

GERAB

BULLETIN

Weekly News



EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent and Crude Oil WTI prices are hovering in the range of USD 70-80 and trading lower by more than 36% than a year ago prices.
- Coal prices are trading lower by 66% than a year ago prices
- Steel HRC (North America) trading lower by 13 % WTD
- Chromium prices have gone down by 15% YTD
- Natural Gas prices are down by 4% WTD

The Currency summary

- Euro to USD exchange rate is almost equal to the rate one year ago
- The US Dollar to CNY is stronger by more than 7% YTD

The Rig count summary

- The Rig counts in Europe have gone up by 9% MTD and the rig counts in North America have gone down by 11% 3MTD.

Project summary

- ADNOC Awards Major EPC Contract Worth \$162mn
- UAE's ADNOC L&S awarded \$975m Contract to develop island in Lower Zakum offshore oilfield
- EPC contractors submit bids for ADNOC's \$30 billion Upper Zakum megaproject
- Hydrom, BP Oman secure \$20 billion deals for massive green hydrogen projects
- Galfar awarded \$728.2m Contract from PDO
- Saudi Arabia's NWC to award \$100 million contract for Riyadh Water Strategic Plan Phase
- Tata to set up Rs. 13,000 crore lithium-ion cell plant in Gujarat
- IH2A submits US\$ 5 bn national green hydrogen hub plan to Gol
- TotalEnergies set to launch major project in Iraq as part of \$27 billion framework
- Sembcorp and Medco in \$1.4 billion gas deal
- Hunt is on for \$1 billion Petrobras SURF contract at giant pre-salt field
- Mexico approves \$4.5 billion shallow-water field development plan

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	9,377.37	-2.40	-3.56	-9.34	-7.37	-14.56
Coal	USD/MT	148.21	-0.48	-17.87	-25.04	-66.48	-66.01
Cobalt	USD/MT	28,770.33	-1.73	-7.71	-16.79	-34.90	-63.52

Copper	USD/MT	8,324.50	2.28	0.05	-6.11	-1.18	-8.06
Crude Oil	USD/BBL	73.78	-0.72	0.11	-3.18	-5.78	-36.38
Crude Oil Brent	USD/BBL	76.04	-0.45	0.47	-3.93	-5.82	-35.28
Crude Oil WTI	USD/BBL	71.51	-1.01	-0.28	-2.37	-5.75	-37.52
Iron Ore	USD/MT	108.59	2.83	2.61	-14.83	-1.16	-20.48
Molybdenum	USD/MT	49,700.70	6.22	7.27	-30.38	-6.38	29.73
Natural Gas	USD/MCF	2.34	-4.44	-1.34	-6.36	-61.98	-70.31
Nickel	USD/MT	21,090.00	0.26	-5.91	-10.20	-27.67	-18.35
Steel HRC (FOB China)	USD/MT	552.00	-3.92	-4.03	-15.96	-3.92	-24.79
Steel HRC (N. America)	USD/MT	1,049.20	-12.64	-14.98	-13.88	46.80	-16.74
Steel Rebar	USD/MT	567.96	5.43	0.40	-15.67	-6.66	-23.39
Steel Scrap	USD/MT	381.00	2.97	1.10	-15.05	-0.62	-0.41

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	1.0708	-0.49	-2.69	1.56	1.44	-0.09
USDCNY	1 USD to CNY	China	CNY	7.1489	-0.64	-3.30	-2.61	-2.71	-6.74

Source- Trading Economics

CRUDE OIL STOCK

Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,09,281.00	0.68	0.68	0.74	2.01	-4.12

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	26.83	USD	4.97	-2.29	-14.45	-0.96	-15.23
Glencore PLC	437.05	GBP	4.83	-1.59	-10.23	-20.33	-18.76
NYSE American Steel Index	1,816.20	Index	8.22	2.88	-10.81	1.98	-0.39
Rio Tinto PLC	5,103.00	GBP	4.44	2.22	-14.38	-11.71	-15.86
Tenaris SA	27.73	USD	7.94	0.29	-17.93	-15.35	-18.20
Tubacex SA	2.66	EUR	5.98	8.13	9.02	32.34	4.72
Woodside Energy Group	35.24	AUD	3.16	3.49	0.97	2.29	1.44

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	58	*	1.75	9.43	13.73	20.83
GCC	229	*	0.44	5.53	2.69	7.51
Middle East	334	*	0.60	3.73	2.14	6.71
Africa	87	*	3.57	1.16	4.82	24.29
Asia-Pacific	216	*	6.40	14.89	14.89	19.34
Europe	99	*	-9.17	-3.88	4.21	39.44
Latin America	190	*	6.74	4.97	2.70	24.18
North America	789	-0.63	-0.63	-11.45	-8.36	-12.82
Total	1,715	*	0.88	-3.16	-1.38	1.30

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE

- ADNOC Awards Major EPC Contract Worth \$162mn**
 National Petroleum Construction Co (NPCC), a subsidiary of National Marine Dredging Co (NMDC), has been awarded a contract worth \$162.31 million by the Abu Dhabi National Oil Company (ADNOC), reported Oil & Gas Middle East. The contract encompasses the engineering, procurement, and construction (EPC) activities for the installation of seven jackets, as stated in a filing to the stock exchange. NPCC has grown from a small fabricator to an international EPC company with over 1,400 engineers in four engineering centres, owner of the largest fabrication yard and the largest offshore construction fleet in the MENA region through continuous investment in capabilities. **5th June 2023.**
- Fujairah anticipates EPC projects worth \$100bn**
 Fujairah National Energy Co (FUJNEC) is preparing to select partners for its expansion into the downstream oil and gas sector through engineering, procurement, and construction (EPC) activities. According to Oil & Gas Middle East, the emirate of Fujairah foresees substantial opportunities in the EPC sector, valued at around \$100 billion in the coming decade. FUJNEC, a prominent engineering enterprise in the emirate, intends to collaborate with leading EPC firms to capitalize on this immense potential. Established in 2005 by the Fujairah Government, FUJNEC is an independent oil and gas company based in Fujairah, UAE. Its primary areas of operation encompass oil and gas exploration and production, supply and trading, processing and condensate terminals, infrastructure development, and aviation. As the largest engineering enterprise in the emirate, FUJNEC is enthusiastic about entering the EPC business. **2nd June 2023.**
- ADNOC awards multi-million EPC contracts for Abu Dhabi's Bab and Asab fields**
 ADNOC Onshore recently awarded multi-million EPC contracts for Bab and Asab oil field clusters to maintain and sustain crude oil production from the assets. The project, which aims at expanding ADNOC's oil production capacity, was divided into 5 EPC packages, according to data from DMS Projects. EPC package awards Egypt-headquartered contractor Petrojet was awarded the contracts for Packages 1 and 5, totaling a value of \$181 million. Petrojet's scope of work for Package 1 includes dismantling and reinstatement of existing workover structures, rehabilitation of existing gas production flowlines at Bab, construction of a temporary facility and tie-in of gas producer wells at Bab and Manifa. Omani contractor Galfar secured \$136 million EPC contract for Package 2. The contract value for both tenders is \$136 million and \$63 million respectively. Package 4 includes tie-in of new gas producer wells and new gas injector wells at Asab along with dismantling and reinstatement of existing workover structures at Bab. **5th June 2023.**

