

• Editorial: Gerab National Enterprises is headquartered in the UAE. Gerab serves the Oil, Gas, Petrochemical, Energy, Water, Process, and Other Civil Construction industries. Gerab's strong relationship with manufacturer's world-wide enables it to offer quality piping solutions timely, and competitively. Furthermore, it's in-house storage facilities, logistics capabilities, value-added services, and motivated teams offer innovative solutions for managing project material supplies to our customers. Gerab maintains a significant inventory of well-preserved piping components and applies the ISO 9001:2008 quality assurance standards for managing the inventory and material documentation.

Gerab Bulletin is our contribution to update our stakeholders on project announcements and key component pricing trends. We hope you will find the contents useful and we would definitely like get your feedback.

EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent prices trading higher by 6% WTD and Crude Oil WTI prices are trading lower by 5% WTD.
- Coal prices are trading lower by 64% YTD
- Steel HRC (N. America) prices are trading higher by 65% than a year ago prices
- Iron ore prices are trading higher by 23% YTD
- Natural Gas prices are trading higher by 8% WTD

The Currency summary

- Euro is stronger by 3% YTD to USD
- The US Dollar to CNY exchange rate differential is 2% YTD

The Rig count summary

• The Rig counts in UAE have gone up by 20% YTD and in Africa have gone up by 28% 6MTD.

Project summary

- Adnoc eyes LNG investments with China in three major energy nations
- UAE's ADNOC and SOCAR to Collaborate on Hydrogen, Carbon Management and Geothermal Technologies
- MoU signed for Africa-Atlantic gas pipeline project
- ADNOC signs long-term LNG Heads of Agreement with ENN LNG, Singapore
- Kuwait Short-listed the Bidders for 4.5GW Az-Zour North and Al-Khairan IWPP Projects
- Contruction begins for \$3bn green steel project in Duqm
- Oman to develop world's first liquid hydrogen corridor
- Oman-Korea partnership to boost green hydrogen sector
- Saudi Archirodon and DEME consortium awarded Dredging Contract for Port of NEOM
- NWC's Investment Portfolio Exceeds SAR 102bn in Water, Environmental Sectors
- Hyundai E&C and Hyundai Engineering Signs \$2.3 Billion Jafurah Phase 2 Contract
- \$8.5 Billion Nibras Petrochemical Project Advances as Iraq Approves Construction Site
- Saudi's ACWA Power, Egypt Ink \$4B Green Hydrogen Deal

MODITY UPDATES

COMMODITY	UOM	Latest Price	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	9,359.75	0.74	0.63	4.24	1.75	-7.38
Coal	USD/MT	160.11	-0.17	18.10	-8.81	11.37	-63.77
Cobalt	USD/MT	28,792.37	-2.10	-15.27	-6.73	-0.94	-34.69
Copper	USD/MT	8,594.50	1.84	3.92	3.00	2.91	2.80
Crude Oil	USD/BBL	76.28	5.72	-4.85	-14.79	4.70	-3.56
Crude Oil Brent	USD/BBL	79.13	6.07	-4.05	-13.26	5.29	-2.74
Crude Oil WTI	USD/BBL	73.44	5.35	-5.70	-16.38	4.07	-4.42
Iron Ore	USD/MT	134.65	-0.28	5.29	12.40	20.97	22.95
Molybdenum	USD/MT	41,409.90	6.95	6.49	-22.79	-15.35	-22.29
Natural Gas	USD/MCF	2.66	8.49	-17.32	-3.25	5.74	-56.32
Nickel	USD/MT	16,710.00	0.18	-3.92	-17.25	-21.52	-42.39
Steel HRC (FOB China)	USD/MT	561.00	-1.41	2.28	2.57	2.32	-1.31
Steel HRC (N. America)	USD/MT	1,200.99	0.00	22.25	47.37	14.75	65.47
Steel Rebar	USD/MT	595.08	-2.73	0.34	5.48	4.35	-2.22
Steel Scrap	USD/MT	414.00	-0.24	4.03	9.44	9.42	8.44

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

CURRENCY E	XCHANGE RATE								
Code	Description	Country	Units	Latest Exchange Rates	WTD%	MTD%	3MTD%	6MTD%	YTD%
EURUSD	1 EUR to USD	Euro Area	USD	1.0950	-0.37	0.37	2.74	-0.31	3.27
USDCNY	1 USD to CNY	China	CNY	7.1462	-0.31	-0.05	2.29	0.42	-2.30

Source- Trading Economics

CRUDE OIL STOCK							
Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,14,562.00	0.21	-0.50	-0.52	0.39	2.34

Source: US Energy Information Authority

E COMMODITY TRADERS AND PIPE MANUFACTURERS STOCK PRICES.

STOCK PRICES							
Name	Latest Value	Units	WTD%	MTD%	3MTD%	6MTD%	YTD%
ArcelorMittal SA	28.30	USD	3.89	18.61	13.93	4.08	7.08
Chiyoda Corporation	332.00	JPY	-2.35	-7.78	-14.87	-9.04	-9.29
Glencore PLC	469.15	GBP	3.39	2.66	3.78	3.79	-16.34
HD Hyundai Heavy Industries Co. Ltd.	1,20,600.00	KRW	-1.31	2.29	-3.67	3.97	-0.33
JGC Holdings Corporation	1,589.50	JPY	1.21	-6.09	-27.40	-14.22	-5.10

McDermott International Ltd.	0.10	USD	2.00	-40.00	-59.20	-68.13	-73.16
National Marine Dredging	27.04	AED	-1.60	6.04	14.09	44.44	13.61
NYSE American Steel Index	2,120.28	Index	2.53	5.04	11.02	14.71	20.55
Rio Tinto PLC	5,783.00	GBP	2.30	4.54	12.51	13.28	0.02
Technip Energies NV	22.02	EUR	10.04	3.04	-6.81	50.10	42.89
TechnipFMC PLC	20.18	USD	1.46	-4.18	-1.18	33.11	67.33
Tenaris SA	34.57	USD	0.32	1.65	11.09	22.42	-0.63
Tubacex SA	3.60	EUR	7.61	22.62	22.41	26.49	80.25
Woodside Energy Group	30.91	AUD	2.49	-3.26	-14.23	-13.27	-14.78

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	61	*	1.67	7.02	5.17	19.61	
GCC	234	*	1.74	4.93	2.18	4.93	
Middle East	339	*	1.80	4.31	1.50	3.67	
Africa	111	*	8.82	11.00	27.59	33.73	
Asia-Pacific	202	*	0.00	-1.46	-6.48	7.45	
Europe	112	*	-1.75	-0.88	13.13	17.89	
Latin America	175	*	0.00	1.16	-7.89	-5.41	
North America	805	-1.35	-1.11	-0.49	-3.71	-6.50	
Total	1,744	*	0.23	1.10	-1.02	0.29	

Source- Baker Hughes

(*) No weekly data available for those particular regions

PROJECTS

UAE

• EGA Breaks Ground for Construction of UAE's Largest Aluminum Recycling Plant

EGA Breaks Ground for Construction of UAE's Largest Aluminum Recycling Plant. Emirates Global Aluminum (EGA) breaks ground for the construction of UAE's largest Aluminum Recycling Plant. The company is the largest industrial company excluding the oil and gas sector. It has initiated the construction of the largest aluminum recycling plant in the country. On its current production, the company has a processing capacity of 170,000 tonnes. The recycling plant is being built next to EGA's existing smelter in Al Taweelah. The plant is expected to supply to both local and global markets once construction is completed in the next three years. The plant will convert post-consumer aluminum scrap. This includes used window frames into low-carbon aluminum billets. This is done so as to facilitate its processing which is costly and time-consuming. The Aluminum recycling plant is expected to contribute to the global increase of recycled aluminum. Aluminum is widely used to build wind turbines and solar panels. These technologies are driving decarbonization efforts across the globe. The Aluminum Recycling plant will enable the drive in these efforts. **23rd November 2023**

