# GERAB BULLETIN

# **Weekly News**

#### EXECUTIVE SUMMARY

#### The Commodity summary

- Crude Oil Brent is trading higher by 11% MTD and Crude Oil WTI prices went up by 12% MTD.
- Nickel prices are trading higher by 7% WTD
- Steel HRC (North America ) prices are trading higher by 20% 6MTD
- Iron ore prices are in uptrend and has gone up by 2% WTD
- Natural Gas prices are trading higher by 25% 3MTD

#### The Currency summary

- Euro is stronger by 9% YTD to USD
- The US Dollar to CNY is stronger by 6% YTD

#### The Rig count summary

• The Rig counts in GCC have gone down by 4% MTD and the rig counts in North America have gone down by 17% 6MTD.

#### Project summary

- ADNOC's \$600 million Ruwais Waste Heat Recovery project
- Top 8 oil and gas contracts: ADNOC, Aramco, KNPC, and more
- ADNOC awards \$219 million EPC contract to NPCC
- CGC Kuwait Submits lowest bid of \$158.2 million for KOC Project
- ACME Group achieved financial closure of \$488m for the first phase of Green Hydrogen Project in Oman
- With 18 oil & gas projects, worth \$60.2 billion, in the works, Qatar set on upping the LNG ante
- Aramco completes \$3.4bn purchase of China's Rongsheng Petrochemical stake
- India announces \$736m push to produce dirty hydrogen from 100 million tonnes of coal
- Iraq reveals details of \$27 billion deal with TotalEnergies
- Japan's JERA to invest \$300 million in green tech-focused start-ups
- Hyosung Vietnam to Invest \$1 Billion in Carbon Fiber Manufacturing Facility
- Egypt slams rumors of Zohr gas field collapse, announces \$1.2 billion investment
- Port of Rotterdam, Vopak in Race for \$2.8 Billion Hydrogen Port in South Africa
- Drax secures approval for £500m new hydropower plant in Scotland

# **COMMODITY UPDATES**

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	8,920.02	0.41	-2.72	-11.66	-16.21	-16.59
Coal	USD/MT	147.71	-0.26	2.66	-30.10	-63.27	-67.19
Cobalt	USD/MT	36,023.53	8.07	23.01	0.67	-8.75	-43.82
Copper	USD/MT	8,622.00	3.60	3.11	-2.43	-4.11	14.88

Crude Oil	USD/BBL	81.32	3.94	11.52	-0.02	-0.38	-20.99
Crude Oil Brent	USD/BBL	83.33	3.58	10.72	-0.15	-1.36	-20.97
Crude Oil WTI	USD/BBL	79.30	4.33	12.38	-0.23	0.67	-21.01
Iron Ore	USD/MT	112.72	1.91	1.28	-5.43	-6.48	4.21
Molybdenum	USD/MT	49,612.50	1.99	0.53	8.77	-27.43	36.36
Natural Gas	USD/MCF	2.84	3.01	10.71	25.06	-22.75	-60.96
Nickel	USD/MT	22,210.00	7.27	4.45	-7.57	-22.05	3.11
Steel HRC (FOB China)	USD/MT	552.00	1.38	1.25	-11.68	-10.48	-10.76
Steel HRC (N. America)	USD/MT	956.68	-1.96	-6.42	-25.89	20.26	-5.48
Steel Rebar	USD/MT	583.26	3.55	2.36	-6.52	-11.57	-11.05
Steel Scrap	USD/MT	358.00	-2.72	-5.32	-13.35	-13.57	-4.53
	1						

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	1.1100	-0.25	1.29	0.66	2.14	8.79
USDCNY	1 USD to CNY	China	CNY	7.1292	0.62	1.32	-2.87	-5.53	-5.74

Source- Trading Economics

#### **CRUDE OIL STOCK**

Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,23,257.00	-0.03	0.93	1.50	1.00	-3.31

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	28.45	USD	1.75	5.10	0.60	-10.87	20.70
Chiyoda Corporation	351.00	JPY	0.00	-0.28	-11.36	-7.39	-15.01
Glencore PLC	469.45	GBP	-0.65	6.62	-0.79	-14.37	5.02
HD Hyundai Heavy Industries Co. Ltd.	1,39,200.00	KRW	-1.97	20.00	20.00	20.00	14.10
JGC Holdings Corporation	1,961.00	JPY	2.32	6.14	17.07	15.90	16.10
McDermott International Ltd.	0.18	USD	0.00	-43.75	-43.75	-43.75	-55.00
National Marine Dredging	22.20	AED	4.91	13.73	2.49	-26.00	-19.10
NYSE American Steel Index	2,083.55	Index	4.95	11.13	17.78	2.49	37.90

Rio Tinto PLC	5,229.00	GBP	1.06	3.71	3.67	-16.88	9.21
Technip Energies NV	20.78	EUR	-1.98	41.65	41.65	41.65	98.85
TechnipFMC PLC	18.75	USD	7.33	18.15	39.72	36.36	181.53
Tenaris SA	32.95	USD	-0.27	15.86	18.40	-6.92	21.50
Tubacex SA	2.88	EUR	-4.16	7.87	11.20	21.01	41.87
Woodside Energy Group	38.01	AUD	5.97	11.93	12.92	4.37	20.67

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	56	*	-3.45	7.69	7.69	16.67
GCC	219	*	-4.37	2.34	0.46	11.17
Middle East	324	*	-2.99	1.89	0.93	7.64
Africa	92	*	5.75	3.37	9.52	27.78
Asia-Pacific	205	*	-5.09	5.13	12.02	12.02
Europe	112	*	13.13	2.75	4.67	41.77
Latin America	189	*	-0.53	3.28	9.25	19.62
North America	848	-1.05	1.44	0.36	-16.54	-12.22
Total	1,770	*	0.45	1.78	-6.05	0.63

Source- Baker Hughes

(\*) No weekly data available for those particular regions

#### **NEWS OF THE WEEK**

# **GULF COOPERATION COUNCIL (GCC)**

#### UAE collaborates with DNV to establish Maritime Decarbonisation Centre

In a groundbreaking move that solidifies the UAE's status as a global leader in sustainability and energy transition, the UAE Ministry of Energy and Infrastructure (MOEI) has announced the establishment of the "UAE Maritime Decarbonisation Centre." As the first-of-its-kind Centre in the MENA region and the fourth globally. This pioneering initiative, developed in collaboration with DNV marks a historic milestone not only for the UAE but also for the entire Middle East and North Africa (MENA) region and sets a new standard for maritime decarbonisation efforts worldwide. The official signing ceremony to commemorate this historic partnership took place at the International Maritime Organisation (IMO) headquarters in London, UK. The signing brought together high-level government officials, industry leaders, and international stakeholders to celebrate this momentous occasion. These include the UAE Maritime Cluster initiative and the Maritime Network, which aims to build a global network of professionals and experts to enhance the competitiveness of the UAE's maritime sector and market it globally, making use of the strong presence of international maritime companies in the UAE. **23<sup>rd</sup> July 2023.** 

#### Inside ADNOC's \$600 million Ruwais Waste Heat Recovery project

ADNOC's Ruwais Waste Heat Recovery Project is expected to revolutionise power and water generation at ADNOC's General Utilities Plant in Ruwais. By using heat generated at the site to propel two new steam-powered turbines, ADNOC will be able to produce an additional 62,400 cubic meters of distillate water per day and 230 megawatts of power. Upon completion in 2023, the innovation will increase the

UAE

thermal efficiency of the site by nearly 30% and reduce dependence on the national grid. The General Utilities Plant provides electricity and water to the entire Ruwais industrial complex. It is vital to the ongoing expansion of Ruwais as part of ADNOC's 2030 smart growth strategy. ADNOC Refining, a joint venture company between ADNOC, Eni and OMV, expects to complete the first phase of its waste-heat recovery project in Ruwais by the end of this year as part of efforts to decarbonise operations. Project contractors The scope of work included the installation of heat recovery steam generators (HRSG) as well as a new steam turbine and generator (STG) desalination unit. In 2018, Samsung Engineering announced was awarded a \$473 million contract from ADNOC Refining to deliver a new power & water generation plant for the project. **24<sup>th</sup> July 2023**.

