared to the use of liquefied gas. She pointed out that the projects completed by the authority in the field of natural gas during the year 2022 included the completion of all internal connections within the Sustainable City project and the Sheikh Zayed Housing project in the suburb of Al Suyoh. Natural gas was also pumped to the Sharjah Garden City Villa residential units, the Maryam Island project, parts of Aljada project, the second phase of the Al Mamsha project, and a percentage of the Masaar project. **20th March 2023**
- 'Let's grow together': Contracting giant NMDC launches supplier engagement platform**
 National Marine Dredging Group (NMDC Group) and the Abu Dhabi Chamber of Commerce and Industry have launched the 'Let's Grow Together' supplier engagement platform aimed at bolstering business opportunities for Abu Dhabi-based suppliers. NMDC Group currently has more than AED 54 billion worth of projects under execution and has demonstrated the success of its geographic expansion strategy and ability to enter new business verticals, further strengthening its position locally and regionally as an EPC and marine dredging powerhouse, with contracts worth more than AED 9.6 billion secured in the year 2022 alone. NMDC Group's major subsidiaries include National Marine Dredging Co and National Petroleum Construction Company. **17th March 2023**

OMAN

- **Maha Energy starts production test on onshore Block 70 in Oman**

The production test, which starts with the Mafraq-9 well, will include all eight new production wells under this year's drilling programme. Swedish oil and gas company Maha Energy has commenced production test on Block 70, located in the oil-producing Ghaba Salt Basin in the central part of the Sultanate of Oman. The production test, which starts with the Mafraq-9 well, will include all eight new production wells under this year's drilling programme. Maha Energy said that a new well will be added to the test every two weeks until all new wells are connected to the testing system. Each well will be completed with PCP (progressing cavity pumping) pumps before being placed on the test. The company intends to transport the oil produced in heated trucks to a third party's facilities for further processing and, further transport the oil through Oman's national pipeline system. Maha expects said that preliminary information about the quality of the oil and initial production potential will be announced by May 2023. Block 70 is an onshore block that includes the shallow undeveloped Mafraq heavy oil field. Maha owns a 65% stake and is also the operator of the block. The block covers an area of 639km² and is backed by both 2D and 3D seismic data that has been acquired by previous operators, and is accessible to Maha. A total of eight wells have been drilled within the boundaries of the block, among which five are located on the Mafraq oil field. **20th March 2023**

- **Saudi Aramco and Almar Water Solutions Partner for Zuluf Water Project**

Almar Water Solutions, a leading business in developing and managing water infrastructure and services, together with Al Jomaih Energy and Water Co. (AEW), will develop a water project with **Saudi Aramco**, which consists of a water treatment plant with a 185,000 m³/day capacity in support of water injection for the Zuluf Onshore Oil Facilities project, located in the Arabian Gulf, 240 km north of Dhahran. The contract signing occurred last December, while the financial closing materialized by mid of March, 2023. The project, which will be developed under a 25-year BOOT (build, own, operate, and transfer) scheme, includes the design, development, financing, construction, commissioning, operation and maintenance, and transfer of ownership. Almar Water Solutions is fully committed to the local communities where it operates, and is aligned with IKTV requirements, by employing local workers, procuring local services, and contributing to the economic and social development of the region. Following the award of the contract, Carlos Cosín, CEO of Almar Water Solutions, noted: "Water is indispensable for the economic and industrial activities of any country. We are fully committed to water supply and treatment in the Kingdom of Saudi Arabia, and this new plant will support the sustainability of the Zuluf project. We're very pleased to continue collaborating with leading companies such as Saudi Aramco and to further expand our know-how in the region. **20th March 2023**

- **L&T partnership with Subsea 7 bears fruit as Saudi Aramco dishes out offshore contracts**

Awards confirm a recent Upstream report the consortium as a front-runner for the next batch of coveted LTA contracts. A pairing of Indian engineering giant Larsen & Toubro (L&T) and Oslo-listed Subsea 7 has landed multiple offshore contracts from Saudi Aramco under the latter's coveted long-term agreement (LTA) framework to which a select group of international contractors have access. L&T confirmed the award of multiple contracts on Tuesday, without naming the client or the offshore fields involved. "The scope of work comprises engineering, procurement, construction & installation (EPCI) of offshore structures and upgradation of existing facilities," it noted. Upstream recently tipped the L&T-led consortium as one of the key contenders for a batch of LTA contracts among an 11-contract package currently on offer. CRPO 98 includes work on the further development of Aramco's giant Zuluf oilfield with a project scope that involves both new infrastructure and the upgrading of multiple production deck modules, sources said. Additional awards In addition to the trio of contracts awarded to L&T, Subsea 7, Aramco is expected to award within days, at least 8 more LTA deals. The contracts which are close to being finalised include CRPO 97, 99, 100, 101, 117, 118, 119, and 122, sources told Upstream. While the value of the three contracts awarded to the L&T-led grouping could not be confirmed by Upstream, the 11 contracts awarded together are valued at close to \$3 billion, Upstream was told. Likely winners for the other contracts could include US-based McDermott

SAUDI ARABIA

International, Abu Dhabi's National Petroleum Construction Company (NPCC) and Italy's Saipem, Upstream understand. Capacity expansion With capital expenditure set at a guidance range of between \$45 billion and \$55 billion this year, Aramco has highlighted its intent to swiftly scale up its sustainable oil production capacity to 13 million barrels per day by 2027, up from the existing 12 million bpd capacity. **21st March 2023**

- **NESR Secures Long-Form Well Testing Contract**

National Energy Services Reunited Corp (NESR) announced that it has been awarded a long-form Well Testing contract in Saudi Arabia. Aramco awards the Contract. This contract is expanding Well Testing services provided to Aramco on various applications with the latest technology deployed by NESR in Saudi, statement mentioned. **20th March 2023**

- **L&T Wins Major Contracts for its Hydrocarbon Business**

The Hydrocarbon Business (L&T Energy Hydrocarbon LTEH of Larsen & Toubro (L&T) announced in a statement that it has secured multiple offshore packages from a prestigious overseas client. The scope of work comprises engineering, procurement, construction & installation of offshore structures and upgradation of existing facilities. The company specified that as per its classification, the major project is in the range of over USD 600 million. LTEH is executing several domestic and international offshore projects and is committed to building its regional presence in geographies that it operates in, by nurturing local skills and talent, improving procurement from local vendors and engaging commercially with local contractors on the foundation of a sustainable workload. **21st March 2023**

- **Saudi Arabia's futuristic city NEOM to build its first hydrogen fueling station**