Adnoc eyes LNG investments with China in three major energy nations
 Looked desuments reveal Entirety cleant is working with Chinase players on a

Leaked documents reveal Emirati giant is working with Chinese players on projects in Mozambique, Australia and Canada. Abu Dhabi National Oil Company (Adnoc) is exploring the possibility of investing jointly with Chinese corporations in liquefied natural gas opportunities in Mozambique, Australia and Canada, according to reports. Documents leaked to the BBC and Centre for Climate Reporting state that the state-owned Emirati giant "is willing to jointly evaluate (with China) international LNG opportunities" in the three countries. The document stated that "Chinese companies are among our most strategic partners. **27**th **November 2023**

Adnoc starts bid battle for two multibillion-dollar oilfield developments in latest expansion drive Two projects are part of P5 production enhancement plan aimed at increasing Abu Dhabi's crude output to 5 million bpd by 2027. Abu Dhabi National Oil Company (Adnoc) has started the bid battle for two huge engineering, procurement, construction and management contracts that are a key element of its

huge engineering, procurement, construction and management contracts that are a key element of its strategy to significantly boost the emirate's oil production capacity in the next few years. The state giant's P5 production enhancement plan is aimed at increasing Abu Dhabi's crude production to 5 million barrels per day by 2027, with the operator expected to spend up to \$150 billion over the next four years. **29th November 2023**

• Woodside signs COP28 oil and gas decarbonisation charter

The voluntary Charter was launched by COP28 President Dr Sultan Al Jaber and signed by 50 global oil and gas companies, including some that have adopted net zero 2050 targets for the first time. Woodside Energy has become a signatory to the Oil & Gas Decarbonization Charter launched at the United Nations Climate Change Conference COP28 in the United Arab Emirates. The voluntary Charter was launched by COP28 President Dr Sultan Al Jaber and signed by 50 global oil and gas companies, including some that have adopted net zero 2050 targets for the first time. Woodside is the only Australian signatory to the Charter. Woodside CEO Meg O'Neill said signing the Charter reinforced the company's existing commitments to reducing carbon and methane emissions and to investing in the products and services customers need as they do the same. "Signatories to the Charter have committed to net zero operations by or before 2050, ending routine flaring by 2030, and near-zero upstream methane emissions. According to COP28, the Charter signatory companies represent more than 40% of global oil production. **5th December 2023**

• <u>UAE's ADNOC and SOCAR to Collaborate on Hydrogen, Carbon Management and Geothermal</u> <u>Technologies</u>

ADNOC and the State Oil Company of Azerbaijan Republic (SOCAR) announced, the signing of a strategic collaboration agreement (SCA) that sets out their intention to collaborate on the potential development of low carbon energy technologies. The SCA follows both ADNOC and SOCAR becoming founding signatories of the Oil and Gas Decarbonization Charter, signed at COP28, that sets shared targets to eliminate routine flaring and zero out methane emissions by 2030 and achieve net zero by 2050. As part of the SCA, ADNOC and SOCAR will explore opportunities to work together to advance blue hydrogen, carbon management and geothermal technologies that can accelerate the decarbonization of energy systems in the UAE, Azerbaijan and other key markets and support their net zero ambitions. The SCA builds on the strategic bilateral energy cooperation between the UAE and Azerbaijan, including the 30% stake held by ADNOC in the Absheron gas and condensate field in the Azerbaijan sector of the Caspian Sea. It also builds on ADNOC's shareholding in Abu Dhabi Future Energy Company (Masdar). Recently, Masdar inaugurated the 230MW Garadagh Solar Park in Azerbaijan, which is the region's largest operational solar park. ADNOC has initially allocated \$15 billion (AED55 billion) to advance and accelerate lower-carbon solutions, new energies and decarbonization technologies as it reduces its carbon intensity by 25% by 2030 and works towards net zero by 2045. ADNOC is also targeting carbon dioxide (CO2) capture capacity of 10 million tonnes per annum (mtpa) by 2030. Yesterday, ADNOC announced the successful start-up of geothermal district cooling in Masdar City, in the first project in the Gulf region to harness geothermal energy. 5th December 2023

Thyssenkrupp awarded new Projects in UAE

thyssenkrupp Decarbon Technologies has signed two projects with Fujairah Cement Industries (FCI) and Gulf Biopolymers Industries Ltd (Gulf Biopolymers), both based in the United Arab Emirates. The partnerships are aimed at decarbonizing energy intensive cement production and building up

biopolymer production capacity in the MENA region. thyssenkrupp has bundled key technologies for the decarbonization of the industry in its new segment Decarbon Technologies. Announcing these milestone projects during COP28 is proof for the strategic importance of this green industrial powerhouse. The industrial sector is the world's second largest emitter of CO2, but also holds the levers for bold and deep cuts in greenhouse gas emissions. thyssenkrupp wants to play a proactive role in realizing this decarbonization potential through new partnerships on a global scale. thyssenkrupp Polysius and FCI will test the deployment of alternative fuels to reduce CO2 emissions in cement production. Polysius has developed a new combustion chamber technology that allows fossil fuels to be completely replaced by green alternatives, thereby reducing emissions and operating costs. **12**th **December 2023**

• Mitsubishi and ADNOC Sign Agreement to Explore Low Carbon Collaboration Opportunities

Mitsubishi Heavy Industries, Ltd. (MHI) and ADNOC signed an agreement on December 6, 2023 memorializing their intent to explore potential opportunities for collaboration on the development of value chains for blue NH3 and blue H2. (the "Agreement"). MHI will act as a technology solution provider to support decarbonization of oil and gas production sites owned by ADNOC and the development of businesses to produce blue hydrogen and blue ammonia while creating demand for these resources the world over. The two companies will seek to complement each other's strengths and create synergies between ADNOC's assets and MHI's related technologies, with the aim of accelerating the development of the hydrogen and ammonia businesses, as well as carrying out initiatives with a view to supporting efforts to achieve net zero emissions globally. **11**th **December 2023**

Enoc, Japan's IHI Corp Start Feasibility Study on Green Ammonia Project

Enoc Group, a leading integrated global energy player, and Japan's heavy-industry manufacturer IHI Corporation, have announced the start of the feasibility study of their groundbreaking green ammonia production project. In line with COP28, this significant development not only fortifies Dubai's Clean Energy Strategy 2050, but also contributes to the goals outlined in both the UAE Energy Strategy 2050 and the UAE Net Zero by 2050 Strategic Initiative. The collaboration aims to propel the country into a sustainable global hub for clean energy and a green economy. The Memorandum of Understanding (MoU) signed last year laid the foundation for exploring a low-carbon hydrogen and low-carbon ammonia supply chain in the UAE, aligning with the nation's efforts to diversify its energy sources and transition into a clean energy model. Saif Humaid Al Falasi, Group CEO of Enoc, said: "At Enoc, we are committed to partnerships that pave the way for a sustainable future. The initiation of the feasibility study phase is a testament to our dedication to supporting the UAE's energy transition efforts and advancing Dubai's Clean Energy Strategy 2050. This marks a new stage in our collaboration with IHI Corporation, and we are eager to explore the immense potential of green ammonia production in the UAE. **8**th **December 2023**

MoU signed for Africa-Atlantic gas pipeline project

A Memorandum of Understanding was recently signed on investment cooperation in the Africa-Atlantic gas pipeline project. The MoU was signed between Morocco and the UAE when King Mohammed VI visited the Gulf Arab state. As per the MoU, UAE will contribute both financially and technically to the realization of the Africa-Atlantic gas pipeline project. The length of the Africa-Atlantic gas pipeline Also known as the Morocco-Nigeria gas pipeline, the Africa-Atlantic gas pipeline is 5,600 kilometres long. It traverses a total of 13 countries along the Atlantic coast. These countries are Nigeria, Gambia, Guinea Bissau, Guinea, Sierra Leone and Liberia. The others are Ivory Coast, Ghana, Togo, Benin, Senegal, Mauritania and Morocco. Upon completion, the Africa-Atlantic gas pipeline project will channel more than 5,000 billion cubic meters of Nigeria's natural gas to Morocco. Ultimately the project will deliver gas to Europe via the Maghreb Europe Gas Pipeline (GME) and the European gas network. **8th December 2023**