#### Sharjah National Oil Corp signs carbon capture deal with Japanese firm

UAE-based state energy giant Sharjah National Oil Corp (SNOC) has signed a deal with Japan's Sumitomo Corp for work on a carbon capture project in Sharjah. The two players signed an initial agreement for "conducting a feasibility study covering the entire carbon capture and storage value chain, including transport, storage, business models and assessment of regulatory aspects", SNOC said in a statement. SNOC also noted that a carbon capture and storage (CCS) hub would contribute "significantly" to the decarbonisation of the Northern Emirates. As part of the joint feasibility study, we will collaborate with industry leaders, environmental organisations and regulators with the aim of developing a viable project which adheres to the highest standards," Hatem Al Mosa, SNOC CEO told the National. "SNOC has committed to reach net zero on its own operations by 2032 and CCS has the potential to support this goal and beyond. The time to start is now," he added. **26**<sup>th</sup> **July 2023.** 

#### Top 8 oil and gas contracts: ADNOC, Aramco, KNPC, and more

Oil and gas contracts don't seem to be slowing down in the Middle East as the industry gets ready to conclude yet another busy month with several multimillion-dollar developments and deals. Despite economic challenges and uncertainties, the region continues to witness significant investments in expanding production of existing oil and gas fields and advance major projects. 1. ADNOC Onshore awarded an EPC contract to Dubai-based firm 2. Kuwait's KNPC awarded \$303 million contract for oil refinery 3. Aramco, TotalEnergies awarded multiple contracts for \$11 billion Amiral project 4. Technip Energies awarded contract for Aramco's Ras Al Khair industrial city 5. ADNOC Drilling secures \$2 billion contracts for offshore projects 6. Aramco awarded contract to UAE's Lamprell for Abu Safah Field Expansion project 7. ADNOC awarded \$1 billion contracts for new gas pipeline construction 8. Chinese firm awarded key contract for Aramco's Marjan offshore expansion. **26**<sup>th</sup> **July 2023.** 

#### <u>Abu Dhabi: Front runner emerges for prized Adnoc oilfield expansion project</u>

EPC contract for third expansion phase of Sahil project touted to be worth upwards of \$300 million. A leading United Arab Emirates-based contractor has emerged as the potential front runner for a key onshore contract for Abu Dhabi National Oil Company's (Adnoc) third expansion phase of its Sahil oilfield. **27**<sup>th</sup> July 2023.

#### ADNOC awards \$219 million EPC contract to NPCC

National Petroleum Construction Co (NPCC), wholly owned by the National Marine Dredging Co, announced in a statement that it has secured a contract from ADNOC Offshore. Scope of the contract includes the EPC works for replacement of 125 km of 20" Main Oil Line from Umm Lulu to Zirku Island. The project is expected to be completed within 32 months. "This award is the latest in a series of accomplishments that serve as a testament to the confidence of investors in the organization's performance, as well as in its future plans and expansion," NPCC's statement mentioned. NPCC secured a contract from ADNOC Gas In July, NPCC along with its consortium with CAT International Ltd, Abu Dhabi Branch secured a \$614 million contract from ADNOC Gas. NPCC engineering provides innovative basic, detailed and offshore engineering solutions utilising the latest and most advanced software. The company has state-of-the-art fabrication facilities in Mussafah, Abu Dhabi, which is spread over an area of 1.3 million sq meters. The yard is capable of fabricating up to 100,000 mt of structural steel every year. **27<sup>th</sup> July 2023** 

	<ul> <li><u>CGC Kuwait Submits lowest bid of \$158.2 million for KOC Project</u> Combined Group Contracting (CGC), Kuwait announces in a statement that it has submitted lowest bid for Long Term Supply agreement project issued from Kuwait Oil Company (KOC). The company states that the works includes Long term supply Agreement for 6" &amp; 12" Pipe for North &amp; east Kuwait under Group 1 and Group 2. CGC submits the price as KWD 48.5 million. (USD 158.2 million). The Period of Contract is 3 years. The company pointed out that it has not yet received any official letter regarding the award of project, and it will announce any developments regarding the project in due course of time. 24<sup>th</sup> July 2023</li> </ul>
KUWAIT	• Kuwait's HOT Engineering Company awarded oil flowlines Contract HOT Engineering And Construction Co. (HOTECC), Kuwait announced that it has received an official award letter from Kuwait Oil Company for the Construction of oil flowlines and associated works in the Northern part of the country. Under this contract, HOTECC will provide its procurement and construction services for a period of three (3) years. "We are thrilled to have received this award letter to continue our partnership with KOC as it solidifies HOTECC's reputation as a leading player in the O&G sector in Kuwait." said Eng. Jamal N. Al-Houti, CEO of HOTECC. "It is a testament to our dedication to delivering outstanding services to our wide range of clients built upon a very solid foundation of technical expertise, state-of-the-art infrastructure, and a highly skilled workforce. With over 45 years of commitment to excellence, we believe HOTECC has emerged as a trusted partner for top-tier clients in the O&G industry. <b>26<sup>th</sup> July 2023</b>
	SLB awarded Contracts in Saudi Arabia, Qatar and Kuwait SLB, USA announced the awarding of contracts across Gulf Countries as part of its Second-Quarter 2023 Results.In Kuwait, Kuwait Oil Company (KOC) utilized Neuro <sup>™</sup> autonomous solutions, which included the autonomous downhole control system, DrillOps <sup>™</sup> Automate, DD Advisor coupled with well construction rig equipment, the AxeBlade <sup>™</sup> ridged diamond element bit, and the PowerDrive Orbit G2 <sup>™</sup> rotary steerable system. Optimization through autonomous directional drilling capabilities delivered a 90% increase in rate of penetration (ROP) and a 37% increase in steering effectiveness, saving over \$500,000 and eight rig days compared to the authorization for expenditure. Neuro solutions are redefining what can be achieved when state-of-the-art software is coupled with intelligent hardware and work processes that eliminate manual operations. The successful adoption of these technologies not only improved KOC's drilling performance and efficiency but also minimized operational costs and drilling durations, directly impacting their profitability. 26 <sup>th</sup> July 2023.
OMAN	<ul> <li>ACME Group achieved financial closure of \$488m for the first phase of Green Hydrogen Project in Oman - SaudiGulf         ProjectsDiversified renewable energy company ACME Group, India announced securing Rs 4,000 crore loan (USD 488 million) from one of the India's largest green infrastructure financial institutions REC Limited for its Green Hydrogen and Green Ammonia project in Oman. The loan will be utilized to commence the first phase of the pioneering Green Hydrogen and Green Ammonia project, to be established at the Special Economic Zone (SEZ) in Duqm, Oman. The first phase of the facility is expected to produce 100,000 tonnes of Green Ammonia annually and will be expanded to 1.2 million tonnes per annum with about 3.5 GW of electrolyzer capacity, which will be powered by 5.5 GWp of the solar PV plant. ACME Group also announces the signing of a significant Memorandum of Understanding (MoU) with REC Limited amounting to over Rs 21,000 crore of loans for setting up 380 MW ( round the clock renewable power ) RTC, phase 1 of Odisha and phase 1 of Tamil Nadu Green Ammonia projects and 600 MWhr of Pumped Hydro Project. The MoU was formalized during the 14th Clean Energy Ministerial and 8th Mission Innovation meeting (CEM14/MI-8) held in Goa. 23<sup>rd</sup> July 2023     </li> </ul>