Saudi Arabia's NEOM city will soon build its first hydrogen fueling station. Air Products Qudra signed an agreement with ENOWA, NEOM's energy, water and hydrogen subsidiary, to build, own, and operate NEOM's first hydrogen fueling station, providing critical infrastructure for NEOM's sustainability goals. The initiative will help to decarbonise heavy modes of transport in NEOM, covering buses and heavy-duty trucks. Groundwork for the hydrogen fueling station is scheduled to commence second half of 2023. **20th March 2023**

ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)

CHINA

- **BP ties up with PetroChina to develop CCUS cluster in southern China**

Hainan project will draw expertise from BP's The Net Zero Teesside Power project in UK. UK supermajor BP has signed an agreement with PetroChina to build a carbon capture, utilisation and storage (CCUS) cluster in Hainan province in southern China. The memorandum of understanding signed between BP China and PetroChina's China Southern Petroleum Exploration and Development will focus on CCUS-based low-carbon projects onshore Hainan. Under the agreement, the two companies will capitalise on BP's expertise in developing the UK's first gas power project with CCUS technology. The initial goal of the partnership is to expand the co-operation on international projects. The partnership that also covers shale gas exploration and development and fuel retailing ventures in China is now expanded to low-carbon projects. **19th March 2023**

- **DOMO Chemicals breaks ground on polyamide plant in China**

The new plant will produce TECHNYL polyamide-based grades and is expected to be in full operation by end Q1 2024. DOMO Chemicals, a leading manufacturer of engineered materials, announced the groundbreaking for its new plant in plant will produce TECHNYL polyamide-based grades and is expected to be in full operation by end Q1 2024. It repres million RMB) by DOMO Chemicals and covers a total area of 40,000 square meters. DOMO Chemicals has been active in China since 2016 with a nylon compounding plant in Jiaying, based on virgin and will gradually be expanded to reach a total capacity of 50 kilotons, will be equipped with the latest technology and equip contributing to DOMO's innovation and sustainability ambitions. It will play a key role in DOMO Chemicals' strategy to e DOMO Chemicals' CEO Yves Bonte

expressed his enthusiasm at the groundbreaking ceremony: "This is a significant m growth and innovation.
17th March 2023

- **CNOOC Ltd kicks off largest South China Sea field development**

Huizhou 26-6 discovery will be exploited by the refurbished Nanhai Fenjin FPSO. Chinese offshore operator CNOOC Ltd has kicked off development of the largest self-sponsored hydrocarbon discovery in the Pearl River Mouth basin of the South China Sea after the environmental impact assessment was approved. Late last month, the Ministry of Ecology and Environment endorsed the EIA for the Huizhou 26-6 field development offshore China, that allowed the operator to start fabrication of the infrastructure for the field development, which is targeting first oil in late 2024 or early 2025. Last week, Shenzhen Chiwan Sembawang Offshore Engineering (SCSOE) China's jacket specialist and COOEC-Fluor Heavy Industries (CFHI), a joint venture of COOEC and US contractor Fluor in Zhuhai city, Guangdong province, cut first steel for Huizhou 26-6's giant production platform HZ26-6DPP. **21st March 2023**

- **CNOOC Ltd spuds China's first CO2 reinjection well in South China Sea**

The well will be able to re-inject 300,000 metric tonnes of CO2 back into the reservoir per annum for permanent storage. Chinese offshore operator CNOOC Ltd has started drilling the country's first well for reinjecting CO2 into the reservoir at its Enping oilfield in the Pearl River Mouth basin in the South China Sea. The well Enping 15-1- A11H is being drilled three kilometres from the Enping 15-1 oilfield, through which CO2 will be reinjected into a "dome" geological structure. CNOOC Ltd said the structure is like a "giant bowl" buckled underground, which has strong natural sealing that can cover the carbon dioxide stably for a long time. The carbon capture and storage scheme involves facilities including a CO2 compressor skid, molecular sieves and coolers to capture up to 300,000 tonnes per annum of CO2 equivalent to planting 14 million trees, according to CNOOC Ltd. The aim is to capture up to 1.46 million tonnes of CO2 over the project's lifespan. CNOOC Ltd late last year started operations at the Enping oil complex in the South China Sea. **22nd March 2023**

- **Technip Energies Awarded a Contract for a Low-CO2 Mega Ethylene Plant by CNOOC and Shell Petrochemicals Company Ltd. for Huizhou Phase III Project in China**

Technip Energies has been awarded a contract by CNOOC and Shell Petrochemicals Company Ltd. (CSPC) for the Huizhou Phase III project, a mega liquid ethylene cracker located in Huizhou, Guangdong Province, China. Technip Energies is providing the proprietary technology and process design for CSPC's 1,600 KTA(1) ethylene plant. This liquid ethylene cracker pioneers the use of a low CO2 furnace design and electrification of major compressors. The plant is anticipated to have 20% lower CO2 emissions than a similar conventional facility and will be able to maximize benefit from the rapidly decarbonizing power grid for future CO2 emission reduction. In addition to the ethylene cracker technology, low emission furnace design scheme and the electrification of the major compressors, Technip Energies will provide key proprietary technology including a Heat Integrated Rectifier System (HRS), Ripple Trays™ and Spent Caustic Treatment Unit. **20th March 2023**

INDIA

- **Umwelt Energy Invests \$850mn for Methanol Plant**

Denmark-based company, Umwelt Energy is investing \$850mn to build a fully-integrated green methanol plant in Tamil Nadu. The announcement came during a visit to IIT Madras Research Park in Chennai by the energy delegation of company officials. A conference on 'next generation fuels' was also organized at the event. The facility will comprise 500 MW of wind-solar hybrid plants which would supply electricity to an electrolyzer to produce green hydrogen. The green hydrogen will then be reacted with carbon dioxide to form methanol. The plant will be equipped to produce a lakh tonne-per-year of green methanol. The land requirement of 2,000-odd acres for the project has been fulfilled. The company's platform seeks to integrate renewable power generation and electrolysis plants for green hydrogen. Its e-Fuel synthesis plants for methanol, ammonia, kerosene and gasoline cater to the maritime and aviation customers, and potentially those operating in the heavy industries. **20th March 2023**