- **Four in frame for Adnoc's first CO2 recovery project as Al Jaber looks to prove doubters wrong**
 Company's CO2 recovery project comprises the Habshan gas plant, with its capital expenditure said to be upwards of \$500 million. Four leading international contracting giants are battling for a sizeable carbon capture project from Abu Dhabi National Oil Company (Adnoc), comprising its existing Habshan gas plant in Abu Dhabi, the emirate's first such project from its oil and gas operations. The state-owned giant has highlighted its ambition to ramp up its carbon capture, utilisation, and storage (CCUS) capability to 5 million tonnes per annum by the end of the decade, a key component of its strategy to drive down emissions from hydrocarbon projects. **4th June 2023.**
- **Chinese contractor lands Adnoc onshore field rejuvenation deal**
 Refurbishment at Bab, Northeast Bab and Southeast fields will increase oil and gas processing capacity by 20%. Chinese contractor China Petroleum Engineering and Construction (CPECC) has won a major contract from Adnoc Onshore, the onshore arm of state-owned Abu Dhabi National Oil Company (Adnoc), to upscale production of its mature fields. CPECC said the award covers engineering, procurement, construction and management of what is called Project Swing, involving retooling the existing facilities at the giant Bab field, Northeast Bab field and Southeast field as well as adding facilities for water and gas injection. The refurbishment will increase by 20% the oil and gas processing capacity at these fields, CPECC said. The expansion project should be completed in 39 months and 95% of the engineering work should be finished in 15 months. Project Swing is part of Adnoc's scheme to boost production to 5 million barrels per day by 2025, up from 4 million bpd now. Adnoc, led by chief executive Sultan Al Jaber, earlier said that it would invest 1.8 billion dirhams (\$489 million) to upgrade its Bab field to sustain the long-term production capacity. Bab is one of Adnoc's largest onshore producing assets, located 160 kilometres southwest of Abu Dhabi. **6th June 2023.**
- **UAE's ADNOC L&S awarded \$975m Contract to develop island in Lower Zakum offshore oilfield**
 ADNOC Logistics and Services plc, UAER, announced that it has been awarded a \$975-million artificial island construction contract by ADNOC Offshore. As part of ADNOC's In-Country Value program, at least 75% of the total contract value for dredging, land reclamation and marine construction of an artificial island "G" for the Lower Zakum offshore field, will flow back into the UAE economy. This award is a significant milestone in ADNOC Logistics & Services' (ADNOC L&S) strategy to pursue new growth opportunities. ADNOC L&S' Integrated Logistics business unit is an end-to-end, fully integrated energy logistics services provider. The provision of Engineering, Procurement and Construction (EPC) services in the integrated logistics business is a new offering by ADNOC L&S in line with its announced strategy to achieve significant ongoing growth, including expansion into new verticals. **8th June 2023.**
- **EPC contractors submit bids for ADNOC's \$30 billion Upper Zakum megaproject**
 Contractors have submitted technical bids for the EPC works of surface facilities and subsea pipeline packages on the Upper Zakum expansion project, according to data from DMS Projects. Although the complete list of bidders is yet to be announced, Petrofac has confirmed its technical bid submission. EPC contracts are expected to be awarded in Q4 2023. The Upper Zakum oil field, located 84 kilometers offshore of Abu Dhabi, is the second-largest offshore oil field and the fourth-largest oil field in the world. ADNOC intends to expand the Upper Zakum offshore oilfield by undertaking the first phase of the UZ1000 project valued at \$29.9 billion (AED 110 billion). The project aims to enhance the field's oil production capacity to 1.2 million BPD by 2025, by developing the reservoirs and also helping sustain the asset's production through to 2030. In April 2023, ADNOC Drilling secured an award of a five-year contract for the provision of Integrated Drilling Services (IDS) totaling \$412 million for the development of the Upper Zakum field. **8th June 2023.**

OMAN	<ul style="list-style-type: none"> <p><u>BP and Shell among first winners of Oman's green hydrogen land lease auction</u> Three blocks of land near the port of Duqm awarded by government as the Gulf country aims to produce 1.25 million tonnes of renewable H2 annually by 2030. The Gulf state of Oman has today (Thursday) awarded three blocks of land for green hydrogen project development to consortia including oil majors and international investors. The winners of the land leases near the port of Duqm are: BP, which aims to produce 150,000 tonnes of green hydrogen a year in the country, from 3.5GW of renewable energy. Oman has set major targets for green hydrogen, with an ambition to produce 1-1.25 million tonnes of green hydrogen annually by 2030 requiring 8-15GW of electrolyzers and 16-30GW of renewables capacity to be installed in the next seven years. To this end, the Gulf state has allocated 50,000sq km of land for green hydrogen projects and opened the auction process for the first few blocks late last year. The amount of land leased to the three winning applicants today represent only 320sq km, according to local English-language newspaper Times of Oman. 1st June 2023</p> <p><u>Hydrom, BP Oman secure \$20 billion deals for massive green hydrogen projects</u> Hydrogen Oman (Hydrom) has taken a major leap forward in the green hydrogen sector by signing three groundbreaking agreements worth over \$20 billion. The agreements, sealed with Amnah and Oman Green Energy Alliance, as well as BP Oman, are set to establish three major green hydrogen projects in Oman's Al Wusta Governorate. With a combined area spanning 320 square kilometers per project, the ambitious projects are expected to produce an astounding half a million metric tons of green hydrogen, equivalent to a remarkable 12 gigawatts of renewable energy production capacity. The investments have been strategically aligned with Oman's drive to meet the 2030 target of 1 million tons per annum of green hydrogen production. As part of the auction requirements, the winning developers are tasked with delivering integrated projects that encompass the entire green hydrogen value chain. Parallel to this, the Oman Energy Development Company signed a memorandum of understanding with German energy giant Siemens to foster collaboration in hydrogen-related research and capitalise on global expertise. 2nd June 2023</p> <p><u>Galfar awarded \$728.2m Contract from PDO</u> Galfar Engineering & Contracting SAOG, Oman announced in a statement that it has awarded Off-Plot Delivery Contract Qarn Alam. The value of the Contract is OMR 280 million. The Project was awarded by Petroleum Development Oman (PDO) and the duration of contract is seven years. If the extension option of three years is approved and implemented, the potential associated additional contract value will be OMR 120 million. We would like to extend our sincere thanks to PDO for the confidence it has placed in Galfar by awarding this Project, statement mentioned. 4th June 2023</p>
QATAR	<ul style="list-style-type: none"> <p><u>Four-way fight shaping up for \$4 billion contract at one of world's largest gas fields</u> Qatargas draws up pre-qualification list for massive North Field offshore package. State-run Qatargas has drawn up a pre-qualification list for a massive engineering, procurement, construction and installation contract for compression facilities required for its North Field Production Sustainability (NFPS) offshore project. The subsidiary of state-owned QatarEnergy has informed pre-qualified bidders ahead of an international tender process expected that is to be launched within days, three people with direct knowledge of the bid process told Upstream. 2nd June 2023</p>

- **Kuwait's HEISCO wins \$133mn contract at JNGLF facility in Saudi**

Kuwait-based Heavy Engineering Industries & Shipbuilding Co. (HEISCO) recently revealed that its branch in Saudi Arabia has been awarded a significant contract by the main contractor. The project holds a substantial value of SAR 500 million. The awarded project entails the execution of primary civil and mechanical construction works for the installation of C3/C4 Refrigeration units and storage tanks at Juaymah, located in Ras Tanura City, Saudi Arabia. These crucial components will enhance the infrastructure and operations of the Juaymah Natural Gas Liquids Fractionation (JNGLF) facility. The duration of the contract is 28 months. The JNGLF facility is responsible for providing ethane, propane and butane products to Aramco's local petrochemical industry through fractionating and treating natural gas liquids. In addition, Juaymah also has the capability to export refrigerated propane and butane through export facilities. **5th June 2023**

- **Aramco awards \$24.8 million contract to East Pipes**

Saudi Aramco has awarded a contract to East Pipes Integrated Co for nearly \$24.8 million, East Pipes said in its bourse disclosure. The eight-month deal covers the manufacturing and supplying of steel pipes to Aramco. East Pipes Integrated indicated that the agreement will reflect on its income statements during the fourth quarter (Q4) of fiscal year (FY) 2023/2024 and Q1-24/25. Last month, Saudi-headquartered East Pipes Integrated Co landed a \$480 million contract from Saudi Aramco to manufacture and supply steel pipes for its key projects.

Founded in 2010 in Dammam in the Eastern Province, East Pipes Integrated Co has now become a major manufacturer of spiral steel pipes. **5th June 2023.**

- **L&T to build energy infrastructure for world's largest green hydrogen plant**

L&T to build energy infrastructure for world's largest green hydrogen plant. NGHC is setting up a mega plant to produce green hydrogen at-scale for global export in the form of green ammonia with a total investment of USD 8.4 billion. The Power Transmission & Distribution Business of Larsen & Toubro has achieved important milestones for the Power Elements and Grid packages of the world's largest green hydrogen plant being built by NEOM Green Hydrogen Company. Located at Oxagon in Saudi Arabia's region of NEOM, NEOM Green Hydrogen Company (NGHC) is an equal joint-venture by ACWA Power, Air Products and NEOM. NGHC is setting up a mega plant to produce green hydrogen at-scale for global export in the form of green ammonia with a total investment of USD 8.4 billion. Supported by 23 local, regional, and international banking and financial institutions, the project has now achieved full financial close and construction is moving forward. A few quarters back, L&T received the nod to establish the Renewable Energy Generation, Storage and Grid infrastructure, from Air Products, the system-integrating EPC Contractor and exclusive off-taker of green ammonia to be produced from the project. The value of the packages awarded to L&T aggregate to USD 2.779 billion. **4th June 2023.**