	• <u>Oman to establish first Silicon Metal plant</u> SOHAR Port and Freezone today signed a land lease agreement with Green Ferro Alloy (FZC) LLC to establish Oman's first Silicon Metal plant in SOHAR Freezone. With a total investment of USD 68 million, this project reinforces SOHAR's position as a global trade hub and represents a significant milestone in the economic growth and diversification of the region, meeting the growing demand for silicon metal in Asia, Europe, and North America. The Silicon Metal plant, which will occupy a land area of 160,000 sqm, will be designed and built to produce high-quality silicon metal, initially at a capacity of 25,000 TPA in the first phase and expanding to 50,000 TPA in the second phase. The molten silicon metal is poured from the furnace to ladles and molds, expertly cooled through molds or continuous casting. After cooling, the silicon metal is crushed and packaged in large bags, ready for global export. <b>25<sup>th</sup> July 2023</b>
QATAR	• With 18 oil & gas projects, worth \$60.2 billion, in the works, Qatar set on upping the LNG ante As Qatar has 18 projects under development across the oil and gas sectors, with an estimated capital expenditure (CAPEX) of \$60.2 billion, the Persian Gulf state's energy sector is positioned for further growth, solidifying the country's position as the world's top exporter of liquified natural gas (LNG), according to a new report from the Energy Industries Council (EIC), an energy industry trade association and voice for the global energy supply chain. Following the Ukraine crisis, the global energy market went into turmoil in 2022, illustrated by oil and gas price volatility. With energy investments on the rise, the EIC believes that Qatar is poised to ramp up its production of hydrocarbons, especially LNG, as energy producers from around the world roll up their sleeves to make up for lost supplies resulting from the Ukraine crisis. Commenting on the report on Qatar's energy sector, Faiz Halim, an EIC Analyst, underscored: "Qatar's energy sectors are poised for remarkable growth as the country harnesses its natural gas reserves and invests in sustainable solutions. This creates ample opportunities as well as a sense of certainty for supply chain companies looking to add value to Qatar's energy sector." Furthermore, one of the world's largest energy trade associations is under the impression that Qatar aims to bolster its position as a key contributor to the energy transition, supported by its abundant reserves of natural gas. Based on the report's findings, Qatar intends to substantially increase its LNG production from 77 million metric tonnes per annum (mtpa) to 126 million mtpa by 2027. The EIC's report also took into account Qatar's efforts to strengthen its presence in the renewable energy sector, as the country plans to generate 5 gigawatts (GW) of solar power by 2035. To reach this goal, QatarEnergy has awarded engineering, procurement, and construction (EPC) contracts for two solar projects in Ras Laffan
SAUDI ARABIA	<ul> <li>Aramco completes \$3.4bn purchase of China's Rongsheng Petrochemical stake         Aramco, one of the world's leading integrated energy and chemicals companies, has successfully closed         a landmark transaction to acquire a 10% interest in Rongsheng Petrochemical Co. Ltd. ("Rongsheng") for         RMB 24.6 billion (\$3.4 billion), through its subsidiary Aramco Overseas Company BV, based in the         Netherlands. The acquisition follows the signing of definitive strategic agreements by both parties         announced on March 27, 2023. It represents the continued growth of Aramco's downstream presence         in China and includes the supply of 480,000 barrels per day of Arabian crude to the largest Chinese         integrated refining and chemicals complex, which is owned by Rongsheng affiliate Zhejiang Petroleum         and Chemical Co. Ltd (ZPC). Mohammed Y. Al Qahtani, Aramco Downstream President, said: "Our         strategic partnership with Rongsheng advances Aramco's liquids to chemicals strategy while growing our         presence in China and showcases our importance as a reliable supplier of crude oil. This key acquisition         is an important part of Aramco's long-term growth strategy, expanding our presence in a vital market."         Li Shuirong, Chairman of Rongsheng, said: "The completion of this transaction marks the entry of         Rongsheng and Aramco into a new era together, and also signifies an important step forward in         Rongsheng's internationalization strategy." Rongsheng owns a 51% equity interest in ZPC, whose         complex has the capacity to process 800,000 barrels per day of crude oil and to produce 4.2 million         metric tons of ethylene per year. 21<sup>st</sup> July 2023</li> </ul>

#### <u>Alkhorayef and Cobra Consortium emerged as Preferred Bidder for 150km Rayis</u>

Saudi Water Partnership Company (SWPC) announced the Preferred and Reserved Bidders and their Levelized Water Transmission Costs for the development of Rayis – Rabigh Independent Water Transmission Pipeline (IWTP) project. Preferred Bidder: Cobra Instalaciones y Servicios, S.A. Alkhorayef Water and Power Technologies Levelized Cost (in SAR/m3) : 1.25678 Reserved Bidder: Vision International Investment Company TAQA Gulf Investment Corporation G.S.C Levelized Cost (in SAR/m3) : 1.45165 Rayis – Rabigh IWTP is considered the first of its kind that will be developed with the participation of the private sector. The project will be developed with a transmission capacity of 500,000 m3/day and a length of 150 km to provide Makkah and Madinah regions with drinking water. As per the earlier notification, SWPC will conduct a competitive process to select a developer or developer consortium to develop the Project on a Build, Own, Operate and Transfer (BOOT) basis. The project company developing the Project will provide the entire transmission capacity to SWPC under a Water Transmission Agreement (WTA). The term of the WTA is expected to be up to 35 years. The PCOD of the Project is expected in first Quarter of 2026. **25<sup>th</sup> July 2023**.

#### • Saipem awarded major contracts in Turkey and Saudi Arabia

Saipem on Thursday announced two major contracts as part of its H1 financial results. The company's H1 revenues soared to \$5.9 billion compared \$4.68 billion during the corresponding period of 2022, the Italian giant said. Saipem attributed higher revenues to increasing activity in the North Sea, Central and South America, Sub-Saharan Africa and the Middle East. In Saudi Arabia, Saipem was awarded a contract from Saudi Aramco, under the current Long Term Agreement (LTA), a project involving the engineering, procurement, construction and installation of five platforms and related subsea pipelines, flowlines and cables in the Marjan field, offshore of Saudi Arabia, with an entirely on-site fabrication scheme. **27**<sup>th</sup> **July 2023** 

#### ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)

#### <u>Sinopec scales up natural gas production</u>

Sinopec, China's second-largest energy company, boosted gas production in the first half of this year. The company, led by chairman Ma Yongsheng, said its oil and gas production for the first six months increased 3.2% year on year to 249.87 million barrels of oil equivalent. Sinopec's natural gas production jumped by 7.6% to 660.88 billion cubic feet compared to 12 months prior. However, the company' crude oil output remained unchanged at 139.68 million boe — comprising 124.68 million boe from domestic fields and 15 million boe from overseas assets. **21**<sup>st</sup> **July 2023** 

#### China drilling second 10,000-metre-deep hole for gas

China has begun drilling a 10,000-metre hole in the ground for the second time this year to extract natural gas as it suffers an increasingly common global dilemma where climate change enforces investment in climate-averse projects, Bloomberg reported. China National Petroleum Corp on Thursday began drilling the Shendi Chuanke 1 Well in Sichuan province, with a designed depth of 10,520 metres (6.5 miles), Xinhua News Agency reported. The project follows a similar-sized well that CNPC began drilling in Xinjiang in May, described at the time as the deepest ever undertaken in China. While the earlier well was described as experimental in nature, with the project designed to test drilling technologies and provide data on the Earth's internal structure, the Sichuan undertaking is seeking to find ultra-deep reserves of natural gas, according to Xinhua. In the May drilling project, a narrow shaft into the ground will penetrate more than 10 continental strata, or layers of rock, and reach the cretaceous system in the Earth's crust, which features rock dating back some 145 million years. The drilling is expected to take 457 days. The deepest man-made hole on Earth is still the Russian Kola Superdeep Borehole, which reached a depth of 12,262 metres (40,230 feet) in 1989, after 20 years of drilling. **24<sup>th</sup> July 2023** 

• Air Liquide secures \$69.2m loan to build blue hydrogen plants in China this year

CHINA

	Project will process captured CO2 into carbon monoxide for use in Shanghai Chemical Industry Park. French industrial gases firm Air Liquide has secured a 500m yuan (\$69.2m) loan from French bank BNP Paribas for the construction of two blue hydrogen facilities in the Shanghai Chemical Industry Park in China. Air Liquide's subsidiary, Shanghai Chemical Industry Park Industrial Gases (SCIPIG), plans to build the units by the end of this year, which will have a combined H2 production capacity of 70,000 normal cubic metres (approximately 6.2 tonnes) per hour. Air Liquide's subsidiary, Shanghai Chemical Industry Park Industrial Gases (SCIPIG), plans to build the units by the end of this year, which will have a combined H2 production capacity of 70,000 normal cubic metres (approximately 6.2 tonnes) per hour. Air Liquide already has offtake agreements in place for both hydrogen and carbon monoxide lasting more than 15 years with fellow companies in the industry park — Covestro and Shanghai Lianheng Isocyanate Company (a joint venture led by Western chemical producers BASF and Huntsman). Air Liquide estimates that the project will cost more than €200m (\$224m) to build and abate 350,000 tonnes of annual CO2 emissions. <b>19<sup>th</sup> July 2023</b>
ISREAL	<ul> <li><u>Chevron awards critical contract for deep-water gas project</u> Greek player wins key order for Leviathan expansion scheme off Israel. Chevron has awarded a critical contract related to the next phase of its Leviathan gas project offshore Israel. Gas from subsea wells at the deep-water Leviathan field is piped to a fixed platform on the continental shelf from where it is then transported to markets in Israel, Jordan and Egypt. 26<sup>th</sup> July 2023</li> </ul>
INDIA	• IOC lets contract for new unit at Panipat refinery Indian Oil Corp. has let a contract to thyssenkrupp Industrial Solutions (India) Private Ltd. to deliver EPC services for a new unit to be installed at the operator's integrated Panipat refining and chemical complex in Haryana, India. Indian Oil Corp. Ltd. (IOC) has let a contract to thyssenkrupp AG's thyssenkrupp Industrial Solutions (India) Private Ltd. (tkIS) to deliver engineering, procurement, and construction (EPC) services for a new unit to be installed at the operator's 15-million tonne/year (tpy) integrated Panipat refining and chemical complex in Haryana, India, north of New Delhi. As part of the lump-sum turnkey EPC contract awarded in mid-July, tkIS will provide residual process engineering, detailed engineering, project management, procurement, construction, and commissioning of a 60,000-tpy polybutadiene rubber (PBR) plant to be equipped with butadiene polymerization technology from an unidentified licensor, thyssenkrupp said in a release. PBR produced by the new unit will be used in industrial applications that include manufacturing of tires and additives, among others. The service provider valued the EPC contract at more than \$100 million. Budgeted at an estimated cost of 329.46-billion rupees, the Panipat capacity expansion remains scheduled for commissioning by September 2024. <b>18<sup>th</sup></b> <b>July 2023</b>
	• India announces \$736m push to produce dirty hydrogen from 100 million tonnes of coal Government had previously admitted that domestic coal was not suitable for commercial gasification technologies. India's Ministry of Coal (MOC) has announced it will put 60bn rupees (\$736m) towards coal gasification, with a target of processing 100 million tonnes of the dirty fossil fuel into hydrogen and derivatives such as ammonia, methanol and synthetic methane by April 2030. And with no requirement for carbon capture and storage (CCS), Hydrogen Insight calculates this amount of coal gasification could theoretically produce around 11-12 million tonnes of dirty hydrogen in a little under seven years, along with at least 250 million tonnes of CO2 emissions. Currently, India imports approximately 50% of its Natural Gas, over 90% of its total Methanol consumption and around 13-15% of its total ammonia consumption to cater to the domestic demand. It will contribute to India's vision of becoming Aatmanirbhar self-reliant] and create a surge in employment opportunities. <b>18<sup>th</sup> July 2023</b>
	<ul> <li>India, Lanka look to link up via oil pipeline, land connectivity &amp; UPI</li> <li>India and Sri Lanka have decided to carry out feasibility studies on establishing a multi-product petroleum pipeline and a land bridge connectivity between the two countries. UPI-based digital</li> </ul>