	<ul style="list-style-type: none"> <u>HPCL Plans to Start Barmer Oil Refinery and Petchem Complex in Jan, 2024</u> India's Hindustan Petroleum Corp (HPCL) plans to start its 9 million tonne-a-year Barmer refinery and petrochemical project in Rajasthan state by January 2024, the oil minister said, helping to cut petrochemical imports. India, the third biggest oil importer, is expanding refining capacity to meet rising demand for fuel and petrochemical to power economic expansion. India's per capita petrochemical consumption is about a third of the global average. Oil Minister Hardeep Singh Puri said the project, which covers 4,800 acres, would produce 2.4 million tonnes a year of petrochemicals and cut the annual petrochemical import bill by 260 billion rupees (\$3.14 billion). India's annual imports of petrochemicals were worth about 950 billion rupees, he said. Most Indian refiners are linking petrochemical plants with refineries as demand for plastics and specialty chemicals rises. Integrating petrochemical plants would also help refiners hedge against slowing demand for conventional fuel in the longer term. 20th March 2023
INDONESIA	<ul style="list-style-type: none"> <u>Repsol launches FEED tender for Indonesia gas field development</u> Carbon capture and storage on the cards for onshore project. Spanish operator Repsol has launched the front-end engineering and design tender for its Sakakemang project onshore Indonesia, which aims to exploit the Kali Berau Dalam gas field and incorporate a carbon capture and storage scheme to handle KBD's carbon dioxide. Repsol is inviting contractors to qualify for the tender process to provide FEED engineering services for Sakakemang, with the contract having an 18-month duration. The contract requires a minimum local content (TKDN) of 40%. The operator noted that the FEED engineering services would support it in continuing the ongoing project engineering work to the detailed engineering stage. 23rd March 2023
ISREAL	<ul style="list-style-type: none"> <u>Newfoundland and Labrador proceeds with phase II review of current offshore oil and gas interests</u> Government received the initial (Phase I) report by Rothschild & Co. in spring 2022. The Government of Newfoundland and Labrador is proceeding with Phase II of the review regarding the province's current offshore oil and gas interests. Specific focus will be on its 4.9 per cent equity position in Hebron, 8.7 per cent equity position in the Hibernia Southern Extension, and five per cent equity position in White Rose Extension project. Government received the initial (Phase I) report by Rothschild & Co. in spring 2022. While Phase I was about studying transaction options and valuations, Phase II is about taking the deep dive required to understand and verify every aspect of a potential transaction. Rothschild & Co. will lead the process, and any additional work related to legal, regulatory, tax and accounting requirements will be contracted as necessary. 20th March 2023
IRAQ	<ul style="list-style-type: none"> <u>Iraq And UAE Spearhead Downstream Expansion</u> Iraq plans to open 7 new small-and-medium sized refineries. Baghdad's rapprochement with the KRG could stabilize oil production in the country's North. UAE oil hub Fujairah has seen increased transit flows and demand for crude and product storage. Oil markets have been affected by financial market challenges, inflation, and the war in Ukraine. Nevertheless, Arab Gulf countries remain resolutely optimistic, evidenced by new refinery and storage plans being developed in Iraq and the UAE. This week, Iraqi minister of oil Hayan Abdul Ghani said that Baghdad has invited investors to set up seven new oil refineries throughout the country. Ghani said also that bidding has opened for three refineries today, while offers for three other ones are expected on April 2. Ghani also reiterated that the new investments "constitute a shift in the government's strategy towards encouraging foreign investment in oil refining and opening new horizons for international companies and the local private sector in this industry". Sources . indicated that the first three refinery projects entail a 50,000 bpd refinery in the Southeastern Maysan Governorate, a 70,000 bpd refinery in the Nineveh Governorate in North Iraq, and a 30,000 bpd refining unit in Basra. The April 2 offers are for a 50,000 bpd refinery in the Southern Dhi Qar Governorate, a 100,000 bpd refinery in Wasit (East Iraq), and a 70,000 bpd refinery in Muthanna (South Iraq). The seventh refinery project is slated to be for a 70,000 bpd refinery in the Western Al Anbar Governorate. 17th March 2023

	<ul style="list-style-type: none"> <u>Iraq invites investors for 7 oil refining projects</u> Bidding for 3 refineries began Wednesday . Iraq has invited investors to build seven oil refineries in various parts of the country as part of a post-war drive to rebuild its hydrocarbon sector, the local press reported on Thursday. Bids for three refineries opened on Wednesday while offers for three other refineries will be submitted on 2 April, they said, quoting Oil Minister Hayan Abdul Ghani. The bidding date for the seventh refinery will be set later, the Minister said, adding that the projects are intended to boost Iraq’s refining output capacity. “These investment opportunities constitute a shift in the government’s strategy towards encouraging foreign investment in oil refining and opening new horizons for international companies and the local private sector in this industry,” Abdul Ghani said. The first three projects comprise a 50,000-barrels-per-day refinery in the Southeastern Maysan Governorate, a 70,000-bpd refinery in Nineveh Governorate in North Iraq and a refining unit in the Southern Basra city with a capacity of 30,000 bpd. 16th March 2023 <u>Iraq in final stages of talks on \$27bln TotalEnergies deal</u> The proposed deal, which Baghdad hopes will revive foreign investment in the country, was signed in 2021 for TotalEnergies to build four oil, gas and renewables projects with an initial investment of \$10bln in southern Iraq over 25 years. Talks between French oil major TotalEnergies and Iraq to resolve sticking points in a long-delayed \$27 billion energy deal "have reached advanced stages", Iraqi oil minister Hayan Abdel-Ghani said on Sunday. "We will activate the deal very soon," Abdel-Ghani said at an energy event. The proposed deal, which Baghdad hopes will revive foreign investment in the country, was signed in 2021 for TotalEnergies to build four oil, gas and renewables projects with an initial investment of \$10 billion in southern Iraq over 25 years. However, disputes between Iraqi politicians over the terms of the deal. Iraq's demand for a 40% share in the project is a key sticking point while TotalEnergies wants a majority stake, sources told Reuters. 20th March 2023
JAPAN	<ul style="list-style-type: none"> <u>PureCycle and Mitsui to develop PP recycling plant in Japan</u> The first plant is designed to transform PP waste into an ultra-pure recycled (UPR) resin and expected to have an annual capacity of 59,000 metric tons (130 million pounds). PureCycle Technologies and Mitsui & Co. Ltd. (Mitsui) announced a signed heads of agreement (HOA) to develop and Japan. Mitsui is a global trading and investment company with a diversified business portfolio based in Tokyo. In Septe signed memorandum of understanding. The two sides are targeting completion of a plant in 2026. The first plant is designed to transform PP waste into an ultra have an annual capacity of 59,000 metric tons (130 million pounds). PureCycle CEO Dustin Olson said, “We need strong global partners like Mitsui to solve the global plastic waste crisis. 18th March 2023
PHILIPPINE	<ul style="list-style-type: none"> <u>Philippine Firm Targets New Gas Wells, Solar</u> Philippine holding firm Prime Infrastructure Capital Inc aims to put new wells at the country's only major natural gas project into commercial operation in 2026, and is seeking other fields to ensure long-term output, its CEO told Reuters on Wednesday. Prime Infrastructure has also lined up other energy projects including an investment of at least 200 billion pesos (\$3.7 billion) in solar power and battery energy storage systems ahead of its planned initial public offering (IPO) this year. The first step is to continue extracting as much gas as possible from the existing source. To that end, we will be drilling new wells," Prime Infrastructure Chief Executive Guillaume Lucci said in an interview. It is also looking for additional gas fields within its existing Malampaya concession and other areas, Lucci said. The Malampaya gas project, located offshore Palawan province, started commercial operations in 2001, supplying power plants that deliver about a fifth of the country's electricity requirements. 15th March 2023
THAILAND	<ul style="list-style-type: none"> <u>Thailand Approves Nearly \$1 Billion Investment in LNG Terminal Project</u> The Thailand Board of Investment (BOI) granted investment privileges to projects worth a combined 56.6 billion baht (\$1.64 billion) that will strengthen the country's infrastructure, especially in the energy and