- **European Lithium, Obeikan to jointly build lithium hydroxide plant in Saudi Arabia**

The 50:50 joint venture (JV) will be geared towards developing, constructing, commissioning and operating the plant for the conversion of lithium spodumene concentrate from European Lithium's Wolfsberg mine. European Lithium Ltd has signed a binding agreement for joint development and operation of a processing plant in Saudi Arabia with Obeikan Group to convert lithium concentrate into lithium hydroxide. Tony Sage, chairman of EUR said the new facility, once operational, was expected to significantly reduce energy costs and deliver savings in opex, in addition to lower capex, for operations at Wolfsberg. The 50:50 joint venture (JV) will be geared towards developing, constructing, commissioning and operating the plant for the conversion of lithium spodumene concentrate from European Lithium's Wolfsberg, Europe's first fully permitted lithium mine, located in Carinthia, 270km south of Vienna. **3th June 2023.**

- **Saudi Arabia's NWC to award \$100 million contract for Riyadh Water Strategic Plan Phase**

Saudi Arabia's National Water Company is on track to award a mammoth engineering, procurement, and construction (EPC) contract worth a staggering \$100 million. Industry insiders have revealed that this

massive undertaking marks the second phase of the highly anticipated Riyadh Water Strategic Plan, codenamed Contract No. 5 – Phase 1. With the stakes at an all-time high, sources quoted by *Zawya* suggest that the EPC contract will be handed out by the fourth quarter of 2023, signalling a major leap forward for Saudi Arabia’s water infrastructure. This news comes hot on the heels of the release of the much-awaited EPC tender on June 4, 2023, setting off a frenzy among top industry players. The ambitious project aims to install a sprawling network of cutting-edge main water pipelines, boasting an extensive length of 48 kilometers. These pipelines will be constructed using state-of-the-art ductile iron pipes of various sizes, ranging from a 1000 mm down to 300 mm, ensuring unmatched efficiency and performance. **6th June 2023.**

ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)

CHINA

- China confirms oil reserves at offshore discovery**
Roc Oil receives verification that Huizhou 12-7 find in South China Sea holds 7.35 million barrels of oil. China’s upstream watchdog, the Ministry of Natural Resources (MNR), has verified Australian independent Roc Oil’s recent hydrocarbon discovery in the South China Sea’s Pearl River Mouth Basin. Roc’s owner, Shanghai-listed Hainan Mining, said the independent received confirmation from the Chinese government that the Huizhou 12-7 oilfield in Block 03-33 holds incremental proven oil reserves of 7.35 million barrels. Hainan added that Roc and partner CNOOC Ltd will now carry out an environment impact assessment and work on an overall field development plan to help assess the field’s economics before moving towards a final investment decision. **7th June 2023**

INDIA

- Tata to set up Rs. 13,000 crore lithium-ion cell plant in Gujarat**
The plant is said to be the first to manufacture lithium-ion cells in India and will be in Sanand. Tata Group has signed a Memorandum of Understanding (MoU) with the Govt. of Gujarat to set up a lithium-ion cell manufacturing plant in the state. The new plant will be set up at an initial investment of Rs 13,000 crore and will have a production capacity of 20 gigawatt-hours (GWh), the Gujarat government said in a statement on Friday. The MoU was signed by Vijay Nehra, the Secretary of Science and Technology, Government of Gujarat, and Rakesh Ranjan, the CEO of Agratas Energy Storage Solutions Pvt Ltd, a subsidiary of the Tata Group in the presence of Gujarat Chief Minister Bhupendra Patel. **4th June 2023**
- IH2A submits US\$ 5 bn national green hydrogen hub plan to GoI**
Production and Offtake Incentives sought for period 2024-2030, to create five National Green Hydrogen Hubs. India Hydrogen Alliance (IH2A) submitted US\$ 5 bn National Green Hydrogen Hub Economic Viability and Development Plan to the Prime Minister’s Office (PMO), Cabinet Secretariat and Ministry of New and Renewable Energy (MNRE) in the Government of India. The plan envisages creating five large National Green Hydrogen Corporations collectively worth US\$ 5 bn by 2030, through public-private partnerships. The plan seeks public finance support for green hydrogen production and offtake to create the necessary infrastructure in the initial 2024-2030 period, and publicly list the national hydrogen corporations created as a result to fund the next wave of investments to scale up the hydrogen economy. The National Green Hydrogen Hub Economic Viability and Development Plan was prepared by starting with a reference economic model of the Green Kochi Hydrogen Hub (GKH2), as a 50:50 public-private Special Purpose Vehicle (SPV) with a 150 MW Electrolyser Capacity, Storage and Evacuation Infrastructure, Renewable Energy inputs, Green Ammonia production plants, and offtake by industrial and mobility users, with a USD 468 mn CAPEX outlay over a 20-year project period. **8th June 2023**

IRAQ

- Aramco Eyes Major Opportunity In Iraq**
Saudi Aramco’s development of the Iraqi Akkas project could provide much-needed gas for Iraq’s power generation sector. Saudi Aramco may not see the same difficulties in Iraq’s oil sector as Western

companies have. The gas supplied from the Akkas project and corollary developments would finally allow for the full-scale development of the long-mooted Nebras Petrochemicals Project. Following the recent China-brokered resumption of relationship deal between historical enemies Saudi Arabia and Iran, a deal for the Kingdom to develop two key projects in Iran's close ally Iraq is in the offing. The problem with this idea is that it is dependent on two highly unpredictable elements. The first is the degree to which senior Iraq Oil Ministry officials are willing to put the interests of their country ahead of their own. The second is the U.S.'s on the whole thing. The deal – which was announced as definite and then as subject to further ratification comprises one big idea and two smaller ones that support it. The big idea is for Iraq to take the next step in genuinely building out its gassector. The other two ideas are firstly that towards this end, Saudi Aramco develops the giant Akkas gas field, and secondly that the resultant gas goes towards the build-out of the long-delayed. **5th June 2023**

- **TotalEnergies set to launch major project in Iraq as part of \$27 billion framework**

France's TotalEnergies is pushing ahead with plans to build a 1,000 megawatt solar power project in Iraq after the project was endorsed by Baghdad last week, Zawya Projects reported, citing a statement by the Iraqi Electricity Ministry. The solar park project is part of a \$27 billion framework agreement signed by Iraq and France in Sept 2021. Electricity Minister Ziad Fadil gave the green light for the project in the Southern port of Basra during talks with a TotalEnergies delegation in Baghdad on Monday, it said. TotalEnergies will soon embark on a project to build a 1,000 MW solar power park in the Artawi oilfield in Basra...the project is the beginning of a promising partnership between Iraq and the French company," the statement added. It includes three contracts between the Iraqi Ministry of Oil and Totalenergies. The fourth contract is for the solar energy project in Basra. In April 2023, TotalEnergies had said in a press statement that in agreement with Iraqi authorities, it will invite ACWA Power to develop a 1-gigawatt solar power plant to supply electricity to the Basrah regional grid. Iraq has plans to build several solar power stations to slash energy imports with the signing of similar agreements with other firms, including Abu Dhabi-based Masdar and ACWA Power of Saudi Arabia. **7th June 2023**

JAPAN

- **Denka partners with Transform Materials to establish low-carbon acetylene supply chain**

Denka will install acetylene and hydrogen production equipment based on this technology at its Omuta Plant in Japan to demonstrate and optimize the technology to realize the large-scale mass production of acetylene. Denka Company Limited has decided to conduct joint research with Transform Materials LLC, a global microwave plasma technology provider, to establish its technology for realizing the low-carbon production of acetylene. The signing ceremony was held on May 23, 2023. Under our eight-year management plan Mission 2030, which started in fiscal 2023, we aim to achieve 100% of our businesses being "three-star businesses" with the three elements of specialty, megatrends, and sustainability. In addition, as one of our non-financial KPIs, we have also set the goal of reducing CO2 emissions by 60% by 2030 compared to fiscal 2013), and are proceeding with the transformation of our portfolio by establishing a low-carbon acetylene chain. Transform Materials, the company with which we have concluded this agreement, is a private equity backed company based in the United States that owns technology for producing acetylene and hydrogen from methane (and other gaseous hydrocarbons) using microwave plasma reactors. The technology of Transform Materials not only contributes to the reduction of CO2 emissions from our mainstay products such as chloroprene rubber and acetylene black produced from the existing acetylene chain made from carbide, but also has the potential to create new initiatives that contribute to carbon neutrality by utilizing the by-product hydrogen. In addition, we plan to make environmental investments totaling 85 billion yen over the eight years up to 2030. We will continue to push forward with various sustainability-related initiatives, both in Japan and overseas, toward the achievement of carbon neutrality in 2050. **5th June 2023**