	payments, too, will start in Sri Lanka in the next 2-3 months. These moves are part of a long list of initiatives outlined in the India-Sri Lanka Economic Partnership Vision announced on Friday amid Sri Lankan President Ranil Wickremesinghe's ongoing visit to India. On Friday, he held bilateral discussions with Prime Minister Narendra Modi, and called on President Draupadi Murmu. Today, we have adopted a vision document for our economic partnership. The vision is to strengthen maritime, air, energy and people-to-people connectivity between the two peoples. The vision is to accelerate mutual cooperation in tourism, electricity, business, higher education, and skill development," Modi said in a joint press statement with Wickremesinghe. <b>21</b> <sup>st</sup> <b>July 2023</b>
INDONESIA	<ul> <li>Indonesia's big gas projects to proceed after global majors sell stakes         Indonesia has seen declining oil and gas production in recent years due to depleting reserves, and as major new projects face delays due to oil majors' exits. After signing a deal on Tuesday to buy a 20% stake in the Masela gas block from Shell, Nicke Widyawati, CEO of Indonesian state energy firm Pertamina, told reporters at the Indonesia Petroleum Association conference that a final investment decision on the project would be made in 2026. Shell had been looking to sell its 35% interest in the project since 2019. Under the agreement signed on Tuesday, Malaysia's Petronas will buy Shell's other 15% stake. "Our participation underscores the commitment in supporting Indonesia's production target to achieve one million barrels of oil per day and 12 billion standard cubic feet per day of gas by 2030," Petronas group CEO Tan Sri Tengku Muhammad Taufik said. Abadi LNG, led by Japan's Inpex Corp (1605.T), will use gas from the Masela block to produce 9.5 million metric tons per year of LNG at its peak, which will be shipped from the project due to a lack of progress following sanctions on Russian companies. The Tuna field is expected to reach peak production of 115 million standard cubic feet per day in 2027. 26<sup>th</sup> July 2023     </li> <li>Pertamina signs deals to explore CCS, CCUS partnerships         Indonesia's state energy company PT Pertamina signed four agreements on Tuesday to study and explore potential developments of carbon capture storage facilities in the country, the company said in a statement on Tuesday. Pertoleum Association conference. The companies and in the stoper to could be agreements with Mubadala Energy, Japan Petroleum Exploration Co. Ltd (JAPEX), Japan Organization for Metals and Energy development of carbon capture and storage (CCUS) in undonesia. They may also     </li> </ul>
	<ul> <li>Storage (CCS) as well as carbon capture, utilization and storage (CCOS) in indonesia. They may also cooperate in other low-carbon energy projects, Pertamina said in the statement. 25<sup>th</sup> July 2023</li> <li><u>\$650 million deal: Shell sells giant gas asset to Pertamina and Petronas</u> Asean state energy players confirmed as purchasers of Abadi interest. UK supermajor Shell has agreed to sell for up to \$650 million its sole partner stake in Inpex's Masela production sharing contract offshore Indonesia, which hosts the giant Abadi gas field, to the nation's state-owned Pertamina and Malaysian counterpart Petronas. The Indonesian authorities are currently reviewing Japanese operator Inpex's plans to exploit Abadi as a 9.5 million tonnes per annum onshore liquefied natural gas project, that would include a carbon capture and storage scheme. Shell on Tuesday confirmed its subsidiary Shell Upstream Overseas Services (SUOS) had agreed to sell for a base consideration of \$325 million cash its 35% participating interest in the Masela PSC. The transaction, which has an effective date of 1 January 2023, carries an additional contingent amount of \$325 million to be paid when the final investment decision is taken on the Abadi gas project. 25<sup>th</sup> July 2023</li> </ul>
IRAQ	• <u>Saudi Arabia eyes more investments in Iraq's oil projects</u> Saudi Arabia's investments in the oil sector are expected to accelerate further as top Saudi and Iraqi official met in Baghdad. Aramco officials accompanied the Saudi minister and reviewed several

investment opportunities in the energy sector, exploratory sites and refining facilities, *Arab News* reported. The state news agency reported that Iraqi Oil Minister Hayan Abdul Ghani welcomed Saudi companies to invest in various sectors, including energy refining and infrastructure. He added that both countries should speed up the implementation of joint projects to serve the common interests of their people. Earlier this month, Saudi Arabia and the UAE committed to allocate \$6 billion for expanding international trade and investment in Iraq. **22<sup>nd</sup> July 2023** 

#### • Iraq reveals details of \$27 billion deal with TotalEnergies

A \$27-billion agreement signed between Iraq and France's oil giant TotalEnergies will support Iraq's plans to expand its crude oil output and petrochemical industries, the Iraqi Oil Ministry said in a report on Tuesday. The agreement, which involves 4 major projects, will also largely boost Iraq's revenue and allow it to avoid wasting its gas wealth by ending flaring practices. This is a strategic package that will largely support the Iraqi economy...it will help in maximizing revenue, support plans to boost crude production and petrochemical industries, and stop gas flaring," Oil Ministry spokesman Assim Jihad said. TotalEnergies would invest heavily in the development of Artawi oilfield in the Southern Basra Governorate to produce 80,000-90,000 bpd, which will be increased later to around 210,000 bpd. He noted that Artawi, with estimated proven reserves of nearly 10 billion barrels, contains light crude which is in "high demand in global markets." Total will also build a solar power plant in Iraq with an output capacity of 1,000 MW. "This is one of the largest solar power projects in the region...It ushers in a real beginning of renewable energy investment in Iraq," Jihad noted. **25<sup>th</sup> July 2023** 

#### <u>Chinese Firm signs \$390m Drilling Contract at Rumaila</u>

China's Zhongman Petroleum and Natural Gas Group Corporation (ZPEC) has signed a major drilling engineering service contract for Iraq's giant Rumaila oilfield. The contract was signed on Sunday with the Basra Energy Company Limited (BECL), which was set up in 2021 to operate the field, and announced to the markets on Wednesday. Contract amount is expected to be approximately USD 390 million (approx. RMB 2.796 billion), and the deal is expected to last 4.5 years. The company said it expects the contract to have a significant positive impact on the company's business from 2024 to 2028. **20<sup>th</sup> July 2023** 

#### • ONGC to Resume Exploration at Iraq's Block 20

JAPAN

A report from Telegraph India suggests that ONGC Videsh Ltd (ONV) is considering resuming operations in Iraq.