digital sectors. "The projects that have been granted investment privileges today will help strengthen the country's infrastructure, which is a key factor in attracting more foreign investment," Mr. Narit Therdsteeerasukdi, Secretary General to the BOI, told reporters at a briefing held at Government Houses after the board meeting chaired by Prime Minister General Prayut Chan-o-cha. The projects presented by both local and foreign investors that were approved, and granted a series of both tax and non-tax benefits, include a 32.7 billion (\$0.96 billion) baht investment in a liquified natural gas (LNG) terminal project, and a 5 billion baht (\$0.15 billion) investment in a cogeneration power plant project by a Thai-Singapore joint venture. **20th March 2023**

- Site selected for world’s largest offshore hydrogen production in the Netherlands**
 For the construction of the world’s largest offshore hydrogen production in the Netherlands, the Dutch government has designated an area. The area is Ten noorden van de Waddeneilanden (the North of the Wadden Islands). This location was chosen because it is best suited for offshore wind development, 500 MW of electrolysis capacity, and hydrogen transport to land. On March 20, the government declared that Ten Noorden van de Waddeneilanden, offshore the province of Groningen, would be used for large-scale offshore hydrogen production. This is because a wind farm there was already intended to produce electricity. Furthermore, a nearby natural gas pipeline could transport green hydrogen to land. As a result, it can be appropriately connected to the onshore hydrogen network. The offshore hydrogen production in the Netherlands The offshore hydrogen production project is considered the first large-scale application. It is hence slated to be operational around 2031. **21st March 2023**

AFRICA

- TotalEnergies to sanction \$6 billion Angolan project in June**
 Angola's government set to approve the Cameia-Golfinho development, with operator to sanction shortly after. TotalEnergies is set to take the final investment decision on its Cameia-Golfinho project offshore Angola by mid-2023, about six months behind the original schedule. The French supermajor's chief executive Patrick Pouyanne said in late September that his company intended to sanction the project at the beginning of this year. According to people with direct knowledge of the project, the operator is now waiting for approval of the field development plan (FDP) by the Angolan government before taking the final investment decision. **15th March 2023**

- ExxonMobil considers US\$15B investment in Angola O&G**
 Oil and gas supermajor, ExxonMobil, could inject as much as \$15 billion into the development of hydrocarbon reserves in Angola’s offshore Namibe Basin by 2030. The investment is largely based on the success of commercial oil discoveries in the southern African country and follows the improvement of fiscal terms in the basin by the Government of Angola. Having mobilized the Valaris Ds-9 drillship to Angola’s offshore until July 2024, the MoU will serve to reinforce the company’s commitment to the exploration sector in the country. ExxonMobil currently has interests in three deepwater blocks covering an area of approximately 8,000 km2, boasting an estimated resource potential of approximately 10 billion barrels. Insight into Angola’s lucrative oil and gas industry is set to be explored at this year’s Angola Oil & Gas (AOG) conference and exhibition. Following three successful editions, the conference will serve to unite energy leaders, national and international oil companies, and global financiers, providing the opportunity for networking, presentations, exhibitions, and deal-signings. For more information about the 2023 edition of AOG, keep following Energy Capital & Power’s website and social media channels. **22nd March 2023**

- AD Ports Group signs Agreement to develop and operate Safaga Port in Egypt**
 AD Ports Group, the leading facilitator of global trade, logistics, and industry, today announced the signing of a concession agreement to develop and operate a multi-purpose port in Safaga in Egypt, in addition to signing of two 15-year agreements, a Memorandum of Understanding (MoU) and three Head of Terms (HoT) concerning ports located in Egypt’s Red Sea region and the Mediterranean Sea, enabling a major

expansion of the Group’s activities into Egypt. These agreements allow for expanded access to multipurpose terminals, cruise routes, and logistics capabilities in Safaga, Ain Sokhna, Port Said, Hurghada, Sharm El Sheikh and Al Arish. **18th March 2023**

- **EPC contractor Petrojet signs agreement for green hydrogen projects in Egypt**

Egypt-headquartered EPC contractor Petrojet has signed an agreement with DNV, a global independent energy expert, to support green hydrogen projects in Egypt. The deal aims to scope areas in which DNV can support Petrojet with its technical expertise in design verification and project assurance, as Petrojet is seeking a leading role as a green hydrogen EPC contractor. The agreement also includes renewable power generation and energy storage projects, technical studies for natural gas and hydrogen/natural gas blend infrastructure, along with other technical services for CO2 or low-carbon hydrogen projects. The country is well on its way to being a hydrogen powerhouse, as recent announcements by Middle-Eastern and European players have pushed estimated investments past \$100 billion. Some 70% of these investments are linked to projects unveiled following COP 27 last November, when nine major projects were announced totaling a combined production capacity of 2.1 million tonnes per year. **23rd March 2023**

KENYA

- **Australian firm Fortescue Metals plans 300 MW green ammonia plant in Kenya**

Australian firm Fortescue Metals is planning to develop a 300 megawatts (MW) green ammonia and fertiliser facility in Kenya. The project could soon start as plans are in an advanced stage, reports Business Dailyn adding that the business marks Kenya’s first green ammonia energy production. The facility will boost the African nation’s growing clean energy production to meet the peak demand and reduce import bill of fertilizers. The company will take a final investment decision soon, with work expected to commence this year. It is unknown yet how much the project will cost. However, reports note that the plant will be built within the Olkaria Geothermal wells in Naivasha. The Eastern African country is also expected to profit from the project on green electricity wise as well. Geothermal contributes nearly 29% of Kenya’s installed power capacity, followed by hydro at 25%. Wind and solar account for 12.82% and 7.83%, respectively, as of December 2022. **21st March 2023**