- **Mitsubishi Gas Chemical to use biogas feedstock for bio-methanol production**

The company plans to start manufacturing at its Niigata plant in 2024. Mitsubishi Gas Chemical Co. Inc. announced that it has been selected for the "Sale of Unused Biogas through the Public Proposal Method conducted by Niigata Prefecture, as the biogas user, and has concluded a basic agreement on the

	<p>purchase and sale of biogas with Niigata Prefecture. This Public Proposal was conducted for the purpose of selling and effectively using unused biogas generated from the sewerage treatment plant (septic center) owned by Niigata Prefecture, and we proposed the production of bio-methanol using this biogas. Bio-methanol is produced from both methane and carbon dioxide, which are the main components of biogas. We plan to start manufacturing using our existing equipment at our Niigata Plant in the spring of 2024. 7th June 2023</p>
KAZAKHSTAN	<ul style="list-style-type: none"> <u>Kazakhstan set to boost business with China</u> Kazakhstan authorities have announced plans to scale up partnerships with China National Petroleum Corporation (CNPC) after years of prioritising investments and co-operation with Western and Russian oil players. State-owned investment vehicle Samruk-Kazyna said it will fully support CNPC's plans to invest in expanding the capacity of oil and gas pipelines in Kazakhstan and to build a sour gas processing plant for the Kashagan offshore development. Additionally, Astana expects CNPC to get involved in an upgrade project at Shymkent one of the three oil refineries in the country aiming to double its processing capacity to more than 90 million barrels per annum. Samruk-Kazyna holds the Kazakh government's controlling stake in the country's fourth-largest oil and gas producer, KazMunayGaz. Samruk-Kazyna said CNPC is set to team up with KazMunayGaz to work on increasing the throughput capacity of the oil trunklines from Kenkiyak to Atyrau and from Kenkiyak to Kumkol by 125,000 barrels per day and 104,000 bpd, respectively. Samruk-Kazyna has also backed CNPC's plans to work jointly with Qazaqgaz on the construction of a second line of the Beyneu–Bozoy–Shymkent gas pipeline that will boost the existing capacity of the network by 15 billion cubic metres per annum. Both sides have to complete a feasibility study for the pipeline project and determine possible sources of financing by end of this year. 7th June 2023
NEPAL	<ul style="list-style-type: none"> <u>IOC forms JV in Nepal to build lube blending plant - F&L Asia (fuelsandlub.es.com)</u> Golchha Group and Indian Oil Mauritius Limited, a wholly-owned subsidiary of Indian Oil Corp. (IOC), have signed a 50-50 joint venture to build a state-of-the-art lubricant blending plant to produce SERVO-branded lubricants in Nepal. Established in 1937 by Ramlal Golchha, the industrial group, now known as Golchha Group, currently operates more than 100 companies in Nepal. The lubricant blending plant is expected to be completed by the end of 2024. The joint venture will also explore the possibility of investing in other energy-related sectors, including waste-to-energy. "We are thrilled to announce the commencement of a significant partnership with Indian Oil, India's largest company. 6th June 2023
SINGAPORE	<ul style="list-style-type: none"> <u>Sembcorp and Medco in \$1.4 billion gas deal</u> Singapore's Sembcorp Industries has signed a S\$1.9 billion (US\$1.41 billion) gas sales agreement (GSA) with Indonesian independent Medco Energi to purchase volumes produced at West Natuna gas fields offshore Indonesia. Natural gas from three Natuna Sea production sharing contracts will be imported via pipeline to the city state of Singapore. Medco operates the West Natuna–Singapore 656-kilometre shallow-water gas pipeline that has a maximum diameter of 48 inches, and which started operations in 2001. Sembcorp said the GSA is expected to be effective by the second half of 2023, conditional upon the necessary agreements to transport the new supply of gas. Delivery is expected to commence from 2024 for a tenure of four years. The GSA supplements Sembcorp's existing supplies of both pipeline gas and liquefied natural gas volumes, allowing the company to maintain its position as "Singapore's leading natural gas importer". Sembcorp added it is committed to supporting Singapore with a stable and resilient supply of energy in its transition towards a net zero future. The signing of this GSA with Medco is not expected to have a material impact on the earnings per share and net tangible assets per share of Sembcorp for the financial year ending 31 December 2023. 7th June 2023 <u>Singaporean and Indonesian offshore engineering contractors join forces to target floaters</u>

	<p>Joint venture will explore potential technical and operational collaboration, and jointly consider potential acquisitions. Singapore’s offshore engineering contractor Oceanstar Elite Group (OEG) and Indonesia’s Synergy Engineering Group (SEG) have signed an agreement to establish a joint venture, in part to look for opportunities for acquiring engineering assets. OEG said in a statement that the new joint venture would provide full engineering solutions to the offshore oil and gas industry, but it would not rule out the possibility for acquisitions by the partnership. The memorandum of understanding is the first step for the companies to work towards a joint entity, which will focus on engineering for offshore facilities such as floating production, storage and offloading vessels, semi-submersible platforms and tension leg platforms. Via its Indonesian joint venture Timas Oceanstar Indonesia (TOI) it owns the Trunojoyo 01 floating production unit, which was put into service at Madura project offshore Indonesia for Husky CNOOC Madura Limited last October. The newbuild FPU has gas processing capacity of up to 175 million cubic feet per day. The TOI joint venture between Timas Suplindo & Oceanstar Corporation Indonesia was established to invest and own the Trunojoyo 01 FPU. 7th June 2023</p>
VIETNAM	<ul style="list-style-type: none"> • <u>Biendong Petroleum extends FSO contract in southern Vietnam</u> Biendong Petroleum Operating Co. extended the Bareboat Charter Contract for FSO PTSC Bien Dong 01 to Yinson Production for 5 years in Block 05-2/05-3 offshore southern Vietnam. The extension, via the addendum entered by PTSC and PTSC SEA on June 2, 2023, sets a contract extension period from June 4, 2023, to June 3, 2028. The contract value is estimated at \$74.6 million. Blocks 05-2 and 05-3 are in Nam Con Son basin as part of the Bien Dong development and contain two commercial gas fields, Hai Thach and Moc Tinh, discovered in 1993-1995. The fields are high temperature, high pressure, and lie in 140 m of water. Reserves are 55.6 billion cu m of gas and 25.1 million tonnes of gas condensate. FSO PTSC Bien Dong 01 has been operating in Block 05-2/05-3 since June 4, 2013. Yinson Production is a joint venture between PetroVietnam Technical Services Corp. (PTSC, 49%) and PTSC South East Asia (PTSC SEA, 51%). Biendong Petroleum Operating Co., a subsidiary of Vietnam Oil and Gas Group, is operator at Blocks 05-2 and 05-3 (51%) with partner PJSC Gazprom (49%). 6th June 2023
AFRICA	
ALGERIA	<ul style="list-style-type: none"> • <u>Exxon and Chevron Close to Signing Gas Exploration Deals in Algeria</u> ExxonMobil and Chevron could gain access to Algeria’s vast natural gas resources as the U.S. supermajors are in advanced talks for exploration and production deals in the North African country, The Wall Street Journal reported on Friday, quoting sources with knowledge of the talks and Algerian Energy Minister Mohamed Arkab. Algeria holds huge conventional natural gas reserves, and it is also estimated to have the third-largest shale gas reserves in the world after China and Argentina. ExxonMobil and Chevron could complete the talks on the deals with Algerian state-held Oil and Gas firm Sonatrach by the end of this year, the sources told the Journal. “I am pushing Sonatrach,” Arkab told the WSJ, “because we need to increase our volumes. Most of Algeria’s gas exports are heading to Europe, which is increasingly betting on Africa to import large volumes of pipeline gas and LNG to replace pipeline gas supply from Russia, which was Europe’s top gas supplier before the Russian invasion of Ukraine. Italy’s energy major, Eni, has been particularly active in securing more natural gas supply for Europe from Africa and has fast-tracked projects in Africa to meet Europe’s gas demand in the absence of Russian pipeline deliveries. 5th June 2023
EGYPT	<ul style="list-style-type: none"> • <u>ExxonMobil to expand upstream investments in Egypt</u> Chairman and Managing Director of ExxonMobil Egypt, Amr Abou Eita, said the supermajor plans to expand its upstream exploration in Egypt while growing Mobil service stations network across the country. Eita added: “Additionally, we are interested in evaluating low-carbon solutions opportunities. The recent relocation to a state-of-the-art new head office is a reflection of a new era that aligns with the company’s vision to achieve further innovation, expansion, and progress. The company’s journey towards long-term investments to maintain its leading position in the Egyptian market is built on the bonds of trust