ADNOC close to OMV deal to merge petrochemical businesses

The new petrochemical business is expected to carry a value of more than \$30bn. Abu Dhabi National Oil Co (ADNOC) is close to signing a deal with Austrian energy company OMV to merge their petrochemical businesses, reported Reuters, citing two people with knowledge of the talks. The two companies commenced talks in July 2023 to merge Abu Dhabi Securities Exchange-listed Borouge and Vienna-based Borealis to create a new chemicals entity that could have a value of more than \$30bn. OMV owns a 75% stake in Borealis, which is engaged in providing polyolefins solutions and recycling. ADNOC owns the remaining 25% stake. Petrochemical company Borouge is a JV between ADNOC (54%) and Borealis (36%). Earlier, OMV said Borealis and Borouge are expected to become "equal partners under a jointly controlled, listed platform for potential growth acquisitions to create a global polyolefin company. The new company is expected to have combined annual sales of more than \$20bn. **15**th **December 2023**

ADNOC signs long-term LNG Heads of Agreement with ENN LNG, Singapore

ADNOC announced the signing of a 15-year Heads of Agreement (LNG agreement) with ENN LNG (Singapore) Pte. Ltd., a wholly-owned subsidiary of ENN Natural Gas Co. Ltd. (ENN Natural Gas), for the delivery of at least 1 million metric tons per annum (mmtpa) of liquefied natural gas (LNG). The LNG will primarily be sourced from ADNOC's low-carbon Ruwais LNG project, currently being developed in Al Ruwais Industrial City, Abu Dhabi. The Ruwais LNG project is set to be the first LNG export facility in the Middle East and North Africa (MENA) region to run on clean power, making it one of the lowest-carbon intensity LNG plants in the world, supporting ADNOC's accelerated Net Zero by 2045 ambition. When completed, the project, which consists of two 4.8 mmtpa LNG liquefaction trains with a total capacity of 9.6 mmtpa, will more than double ADNOC's LNG production capacity to help meet the increased global demand for natural gas. **20**th **December 2023**

<u>Kuwait Short-listed the Bidders for 4.5GW Az-Zour North and Al-Khairan IWPP Projects</u>

The Kuwait Authority for Partnership Projects (KAPP), in collaboration with the Ministry of Electricity & Water & Renewable Energy of the State of Kuwait (MEWRE), announced the shortlisted bidders for Az-Zour North Phase 2 & 3 IWPP, Al-Khairan Phase 1 IWPP Following are the Shortlisted Bidders: Abu Dhabi National Energy Company (TQAQ), A.H Al Sagar & Brothers Co and JERA Co. ACWA Power Company, Gulf Investment Corportation

China Power International Holding Limited, Malakoff International Limited, Abdul aziz Al Ajlan Sons Co, The Az-Zour North Phase 2 & 3 IWPP project, a power and water desalination plant with a net capacity of at least 2,700 MW of power and 120 MIGD of desalinated water. The Project is expected to be run on a mixture of liquified natural gas and high-pressure natural gas with gas oil as back up fuel. The Project will be located at the Az-Zour North site adjacent to the west boundary of the Az-Zour North 1 IWPP facility currently under operation and to the north boundary of the existing Az-Zour South power complex, approximately 100 kilometers south of Kuwait City on the Arabian Gulf coast. Al-Khairan Phase 1 IWPP: Al-Khairan Phase 1 IWPP project, a power and water desalination plant with a net capacity of at least 1,800 MW of power and 33 MIGD of desalinated water . The Project is expected to be run on a mixture of liquified natural gas and high-pressure natural gas with gas oil as back up fuel. The Project will be located adjacent to the southern border of the existing Az Zour South conventional thermal power and desalination plant, approximately 100 kilometers south of Kuwait City.**3rd December 2023**

HEISCO Kuwait awarded \$443 million Power Plant Rehabilitation Project

KUWAIT

Kuwait announced in a statement that it has awarded a Rehabilitation Project at Az-Zour South Power & Water Distillation Station. The tender was issued by Ministry of Electricity & Water & Renewable Energy. The value of the contract is KWD 136.65 million (USD 443 million). Project Scope of Work includes Boiler Rehabilitation & Lifetime Extension And Replacement of Control System For Boiler, Steam Turbine And Auxiliaries for (8) Units At Az-Zour South Power & Water Distillation Station. **11**th **December 2023**

	 <u>GE awarded Services Agreement for Shuaiba North Power Station in Kuwait</u> GE Vernova's Gas Power business announced that it has signed a multi-year services agreement with the Malaysian and Kuwait-based Engineering Company TNB REMACO AI Dhow Joint Venture for Shuaiba North Power Station facility in AI Ahmadi, Kuwait. Under the terms of the 5-year agreement, GE Vernova will provide services for the gas turbines installed at the Kuwait's Ministry of Electricity & Water & Renewable Energy's 876 Megawatt (MW) Shuaiba North Power Station. The deal will also include the supply of parts, repairs, field services, and GE Vernova's Asset Performance Management (APM) software in the cloud. By incorporating APM from GE Vernova's Digital business within the service agreement, Shuaiba Power Station will enable increased levels of predictive maintenance (PdM) for the gas turbines and accessory equipment. APM Reliability, powered by Predictive Analytics, is expected to improve asset reliability, availability and productivity to help contribute to the long-term energy security needs in the country. 13th December 2023
	 <u>Oman considers carbon capture projects to reduce CO2 emissions</u> To mitigate CO2 emissions resulting from major industrial projects and boost its decarbonisation efforts, Oman is focusing on the development of the carbon capture, utilisation and storage (CCUS) field in the country. CCUS is a rapidly growing global technology for capturing large volumes of CO2, aimed at reducing greenhouse gas emissions, especially in sectors with significant CO2 emissions that are challenging to decarbonise. According to the Ministry of Energy and Minerals (MEM), CCUS technology presents promising solutions to reduce carbon emissions and achieve net-zero emissions, particularly in Oman's oil and gas production sector, industries and fossil fuel-based power generation plants. Oman's National Strategy for Orderly Transition to Net Zero has outlined CCUS will contribute to a substantial (approximately 15%) reduction in domestic emissions, thus facilitating the sultanate's journey towards net zero by 2050. On Wednesday, MEM signed a Memorandum of Cooperation (MoC) in the field of CCUS and blue hydrogen development in Oman with Petroleum Development Oman (PDO), Oman Shell, OQGN, and Occidental of Oman (Oxy). The signing ceremony was held under the patronage of H E Mohsin bin Hamed al Hadhrami, MEM Undersecretary. 9th November 2023
OMAN	• Galfar's order book rises to RO589mn on new projects Galfar Engineering and Contracting Company, Oman's largest construction firm, announced that its order book has increased to RO589mn, driven by new contracts awarded this year. For the first nine months of 2023, Galfar received new project awards worth RO393mn, according to the company's quarterly financial report submitted to the Muscat Stock Exchange on Tuesday. 'For the [nine months] period ending September 30, 2023, the company achieved a higher turnover compared to the same period last year, driven by the increase in the company's order book and new projects. The company's financial position continues to be positive, supported by a strengthening order book,' Galfar said in the report. The company's consolidated net profit increased to RO1.528mn for the first nine months of 2023, compared to a consolidated net profit of RO110,000 reported for the same period last year. However, Galfar's operating profit margins were affected by higher operating costs, mainly driven by 'geopolitical challenges, escalation in material prices, resource availability due to increased regional demands, and extended stays in some projects'.The company expects to maintain a solid project pipeline in excess of RO500mn in the future, with a significant number of tenders under evaluation across a diverse array of sectors and clients. 14th November 2023
	 <u>Contruction begins for \$3bn green steel project in Duqm</u> Vulcan Green Steel, a part of Jindal Steel Group, is set to make history in the global steel industry by building the world's largest green hydrogen ready steel plant in the Special Economic Zone at Duqm (SEZAD) with an investment exceeding \$3bn. The groundbreaking ceremony for the project, combined with a symbolic planting of an 'Eternal Green Tree', took place in Duqm on Monday, in the presence of H E Dr Ali bin Masoud al Sunaidy, Chairman of the Public Authority for Special Economic Zones and Free Zones (OPAZ), Naveen Jindal, Chairman of Jindal Group and Venkatesh Jindal, Vice Chairman of Vulcan Green Steel. The event was attended by numerous dignitaries representatives from the government