MAURITANIA

- **Conjuncta and Infinity Power Holding sign MoU with Mauritania to develop \$34bn green hydrogen plant**

Consortium between Conjuncta and Infinity Power to develop green hydrogen plant in West African country. Infinity Power Holding, the joint venture between Egypt’s Infinity and the UAE’s Masdar, and Conjuncta, a German project developer, have announced the signing of a Memorandum of Understanding (MoU) with the government of Mauritania for a green hydrogen plant that will be built over four phases. The first phase of the plant will be 400MW and is expected to be operational by 2028, it added. The overall project is expected to provide employment to approximately 3,000 workers during construction, and up to 1,000 workers during the operational phase. **10th March 2023**

MOZAMBIQUE

- **ExxonMobil working on larger Rovuma LNG export project in Mozambique**

US energy giant ExxonMobil has boosted the capacity of the planned Rovuma LNG onshore terminal in Mozambique and is inviting firms to submit their expression of interest for a FEED contract. Mozambique Rovuma Venture (MRV) is the operator of the deepwater Area 4 block in the Rovuma basin off Mozambique that would feed the planned LNG export plant on the Afungi peninsula from the Mamba reservoirs. The joint venture is owned by Eni, ExxonMobil and CNPC, and holds a 70 percent interest in the Area 4 exploration and production concession contract. In addition to MRV, Galp, Kogas, and Empresa Nacional de Hidrocarbonetos each hold a 10 percent interest in Area 4. ExxonMobil is leading the construction and operation of the liquefaction and related facilities on behalf of MRV, and Eni is leading the construction and operation of the upstream facilities. More than \$22 billion Back in 2019, the JV awarded a contract for the engineering, procurement and construction for the Rovuma LNG onshore production complex to a consortium made up of JGC, Fluor, and TechnipFMC (JFT). However, it seems that ExxonMobil, Eni, and their partners are resuming the development of the giant project said to be worth more than \$22 billion.

	<p>TotalEnergies is also working to restart work on its giant \$20 billion Mozambique LNG export project after it declared force majeure on the project in April 2021 and withdrew all personnel from the site due to new attacks. 21st March 2023</p>
NIGERIA	<ul style="list-style-type: none"> <p><u>NLNG targets methane emissions reduction, pursues decarbonisation</u> Nigeria LNG Limited (NLNG) has joined the Oil and Gas Methane Partnership (OGMP 2.0), a partnership coordinated by the United Nations Environment Programme (UNEP) to reduce methane emissions and improve the accuracy and transparency of methane emissions reporting. The move is a further step in NLNG’s commitment to decarbonisation. According to NLNG’s Managing Director and Chief Executive Officer, Dr Philip Mshelbila, the Company had signed an MoU with UNEP in the last quarter of 2022, stating that the signing demonstrated the Company’s commitment to reduce methane emissions from its operations as part of its decarbonisation journey. In a message to welcome NLNG, the group stated that it was excited about NLNG’s membership as Nigeria is a significant producer of natural gas and one of the biggest contributors to Africa’s LNG production. 23rd March 2023</p>
WEST AFRICA	<ul style="list-style-type: none"> <p><u>Chevron ready to fire up African gas projects after bilateral treaty signed</u> Equatorial Guinean and Cameroon agreement to trigger exploitation of long dormant field. Chevron’s development of an almost forgotten gas condensate field offshore West Africa has been given a major boost after the signing of a treaty between Equatorial Guinea and Cameroon. The bilateral agreement could also accelerate the exploitation of three other long-stalled gas condensate projects in the region operated by the US giant and China-controlled player NewAge. A liquefied natural gas plant which has been operating on Bioko Island in Equatorial Guinea for about two decades has long been touted as having the potential to become a regional hub handling gas from Cameroon and Nigeria, two nations with big volumes of stranded resources. 21st March 2023</p>
SENEGAL	<ul style="list-style-type: none"> <p><u>Afreximbank poised to help Senegal raise \$500m</u> The African Export-Import Bank (Afreximbank) is in advanced discussion with Senegal’s oil refiner to raise \$500 million in syndicated finance, a senior official of the bank told Reuters. The funds will be used to upgrade the company’s old refinery. Société Africaine de Raffinage (SAR), is the oldest refinery of West Africa. The company has recently undergone an upgrade to increase its production from 1.2 million tons per year to 1.5 million tons. 16th March 2023</p>
TANZANIA	<ul style="list-style-type: none"> <p><u>Tanzania kickstarts contract preparations for \$30B LNG project</u> Global energy majors Shell and Equinor have officially started the contract preparations for the development, operation, and maintenance of a \$30 billion liquefied natural gas (LNG) terminal in Tanzania. The preparations follows the finalization of project negotiations with the Tanzanian government. According to H.E. January Makamba, Minister of Energy of Tanzania, “Negotiations on the construction of the LNG project were complete, and now experts are at work drafting contracts. Of these contracts, one is about the Host Government Agreement and another is on joining blocks 1, 2, and 4, which will provide natural gas for the LNG project.” With the Equinor-operated Block 2 estimated to hold over 20 trillion cubic feet (tcf) of gas while the Shell-operated Blocks 1 and 4 estimated to hold combined reserves of 16 tcf of recoverable gas, the contract would see these Blocks providing feedstock to the large-scale LNG facility. The milestone comes after Shell, Equinor and the government of Tanzania reached an agreement to fast-track the development of an LNG export terminal in June 2022 following regulatory delays. The Final Investment Decision for the project is expected to be announced by 2025. 16th March 2023</p>
AUSTRALIA	
AUSTRALIA	