	<p>and constructive communication with ExxonMobil Egypt’s business partners, Abou Eita said during a recent event. In January 2023, ExxonMobil secured exploration rights to two blocks offshore Egypt, which are situated in the outer Nile Delta and cover more than 11,000 square kilometres. 8th June 2023</p>
MOROCCO	<ul style="list-style-type: none"> <p><u>Nigerian gas fuels Morocco, Algeria pipeline power struggle</u> Adversaries Morocco and Algeria are each racing to build a conduit pumping Nigerian gas to European markets, even as the continent aims to wean itself off fossil fuels. Both countries have moved to revive long-stalled projects in light of a gas supply crunch following Russia’s invasion of Ukraine a year ago. Prices surged and Europe-which was heavily reliant on Russian gas-had to look elsewhere for energy. Rabat is hoping the Nigeria-Morocco Gas Pipeline, which would skirt the coastlines of 13 West African countries, could pump billions of cubic meters of natural gas to the kingdom. From there, the gas would flow through the Maghreb-Europe gas pipeline (GME) into Spain and Portugal. Nigeria’s Oil Minister Timipre Sylva told AFP that a feasibility study was underway and some countries had already signed up to the project, but a start date has yet to be set. To the east, Morocco’s neighbour and arch-rival Algeria is pushing to relaunch plans for a Trans-Saharan Gas Pipeline linking Nigeria to Algeria’s Mediterranean coast via Niger. Last July, Algiers signed a memorandum of understanding with Abuja and Niamey to bring the 4,128-kilometre (2,565-mile) pipeline to fruition, at a cost of up to 18 billion euros (\$19 billion). From Algeria the gas could be pumped via the Mediterranean undersea Transmed pipeline to Italy through Tunisian territory, or loaded onto liquefied natural gas tankers for export. Complex The renewed momentum on both projects follows months of heightened tensions between Algeria and Morocco after the collapse of a decades-old ceasefire in the Western Sahara and Morocco’s normalization of ties with Israel in late 2020. In August 2021 Algiers cut diplomatic links with Rabat altogether, accusing it of “hostile acts”, which Morocco denies. 1st June 2023.</p>
LIBYA	<ul style="list-style-type: none"> <p><u>Eni signs MoU with Libya</u> Eni signed a memorandum of understanding with Libya with the aim of studying and identifying opportunities to reduce greenhouse gas emissions and develop sustainable energy in the country, in line with Eni’s strategy and with the Libyan government’s objectives to accelerate decarbonisation and energy transition processes. The signing took place as part of the visit of the Prime Minister of the Government of Libyan National Unity Abulhamid Dabaiba to Italy. Under the terms of the memorandum, Eni will work on reducing CO2 emissions through the reduction of routine gas flaring, fugitive emissions and venting, as well as possible projects for the reduction of hard-to-abate sector emissions. In addition, new solutions for the development of renewable energy and initiatives for electricity efficiency in the country will be evaluated. Eni is the main international gas producer in Libya, with an 80% share of national production (1.6 bscfd in 2022). The company has been operating in Libya since 1959 and currently has a large portfolio of assets in exploration, production and development. Production activities are operated through the joint venture Mellitah Oil and Gas BV (Eni 50%, NOC 50%). Equity production was 165,000 barrels of oil equivalent per day in 2022. 8th June 2023</p>
AUSTRALIA	
AUSTRALIA	<ul style="list-style-type: none"> <p><u>Saunders secures contract for BP Kwinana renewable fuels project</u> The fixed price Engineering Procurement and Construction (EPC) contract forms part of bp’s Kwinana Renewable Fuels project. Saunders International Limited (ASX:SND) (“Saunders” or “the Group”) is pleased to announce it has been awarded a \$42 million contract to provide tank refurbishment and modification services for bp at its Kwinana energy hub, in Perth, Western Australia. The fixed price Engineering Procurement and Construction (EPC) contract forms part of bp’s Kwinana Renewable Fuels project. The scope involves 25 tanks at the bp Kwinana energy hub being repurposed for feedstock or biofuels storage. The Kwinana Renewable Fuels project is one of five biorefineries that bp has planned globally. The project plans to reutilise some infrastructure at the bp Kwinana site to produce lower carbon fuel products that have the ability to support the decarbonisation of aviation and heavy industry. We’re</p>

excited to help bp repurpose the former Kwinana oil refinery so it's future ready." This project will commence in July 2023 and will contribute to Saunders' revenue and earnings from FY24 to FY26. **5th June 2023.**

EUROPE

AZERBAIJAN

- **TotalEnergies targets startup within weeks at major Azerbaijan offshore gas project**
Startup of Absheron deep-water gas and condensate project could help secure additional non-Russian gas volumes to Europe. TotalEnergies has promised that commissioning of the long-awaited Absheron offshore gas development in Azerbaijan's deep-water sector of the Caspian Sea will happen in a matter of weeks. Speaking at an energy conference in the country's capital of Baku on Thursday, TotalEnergies senior vice president for European exploration and production Jean-Luc Guiziou said that first gas and condensate will flow from the Absheron deep-water field to processing facilities "within the next several weeks", according to news agency Interfax-Azerbaijan. The progress of Absheron is being closely watched in Europe, where officials hope to double imports of Azerbaijan gas over the next several years to compensate for lost Russian pipeline gas deliveries. According to a partner with Baku-based energy consultancy Caspian Barrel Ilham Shaban, the first 50 billion cubic metres of Absheron gas output are reserved for the supply to the domestic market, to help free up volumes from other Azeri projects for export. Once the domestic supply commitment is achieved, gas from Absheron could be exported to help fulfil Baku's promises of higher gas deliveries to Europe, Shaban said. **1st June 2023**
- **BP urges patience over Azerbaijan deep offshore gas prospects**
UK supermajor needs time to study its first deep exploration well at the Azeri-Chirag-Guneshli block. BP has called for patience over the prospects of developing deep natural gas reservoirs at Azerbaijan's Azeri-Chirag-Guneshli (ACG) fields in the Caspian Sea, after the country's President Ilham Aliyev said he expected production to start by the end of next year. Azerbaijan is aiming to increase its natural gas exports to Europe as the continent continues its search to replace Russian supplies following Russia's invasion of Ukraine early last year. Speaking at an industry conference in Baku last week, Aliyev said that authorities expect the UK supermajor to start producing natural gas from the previously untapped reservoirs, located below its existing licence area, by the end of 2024. **5th June 2023.**

FRANCE

- **Grandpuits site to double SAF and low-carbon energies production**
TotalEnergies is stepping up production of sustainable aviation fuel (SAF) and low-carbon energies at its Grandpuits site. These investments reflect the French energy company's ambition to develop low-carbon energies and the circular economy, and consist of: Doubling of SAF production at Grandpuits, bringing the site's annual production capacity to 285,000 tons, i.e. more than double the original capacity announced in 2020. This new investment responds to the gradual increase in minimum SAF shares mandated by the European Union, and set at 6% for 2030. Development of low-carbon energies at the Grandpuits zero-crude platform, with the construction of a biomethane production unit with an annual capacity of 80 gigawatt hours (GWh), equivalent to the annual demand of 16,000 people. It will be supplied with organic waste from the biorefinery, and will prevent the emission of almost 20,000 tons of CO₂ every year. The unit strengthens TotalEnergies' position as a leader in biogas production in France. The zero-crude platform at Grandpuits will be a major French site for the production of sustainable aviation fuel, which is the most effective solution for immediately cutting CO₂ emissions from air transport. **8th June 2023.**
- **Axens and ExxonMobil enter licensing agreement for high-purity isobutylene production**
ExxonMobil Catalysts and Licensing LLC and Axens (Rueil-Malmaison, France) have signed an exclusive licensing alliance agreement allowing Axens to include ExxonMobil's MTBE (Methyl tert-Butyl Ether) Decomposition Technology for high purity isobutylene in its portfolio. Used in the production of high-reactivity polyisobutylene and butyl rubber, this technology enables Axens' customers to better address the growing demand for petrochemical intermediates over the next decade. Under the agreement, Axens