institutions, leaders from the private sector, and an executive team from both Vulcan Green Steel and the Jindal Group in Oman. The Direct Reduction Iron (DRI) Plant for which the foundation is laid in the ceremony on Monday, is going to be a green steel plant with the flexibility of transition from 100% natural gas to 100% green hydrogen, with a unique combination of hot DRI and hot briquetting system. It is going to be the largest single module plant (2.5 MTPA) in the world. **27th November 2023**

PDO announces project utilising CO2 for EOR

Petroleum Development Oman (PDO) has launched a pioneering pilot project for enhanced oil recovery (EOR) using CO2 in northern Oman, marking a significant step towards sustainable oil and gas production in alignment with the sultanate's goal of net-zero carbon emissions by 2050. PDO is committed to building a sustainable and low-carbon future, aiming to ensure the company's long term success by continuing to generate significant oil and gas revenue in a cost-effective and carbon-efficient manner, thereby maximising value for the sultanate, a press release stated. 'This project marks a key milestone in PDO's dedication to increasing oil and gas production sustainably, decarbonising its operations, and working towards achieving the net-zero carbon emissions goal by 2050 in alignment with Oman Vision 2040.' The goal of the pilot project is to de-risk and therefore expedite the full-field EOR development. Steve Phimister, Managing Director of PDO, conveyed the company's pride in announcing the milestone in its journey towards a net-zero CO2 emissions future. "This project is not just a technological achievement but a demonstration of our unwavering commitment to both cost and carbon competitiveness. We are determined to safely, efficiently and sustainably grow our core oil and gas business while minimising emissions from our operations. **29th November 2023**

Oman to develop world's first liquid hydrogen corridor

Oman has signed an agreement to pave the way for development of the world's first commercial scale liquid hydrogen corridor. The corridor will facilitate the export of green hydrogen produced in Oman to the Netherlands and onwards to Europe, leveraging the sultanate's abundant natural resources and strategic geographical location. The Ministry of Energy and Minerals and Hydrogen Oman (Hydrom) signed a joint study agreement on Sunday with Port of Amsterdam, Zenith Energy Terminals and GasLog to collaborate on the development of a liquid hydrogen route to market green hydrogen produced in Oman. The agreement underscores the clear ambitions of the partners to make the world's first commercial scale liquid hydrogen corridor a reality. The agreement was signed at the Omani Pavilion during COP28 in Dubai with H E Salim bin Nasser al Aufi, Minister of Energy and Minerals, and Prince Jaime de Bourbon de Parme, Climate Envoy of the Kingdom of the Netherlands, as official witnesses. The agreement entails conducting a detailed assessment of the requirements to develop an open-access hydrogen liquefaction, storage and export facility in Oman, along with the provision of specialised vessels for the transportation of liquid hydrogen, currently under development by GasLog. The primary aim of the agreement is to establish a green hydrogen corridor between Oman and the Netherlands, with the terminal of Zenith Energy as the destination for import, regasification and further distribution of the Oman-produced hydrogen to both local offtakers within the port of Amsterdam, as well as large industries in the European hinterland. 3rd December 2023

• PDO partners with Global CCS Institute for carbon capture and storage in Oman

A joint programme for carbon capture and storage (CCS) was signed on Tuesday by Petroleum Development Oman (PDO) and Global Carbon Capture and Storage Institute (Global CCS Institute). The signing ceremony took place at Oman's pavilion at COP28 climate summit in Dubai. The cooperation programme seeks to provide technical support for the development of policies and regulatory directives pertaining to the technology of capturing, transporting, storing and using carbon dioxide in Oman. The step was taken in pursuance of efforts undertaken by the sultanate – represented by the Ministry of Energy and Minerals – to cut down carbon emissions. It constitutes part of a project to prepare the structural framework for blue hydrogen and technologies for capturing, transporting and storing carbon dioxide. The project is undertaken in partnership with energy firms interested in these technologies in Oman. Global CCS Institute, is an international research institution that aims to accelerate the deployment of carbon capture and storage (CCS), a vital technology to deliver carbon neutrality, use the

institute's technical expertise and develop policies and regulatory guidance on the best ways to harness opportunities and technologies for capturing, transporting and storing carbon dioxide. The programme is aimed at realising Oman's strategy for an orderly transition to net zero carbon emissions by 2050. **6**th **December 2023**

Vulcan breaks ground on Green Hydrogen Steel Plant at Dugm

Vulcan Green Steel, a subsidiary of Jindal Shadid Steel Group, has broken ground on its integrated green hydrogen steel factory at the Special Economic Zone at Duqm (Sezad) in Oman. The project is set for completion by 2026. With an investment of up to \$3 billion, the project is a significant one for both the Jindal Shadid Steel Group and the sultanate. It is in line with Oman's vision for Net Zero by 2050, thus positioning the nation as a trailblazer in sustainable steel production. The company plans to have two production lines of 2.5 million metric tonnes per year each, comprising direct reduction iron (DRI), an electric arc furnace (EAF) and a hot strip mill. The project will initially be based on natural gas for energy and will later shift to green hydrogen and produce high value-added steel catering to automobile, wind turbine and domestic consumer durable goods manufacturing across Europe and Japan. It is set for completion by 2026 and the production will begin the very next year. Once operational, it will boast a total capacity of about 5 million metric tonnes per annum. The ground breaking ceremony was held in November last week in the presence of Dr Ali Masoud Al Sunaidi, the Chairman of the Public Authority for Special Economic Zones and Free Zones (OPAZ), Naveen Jindal, Chairman of Jindal Group and other senior officials. Lauding the project, Dr Al Sunaidi said: "This project aims to produce 5 million tonnes of green steel with an investment of up to \$3 billion. **11th December 2023**

Oman-Korea partnership to boost green hydrogen sector

The partnership between Oman and South Korea in the green hydrogen sector offers substantial mutual gains for both countries, leveraging each other's strengths and capacities. This was the message from speakers at the Korea-Oman Green Hydrogen Strategic Forum 2023 held on the sidelines of the Green Hydrogen Summit Oman 2023 on Tuesday. The Second Korea-Oman Green Hydrogen Strategic Forum was hosted by the Korean Embassy at Crowne Plaza, Oman Convention and Exhibition Center (OCEC). The forum aimed at increasing the level of understanding of the strategies and policies of Korea and Oman in the green hydrogen sector. Once these projects are completed, Oman's aggregate output of green hydrogen is expected to reach the targeted 1mn tonnes per annum by 2030. One of the major partnerships between Korea and Oman is the POSCO-led consortium, which in June this year signed a whopping \$6.7bn green hydrogen and ammonia project to be established in Duqm. This project will produce 1.2mn tonnes of green ammonia per annum. Most of the green hydrogen produced at the facility will be shipped to Korea. **12th December 2023**