- **JGC, Hyundai win downstream FEED contract for Papua LNG project**

The Papua LNG project will have an LNG liquefaction capacity of around 4Mtpa coming from four electrical liquefaction trains. JGC and Hyundai Engineering & Construction have bagged the Papua LNG project downstream front end engineering design (FEED) contract from ExxonMobil on behalf of its venture partners. The FEED and engineering, procurement, and construction (EPC) estimation contract is for the downstream liquified natural gas (LNG) facilities of the midstream project to be developed in Papua New Guinea. JGC handles the overseas engineering, procurement, and construction (EPC) business of Japanese engineering company JGC Group. The Papua LNG project will have an LNG liquefaction capacity of around four million tons per year (Mtpa). It will be built near the existing processing facilities of the PNG LNG project, located 20km northwest of Port Moresby. The Japanese firm stated: “The JGC Group has been responsible for the construction of LNG facilities accounting for more than 30% of world LNG production and is currently executing three projects: a large-scale LNG project in Canada, an FLNG project in Mozambique, and an FLNG project in Malaysia.” ExxonMobil is responsible for the construction and operation of the e-trains of the Papua LNG project. The company’s partners in the project are TotalEnergies and Santos. **20th March 2023**

EUROPE

GERMANY

- **Toray's subsidiary Greenerity to build catalyst coated membrane plant in Germany**

Greenerity will build a new third plant in Alzenau to go on line in fall 2023. Toray Industries, Inc., announced today that subsidiary Greenerity GmbH has started expanding catalyst coated membrane key components of solid polymer electrolyte (PEM) water electrolyzers for green hydrogen production. Greenerity d for hydrogen fuel cells. Greenerity will build a new third plant in Alzenau, Bavaria, where its headquarters are located. It will install facilities add electrolyzer capacity. This move will triple CCM production capacity for these electrolyzers. The new facility is schedule considering even further expansion. Under the Toray Group Sustainability Vision formulated in 2018, Toray committed to helping the world balance global g 2050. It also seeks to achieve carbon neutrality internally and for the economy overall by that year. **18th March 2023**

- **Linde Engineering to explore new ammonia cracking technology with Saudi Aramco**

The engineering arm of industrial gas giant Linde will work alongside energy and chemicals specialist Saudi Aramco to jointly develop a new ammonia cracking technology. Having signed an agreement yesterday (March 15th), the partners plan to build a demonstration plant in northern Germany to showcase a new ammonia cracking catalyst, jointly developed by Aramco and the King Abdullah University of Science and Technology (KAUST). “This agreement is part of our ongoing technology and business development efforts to establish a commercially viable lower-carbon hydrogen supply chain,” said Ahmad Al-Khowaiter, Senior Vice President and Chief Technology Officer at Aramco. “We believe the advanced ammonia cracking technology we are co-developing with Linde Engineering will play a key role in realising our objectives. **16th March 2023**

GREECE

- **GE wins equipment order for Alexandroupolis power plant in Greece**

The engineered equipment package to be provided by GE for the Greek CCGT power plant includes an STF-D650 steam turbine, a GE 9HA.02 gas turbine, a W88 generator, a triple pressure reheat HRSG, and a Mark VIe DCS software system. GE Gas Power has secured an order from Damco Energy to deliver power generation equipment for the 840MW Alexandroupolis power plant to be built in Alexandroupolis, Greece. The GE unit will power the Alexandroupolis combined cycle gas turbine (CCGT) power plant with an engineered equipment package. The natural gas-fired power plant will be equipped with an STF-D650 steam turbine, a GE 9HA.02 gas turbine, a W88 generator, a triple pressure reheat heat recovery steam generator (HRSG), and a Mark VIe Distributed Control System (DCS) software system. Besides, GE will deliver a range of power plant services for 14 years. The Alexandroupolis power plant, which broke ground in January 2023, is expected to commence operation in 2026. Damco Energy, which is a part of the Copelouzou Group, was nominated as the engineering, procurement, and construction (EPC) contractor for

	<p>the Greek CCGT power plant by the project holding company Alexandroupolis Electricity Production. 21st March 2023</p>
ITALY	<ul style="list-style-type: none"> <p><u>Saipem and Garbo to collaborate on new chemical recycling technology</u> The agreement also provides for the construction on an industrial scale of the first chemical plastic recycling plant in Italy. Saipem and Garbo, an Italian chemical company, have signed an agreement to support the industrialisation, developme global scale of a new technology for plastic recycling. The technology, named ChemPET, is Garbo’s proprietary depolymerisation technology which converts polyethylene ter PET, into new, high-quality PET and, therefore, of high value for the chemical and food industries. The agreement also provides for Saipem and Garbo to collaborate on the construction on an industrial scale of the first in Cerano in the province of Novara. 18th March 2023</p>
NORWAY	<ul style="list-style-type: none"> <p><u>Aker BP drops Trolldhaugen, to move ahead with nine other NCS projects</u> The company informed the Norwegian Ministry of Petroleum and Energy that it has acceded to all the 10 plans for development and operation submitted in December 2022, with the exception of the Trolldhaugen project as it is no longer considered to have enough financial robustness. Aker BP said that it will proceed with nine out of the ten previously announced field development projects on the Norwegian continental shelf (NCS), which entail an investment of over NOK200bn (\$19bn). In this connection, the company informed the Norwegian Ministry of Petroleum and Energy that it has acceded to all the plans for development and operation (PDOs) submitted in December 2022, with the exception of the Trolldhaugen project. Located in the Edvard Grieg area, the Trolldhaugen project, which has been discontinued, makes up nearly 4% of the net estimated resources in the 10 projects, said Aker BP. According to the company, when a decision is made on the development of an offshore field in Norway, the licensees have to submit a PDO to seek approval from the Ministry of Petroleum and Energy (MPE). Following this, each licensee should notify the MPE within three months if they accede to the plan for field development or not. The estimated total recoverable resources from the 10 development projects are 730 million barrels of oil equivalent (mboe) net for Aker BP, with an average break-even price of \$35-40 per barrel. Trolldhaugen makes up nearly 30mboe of the total recoverable resources while needing an investment of \$500m. 22nd March 2023</p>
SLOVAKIA	<ul style="list-style-type: none"> <p><u>McDermott awarded cracker off-gas upgrade contract from Slovnaft</u> The project will upgrade the existing steam cracker unit by adding a low-pressure recovery unit, increasing ethylene pro existing production. McDermott has been awarded an engineering, procurement services and construction management (EPsCm) contract intensification off-gas processing project at its plant in Bratislava, Slovakia. The project will upgrade the existing steam cracker unit by adding a low-pressure recovery unit, increasing ethylene pro existing production. McDermott will provide comprehensive EPsCm services and leverage its strategic agreement with Lummus Technology "McDermott has a long-standing relationship with Slovnaft, dating back to 2003. This award is testament to our prior pe us," said Vaseem Khan, Senior Vice President, Onshore. "Our work with Lummus Technology since the basic design a built our intricate knowledge and understanding of the unit. This project is an excellent example of how, through our str technology solutions through the entire plant life cycle." The Slovnaft refinery is one of the most modern refineries in Europe. In addition to oil processing and fuel production, i polyethylene and polypropylene. The ethylene unit is key to the company's petrochemical section. Work on the project will be delivered from McDermott's center for downstream engineering in Brno, Czech Republic. 21st March 2023</p>
UK	<ul style="list-style-type: none"> <p><u>SSE to invest £100m in 1500MW Coire Glas pumped hydro project in UK</u> The £100m investment will support further development of the Coire Glas project, which includes the deployment of long-duration electricity storage, construction of a major exploratory tunnel, support the</p>