The company received the rights to Block 20 in the Western Desert (then known as "Block 8") in 2000, but declared force majeur in 2003 due to the security situation at that time. According to ONGC's most recent annual report: "Your Company was the sole licensee of Block-8 (now Block 20), a large on-land exploration Block in Western Desert, Iraq spread over 10,600 Sq. Km. The Exploration & Development Contract (EDC) for the Block was signed on 28.11.2000. The contract was ratified by the Government of Iraq on 22.04.2001 and was effective from 15.05.2001. Since then, the work relating to archival, reprocessing and interpretation of the existing seismic data has been completed. However, your Company had to notify the FM [force majeur] situation to the Ministry of Oil, Iraq in April, 2003 due to prevailing conditions in Iraq. In 2008, your Company was informed that Government of Iraq had decided to re-negotiate the Block-8 contract in-line with the provisions of the new oil and gas law which was expected to be promulgated soon. **19<sup>th</sup> July 2023** 

#### Japan's JERA to invest \$300 million in green tech-focused start-ups

Japan's top liquefied natural gas buyer JERA will invest \$300 million in green technology-focused startups through a newly created in-house unit, it said on Friday, as part of the country's efforts to reach carbon neutrality by 2050. JERA, also Japan's biggest utility, would target start-ups which develop decarbonisation technologies including hydrogen, ammonia and other renewables, digital technologies as well as those focusing on women's health, it said in a statement. Venture capital funds which are linked to such start-ups would also be investment targets for JERA Ventures, the company said. Friday's

	<ul> <li>announcement comes after JERA announced strategic collaboration agreement with ADNOC from the United Arab Emirates to cooperate in clean hydrogen and ammonia, following Japan Prime Minister Fumio Kishida's visit to the Middle East earlier this week. JERA has also signed a memorandum of understanding with Saudi Arabia's Public Investment Fund - which leads decarbonisation drive in the world's top oil producer - to explore development of green hydrogen projects and derivatives, it said on Thursday. 21<sup>st</sup> July 2023</li> <li>Taiyo Oil launches study for renewable fuels project at site of idled Okinawa refinery Taiyo Oil Co. Ltd. is considering producing renewable fuels at subsidiary Nansei Sekiyu KK's oil and petroleum products storage and marine terminal on Japan's southwestern island of Okinawa.Taiyo Oil Co. Ltd. is considering producing renewable fuels at subsidiary Nansei Sekiyu KK's oil and petroleum products storage and marine terminal home to a now-idled 100,000-b/d refineryon Japan's southwestern island of Okinawa in Nishihara, Nakagami District, Okinawa Prefecture. In a separate release, MCL confirmed the plant would be equipped with LanzaJet Inc.'s ATJ technology. Pending the outcome of the feasibility study, Taiyo Oil said the renewables plant would become operational and barin initial exeduction of SAT and reany when diacal exercising in first user 2029. 26<sup>th</sup> luty: 2023</li> </ul>
	begin initial production of SAF and renewable diesel sometime in fiscal-year 2028. <b>26<sup>th</sup> July 2023</b>
	<ul> <li>Petronas announces six offshore oil and gas discoveries         Malaysian oil and gas company Petronas said on Monday it had made six oil and gas discoveries in five blocks offshore Sarawak, Malaysia. Petronas said that the discoveries were achieved on the back of an intensive domestic exploration drilling campaign started in late 2022 that had also led to the discovery that year of Nahara-1 in Block SK306, a significant oil discovery by PETRONAS Carigali within the last decade. PETRONAS Executive Vice President and CEO of Upstream, Adif Zulkifli said, "This string of successful discoveries clearly shows the still untapped exploration potential of Malaysia's basins, waiting to be discovered by companies who are willing to adopt new and innovative ways. "We hope these will provide the impetus for more companies to participate and invest in Malaysia's Upstream sector, especially in the exploration front," he added. Petronas attributed the exploration success to its "innovative clustered exploration" approach. 24<sup>th</sup> July 2023     </li> </ul>
	Lang Lebah Offshore Gas Field, Sarawak, Malaysia
MALAYSIA	Project Type : Offshore gas field
	Location : Sarawak, offshore Malaysia
	Discovery : 2019
	Expected Final Investment Decision: 2023
	Expected start of production : 2026
	Ownership : PTTEP HKO (42.5%), KUFPEC Malaysia (42.5%), Petronas Carigali (15%)
	Lang Lebah Gas Field is located within block SK410B, in the Central Luconia Province, around 90km from the coast of Sarawak, offshore Malaysia. PTTEP HK Offshore (PTTEP HKO) is the operator for Block SK410B with 42.5% participating interest. KUFPEC Malaysia, a subsidiary of Kuwait Foreign Petroleum Exploration (KUFPEC) (42.5%) and Petronas Carigali (15%) are the other stakeholders. The front-end engineering and design (FEED) contracts for onshore and offshore components of the development were awarded in 2022. The final investment decision for the project is expected to be taken in 2023. <b>25<sup>th</sup> July</b> <b>2023</b>
	Sparrows Group expands Middle East operations with \$13million contract win     Sparrows Group (Geographic) the engineering and maintenance convices specialist for the global energy
MIDDLE EAST	Sparrows Group (Sparrows), the engineering and maintenance services specialist for the global energy and industrial sectors, has been awarded a major crane replacement contract for a client in the Middle
	East. The project, which is worth \$13million (USD), is expected to last 18 months. The scope of work
	will see Sparrows complete all aspects of the engineering required to replace four BOS Liebherr cranes
	of four offshore platforms, which are beyond their expected operational life. Sparrows will handle all

	crane interfaces, installation, commissioning and testing, as well as engineered lift plans for the removal and installation of the cranes using a lift barge, which is to be supplied by the main contractor, along with the new cranes. The project will be carried out in two phases, with phase one taking place onshore from the company's Abu Dhabi facility and workshop and phase two offshore. <b>21</b> <sup>st</sup> <b>July 2023</b>	
VIETNAM	• <u>Hyosung Vietnam to Invest \$1 Billion in Carbon Fiber Manufacturing Facility</u> Hyosung Vietnam Co., Ltd recently announced its ambitious plan to invest nearly \$1 billion in a carbon fiber manufacturing facility. The new plant will be located at the Phu My 2 Industrial Zone in Phu My town. The first phase of the project will demand an initial investment of about \$160 million. The investment plan was revealed during a meeting with Nguyen Van Tho, Chairman of the Ba Ria-Vung Tau People's Committee. Hyosung Vietnam has sought guidance from the provincial authorities concerning the necessary paperwork and procedures required to obtain investment approval. Provincial Support and Past Investments The province expressed its support for the project and committed to cooperating with relevant authorities to facilitate the process. Hyosung has a history of significant investment in Vietnam, with approximately \$3.5 billion invested across Dong Nai, Ba Ria-Vung Tau, Quang Nam, and Bac Ninh provinces. <b>24<sup>th</sup> July 2023</b>	
TURKEY	<ul> <li>Saipem awarded major contracts in Turkey and Saudi Arabia         Saipem on Thursday announced two major contracts as part of its H1 financial results. The comparent H1 revenues soared to \$5.9 billion compared \$4.68 billion during the corresponding period of 2022             Italian giant said. Saipem attributed higher revenues to increasing activity in the North Sea, Centra             South America, Sub-Saharan Africa and the Middle East. In Turkey, Saipem inked a contract from Tu             Petroleum OTC, the second phase of the Sakarya FEED and EPCI project involving the engineee             procurement, construction and installation of a pipeline to be installed at a depth of 2,200 metres in             Turkish waters of the Black Sea. The offshore operations will begin in the summer of 2024 and w             conducted by Saipem's flagship vessel Castorone. 27<sup>th</sup> July 2023</li></ul>	
AFRICA		
EGYPT	<ul> <li>Egypt slams rumors of Zohr gas field collapse, announces \$1.2 billion investment         The Ministry of Petroleum and Mineral Resources in Egypt has debunked rumors regarding the supproperties of the Zohr gas field, describing such reports as "entirely baseless," according to local means the sources instead highlighted investments to boost the giant field's production. Petro Shorou company responsible for operations in the Mediterranean Zohr gas field under the umbrella of Petrosaid the investments earmarked for the development of the Zohr field for the fiscal year 2023-24 at around \$1.2 billion. The new plan is based on increasing production while simultaneously red costs and maximizing resources. It also aims to improve energy efficiency and minimize losses, continuing to devise necessary solutions to increase production amid current global challenges. Eggrowth plans for Zohr field. The ambitious plan aims to intensify field development activities the drilling new wells, repairing, and re-completing some existing wells. The reserves of the giant Zohr which is a significant natural gas producer in Egypt, are estimated at around 30 trillion cubic feet o making it one of the largest gas fields in the Mediterranean. Gas production rights in the Zohr field divided between Egypt's government-owned EGAS and Italy's Eni, the company responsible for inversion the field. 25<sup>th</sup> July 2023 </li> </ul>	
MOZAMBIQUE	<ul> <li><u>Start-up announces 12GW solar-to-green-hydrogen project in Mozambique</u> Jearrard Energy Resources says it will begin construction in mid-2024 without subsidies. A UK-based start-up has unveiled plans to build a 1.6 million tonnes-per-year green hydrogen facility in Mozambique, powered by 12GW of solar. Jearrard Energy Resources (JES), owned by former property developer and IT engineer Marcus Allington, has secured land for the project and plans to begin development and</li> </ul>	