Oman's Abraj Energy awarded drilling services Contract with TotalEnergies

Abraj Energy Services, Oman, signed today a strategic partnership contract with TotalEnergies, a leading global multi-energy company, to provide drilling services within Block 12's concession area in the Sultanate of Oman, marking the commencement of a new chapter in exploration and development. The partnership contract signed by Eng. Saif Al-Hamhami, CEO of Abraj Energy Services and Sergio Giorgi, Total Energies' Oman Country Chair The signing ceremony was attended by officials from the Sultanate's Ministry of Energy and Minerals, senior executives from Abraj Energy Services and TotalEnergies, Petroleum Development Oman (PDO), members of the Oman Energy Association (OPAL), partner delegates, and media representatives This strategic contract between Abraj Energy Services and TotalEnergies is poised to redefine industry standards, building on Abraj's extensive expertise in drilling and well services since 2006, and TotalEnergies global and recognized expertise, ensuring excellence in the execution of two key gas exploration wells in Oman's Block 12. With 16 years of experience serving the country's energy sector, Abraj, a pioneer in its field, commands a market share of 28% in drilling and 15% in key well services. **13th December 2023**

<u>Salalah Green Ammonia Project Takes Shape as Preferred Consortium Signs Agreement Contract</u>

Salalah Green Ammonia Project Takes Shape as Preferred Consortium Signs Agreement Contract Oman's state-owned company OQ has formed a consortium with other multinational companies to secure the Salalah Green Ammonia Project. The project aims to produce 1 million tons of green ammonia every year in Oman. The company is joining hands with other multinational agencies to take part in Oman's large-scale green ammonia production project. The consortium signed a land use and development agreement contract with Hydrom relating to the project. Hydrom is the project's client company that was established by the Omani government to venture into the green hydrogen business. The agreement issues a go-ahead for the construction plans of the project to take shape. The project plans to start its infrastructure works after basic designs and preliminary surveys are done in 2027. The Salalah Green Ammonia Project aims to have started production by 2030. The produced ammonia will be exported to global markets for use in carbon-free energy power generation. This includes countries such as Japan and Korea. The project will be a great advancement in Oman's venture in the green ammonia production industry. **14**th **December 2023**

<u>Oman's Target LLC awarded Sultan Haitham City Water Supply Project</u>

Nama Water Services Company, Oman signed an agreement with Target LLC to implement works related to the project of water supply for Sultan Haitham City. The project includes the construction of concrete tanks with a capacity of 105,000 cubic meters, a station for pumping water from Al Khoudh water tanks, water transmission pipes and connection systems for control and monitoring, as well as other civil and electromechanical works related to the operation of the project. The project aims to achieve the goals of activating basic services and service projects in an integrative manner, and to implement smart cities projects in order for Sultan Haitham City to reach sustainability. **15**th **December 2023**

• Marafig to invest in heavy industry areas in SEZAD

Marafiq, a joint venture by OQ (a subsidiary of Oman Investment Authority) that has a total investment of \$600 million in Duqm, has expressed its interest to increase its spending efficiency by investing in a number of heavy industry areas in the Sultanate of Oman after its successful operations in the Special Economic Zone at Duqm (SEZAD). The company, which has ambitious plans to increase its revenues through new projects and to maximise the economic value of existing projects, is developing a sustainability plan and building the company's strategy for the renewable energy sector while implementing training programmes to hone the skills of Omani youth and prepare them for the stages of commercial operation of its projects. The project also contributes to reducing carbon dioxide emissions. **21**st **December 2023**

• Expansion of world's largest gas field progressing impressively,

Qatar's massive expansion of its North Field liquefied natural gas production capacity is progressing "impressively" with LNG capacity set to ramp up to 126 million tonnes per annum, according to Khalid bin Khalifa al-Thani, the chief executive of QatarEnergy LNG (formerly Qatargas). Al Thani noted while speaking at the company's annual town hall in Doha that the company remains "focused on the North Field Expansion and sustainability projects. **27**th **November 2023**

QATAR

<u>North Field South Project, Qatar</u>

The North Field South project is expected to commence operation in 2026.Project TypeOffshore gas field expansionLocationRas Laffan, QatarOwnershipQatar Energy (75%), TotalEnergies (9.375%), Shell (9.375%), ConocoPhillips(6.25%)16 MtpaCapacity16 MtpaStart of Production2026ContractorsMcDermott, Técnicas Reunidas, Technip Energies

Suppliers

Baker Hughes, Air Products

The North Field South (NFS) project is part of the larger North Field Expansion project, which is being developed by Qatar Energy in partnership with TotalEnergies, Shell, ConocoPhillips, ExxonMobil, Eni, Sinopec and China National Petroleum. The North Field Expansion project is divided into two phases, with phase one involving the development of the North Field East (NFE), while phase two will see to the development of the NFS. The expansion will ramp up Qatar's liquefaction capacity from 77 million tonnes per annum (Mtpa) to 126Mtpa. Qatar Energy holds 75% participating interest in the NFS project, while the remaining 25% is shared between international partners, which include TotalEnergies (9.37%), ConocoPhillips (6.25%) and Shell (9.37%). Expected to begin production by 2026, the project will have a capacity of 16Mtpa. It will also help to reduce greenhouse gas (GHG) emissions and achieve Qatar's climate ambitions. QatarEnergy and TotalEnergies also signed two SPAs in October 2023 for the supply of LNG to France for a period of 27 years. Expected to start in 2026, up to 3.5Mtpa of LNG will be delivered ex-ship to the Fos Cavaou LNG receiving terminal in southern France. Contractors involved Baker Hughes was awarded the contract to supply the two MRCs for the NFS project. Engineering and construction solutions provider McDermott was awarded the front-end engineering design (FEED) contract for the project in August 2022. **17th November 2023**

<u>QatarEnergy Issues Contract on Laffan Refinery 1 Upgrade</u>

QatarEnergy Issues Contract on Laffan Refinery 1 Upgrade QatarEnergy has awarded a contract for the upgrade of Laffan Refinery 1 to Japan-headquarted Chiyoda corporation. The scope of the project includes front-end engineering of the refinery. It also includes design services for a brownfield project related to modifying pump seals. This is to be done in Laffan Refinery 1 located in Qatar's Ras Laffan. The company awarded the contract is to provide design services for the project. The duration of the contract is scoped at eight months. The client company is expected to commence on the tendering of other processes related to the project. This include engineering and procurement works that are to be tendered. The client company will also tender contracts for the construction of the Laffan Refinery 1 and its subsequent upgrade. The company is responsible for the operation of two refineries in Ras Laffan Industrial City (RLIC). The barrels include 61,000 barrels a day (b/d) of naptha and 52,000 b/d of kerojet. It also includes 24,000 b/d of gas oil, and 9,000 barrels a day of Liquid Petroleum Gas (LPG). The major shareholder of Laffan Refinery 1 is QataEnergy at 51 percent majority share. Other shareholders include TotalEnergies and ExxonMobil. Other companies also include Cosmo, Idemitsu, among others that hold shares in the refinery. The upgrade of the refinery will ensure production continues and maybe even increases as QatarEnergy prospect on that happening. **7th December 2023**

<u>QatarEnergy expands offshore operations with new Suriname contracts</u>

QatarEnergy signs contracts for Suriname offshore Blocks 64 and 65, partnering with TotalEnergies, Petronas, and Shell for exploration. QatarEnergy, a leading energy company, has recently expanded its international portfolio by securing two key offshore blocks in Suriname. In a competitive bid round held in June 2023, the company successfully acquired interests in Blocks 64 and 65, marking a significant move in its global strategy. **18th December 2023**

• Saudia Arabia announces the Preferred Bidder for Juranah ISWR Project

SAUDI ARABIA

Saudi Water Partnership Company S.M.L.L.C (SWPC) announce the evaluation completion of the received proposals from the Bidders for the Juranah Independent Strategic Water Reservoir Project in Makkah city which is considered the first of its kind in the Kingdome of Saudia Arabia under the BOOT model. The project will enhance the water supply chains and it is intended to serve the residents and visitors of Makkah city in addition to Hajj & Umrah pilgrims. The capacity of the strategic tanks is 2,000,000 m3 while the project will develop also operational tanks with a capacity of 500,000 m3 to support the potable water distribution system. SWPC announces the names of both Preferred Bidder and Reserved Bidder in addition to their Levelized Water Storage Charges, as follows: Preferred Bidder – Consortium of Vision International Investment Company and Gulf Investment Corporation G.S.C and TAQA – Levelized Cost – 18.11137 Halalas/m3/day Reserved Bidder – Consortium of Abdul