evaluation of geological conditions. UK-based energy company SSE has unveiled its plans to invest £100m in the proposed Coire Glas pumped hydro project, which will have a potential capacity of up to 1,500MW. The Coire Glas project is planned to be built on the shores of Loch Lochy, between Fort William and Inverness, and is expected to entail an investment of more than £1.5bn. SSE will proceed with detailed project design and refinement, construction planning and procurement, through 2023 and into early 2024. The company's £100m investment will support further development of the Coire Glas project, including the deployment of long-duration electricity storage. If approved, Coire Glas would be the UK's first large-scale pumped storage project in the last four decades and increases the country's electricity storage capacity by more than double. SSE aims to make a final investment decision on the project in 2024, subject to positive development progress, and commission the pumped storage scheme by 2031. Once completed, Coire Glas is expected to deliver 30GWh of long-duration storage. **22nd March 2023**

- **Shell Blue Hydrogen Process wins design contract for Humber H2ub**

Energy company Uniper and Shell UK Limited (Shell UK) have awarded a process design package contract to Shell Catalysts & Technologies for the Humber H2ub project. The deal – awarded following a formal selection process – could see the Shell Blue Hydrogen Process (SBHP) technology deployed at Uniper and Shell UK's proposed project in the Humber, UK. The project, Humber H2ub, will be a large-scale low carbon hydrogen production facility at Uniper's Killingholme site. The planned development will include blue hydrogen production capability with a capacity of up to 720 megawatts (MW), using gas reformation technology with carbon capture and storage (CCS). Two other companies are working on plant design proposals for the project, with the successful selection becoming the project's preferred low-carbon hydrogen production. According to Shell, the carbon dioxide (CO₂) – amounting to around 1.6 million tonnes per year – produced during blue hydrogen production will be captured and stored in a geological formation in the North Sea. The project could also contribute towards the UK government's target to capture and store 20-30 million tonnes per year of CO₂ by 2030 and to produce up to 10GW (gigawatts) of low carbon hydrogen. "Hydrogen will be one of the solutions to achieve the UK's target of becoming carbon neutral by 2050, and the Humber region and this project, will contribute to achieving it. **22nd March 2023**

NORTH & SOUTH AMERICA

BRAZIL

- **Contractor in talks with Brazil's Petrobras over \$1 billion titanium riser project**

Costly new technology is designed to replace flexibles struggling to cope with high levels of contaminants on the Tupi and Buzios pre-salt fields. Brazilian state-controlled company Petrobras has entered exclusive negotiations with a leading subsea services provider for the contracting of a pioneering riser titanium solution to serve a pair of giant pre-salt fields in the prolific Santos basin. Petrobras offered an engineering, procurement, construction and installation contract designed to replace old and potentially compromised flexible pipes in the Buzios and Tupi fields with more resistant rigid risers made of titanium. Industry sources told Upstream that Italy's Saipem edged out arch-rivals TechnipFMC and Subsea7 and is well-positioned to secure the coveted contract pegged at about \$1 billion if talks with Petrobras progress in the right direction. **20th March 2023**

CANADA

- **EnerMech wins Canadian LNG contract**

Global services company EnerMech Canada has signed its first LNG pre-commissioning and commissioning contract in Canada. News of the contract follows EnerMech investing over C\$19.6m in additional equipment to bolster its fleet, capabilities and services in the Americas. Under terms of the awarded deal, EnerMech will roll out its integrated project management and delivery solutions specifically developed to enhance efficiencies. Christian Brown, CEO of EnerMech, said the award is a strategically important win for the company as it looks to increase its foothold as a services provider for LNG production, storage and loading projects. EnerMech's core capabilities work scope includes temporary commissioning utilities, valve calibration and testing, pneumatic and hydraulic testing of piping systems, pre-start up flushing of

rotating equipment lubrication systems, chemical cleaning of process systems and operational pressure testing, drying and inserting of low temperature process systems. **16th March 2023**

MEXICO

- **Eni Makes Oil Discovery Offshore Mexico**

Italian oil and gas major Eni SpA on Friday said it had discovered oil in the Sureste Basin offshore Mexico in a prospect that could contain around 200 million barrels of oil in place. The discovery was made on the Yatzil exploration prospect in Block 7, which is located in the mid-deep water of the Cuenca Salina in the Sureste Basin. This is not the first discovery for the Italian energy major in the basin. Three years ago, Eni announced a discovery in the Sureste Basin, saying it could contain between 200 and 300 million barrels of crude oil. That discovery was made in Block 10, in which Eni is the operator and holds the majority stake. In Block 7, the joint venture partners include Eni, which is the operator with a 45% stake, Capricorn with 30%, and Citla Energy with a 25% interest. Today, Eni said that Yatzil-1 is the second commitment well of Block 7 and the eighth successful one drilled by Eni in the Sureste Basin. The new oil discovery is located approximately 65 kilometers (40 miles) off the coast and 25-30 km (15-18 miles) away from other discoveries. **17th March 2023**

USA

- **HydrogenPro to establish 500-MW manufacturing facility in Texas**

This move will increase HydrogenPro's manufacturing capacity to 800 MW in total and represents a major milestone in strategy to become #1 provider of large-scale green hydrogen technology & system. HydrogenPro will take its first major step into the US market with the establishment of 500 MW manufacturing capacity investment cost of USD 30-50 million. The brownfield investment includes a separate advanced electrode manufacturing changer in the HydrogenPro solutions offering. This move will increase HydrogenPro's manufacturing capacity to 800 MW in total and represents a major milestone in strategy to become #1 provider of large-scale green hydrogen technology & systems. **21st March 2023**