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	construction in either the second or third quarter of next year. The company declined to comment on the project cost or a timeline for final investment decision, but Allington told Hydrogen Insight that JES is in "active discussion" with industrial partners from Norway and the UK to co-develop and fund the project. Our project modelling shows we are in line with other international large scale solar-to- hydrogen projects," Allington added. The project costs are likely to run into the billions. Namibia's giant 3GW electrolyser project powered by around 7GW of renewables is expected to cost \$10bn, a sum nearly equal to that nation's GDP. South Africa recently launched a \$1bn green hydrogen fund, backed by the government of the Netherlands. <b>25<sup>th</sup> July 2023</b>
MOROCCO	• <u>Green Hydrogen: UK Oblin planning major zero-carbon project in Moroccan Sahara</u> UK Oblin group, which builds and operates hybrid utility scale solar, wind, hydro, biomass, waste to energy power stations, will carry out a major green hydrogen project in the Moroccan Saharan Dakhla- Oued Eddahab region. This zero-carbon project was disclosed following a visit paid lately by a delegation of investors, led by Oblin's CEO, Brannan Tempest, to the city of Dakhla, pearl of Moroccan Sahara. "We are planning a major renewable energy project to produce green hydrogen and ammonia in Morocco's southern provinces," he said, citing the favorable climate of Dakhla, a coastal city with abundant sunshine and wind, offering investors huge business opportunities. <b>21</b> <sup>st</sup> Jul 2023
NIGERIA	<ul> <li><u>Nigeria's debut FLNG project boosted as state oil company takes major stake</u> NNPC Ltd takes 20% stake in UTM Offshore's 1.5 million tonnes per annum floating liquefaction scheme. Nigeria's debut floating liquefied natural gas project got a major boost late last week when the national oil company decided to take a significant stake in the development. The planned 1.5 23<sup>rd</sup> Jul 2023</li> </ul>
UGANDA	• TotalEnergies announces commercial drilling at Uganda project France's TotalEnergies said on Wednesday it started commercial drilling this month at its Tilenga petroleum project in Uganda's west ahead of an expected start of oil production in 2025. TotalEnergies has faced fierce resistance from environmental protection groups and green energy campaigners who say the Tilenga project, which is partly located in a national park, and a planned crude oil export pipeline are a disaster for the planet. "Drilling of the Tilenga wells began in July 2023, with production scheduled to start in 2025. A total of 420 wells will be drilled at Tilenga," a spokesperson for TotalEnergies said. TotalEnergies and its partner, China's CNOOC, have said production in Tilenga will hit a peak of 190,000 barrels per day. Tilenga is one of Uganda's two oil projects. Commercial drilling at Kingfisher, the second project which is controlled by CNOOC begun in January. <b>26<sup>th</sup> July 2023</b>
SOUTH AFRICA	<ul> <li>Port of Rotterdam, Vopak in Race for \$2.8 Billion Hydrogen Port in South Africa         Port of Rotterdam and Koninklijke Vopak NV have been asked to submit construction and funding plans         for a 50 billion rand (\$2.8 billion) port and associated rail links to ship commodities including hydrogen         and its derivatives from northwest South Africa, people familiar with the talks said. The two Dutch         companies are part of three consortiums that on Tuesday won the right to present proposals to South         Africa's state logistics company, Transnet SOC Ltd., to build the Boegoebaai Port and related         infrastructure, the people said, asking not to be identified as the consortium members haven't been         identified. Transnet National Ports Authority, a Transnet unit, on Tuesday said three groups, selected         from eight consortiums of domestic and foreign companies that applied, were selected to make firm         proposals. The port is expected to begin operating in March 2030 and the rail links may be complete by         May 2036. Green hydrogen production facilities would be built adjacent to the port in a 33,772-hectare         special economic zone. 26<sup>th</sup> July 2023     </li> </ul>
AUSTRALIA	
AUSTRALIA	

#### Indian giant Essar eyeing investment in Australian coal seam gas

Collaboration with Galilee Energy could get Glenaras project off the drawing board. Indian conglomerate Essar is tying up with Australia's Galilee Energy to evaluate potential collaboration on coal seam gas (CSG) coalbed methane projects in both countries. The companies have signed a non-binding memorandum of understanding for potential collaboration at Essar Exploration & Production's (EEPL) Raniganj CSG project in India and Galilee's Glenaras gas project in Queensland, Australia. Galilee has already spent more than A\$150 million (US\$102 million) on extensive exploration and appraisal activity, comprising more than 20 exploration wells and core holes, over 700 line kilometres of fully reprocessed 2D seismic and three multi-well production pilots. The Raniganj block currently has some 350 wells with contemporary development facilities, all indigenously designed and built. Raniganj's existing gas facility is capable of handling more than 2 million cubic metres per day, which will be progressively increased to 3 MMcmd to cater to the projected future production from the block. An additional 200 wells are expected to be drilled as part of the planned expansion, according to Essar's website. **21**<sup>st</sup> **July 2023** 

#### • Santos progresses at Barossa, development drilling still suspended

Momentum also picking up at Timor Sea and domestic carbon capture and storage projects. Australian gas-focused Santos is forging ahead with its Barossa gas field development offshore Australia that is intended to backfill the Darwin LNG project despite the Barossa development drilling campaign remaining suspended, awaiting approval from the offshore regulator. On Thursday, Santos confirmed that the Barossa gas condensate project — including the Darwin Pipeline Duplication (DPD) scheme is 60% complete. The Barossa development effectively comprises at least three discrete elements the US\$3.6 billion offshore development of the Barossa field, the life extension of the Darwin LNG plant and the Bayu-Undan carbon capture and storage scheme. Domestic CCS The operator's Moomba CCS project onshore Australia is 70% complete with first injection expected in the first quarter of 2024. Santos hails Moomba CCS as one of the lowest cost CCS project globally, targeting a life-cycle breakeven costs of about US\$24 per tonne. In the second quarter, Santos achieved sales revenue of US\$1.3 billion while production in the three months ended 30 June of 22.8 million barrels of oil equivalent was higher than the prior quarter, mainly due to increased domestic gas volumes in Western Australia. **20<sup>th</sup> July 2023** 

#### <u>UK's Well-Safe Solutions Eyes Lucrative Australian Offshore Decommissioning Market</u>

UK-based offshore well plug and abandonment company Well-Safe Solutions, best known for its services in the UK North Sea, is expanding into the Asia Pacific region with the appointment of Massimo Delia as General Manager of newly-created Well-Safe Solutions Pty Ltd. This includes the abandonment of over 1,000 offshore wells, in addition to a significant onshore decommissioning market. Delia said: "I have watched Well-Safe Solutions go from strength to strength in Europe, with the growth of its Subsurface and Well Engineering team capabilities and the mobilization of all three well plug and abandonment assets for the first time in the company's history just some of the recent highlights. "I am eager to play my part in the next chapter of the company's growth and look forward to collaborating with my colleagues, clients and stakeholders in the UK and Australia. Earlier in 2023, Well-Safe Solutions announced that all three well P&A assets the Well-Safe Guardian, Well-Safe Protector, and Well-Safe Defender were all committed to firm contracts before options until at least mid-2024. **24<sup>th</sup> July 2023** 

# <u>Natural hydrogen detected in 'multiple locations' in South Australia</u>

First stage of soil gas testing has yielded promising results for Australian firm Gold Hydrogen ahead of initial drilling in October. ASX-listed company Gold Hydrogen has announced today (Tuesday) that naturally occurring hydrogen has been detected at the surface of "multiple locations" in PEL 687, an area in the state of South Australia which it has licensed for exploration. Natural hydrogen, which can be formed in the earth's subsurface through a variety of routes (see factbox below) is expected to be extremely cheap to recover, with estimated cost of production at a well in Mali below \$0.50/kg. Depending on additional transport and storage costs, it could be even cheaper than grey hydrogen made from unabated fossil gas, although the emissions footprint of exploration and drilling is yet to be determined. The stage-one survey was conducted by Australian government agency Commonwealth

Scientific and Industrial Research Organisation (CSIRO) to test soil for so-called "white" or "gold" hydrogen across 80 different locations on Yorke Peninsula, which includes the PEL 687 area. n 1931, naturally occurring hydrogen was found in three samples taken in the area during oil & gas exploration, at depths of 240.8 metres, 262.1 metres, and 507.8 metres. A second-stage soil-gas survey, which would involve more long-term measurement, is also tentatively scheduled for late 2023 to early 2024. **25<sup>th</sup> July 2023** 