Aziz Al Ajlan Sons Co. for Commercial & Real Estate Investment and Orascom Construction – 24.07696 Halalas/m3/day As per notification, SWPC announces that it intends to conduct a competitive tender process to select a private sector developer (which may be a developer consortium) for the development, financing, procurement, implementation, operation, maintenance and transfer (BOOT) of the Project. The expected PCOD for the project is in the first quarter 2027. **23**rd **November 2023.**

Huge Aramco CCS project race puts trio in frame for prize

Engineering, procurement and construction contract is valued at up to \$1 billion. At least three international contracting giants are set to compete for a sizeable Saudi Aramco carbon capture and storage (CCS) project at some of the largest onshore gas plants in the country. The state-owned oil giant is aiming to develop one of the largest CCS hubs in the world. Saudi Arabia Energy Minister Prince Abdulaziz bin Salman said the CCS "centre in Jubail Industrial City will start operating by 2027 and be able to extract and store 9 million tonnes per annum" of carbon dioxide in its first phase, supporting the country's goal to extract, use and store 44 million tpa of CO₂ by 2035. **27**th **November 2023**

<u>Alkhorayef awarded SAR 87m O&M Contract in Buraidah</u>

Alkhorayef Water and Power Technologies Co., Saudi Arabia Announces the awarding of Contract for Operating and maintaining water and sewage networks and their accessories in Buraidah. The Value of the contract is SAR 87,189,100. As part of the Project, the Company will perform the works related to the Contract for Operation & Maintenance Sewage & Water Network in Buraidah region. The duration of the Project is 36 months. **27th November 2023**

Plans afoot for new facility to produce low-carbon chemicals, says Saudi energy minister

Stressing the key role of the petrochemical industry in the fight against climate change, the Saudi energy minister disclosed the Kingdom's plan to build a carbon dioxide utilization hub to produce low-carbon chemicals. Prince Abdulaziz bin Salman was speaking at the 17th Annual Gulf Petrochemicals and Chemicals Association Forum in the Qatari capital on Sunday. He said the petrochemical sector has a crucial role to play in the global campaign to reduce greenhouse gas emissions. Prominent industry leaders attended the forum titled "Using chemistry to achieve impactful transformation" and advocated the use of sustainable practices in the oil and gas sector. The Saudi minister affirmed the Kingdom's commitment to preserving cultural heritage while embracing positive changes. "We're not going to change our beliefs, we would not change our pride, of our history, of our culture, but I'm sure what we are trying to do with all of our visions is to make sure that the generations to come will be proud as we are today proud of ourselves," he said. **3**rd **December 2023**

Synergy Consulting advises NWC for Package 6 Long-Term O&M Contract

Synergy Consulting, Inc. announced in a statement that it was honored to support the National water company of the kingdom of Saudi Arabia (KSA) in the execution of Package 6 of Long-Term Operation and Maintenance (LTOM) contract. The Contract was related to the rehabilitation, operation, and maintenance of sewage treatment plants (STPs) in Heet and Al Haer, Riyadh, which was awarded to Alkhorayef Water and Power Technologies Company (AWPT) as part of NWC's ongoing Long Term O&M Contracts procurement program for Sewage Treatment Plants across KSA via multiple tender packages. The contract was signed on 10th Dec 23, between Eng. Nemer Mohammed Alshebl, NWC CEO, and CEO of AWPT. This is the fourth project to be awarded under the LTOM Program after the successful Closing of the Jeddah City Package (awarded to the consortium of Veolia, CWC, and Al Awael) and the Makkah City Package (awarded to Alkhorayef Water and Power Technologies Company (AWPT). The Riyadh-Heet and Al Haer package is a contract spanning over 15 years. The package consists of four STPs (three in Heet and one in Al Haer region of Riyadh) with a total treatment capacity of 870,000 m3/ day. **11th December 2023**

Saudi Archirodon and DEME consortium awarded Dredging Contract for Port of NEOM

A consortium of Saudi Archirodon and DEME has been awarded the second phase of transformation work for the Port of NEOM, the primary seaport of entry to northwest Saudi Arabia. Based in Oxagon, Port of NEOM is strategically located along the coast of the Red Sea and is adjacent to the nearby Suez Canal, through which 13% of global trade passes. The port will be a critical enabler to the overall build, operations and economic ambitions of NEOM, facilitating the import of goods and materials during the development phase and as a new global port serving the region. The project will commence in December 2023. DEME will work in a consortium with leading international marine construction group Archirodon to deliver on the contract to form the basin that will enable the world's largest ships to call at Port of NEOM. All materials recovered as part of the channel development will be used to support the wider development of Oxagon. Christopher Iwens, Managing Director Dredging at DEME: "We are proud to be awarded this important project which focuses on building a next generation sustainable port in the Kingdom of Saudi Arabia. This contract underscores our technical and engineering expertise which, alongside the capabilities of our partners at Archirodon, were undoubtedly key factors in DEME securing this landmark contract. **11th December 2023**

Vallourec Wins Orders for Oil Country Tubular Goods from Aramco

Vallourec, a leader in premium steel tubular solutions, announces that it has won orders for premium oil country tubular goods (OCTG) from Aramco. These orders total more than three hundred million dollars and supplement Vallourec's recent successes in the region. They cover the supply of proprietary steel grade casing and tubing for high-pressure environments, threaded with premium VAM connections. These orders are incremental to the volumes to be delivered under the company's 10-year long-term agreement with Aramco. Vallourec will handle production at several of its plants, drawing on its global industrial footprint and full range of expertise. Deliveries will take place during 2024. Philippe Guillemot, Vallourec's Chairman and CEO, commented: "These orders speak to Vallourec's deep relationship with Aramco and our strong brand recognition in the Kingdom. The company has been present in Saudi Arabia for over 10 years and is growing its domestic presence to meet strong local demand. We look forward to further strengthening our relationship in the years ahead. **12th December 2023**

• NWC's Investment Portfolio Exceeds SAR 102bn in Water, Environmental Sectors

The National Water Company (NWC) said that it is working on a roadmap that includes investments worth billions in future projects intended to expand water and sanitation services, keep pace with the demand and growth, and achieve the Kingdom's vision. NWC CEO Nemer Al-Shebl said at the Fifth Arab Water Conference that the NWC investment portfolio for its infrastructure exceeds SAR 102 billion, allocated for the implementation of close to 1,300 projects. He urged interested local and international companies to seize the investment opportunities in the water sector and implement water and environmental treatment projects offered by the company on its website: nwc.com.sa. NWC, he said, has achieved many accomplishments within the National Water Strategy. **11th December 2023**

<u>SABIC, SD and Linde Signs MOU to decarbonize the Ethylene Glycol</u>

SABIC, a global leader in the chemicals industry, Scientific Design (SD), an affiliate company licensing leader in Ethylene Glycol Technology and Linde Engineering, a subsidiary of Linde, a leading global industrial gases and engineering company, have entered into a Memorandum of Understanding to explore collaboration opportunities to decarbonize the SD Ethylene Glycol Process. This collaboration seeks to develop innovative solutions to reduce carbon footprint and achieve low-carbon emissions technology by offering SABIC's innovative CO2 recovery and purification technology to SD licensed manufacturing glycol plants worldwide. The ultimate goal is to establish sustainable Ethylene Oxide and Ethylene Glycol production and set industry benchmarks for carbon-neutral industries. **13**th **December 2023**