	<p>is granted a worldwide right to market, license and provide engineering work and technical support for the design, construction and start-up of new MTBE Decomposition units. This alliance builds on collective expertise to provide customers with isobutylene purity of at least 99.99 wt% via an integrated unit with MTBE and MTBE Decomposition technologies or through a standalone unit using MTBE Decomposition technology. 7th June 2023.</p>
<p>NORWAY</p>	<ul style="list-style-type: none"> <p><u>Aker BP secures Norwegian Parliament’s approval for North Sea oil projects</u> Yggdrasil, which holds total recoverable resources of more than 700mmboe, calls for an investment of \$10.4bn, while Valhall PWP – Fenris involves an investment of \$5bn to install a new process and wellhead platform bridge to the Valhall field centre and an unmanned wellhead platform on the Fenris field. Aker BP has secured approval for its plans for development and operation of the Yggdrasil area and Fenris and the further development of Valhall on the Norwegian continental shelf (NCS) from Norway’s Parliament, Storting. In late March 2023, the Norwegian government submitted Proposition 97 S, which includes the development of Yggdrasil and Valhall process and wellhead platform (PWP)-Fenris, to the Storting. Last month, a majority of the Standing Committee on Energy and the Environment gave a positive recommendation for the projects. Earlier this year, Aker BP said that it will move ahead with nine out of the ten previously announced field development projects on the NCS, which entail an investment of over NOK200bn (\$18.1bn). Plans for the Troidhaugen project were dropped by the company. The development projects to be taken up by Aker BP and its partners are grouped into four main regions, which are Yggdrasil, Valhall PWP Fenris, Skarv, and Utsira High. Yggdrasil is made up of the Hugin, Fulla, and Munin licence groups in the North Sea. It contains multiple discoveries with total recoverable resources of more than 700 million barrels of oil equivalent (mmboe) and calls for an investment of NOK115bn (\$10.4bn). Valhall PWP – Fenris, also located in the North Sea, involves an investment of NOK50bn (\$5.07bn). 6th June 2023.</p>
<p>UK</p>	<ul style="list-style-type: none"> <p><u>Technip Energies selected by RWE - Energy Projects & Technology</u> Technip Energies and its partner GE Gas Power have been selected by RWE Generation UK plc to perform a pre-FEED (Front-End Engineering and Design) study for a new, decarbonised natural gas-fired Combined Cycle Gas Turbine (CCGT) plant with a fully integrated carbon capture (CCS) facility. The carbon capture CCGT will maintain security of supply whilst supporting the energy industry’s transition to net zero. It is sited near Stallingborough, Lincolnshire and is a capture partner of Viking CCS. The pre-FEED study will address the challenges, benefits, economics, and optimal technical solutions when integrating a carbon capture facility with cutting-edge power station design. GE Gas Power will provide proven expertise in natural gas combined cycle plant engineering, operability, and plant integration while Technip Energies will focus on the carbon capture facility using Shell’s Cansolv® carbon capture technology. Supported by its engineering and technical project partners, RWE is conducting feasibility assessments of the Stallingborough project with a view to participating in the Department of Energy Security and Net Zero (DESNZ) Cluster Sequencing for CCUS deployment to secure a Dispatchable Power Agreement (DPA). 7th June 2023.</p>
<p>NORTH & SOUTH AMERICA</p>	
<p>BRAZIL</p>	<ul style="list-style-type: none"> <p><u>Hunt is on for \$1 billion Petrobras SURF contract at giant pre-salt field</u> Brazilian state-controlled company expects to deploy 11 FPSOs at Buzios by the end of the decade. Petrobras is due to welcome commercial offers later this month in yet another tender to contract the subsea umbilicals, risers and flowlines package to serve the 10th production unit that will be deployed on the giant Buzios pre-salt field in the Santos basin offshore Brazil. Buzios is Brazil’s largest field, estimated to hold about 11.3 billion barrels of oil equivalent in recoverable resources, and the SURF contract on offer will contemplate the rigid riser-based subsea system for the P-82 floating production, storage and offloading vessel. 1st June 2023</p>

- **Petrobras eyes global expansion as Brazil hopes fade,**

Brazil's Petrobras may look abroad for future growth, two sources with knowledge of the state-run firm's plans told Reuters, after environmental regulators dashed its hopes of exploring near the Amazon River where it had aimed to make its first major domestic oil discovery in over a decade. Petróleo Brasileiro (PETR4.SA), as the company is formally known, has spent years reducing its international footprint to focus on deepwater assets in Brazil's vaunted pre-salt areas, so its impulse to explore foreign opportunities is an about-face. President Luiz Inacio Lula da Silva, during his last mandate in 2008, compared the first major oil discoveries pre-salt fields far off Brazil's coastline to a winning lottery ticket. But exploration rights auctioned in areas off the southeast coast in the past decade have not lived up to the hype. Petrobras is struggling to replenish proven domestic reserves of 8.9 billion barrels, and increasingly reliant on pre-salt oil stocks that could peak by the end of this decade. The government's Energy Research Office predicts current Brazilian production of 3.1 million barrels of oil per day (bpd) will begin to fall after peaking at 5.4 million bpd in 2029. Petrobras' main bet on replenishing its reserves had been the Equatorial Margin, some 2,200 km of deepwater and ultra-deepwater assets along Brazil's northern and northeastern coast. **1st June 2023**

- **TotalEnergies signs production sharing contract for Agua Marinha offshore block**

Agua Marinha is a 1,300 sq.km exploration block located in the pre-salt Campos Basin south of the Marlim Sul field and about 140 km from shore. TotalEnergies and its co-venturers Petrobras, QatarEnergy and PETRONAS Petróleo Brasil Ltda (PPBL) have signed on 31 May 2023 the Production Sharing Contract (PSC) for the Agua Marinha block, which was awarded in the Open Acreage under Production Sharing Regime – 1st Cycle held by Brazil's National Petroleum Agency (ANP) in December 2022. Agua Marinha is a 1,300 sq.km exploration block located in the pre-salt Campos Basin south of the Marlim Sul field and about 140 km from shore. The work program includes drilling one firm exploration well during the exploration period. This block, along with the two South Santos basin concessions obtained in 2022, further reinforces our exploration portfolio in this high potential area. TotalEnergies will participate in the block with a 30% interest, alongside operator Petrobras (30%), QatarEnergy (20%) and PPBL (20%). **1st June 2023**

- **OneSubsea lands sixth consecutive subsea contract for giant Brazil field**

Houston-based services provider OneSubsea has won a contract from Brazilian oil giant Petrobras to supply critical subsea equipment to assist in the development of the Buzios pre-salt field in the country's prolific Santos basin. It was the sixth consecutive contract covering the supply of subsea trees signed between the two parties. The SLB-owned subsidiary will be in charge of supplying 15 subsea trees and electro-hydraulic distribution units to serve the Buzios-11 project, set to enter production in 2027 via the P-83 floating production, storage and offloading vessel. The contract workscope, valued at between \$100 million and \$200 million, also covers installation, commissioning and associated maintenance services. OneSubsea will use its local facility in the municipality of Taubate, in Sao Paulo state, to build the subsea trees, with initial delivery scheduled for the second quarter of 2025. The company added the first subsea trees for the Buzios-6, Buzios-7, Buzios-8 and Buzios-9 projects are already being delivered. Earlier this year, OneSubsea signed a contract with Petrobras to supply 16 subsea trees for the Buzios-10 project. **6th June 2023.**

CANADA

- **Pembina and Marubeni to develop low-carbon ammonia project in Alberta**

The project includes the joint development of a world-scale, low-carbon hydrogen and ammonia production facility to be sited on Pembina-owned lands adjacent to its Redwater Complex in the Alberta Industrial Heartland near Fort Saskatchewan, Alberta. Pembina Pipeline Corporation announced today the signing of a Memorandum of Agreement (MOA) with Marubeni Corporation, to progress an end-to-end, low-carbon ammonia supply chain from Western Canada to Japan and other Asian markets (the "Project"). The Project includes the joint development of a world-scale, low-carbon hydrogen and ammonia production facility (the "Facility") to be sited on Pembina-owned lands adjacent to its Redwater Complex in the Alberta Industrial Heartland near Fort Saskatchewan, Alberta. Initial feasibility studies have been completed and the Facility has an anticipated design capacity of up to 185 kilotonnes per

annum of low-carbon hydrogen production, which will be converted into approximately one million tonnes per year of low-carbon ammonia. The Project is expected to be structured as an infrastructure-style, fee-based business with investment grade counterparties. Pre-FEED work is currently expected to be completed by early 2024. **6th June 2023.**