<u>Billionaire Andrew Forrest's Fortescue buys its first US green hydrogen project from cash-strapped</u>
 <u>Nikola Motors</u>

The Australian company says the Phoenix Hydrogen Hub could be brought to FID this year. Australian billionaire Andrew Forrest's Fortescue Future Industries (FFI), which has rebranded to Fortescue, has acquired 100% of the Phoenix Hydrogen Hub, a project originally announced by embattled zeroemissions truck manufacturer Nikola, in a \$24m deal. Fortescue had announced in January this year that it had signed a wide-ranging memorandum of understanding with Nikola to co-develop large green H2 projects, with a particular focus on the Phoenix Hydrogen Hub. The Australian developer says that the project, for which Nikola had already purchased 920 acres of undeveloped land through a subsidiary, is currently going through the final stages of permitting and is already in the process of procuring long-lead equipment. As such, Fortescue plans to bring the project to its board this year for final investment decision (FID) the first it will take in the US. Cash injection Nikola's primary focus is zero-emissions heavy-duty vehicles. Following major losses and an accumulation of \$2bn of debt, the company announced last month it would scale back its other operations particularly in the European market and focus on getting its Class 8 fuel-cell electric trucks to market by this autumn, while keeping cash spend to below \$400m by 2024. **20<sup>th</sup> July 2023** 

#### Woodside confirms positive FID for Julimar-Brunello Phase 3 development

Woodside Energy will move ahead with development of the Julimar-Brunello Phase 3 project offshore Western Australia. Woodside Energy will move ahead with development of the Julimar-Brunello Phase 3 project offshore Western Australia. In its second-quarter 2023 report dated July 18, the company confirmed a positive final investment decision was made on the project which will provide a new supply of gas to the Chevron-operated Wheatstone LNG plantin April, said Woodside chief executive officer Meg O'Neill. KUFPEC, which holds a 35% interest in Julimar-Brunello fields, noted the decision in mid-June. Woodside Energy Group delivered quarterly production of 44.5 MMboe in second-quarter 2023, down 5% from this year's first quarter due to planned turnaround and maintenance activities. Full-year production guidance remains unchanged at 180-190 MMboe. The company has total revenue of \$3.08 billion, down 29% from this year's first quarter due to lower realized prices and lower production. **19**<sup>th</sup> **July 2023** 

#### Beach Energy prepares to begin offshore drilling at Otway Basin, Australia

Beach Energy has signed an agreement to use the semi-submersible drilling rig the Transocean Equinox to carry out the drilling campaign, which would commence in 2025, and the project includes the development of Artisan and La Bella discoveries. Australian oil and gas exploration and production company Beach Energy has started community consultation on the next phase of drilling works in Otway Basin, offshore Victoria. Beach Energy said that its offshore drilling programme will support the continued supply of locally sourced gas for its customers in Australia. The company operates Otway Gas Plant, located near Port Campbell, to process the gas produced from nearby offshore reservoirs and sells it to retailers within Australia. The Valaris 107 jack-up rig was working for Eni in Australia until May, when it was moved to an assignment with GB Energy and was engaged for an undisclosed operator until August 2023. **27<sup>th</sup> July 2023** 

#### EUROPE

SCOTLAND

Drax secures approval for £500m new hydropower plant in Scotland

	The Cruachan hydro plant, planned to be built adjacent to the existing underground facility, would double the site's total generation capacity to more than 1GW and would create around 1,000 jobs across the supply chain during construction. Drax has secured development consent for its new £500m underground pumped storage hydropower plant at its existing Cruachan facility in Argyll, western Scotland. The UK-based electric services company has secured approval from the Scotland Government, under Section 36 of the Electricity Act 1989 in May 2022. The Cruachan hydro plant, planned to be built adjacent to the existing underground facility, would double the site's total generation capacity to more than 1GW. Alongside the UK Government, Drax would invest around £500m in the project, which would create around 1,000 jobs across the supply chain during construction. Drax CEO Will Gardiner said: "This is a major milestone in Drax's plans to build Britain's first new pumped storage hydro plant in a generation. "These plants play a critical role in stabilising the electricity system, helping to balance supply and demand through storing excess power from the national grid. "When Scotland's wind turbines are generating more power than we need, Cruachan steps in to store the renewable electricity so it doesn't go to waste." In 2019, Drax acquired Cruachan, the Galloway and Lanark hydro schemes. According to the company, the expansion of Cruachan requires an updated financial stabilisation mechanism from the UK Government. Drax said that the new 600MW plant at Cruachan is part of its broader £7bn strategic investment plan in clean energy technologies between 2024 and 2030. <b>26<sup>th</sup> July 2023</b>
SWEDEN	<ul> <li>Saipem signs EPC deal for carbon capture project         Italian engineering and construction giant Saipem has signed a letter of intent with Stockholm Exergi, the district of Stockholm's energy company, for a large-scale CO2 capture plant to be installed at Stockholm Exergi's existing bio-cogeneration plant located in the Swedish capital. Saipem's scope of work covers the engineering, procurement and construction activities for the carbon capture unit, the CO2 storage as well as the ship loading systems for CO2 transportation. The signed Letter of Intent allows the start of limited, engineering-related activities, while finalising the main terms of the EPC contract expected to be signed in Q3 2023. When completed, the plant will be able to capture 800,000 tonnes of biogenic carbon dioxide every year from the biomass-fuelled Värtaverket power plant in Stockholm, thus enabling a net removal of CO2 from the atmosphere, otherwise known as "negative emissions. 26<sup>th</sup> July 2023     </li> </ul>
UK	<ul> <li>Equinor bullish on large Rosebank and Bay du Nord offshore oil projects Rosebank in the UK is the subject of final clarifications, while Bay du Nord will happen once redesigned. Equinor reiterated today it is fully committed to developing two large offshore oil projects in its international portfolio Rosebank in the UK and Bay du Nord offshore Canada. Chief financial officer Torgrim Reitan told analysts in Oslo today that Rosebank will be "going ahead" after the company receives some "final clarifications". 26<sup>th</sup> July 2023</li> <li>New discovery revealed in the UK North Sea as K2 prospect hits the heights Prospect is located within proximity of the MonArb and Everest-Lomond fields. UK operator Ithaca Energy has made a new exploration discovery in the central North Sea close to the MonArb and Everest- Lomond fields. The company said in a short statement the K2 prospect hit 45 feet of net hydrocarbons pay in the Forties member reservoir sandstone. 27<sup>th</sup> July 2023</li> </ul>
NORTH & SOUTH A	MERICA
ARGENTINA	<ul> <li><u>YPF, Petronas progress design of LNG export project</u> Argentina's YPF SA and Petroliam Nasional Berhad (Petronas) are considering creating a joint-stock company to manage business related to development of a 5-million tonne/year (tpy) LNG plant should regulators approve legislation aimed at boosting the liquefaction industry and potential future exports .New details about the project—being pursued as part of a September 2022 MOU for joint development</li> </ul>