- **Sempra launches Port Arthur LNG project**

Sempra Infrastructure closed its joint venture with an affiliate of ConocoPhillips (NYSE: COP), as well as announced an agreement to sell an indirect, non-controlling interest in the project to an infrastructure fund managed by KKR. Sempra's selection of Port Arthur as the location for a new natural gas liquefaction and export terminal is a strategic decision that will cement Texas' position as the energy capital of the world," said Texas Gov. Greg Abbott. "With a highly skilled workforce and business-friendly climate, and as a national leader in LNG exports, Texas is the prime location to expand LNG operations to unleash the United States' full economic potential in such a critical industry. Expanding LNG is imperative to American energy security, and the State of Texas looks forward to working alongside Sempra to advance this mission and bring more jobs and greater opportunities to hardworking Texans." The Port Arthur LNG Phase 1 project is fully permitted and is designed to include two natural gas liquefaction trains, two liquefied natural gas (LNG) storage tanks and associated facilities with a nameplate capacity of approximately 13 million tonnes per annum (Mtpa). **21st March 2023**

- **ExxonMobil starts up Beaumont refinery expansion, adds 250 KBPD**

ExxonMobil announced the successful startup of its Beaumont refinery expansion project, which adds 250 thousand barrels per day (kbpd) of capacity to one of the largest refining and petrochemical complexes along the U.S. Gulf Coast. The expansion is equivalent to adding a medium-sized refinery, the company said. The added volume in Beaumont, Texas increases its total processing capacity to more than 630,000 bpd, making it one of the largest refineries in the United States. The refinery is connected to pipelines from ExxonMobil's operations in the U.S. Permian Basin, providing the company with significant strategic advantages. Permian crude oil is processed at the Beaumont refinery where the company manufactures finished products, including diesel, gasoline, and jet fuel. With the completion of Wink to Webster and Beaumont pipelines, the new crude unit will also be well-positioned to further capitalize on segregated crude from the Delaware Basin. **17th March 2023**

- **Technip Energies takes on engineering design for Texas Green Fuels export complex**
 The complex will produce ammonia, hydrogen and methanol for export with renewable electricity. Technip Energies has begun pre-front end engineering and design work for a green fuels export project in Galveston Bay in the US. The complex, operated by Texas Green Fuels, plans to produce and export ammonia, hydrogen and methanol by 2028. The final investment decision is expected in 2025. Texas Green Fuels, a clean energy company, is focused on being one of the world's lowest-cost producers of clean fuels using low-cost renewable energy and existing infrastructure in Texas. The partnership with Technip Energies would likely extend through engineering, procurement and construction of the complex. **22nd March 2023**
- **CVR Energy going ahead with alkylation project using KBR's K-SAAT technology**
 KBR's K-SAAT provides an opportunity to maximize the yield and quality of an ultra-clean gasoline blendstock with the ExSact catalyst. KBR announced that CVR Energy's Board of Directors has approved the next phase of the revamp of the alkylation unit in Wynnewood, Oklahoma. This phase entails the completion of engineering, design, module fabrication and construction for KBR's Solid Acid Alkylation hydrofluoric (HF) acid from the refinery. KBR's contract includes the supply of a fully engineered and fabricated modules for the project. **18th March 2023**
- **ExxonMobil boosts fuel supply with \$2 billion Beaumont refinery expansion**
 Construction on the Beaumont expansion began in 2019 and involved 1,700 contractors. ExxonMobil announced the successful startup of its US\$ 2 billion Beaumont refinery expansion project, which adds 250,000 bbl per day refining and petrochemical complexes along the U.S. Gulf Coast. Supported by the company's growing crude processing refinery expansion in more than a decade will help meet growing demand for affordable, reliable energy. ExxonMobil maintained its commitment to the Beaumont expansion even through the lows of the pandemic, knowing capacity would be critical in the post-pandemic economic recovery," said Karen McKee, president of ExxonMobil Production. "The new crude unit enables us to produce even more transportation fuels at a time when demand is surging. This expansion refinery and is a key part of our plans to provide society with reliable, affordable energy products. **17th March 2023**
- **Total Helium announces joint venture for Pinta South Helium Project**
 Total Helium has entered into a definite purchase and sale agreement for a joint venture in the Pinta South Helium Project in Arizona. The agreement is between US helium producers Brooks Range Corporation, Butler Minerals and Mid America Exploration and allows for the acquisition of an interest in existing helium production and a large-scale helium exploration and production programme in the Holbrook Basin. As part of the joint venture, Total Helium will acquire a 20% interest in two producing wells with an average daily gross gas production of 264 million cubic feet per day and helium concentrations greater than 8%. The Pinta South Helium Project spans over 27,000 acres and has over 150 potential drill sites in the Holbrook Basin in Arizona. Following completion of the transaction, Total Helium plans to begin drilling and complete ten additional wells, bring the total number of producing wells to 20 by the end of Q2 2023. **21st March 2023**
- **Total Helium announces joint venture for Pinta South Helium Project**
 Total Helium has entered into a definite purchase and sale agreement for a joint venture in the Pinta South Helium Project in Arizona. The agreement is between US helium producers Brooks Range Corporation, Butler Minerals and Mid America Exploration and allows for the acquisition of an interest in existing helium production and a large-scale helium exploration and production programme in the Holbrook Basin. As part of the joint venture, Total Helium will acquire a 20% interest in two producing wells with an average daily gross gas production of 264 million cubic feet per day and helium concentrations greater than 8%. Total Helium will also acquire a 50% interest in eight additional existing wells which are being connected to a helium processing plant. **21st March 2023**
- **Biden-Harris Administration announces \$750m to cut clean hydrogen costs**
 The Biden-Harris Administration, through the US Department of Energy (DOE), has announced \$750m for research and development efforts related to reducing the cost of clean hydrogen. Produced with Net Zero

carbon emissions, clean hydrogen has been described as “essential” for reaching President Biden’s goal of a 100% clean electrical grid by 2025 and Net Zero carbon emissions by 2050. The funding marks the first phase of \$1.5bn made available in President Biden’s Bipartisan Infrastructure Law dedicated to advancing electrolysis technologies and improving manufacturing and recycling capabilities. Under plans laid out by the Biden-Harris Administration, a total of \$1bn will be dedicated to the research, development, demonstration, and deployment activities to reduce the cost of clean hydrogen. The remaining \$500m will be dedicated for research, development, and demonstration of improved processes and technologies for manufacturing and recycling clean hydrogen systems and materials. Jennifer Granholm, US Secretary of Energy, says that making clean hydrogen from abundant renewable energy provides the US with another powerful fuel for several applications, from construction and manufacturing to powering cars and trucks. Reaching cost reduction goals will open new markets for clean hydrogen—creating more clean energy jobs, reducing harmful greenhouse gas emissions, and strengthening America’s long-term competitiveness in the global clean energy market. **16th March 2023**

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