MEXICO

- **Mexico's second-largest refinery expands capacity with L&T reactors**

The heavy engineering arm of Larsen & Toubro, flagged off 5 reactors for PEMEX's Miguel Hidalgo (Tula) refinery in Mexico. These equipment will be dispatched to Pemex Transformación Industrial (PTRI), a subsidiary of Mexico's state-owned oil company PEMEX (Petróleos Mexicanos). These reactors will be installed at the Tula refinery for desulphurization of fuel to produce a better and cleaner gasoline and other refined products. This is a benchmark project for L&T Heavy Engineering as it is the fourth consecutive order L&T has received for a Mexican refinery. Anil V Parab, whole-time director & sr. executive VP (heavy engineering & L&T Valves) said, "This order demonstrates L&T's ability to provide high-quality products to the energy sector even beyond boundaries. Our focus on high-end products, in-house development of distinctive manufacturing technologies and various digitalization initiatives have positioned us as a reliable partner to our clientele." The reactors supplied by L&T will contribute to Tula refinery's production of fuel and help meet the growing demand for gasoline and diesel in Mexico. This order will facilitate PEMEX's efforts to increase domestic production and reduce its reliance on imports. **2nd June 2023**

- **Mexico approves \$4.5 billion shallow-water field development plan**

Mexican hydrocarbons regulator CNH has approved the development plan submitted by state-owned energy company Pemex and its partners for the Zama shallow-water field in the Sureste basin off the coast of Tabasco state. The decision paves the way for the Pemex-led consortium to sanction the project and invest approximately \$4.5 billion to start output from the promising play in 2025. Zama was Mexico's first offshore find made by a private-sector company after constitutional reforms opened the development of the country's hydrocarbons sector to foreign investments. Output from Zama-A will be transferred to Zama-B, where oil and gas processing will take place before the hydrocarbons are delivered through a pair of 63.5-kilometre pipelines to new onshore facilities in the Dos Bocas maritime terminal. The bulk of the capital investment is earmarked for 2024 and 2025 for well construction and the facilities that will handle oil and gas production. According to CNH, Zama is due to reach peak production between 2029 and 2030 at 180,000 barrels per day of oil and 70 million cubic feet per day of natural gas. Pemex operates Zama with a 50.4% stake and is partnered by Germany's Wintershall Dea on 19.8%, Talos on 17.4% and London-listed independent Harbour Energy on 12.4%. The Zama 30-year production sharing contract is due to expire in August 2049. **5th June 2023**

- **New Fortress makes final step toward startup of Mexican offshore LNG facility**

Infrastructure company receives export permit from Mexico's Ministry of Energy. Mexico's Ministry of Energy (SENER) has granted New Fortress Energy an export permit for its Altamira Fast LNG facility as the project heads towards first gas in July. SENER authorised New Fortress Energy to export up to 7.8 million tonnes of liquefied natural gas through April 2028, about 1.4 million tonnes per annum from the Altamira acheme, which aims to exploit output from Pemex's Lakach gas field. New Fortress Energy previously received authorisation from the US Department of Energy to export US sourced-LNG to Mexico and other countries in the free trade agreement. "This permit is the final piece to the puzzle for launching our first Fast LNG in Altamira," said New Fortress chief executive Wes Edens. "Obtaining this authorisation not only paves the way for operations to commence at our new LNG hub in the third quarter of this year, but it also advances our efforts to expand access to cleaner, cheaper and more reliable energy to customers around the world. The Altamira Fast LNG project plans to reach commercial operations in August. Construction is over 90% complete. **2nd June 2023**

<p>PERU</p>	<ul style="list-style-type: none"> <p><u>Canadian player to target multimillion-barrel prospect in Peru</u> Canadian junior PetroTal is gearing up to drill a high-impact onshore exploration well in Peru that could potentially double the company’s oil output in the South American nation. PetroTal produced on average 21,000 barrels per day of oil in April from the Bretana field in Block 95 in the Marañon basin. The company, headed by chief executive Manuel Zuniga, also operates Block 107 in the Ucayali basin, where it has mapped two prospects for drilling by next year. One of the targets, the Osheki-Kametza prospect, is estimated to hold 534 million barrels of oil in unrisks prospective resources, which according to a report from consultancy Rystad Energy is “particularly noteworthy” for an onshore well. Block 107 spans more than 2500 square kilometres and boasts Cretaceous reservoirs with oil charge from high-quality Permian source rocks. As well as Osheki-Kametza, PetroTal has also identified the Constitucion Sur prospect as a potential drilling location. PetroTal estimates the Osheki-Kametza well can be drilled at a cost of about \$28 million, while Constitucion Sur bears a capital expenditure of \$22 million. The company intends to seek a farm-out partner for the commitment wells or for longer term development after drilling of Osheki-Kametza. Considering a 50% chance of success, PetroTal estimates Block 107 will require investments of \$765 million to produce first oil in late 2025. In this hypothetical scenario, about 40 wells will be required to increase production to a peak of 21,800 bpd in 2031. 2nd June 2023</p>
<p>BOLIVIA</p>	<ul style="list-style-type: none"> <p><u>Bolivia set to tackle major gas prospect</u> Bolivia’s state-owned energy company YPFB has come across a big exploration opportunity in the country’s Vitiacua area that can potentially hold about 2 trillion cubic feet of natural gas. The structure has been mapped by a 2D seismic survey covering 166 line kilometres that lasted nearly 10 months and cost about 100 million bolivians (\$14.5 million). “This is a project we visualise a vast hydrocarbons potential. We expect to find resources close to 2 Tcf of gas with associated condensate,” said YPFB exploration and production vice president Enzo Michel. The 2D seismic acquisition and interpretation will allow YPFB to proper define the prospect to the north of the Sabalo field in the Chuquisaca department and later spud the Vitiacua-X1 wildcat. “We are facing an intensive exploration campaign. Vitiacua stands out among the three best prospects in YPFB’s project portfolio,” said Michel. We will conclude this first stage in approximately two months. If good results are confirmed, we will advance towards drilling by the end of 2024. However, gas output is expected to drop more rapidly in the coming years from 1.4 billion cubic feet per day in 2022 to as low as 400 million cubic feet per day by 2030, according to a report from consultancy Wood Mackenzie. Domestic demand currently consumes about 30% of the total supply, but by 2030 the country will likely become a gas importer unless a push for exploration and more discoveries help reverse the production trend. 7th June 2023</p>
<p>URUGUAY</p>	<ul style="list-style-type: none"> <p><u>With last block off Uruguay up for grabs, Isle of Man-based player as sole bidder anticipates award in coming weeks</u> Challenger Energy Group (CEG), the Isle of Man-headquartered oil and gas company focused on the Caribbean and Americas, has bid for and expects to be awarded a shallow water exploration block located off Uruguay. This is the sole remaining available block offshore Uruguay, as all other offshore exploration licences are held by energy majors: Shell and Apache and YPF, the Argentinian national oil company. As part of the Open Uruguay Round, the first instance of 2023, Challenger Energy submitted a bid for the AREA OFF-3 block offshore Uruguay. On 2 June 2023, the Administración Nacional de Combustibles Alcohol y Pórtland (ANCAP), the Uruguayan national regulatory agency, published on its website that Challenger’s offer for AREA OFF-3 was received, outlined the terms of the firm’s offer and noted that there are now no further available offshore blocks in Uruguay. 5th June 2023</p>
<p>USA</p>	<ul style="list-style-type: none"> <p><u>ExxonMobil signs with Nucor for third carbon capture agreement</u> ExxonMobil has signed an agreement with Nucor Corporation, one of North America’s largest steel producers, to capture, transport and store up to 800,000 metric tons per year of CO2 from Nucor’s</p>

manufacturing site in Convent, Louisiana, U.S.A. The Convent, Louisiana, site produces direct reduced iron (DRI), a raw material used to make high-quality steel products including automobiles, appliances and heavy equipment. The agreement is the third carbon capture agreement the U.S.-based energy major has announced in the past seven months, following previous agreement with industrial gas company Linde and CF Industries, maker of agricultural fertilizer. The agreement also marks a milestone, bringing the total CO₂ that ExxonMobil has agreed to transport and store for third-party customers to five million metric tons per year (MTA). This is equivalent to replacing approximately two million gasoline-powered cars with electric vehicles, which is roughly equal to the total number of EVs on U.S. roads today. The Nucor project, which is expected to start up in 2026, will tie into the same CO₂ transportation and storage infrastructure as utilised by the CF Industries project, and supports Louisiana's objective of reaching net-zero CO₂ emissions by 2050. **5th June 2023**