• <u>Hyundai E&C and Hyundai Engineering Signs \$2.3 Billion Jafurah Phase 2 Contract</u> Hyundai E&C and Hyundai Engineering, South Korea announced the award of a contract for the Phase 2 expansion project of the Jafurah Gas Field in Saudi Arabia. The Project was awarded by Saudi Aramco. The contract value is 1.5345 trillion won (US\$1.18 billion) for each company. The project duration is set for 41 months from the commencement date. The Phase 2 project of the Jafurah Gas Treatment Facility involves constructing additional facilities to process gas produced from the Jafura Gas Field, including sulfur recovery units. This project will be built adjacent to the site of the Phase 1 Jafurah Gas Treatment Facility, awarded earlier to Hyundai Engineering and Hyundai E&C in 2021. Hyundai Engineering, the lead contractor, alongside Hyundai E&C, will be responsible for the sulfur recovery unit package and the creation of utility infrastructure. **19**th **December 2023**

<u>Synergy Consulting Advises NWC for Package 6 O&M Contract</u>

Synergy Consulting, Inc. announced in a statement that it was honored to support the National Water Company (NWC) of the Kingdom of Saudi Arabia in the execution of Package 6 of Long-Term Operation and Maintenance (LTOM) contract. The contract was related to the rehabilitation, operation, and maintenance of sewage treatment plants (STPs) in Heet and Al Haer, Riyadh, which was awarded to Alkhorayef Water and Power Technologies Company (AWPT) as part of NWC's ongoing Long Term O&M Contracts procurement program for Sewage Treatment Plants across KSA via multiple tender packages. The contract was signed on 10th Dec 23, between Eng. Nemer Mohammed Alshebl, NWC CEO, and CEO of AWPT. The package consists of four STPs (three in Heet and one in Al Haer region of Riyadh) with a total treatment capacity of 870,000 m3/ day. In addition to the two LTOM Packages already closed and the two packages executed, NWC is currently working on 4 other packages, which are in different stages of the tender process, with Synergy Consulting as the Financial Advisor. **19th December 2023**

• KSA's New Phosphate Project to make it the World's 3rd Largest Producer

The Minister of Investment Khaled Al-Falih said that the Ministry is working on a new phosphate project, costing \$8.8bn billion, which will double the Kingdom's capacity of the product to become the third largest phosphate producer in the world. Addressing the first ministerial session at the Northern Borders Investment Forum 2023 in Arar late last month, the minister said that the Kingdom will not only convert phosphate into fertilizers, but will also convert it into advanced chemical products, Al-Falih said. The Northern Borders Region includes 25 percent of the Kingdom's mineral wealth, with a total value of \$0.32 trillion. The Northern Border Region contains about 7 percent of the global phosphate reserve, and the volume of investment in it amounts to about \$22.6 billion in two stages. **20th December 2023**

Iraq's cabinet greenlights key natural gas sector development with Nahr Bin Omar Field project Iraqi cabinet approves development of Nahr Bin Omar field, targeting significant natural gas output and carbon emissions reduction. The Iraqi cabinet has recently given its nod to a consequential development aimed at enhancing the nation's natural gas sector. At the heart of this development is the Nahr Bin Omar oil and gas field, which is set to undergo an extensive project that marks a considerable advancement in Iraq's approach to energy. 24th November 2023.

• raq Keen to Proceed with the Nebras Petrochemical Industries Project

IRAQ

The Deputy Prime Minister for Energy Affairs and Minister of Oil stressed the importance of the Nebras Petrochemical Industries Project, which receives the government's attention and contributes to strengthening Iraq's position in this field. This came while he chaired a meeting of the joint committee between the Ministries of Oil and Industry, in the presence of the Minister of Industry, Mr. Khaled Battal Al-Najm. Deputy Prime Minister for Energy Affairs and Minister of Oil, Mr. Hayan Abdul-Ghani, said that the meeting was the focus of the government and the ministry to follow up on the report of the joint committee and the international advisory, with the aim of reaching a final formula to proceed with the implementation of the project in agreement with the partners, expressing his hope to fulfill the requirements of joint work, in addition to confirming Supporting the Ministry in providing gas, which is the main source of the project. For his part, the Minister of Industry, Mr. Khaled Battal Al-Najm, said that this project is one of the ministry's priorities and a strategic and development project. The share of the Ministries of Oil and Industry in the project is (51%), divided equally, and it receives the government's attention because of the financial returns and social gains it will achieve. 6th December 2023

• <u>PetroChina to Replace Exxon as Lead Contractor for West Qurna 1 Oilfield</u>

Iraq has signed a settlement agreement with U.S. energy giant Exxon Mobil Corp to finalize its exit from the West Qurna 1 oilfield and allow PetroChina to become the field's lead contractor, said a senior Iragi oil executive. "We studied the settlement agreement and the oil ministry with the Basra Oil Company believe that the best option is for Petrochina to become the lead contractor of West Qurna 1," said Hassan Mohammed, deputy Basra Oil Co. manager in charge of oilfields and licensing rounds affairs. PetroChina will hold the largest stake in the field after the departure of Exxon. Iraq has also signed a "sale agreement" arranging the financial issues to finalize the process of acquiring Exxon Mobil Corp's stake in West Qurna 1 oilfield by Iraq's state-run Basra Oil Co. (BOC), said Mohammed. The sale agreement includes a commitment to resolve in further talks the tax value that Exxon must pay for selling its stake in the field, he said. Last year, Indonesia's state-owned oil and gas firm Pertamina bought 10% of Exxon Mobil's stake in Iraq's West Qurna 1 oilfield, increasing its share to 20%, while BOC bought 22.7% of the field. Basra Oil Company director Khalid Hamza said in an interview in 2021 that Exxon was seeking to sell the share for \$350 million. West Qurna 1, in southern Iraq, is one of the world's largest oilfields with recoverable reserves estimated at more than 20 billion barrels. It currently produces around 560,000 barrels per day, said the field officials. Following its exit from West Qurna 1, Exxon will have no presence in Iraq's energy sector, said BOC officials. 5th December 2023

• Iraq anticipates major boost in natural gas production with foreign investments

Iraq expects a major increase in natural gas production, with new foreign projects adding 84.95 million cubic metres daily. Iraq is poised for a significant increase in its natural gas production, with new projects awarded to several foreign companies expected to add nearly 84.95 million cubic metres per day to the nation's output. This development was announced by the Iraqi Oil Minister, Hayan Abdel Ghani, highlighting a major stride in the country's energy sector. In a recent statement, Abdel Ghani noted, "We expect the projects that have been undertaken by foreign firms and those to be carried out in those concession areas to produce nearly 84.95 million cubic metres per day of gas." This increase is a part of Iraq's broader initiative to enhance its energy independence and reduce reliance on imports. **14**th **December 2023**

• \$8.5 Billion Nibras Petrochemical Project Advances as Iraq Approves Construction Site

The Iraqi government has approved the construction site that is slated for the Nibras petrochemical project. The government has allocated 11 square kilometers of land for the construction of the project. Once completed, the project is set to be the world's fourth-largest petrochemical complex based on the net production income it will generate. The site was approved in the Southern Oil hub by Basra Governor, Asaad Al-Idani. This shows that the Iraqi government is pushing ahead with its plans to build the petrochemical complex. The Nibras petrochemical project is expected to produce 1.8 million tonnes of petrochemicals annually. There has been a significant delay in the Nibras Petrochemicals project manifestation after plans were announced earlier in 2015. The Iraq government aims to generate numerous projects in Basra that will significantly contribute in a lot. This includes a contribution to Iraq's economy when the project opens doors to start operations. **19th December 2023**

<u>Karish North Gas Field Development, Eastern Mediterranean Sea, Israel</u> Offshore gas and condensate field development

Project Type :	Onshore gas and condensate neid development
Location :	Eastern Mediterranean Sea, Israel
Owner/Operator :	Energean Israel
Discovery :	April 2019
Final Investment Decision :	January 2021
Expected Start of Production :	H2 2023