	of an LNG plant in Bahía Blanca in the southern province of Buenos Aireswere made by Pablo González, president of YPF, in statements to national media. Collaboration on the project's design is under way, González said, but the project requires not only favorable market and legal conditions but also "a volume equivalent to 80% of the gas currently produced in Argentina [more than 140 million cu m/day. The second phase includes construction of the scalable liquefaction plant with a final capacity of 25 million tpy. YPF's González said exports could generate \$15-20 billion annually. <b>21</b> <sup>st</sup> <b>July 2023</b>
	• Braskem Invests \$87 Million More in Brazilian Biopolymer Production The investment at its bio-based ethylene complex in Brazil increases production by 30% to a new capacity of 260,000 tons per year. Braskem announced on July 24 that the company concluded a 30% increase in the production capacity of its bio-based ethylene plant, located in the Petrochemical Complex of Triunfo, Rio Grande do Sul, Brazil. The recent \$87 million investment in the facility is intended to meet the growing global demand for sustainable products. The plant now operates at an higher capacity, increasing from 200,000 to 260,000 tons yearly. Braskem announced on July 24 that the company concluded a 30% increase in the production capacity of its bio-based ethylene plant, located in the Petrochemical Complex of Triunfo, Rio Grande do Sul, Brazil. The recent \$87 million investment in the facility is intended to meet the growing global demand for sustainable products. The plant now operates at an higher capacity, increasing from 200,000 to 260,000 tons yearly. Braskem's bio-based ethylene is made from sustainably sourced, sugarcane-based ethanol which removes carbon dioxide (CO2) from the atmosphere and stores it in products for daily use. Braskem announced on July 24 that the company concluded a 30% increase in the production capacity of its bio-based ethylene plant, located in the Petrochemical Complex of Triunfo, Rio Grande do Sul, Brazil. The recent \$87 million investment in the facility is intended to meet the growing global demand for sustainable products. The plant now operates at an higher capacity of Triunfo, Rio Grande do Sul, Brazil. The recent \$87 million investment in the facility is intended to meet the growing global demand for sustainable products. The plant now operates at an higher capacity, increasing from 200,000 to 260,000 tons yearly. <b>24<sup>th</sup> July 2023</b>
BRAZIL	<ul> <li>Petrobras eyes \$300 million-plus spending on contracting of flotel pair Brazilian oil giant has six tenders out simultaneously for the charter of accommodation and maintenance units. Petrobras could be looking at contracting two flotels for a combined price of more than \$300 million to run accommodation and maintenance services at its production platforms offshore Brazil. The Brazilian oil giant on 25 July received commercial bids in a pair of tenders for the charter of flotels to operate in the country for periods of four years and. 26<sup>th</sup> July 2023</li> </ul>
	• Petrobras hits 1 billion boe production milestone in giant Brazil pre-salt field Brazilian company expects to be producing 2 million bpd from Buzios development in 2027. Brazilian state-controlled company Petrobras has reached cumulative output of 1 billion barrels of oil equivalent from the giant Buzios field in the country's Santos basin pre-salt province. The milestone was achieved only a little over five years after Petrobras started production from Buzios in April 2018. Despite the large volumes that have been produced so far, it represents less than 10% of Buzios' recoverable volumes of 11.3 billion boe. "Achieving this 1 billion boe mark in just five years from a single field fills us with pride," said Petrobras chief executive Jean Paul Prates. "It is proof of the high level of qualification of our technical staff, the expansion of our learning curve in the pre-salt and how much we have advanced in the production of this asset in recent years. Petrobras operates Buzios with an 88.99% stake and is partnered by Chinese companies CNOOC Ltd on 7.34% and China National Oil & Gas Exploration & Development Corporation on 3.67%. <b>26<sup>th</sup> July 2023</b>
MEXICO	• <u>Mexico Pacific secures Sonora govt support for Saguaro Energia LNG project</u> The ongoing support and commitment of Sonora will enable the company to begin construction on the Mexican LNG project this year. Mexico Pacific has secured the support of the Sonora government for its \$14bn Saguaro Energia LNG project in the Mexican state, which is designed to produce 15 million tonnes per annum (mtpa) of liquefied natural gas (LNG). In this regard, the US-based company has signed a collaboration agreement with the government of the Sonora state for its anchor LNG export facility to

be built in Puerto Libertad. As part of the agreement, the Sonora government has pledged to facilitate a streamlined process for starting construction of the midstream project. This involves ensuring the prompt issuance of state and municipal permits. Mexico Pacific said that with the ongoing support and commitment of the state government, the company expects to begin construction on the Saguaro Energia LNG project this year. Besides, the project is set to become the foundational pillar of the Sonora Plan, a clean energy and nearshoring initiative aimed at fostering economic prosperity and clean energy development for the region. **21**<sup>st</sup> Jul 2023

#### Eni targets new exploration well after significant find in Mexican waters

Italian operator to return to Block 7 to investigate Yatzil-1EXP discovery. Eni plans to carry out a fresh wave of investments in a high-profile exploration block offshore Mexico, as the Italian oil major seeks to evaluate the area's hydrocarbons potential and to build new volumes on the heels of a significant recent discovery in the area. **24<sup>th</sup> Jul 2023** 

### • Dover Deepwater Project, Mississippi Canyon, Gulf of Mexico, US

Project type :	Offshore oil field development
Location :	Gulf of Mexico, US
Discovery :	2018
Production capacity :	Up to 21,000 barrels of oil equivalent per day
Final Investment Decision :	March 2023
Start of production :	Late 2024-Early 2025
Owner/Operator :	Shell Offshore

Dover is a deepwater oil field project being developed as a subsea tieback to the Appomattox production hub in the US Gulf of Mexico. Shell Offshore, which has 100% working interest in the field, took the Final Investment Decision (FID) for the project in March 2023. The Dover Development is expected to start production between late 2024 and early 2025. It will produce up to 21,000 barrels of oil equivalent per day (boe/d) at peak. Shell's investment in Dover Project is aligned with its long-term commitment to the US Gulf of Mexico as the company seeks to pursue energy-efficient and high-return upstream investments. PROJECT GALLERY In 2022, the company took FID on another discovery called Rydberg, which will also be tied back to Appomattox. Dover location details The Dover Deepwater Project is located within Mississippi Canyon in the US Gulf of Mexico. The site is around 170miles offshore southeast of New Orleans in Louisiana. The contract award is valued between \$75m and \$250m. As agreed, TechnipFMC will deliver the subsea tree systems along with providing engineering, procurement, construction, and installation services for the umbilical, riser, and flowline systems. TechnipFMC also supplied and installed the subsea production systems for Appomattox platform. **25<sup>th</sup> Jul 2023** 

# Hess discovers oil in Gulf of Mexico, increases full-year production guidance

Hess Corp. plans to develop a new discovery in the US Gulf of Mexico and has increased its full-year 2023 production guidance on strong operational performance. Hess Corp. plans to develop a new discovery in the US Gulf of Mexico and has increased its full-year 2023 production guidance on strong operational performance. The oil discovery at the Pickerel-1 exploration well was noted in the company's quarterly earnings report on July 26. The Hess-operated well (100%), in Mississippi Canyon Block 727, encountered about 90 ft of net pay in high quality, oil bearing, Miocene-age reservoir. Plans are to develop the offshore discovery through a tieback to its Tubular Bells production platform. First oil is expected in mid-2024. The company also noted an upward revision to its full year 2023 net production guidance to 385,000-390,000 boe/d from 365,000-375,000 boe/d. Hess said the increase is primarily due to strong operational performance and the expected startup of the ExxonMobil-operated Payara development offshore Guyana early in this year's fourth quarter. The Prosperity FPSO has an initial production capacity of around 220,000 b/d of oil and an overall storage volume of 2 million bbl. Net production for Guyana for full year 2023 is expected to be 115,000 b/d of oil, up from previous guidance of 105,000-110,000 b/d of oil. Bakken net production is forecast to be 175,000-180,000 boe/d for full

	year 2023, up from previous guidance of 165,000-170,000 boe/d. Second-quarter operations. <b>26<sup>th</sup> Jul</b> <b>2023</b>
VENEZUELA	• Venezuela and EU Join Forces in 1.5 Billion Methane Emission Capture and Export Plan Venezuela is in the initial stages of discussions with the European Union to implement a \$1.5 billion project aimed at capturing its methane emissions and exporting them to the EU as natural gas. Eni SpA and Repsol SA are partnering with Venezuela in this ambitious endeavour, utilizing a portion of the EU's Global Gateway Initiative funds. The plan involves collecting emissions from Venezuela's idle oil wells and ageing infrastructure, converting the gas to natural gas in Trinidad, and then shipping it to Europe. This initiative aims to tackle Venezuela's pollution challenges while bolstering the EU's natural gas supplies amid geopolitical tensions with Russia. Reducing Pollution and Enhancing Natural Gas Supplies The project holds significant environmental and strategic importance. By capturing methane emissions, Venezuela can significantly reduce its greenhouse gas footprint, given that methane is approximately 80 times more potent than CO2 over a 20-year period. The plan includes the construction of a 90-kilometre pipeline connecting Venezuela and Trinidad, estimated at \$350 million, with completion expected within 36 to 48 months. <b>22<sup>nd</sup> July 2023</b>
	<ul> <li>Venezuela expects to sign gas licenses by year-end, oil minister says         Venezuelan expects to sign licenses by year-end for developing the nation's vast natural gas reserves, oil         minister Pedro Tellechea said on Friday, even amid U.S. sanctions. Most of the South American country's         gas reserves remain undeveloped after decades of insufficient investment, contract changes and - in         recent years U.S. sanctions to oust President Nicolas Maduro. But new officials running the oil ministry         and PDVSA want to encourage new investment and unfreeze projects. Tellechea said talks between         state oil company PDVSA (PDVSA.UL) and companies including Italy's Eni (ENI.MI), Spain's         Repsol (REP.MC) and France's Maurel &amp; Prom (MAUP.PA) had progressed, but there was still a need to         agree to some terms in order to get licenses ultimately issued. "We must turn into a gas exporter," he         said during a conference in Caracas. 22<sup>nd</sup> July 2023     </li> </ul>

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