- **TotalEnergies partners with TES to develop large-scale e-NG unit**

TotalEnergies is partnering with Tree Energy Solutions (TES), a green energy company at the forefront of the production of e-NG based in Europe, to study and develop a large-scale production unit in the United States for e-natural gas (e-NG), a synthetic gas produced from renewable hydrogen and CO₂. The project, which is expected to produce 100,000 to 200,000 metric tons of e-NG per year, will be equally owned by the partners and operated by TotalEnergies. This partnership combines TES' e-NG know-how with TotalEnergies' expertise in renewable power generation, large-scale project management and natural gas liquefaction. The e-NG will be produced in two steps: To produce renewable hydrogen, a 1 gigawatt (GW) electrolyzer will be powered by approximately 2 GW of wind and solar energy supplied by TotalEnergies through long-term power purchase agreements (PPAs). This renewable hydrogen will then be combined with biogenic CO₂ to obtain the e-NG. The resulting e-NG produced can be transported and/or liquefied, then sold like natural gas, using existing infrastructure, and end customers will be able to use it without any changes to their facilities. **31st May 2023**

- **OCOchem bags US\$2.5 million contract to advance clean hydrogen technologies**

Award will be used to improve and scale technology to make large quantities of formic acid to develop safer and more cost-effective ways to make, distribute, and use clean hydrogen. Clean fuel and chemical innovator OCOchem and the U.S. Department of Energy (DOE)'s Pacific Northwest National Laboratory (PNNL) will continue a successful collaboration to make it safer and more affordable to transport clean hydrogen, thanks to a new \$2.5 million DOE funding award. The award is one of 22 projects in 14 states totaling \$42 million in DOE funds to advance critical technologies for producing, storing, transporting and deploying clean hydrogen, a non-polluting energy source. The award will fund a continuing partnership between OCOchem and PNNL, both based in Richland, Wash. OCOchem is focused on making a chemical building block formic acid electrocatalytically from recycled carbon dioxide emissions, water, and clean electricity. PNNL is developing a way to safely release clean hydrogen from formic acid. The work builds on a partnership between the two entities funded by a 2020 DOE Technology Commercialization Fund grant and represents a significant milestone in the pursuit of a sustainable energy future. **3rd June 2023**

- **Maire bags engineering works contract for a green fertilizer complex in US**

MAIRE announces that its subsidiary KT-Kinetics Technology (KT), part of the Integrated E&C Solutions (IE&CS) business unit, has been awarded the early engineering works for the realization of a new green fertilizer complex in North America by a group of private investors. The process units under the scope of KT will include ammonia, urea, nitric acid and will produce green urea ammonium nitrate (UAN) as final product to be distributed in the local fertilizer market. The early works, to be carried out on a reimbursable basis, are aimed at defining the design and the main aspects of the project. Upon successful completion of the early works, and subject to the client's final investment decision, the activities will enter into the Engineering, Procurement and Construction phase, which will be carried out by MAIRE's IE&CS subsidiaries. The synergistic approach between the two business units demonstrates MAIRE's capability to manage complex works in a distinctive region like the USA and in the growing energy transition market. **2nd June 2023**

- **Mountain Valley pipeline project to proceed as Biden signs debt ceiling bill**

The Fiscal Responsibility Act of 2023 legislation signed by President Biden increases the debt limit of the US apart from ratifying and approving all permits and authorisations required for the construction and initial operation of the 487.6km long gas pipeline between West Virginia and Virginia. Equitrans Midstream announced that the delayed \$6.6bn Mountain Valley pipeline project (MVP project) across West Virginia and Virginia will now move ahead following the signing of the debt ceiling bill by US President Joe Biden. The legislation dubbed the Fiscal Responsibility Act of 2023 increases the debt limit of the country to \$31.4 trillion. Besides, it ratifies and approves all permits and authorisations required for the construction and initial operation of the pipeline project. Additionally, the legislation asks the relevant federal officials and agencies to maintain such authorisations. According to Equitrans Midstream, by 24 June 2023, the legislation mandates the Secretary of the Army to grant all the necessary permits or verifications to finish project construction and facilitate the operation and maintenance of the Mountain Valley pipeline. **5th June 2023**

- **Air Liquide announces long term agreements supporting electronics industry expansion in North Texas**

These investments will support the expansion of two existing manufacturing facilities and will also be used to build, own and operate onsite plants and systems at a new manufacturing site within the region. Air Liquide announces that it has invested nearly \$70 million U.S. dollars in state-of-the-art plants in North Texas to supply ultra high purity nitrogen and oxygen to the electronics industry. These investments will support the expansion of two existing manufacturing facilities and will also be used to build, own and operate onsite plants and systems at a new manufacturing site within the region. Operations and supply are expected to begin in the second quarter of 2023 at the existing facilities and to start in the first half of 2025 at the new manufacturing site. The dynamic growth of the electronics industry globally has been boosted by the rapid adoption of the Internet of Things (IoT), big data, artificial intelligence, advancements in smartphones and 5G technology, and automotive electronics components. After the rapid growth over the last five years, the electronics industry is expected to keep enjoying structural expansion over the long term. Over the past 50 years, Air Liquide has been integral in the development of the electronics industry globally. **5th June 2023**

- **Technip Energies, LyondellBasell and CPChem sign MoU for electric cracking ethylene furnace**

Electric cracking furnace aspires to advance the global energy transition by taking steps toward decarbonizing the olefins production process. Technip Energies, LyondellBasell and Chevron Phillips Chemical (CPChem) announced the signing of a Memorandum of Understanding (MoU) for the design, construction and operation of a demonstration unit for Technip Energies' electric steam cracking furnace technology (eFurnace by T.EN) to produce olefins. The demonstration unit will be located at LyondellBasell's site in Channelview, Texas, USA, and is designed to prove the technology at industrial scale. Steam cracking furnaces play a significant role in the production of basic chemicals by breaking down hydrocarbons into olefins and aromatics. This cracking process requires a temperature of more than 1,500°F (850°C). Technip Energies, a leader in the ethylene market, developed the concept and design for the e.Furnace by T.EN™ technology, which could achieve this temperature using electricity as the heat source. The use of renewable electricity in this process would contribute to significantly reducing GHG emissions associated with olefins production. **2nd June 2023**

- **Brightmark to expand production of RNG from animal waste**

Brightmark RNG Holdings LLC is expanding production of renewable natural gas (RNG) in the United States, with five new anaerobic digestion dairy farm projects in western part of the state of Michigan, designed to convert animal waste to renewable fuels. The Chevron-Brightmark renewable natural gas joint venture, a joint venture between Chevron U.S.A. Inc. a subsidiary of Chevron Corporation, and Brightmark Fund Holdings LLC, a subsidiary of Brightmark LLC, operates a nationwide system of RNG joint venture projects in the United States. The Castor Project, which processes manure from one large digester, is Brightmark's and Chevron's second-largest RNG project. Other Michigan projects in the joint venture include Meadow Rock, Red Arrow, Willow Point, and SunRyz. "We're excited to work with our partner Chevron and farmers in Michigan to progress the development of our RNG projects, which are designed

to drive both lower carbon intensity outcomes for organic waste and investments in local farmers and their surrounding communities supporting lower carbon solutions,” said Bob Powell, founder and chief executive officer (CEO) of Brightmark LLC. **6th June 2023**

- **Grande Isle LNG proposes 4.2-mtpy offshore liquefaction plant**

Grande Isle LNG has proposed a 4.2-million tonne/year (tpy) offshore liquefaction plant in federal waters on West Delta blocks 13 miles offshore Plaquemines Parish, La. Grande Isle LNG has proposed a 4.2-million tonne/year (tpy) offshore liquefaction plant in federal waters on West Delta blocks 13 miles offshore Plaquemines Parish, La. The company expects to start Phase 1 deliveries in 2026. The proposed port will use a platform-based modular design in 68-72 ft water depths and have natural gas pipeline access to its nearshore location. The plant will be built in two phases and consist of a crew quarters platform, two gas treatment platforms, two 2.1-million tpy liquefaction platforms, two loading platforms, one thermal oxidizer platform, and two 155,000-cu m storage and offloading vessels. Pipeline tie-ins will be with a 20-in. OD High Point Gas Transmission LLC line and 24- and 20-in. Kinetica Partners LLC lines. Licensing for the deepwater port will be overseen by the US Maritime Administration, with required reviews conducted by appropriate federal and state agencies. All platforms and many of the other components will be made in Louisiana, according to the company. **6th June 2023**

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