ISRAEL

The Karish North gas and condensate field, located offshore Israel, is being developed by Energean Israel (EISL), a wholly-owned subsidiary of Energean. The natural gas in the Karish North field was discovered by Energean in April 2019, while the consent for the field development plan was received from the Israeli authorities in August 2020 with the final investment decision (FID) on the field development reached in January 2021. The initial investment in the project is estimated to be approximately £110m (\$150mn) and the Karish North field is slated to start production in the second half of 2023. Energean acquired a 30% stake from Kerogen Capital to become the 100% owner of Energean Israel (EISL) in February 2021. Karish North field development plan The initial field development involves the tie-back of the Karish North discovery well to the Energean Power floating production storage and offloading (FPSO) unit. The first gas from the Karish North field is expected in the second half of 2023. The Karish North discovery well, which was drilled in April 2019, is located approximately 5.4km away from the proposed location of the FPSO. It is expected to produce approximately three billion cubic metres (bcm) of gas a year. The Karish North appraisal sidetrack, drilled in October 2019, encountered a gas-water contact (GWC) at 4,791m true vertical depth subsea (TVDSS). The Karish North well is located approximately 700m south of the Karish North sidetrack. **5**th **December 2023**

Zion Oil & Gas receives regulatory approval for strategic recompletion project in Israel

Zion Oil & Gas, Inc. (OTCQX: ZNOG) announces the approval of its workplan by the Israel Ministry of Energy for its MJ-01 recompletion project. Israel is open for business and we are grateful for the Israeli government's green light on our workplan, allowing us to move ahead with the MJ-01 recompletion project," said Rob Dunn, CEO of Zion Oil & Gas. "This is an exciting time for Zion as we implement cutting-edge technologies and stimulation methods to potentially unlock previous and newly identified zones of interest. Amidst the war in Israel following the atrocities on October 7, Zion has maintained secure operations with the site and rig unharmed. The company now targets a Q1 start date post-holidays. Zion has secured service contractors and ancillary items required for efficient operations. This workplan approval follows the acquisition of Exploration License 434 on September 19. This "Megiddo Valleys License" spans approximately 75,000 acres and signifies a deep commitment to Israel's energy landscape. **7th December 2023**

 <u>Saudi-led consortium secures major service contract with Egyptian Petroleum Corporation</u> Saudi-led consortium signs 10-year contract with EGPC to boost production in Egypt's SUCO and OSOCO oil fields. A consortium headed by the Saudi-listed ADES Holding Company has inked a milestone service contract with the Egyptian General Petroleum Corporation (EGPC). This agreement, announced on Wednesday, is focused on operating and enhancing production in Egypt's SUCO and OSOCO brownfields. 13th December 2023

Egypt and Yemen explore joint ventures in oil and gas

Egypt and Yemen discuss cooperation in oil, gas, and mining sectors, aiming to revitalise Yemen's economy amid political challenges. In a pivotal development for regional cooperation, Egyptian Minister of Petroleum and Mineral Resources Tarek El Molla has shown a strong interest in partnering Egyptian petroleum companies with their counterparts in Yemen. This intention was highlighted during a meeting with Yemen's Minister of Oil and Minerals, Saeed Al-Shamasi, at the sidelines of the 12th Arab Energy Conference in Qatar. **14**th **December 2023**

Saudi's ACWA Power, Egypt Ink \$4B Green Hydrogen Deal

Saudi Arabia-based ACWA Power and Egypt inked Wednesday a \$4 billion deal to develop a green hydrogen project in the Suez Canal Economic Zone (SCZONE), aligning with the North African country's ambition to emerge as a leading global clean energy producer. Green hydrogen project The project aims for a capacity of 600,000 tonnes of green ammonia annually, utilizing wind and solar power, with plans to scale up to 2 million tonnes in the second phase. The initial memorandum of understanding was signed on December 7. The deal was signed by the Sovereign Fund of Egypt (TSFE), the Suez Canal Authority (SCA), the Egyptian Electricity Transmission Company (EETC), the state-run New and

EGYPT

	Renewable Energy Authority (NREA), and the Saudi company ACWA Power. Egypt's Prime Minister Mostafa Madbouly witnessed the signing ceremony of the agreement alongside other ministers, according to a statement by Egypt's Cabinet. We commend our partners for their bold step into producing the fuel for the future, for which there will be great demand in Europe and the rest of the world," said Marco Archelli, CEO of ACWA Power, in the statement. The Garuda Hidrogen Hijau (GH2) Project in Indonesia, valued at \$1 billion and signed earlier this month, is scheduled to begin operations in 2026, with a capacity to produce 150,000 tonnes of green ammonia per year. 20 th December 2023
	• Pakistan aims for higher Russian energy imports with revived pipeline plans Country started Russian oil purchases this year and welcomes Moscow's participation in long-discussed TAPI pipeline. Pakistan will seek higher imports of Russian natural gas and crude oil at a discount on the global market price to help answer its rising energy demand, according to its recently appointed ambassador to Moscow. In his first interview since taking the diplomatic post, Muhammad Khalid Jamali told Russian state-run news agency Tass that Pakistan will initially aim to meet 10% of the country's energy demand with Russian supplies of oil and gas. In the future, the volume [of Russian hydrocarbon imports] may rise to 30% of the total consumption", Jamali said. "It is not in Pakistan's economic interest to join anti-Russian sanctions as our bilateral trade is growing. Pakistan's imports from Russia have increased by 154% this year compared to the previous year, which is a remarkable figure", he said. In June this year, Pakistan imported a first cargo of Russian oil of about 733,000 barrels that was sent to a processing plant operated by Pakistan Refinery Limited after being unloaded in the port of Karachi. Turkmenistan is reportedly seeking the partial relaxation of US sanctions on Afghanistan to allow the Taliban government to raise the necessary financing to build the country's segment of TAPI. Authorities in Ashgabat repeatedly said that they already built their own 200-kilometre segment of the TAPI pipeline to the country's border with Afghanistan using large-diametre pipes manufactured in Russia 22nd November 2023
PAKISTAN	 Discovery: Gas condensate found by state oil company amid 'aggressive' exploration effort OGDC delivers again in Sindh province. Pakistan's Oil & Gas Development Company (OGDC) has come up trumps with its Dars West 2 well located in Sindh province onshore Pakistan. The nation's leading state-owned upstream player confirmed the discovery well tested at 8.51 million cubic feet per day of gas and 360 barrels per day of condensate through a 32/64-inch choke with a wellhead flowing pressure of 1947 pounds per square inch (psi). The well in Tando Allahyar district was drilled to a total depth of 2081 metres and tested the Lower Guru C-Sand formation. OGDC noted that the gas condensate discovery, which was the result of its "aggressive" exploration strategy would add to the hydrocarbon reserves base of the company, its joint venture partner and the country. OGDC operates the Dars West development and production lease with a 77.5% interest and its sole partner is Government Holdings (Private) on 22.5%. 11th December 2023
	 <u>Aramco to acquire a 40% stake in Gas & Oil Pakistan</u> Aramco, one of the world's leading integrated energy and chemicals companies, signed definitive agreements to acquire a 40% equity stake in Gas & Oil Pakistan Ltd. ("GO"). The planned acquisition is Aramco's first entry into the Pakistani fuels retail market, advancing the Company's strategy to strengthen its downstream value chain internationally. This transaction would enable Aramco to secure additional outlets for its refined products and further provide new market opportunities for Valvoline- branded lubricants, following Aramco's acquisition of the Valvoline Inc. global products business in February 2023. 12th December 2023

Mailing address is: info@gerabgroup.com Gerab National Enterprises L.L.C. PO Box 17719, Jebel Ali Free Zone Dubai, United Arab Emirates Website: <u>https://www.gerabgroup.com/</u>

Disclaimer: Notice to any user of this Report. "Gerab National Enterprises LLC shall have no liability for the accuracy of the information and cannot be held liable for any third-party claims or losses of any damages. The user shall have the right to view the information and usage for the purpose for which it is intended and disclosed. The information contained in this Report does not constitute the solicitation of an offer to buy any product or service; and should not be relied upon in connection with any investment decision".