



EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent prices trading lower by 5% WTD and Crude Oil WTI prices are trading lower by 5% WTD.
- Coal prices are trading higher by 9% MTD
- Steel HRC (N. America ) prices are trading higher by 8% WTD
- Iron ore prices are trading higher by 19% YTD
- Natural Gas prices are trading lower by 13% MTD

The Currency summary

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

The Rig count summary

- The Rig counts in UAE have gone up by 7% 3MTD and in Africa have gone up by 11% 3MTD.

Project summary

- UAE's ADNOC and SOCAR to Collaborate on Hydrogen, Carbon Management and Geothermal Technologies
- Oman to develop world’s first liquid hydrogen corridor
- Kuwait Short-listed the Bidders for 4.5GW Az-Zour North and Al-Khairan IWPP Projects
- Iraq Keen to Proceed with the Nebras Petrochemical Industries Project
- Indonesian regulator SKK Migas approves Rantaukais EOR project phase 1
- ACWA Power to develop the largest Green Hydrogen facility in Indonesia
- ACWA Power Breaks Ground on 3,000 tonne Green Hydrogen Project In Uzbekistan
- Ivory Coast to construct a US \$186m waste water treatment plant
- Germany commits \$4.37 bln for green energy in African projects at Berlin summit
- Harbour Energy gearing up to kick off North Sea ops with Noble rig
- Masdar, Iberdrola signs agreement to co-invest up to €15bn in offshore wind, green hydrogen projects
- US, China, and UAE convene summit to accelerate actions to cut methane and other non-CO2 greenhouse gases
- Ecopetrol Group will invest between 23 and 27 trillion pesos in 2024
- Michigan approves Enbridge Great Lakes tunnel for oil pipeline

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	9,281.57	-0.18	-0.21	3.37	0.90	-8.16
Coal	USD/MT	147.87	1.51	9.08	-15.78	2.85	-66.53

Cobalt	USD/MT	30,732.44	-4.06	-9.56	-0.45	5.74	-30.28
Copper	USD/MT	8,402.50	-0.73	1.60	0.70	0.62	0.50
Crude Oil	USD/BBL	74.87	-5.39	-6.62	-16.37	2.75	-5.35
Crude Oil Brent	USD/BBL	77.32	-5.31	-6.24	-15.24	2.88	-4.97
Crude Oil WTI	USD/BBL	72.41	-5.47	-7.02	-17.55	2.61	-5.76
Iron Ore	USD/MT	130.77	0.28	2.25	9.16	17.49	19.41
Molybdenum	USD/MT	39,293.10	2.53	1.05	-26.74	-19.68	-26.26
Natural Gas	USD/MCF	2.79	-0.63	-13.43	1.31	10.72	-54.26
Nickel	USD/MT	16,535.00	-2.74	-4.93	-18.11	-22.35	-42.99
Steel HRC (FOB China)	USD/MT	556.00	1.65	1.37	1.65	1.41	-2.19
Steel HRC (N. America)	USD/MT	1,102.31	7.70	12.21	35.26	5.32	51.87
Steel Rebar	USD/MT	599.33	-0.82	1.06	6.23	5.10	-1.52
Steel Scrap	USD/MT	425.00	6.92	6.80	12.35	12.32	11.32

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	1.0762	-1.14	0.59	0.59	0.61	2.38
USDCNY	1 USD to CNY	China	CNY	7.1707	-0.38	1.47	2.32	-0.33	-3.01

Source- Trading Economics

CRUDE OIL STOCK								
Region		Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products		Thousand Barrels	16,21,239.00	-0.09	-0.09	-0.11	0.80	2.76

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	25.23	USD	0.16	9.89	-3.04	-5.96	-4.79
Chiyoda Corporation	341.00	JPY	-3.13	-5.01	-11.43	-3.94	-8.09
Glencore PLC	447.95	GBP	1.39	3.79	5.77	2.49	-17.09
HD Hyundai Heavy Industries Co. Ltd.	1,25,600.00	KRW	2.20	11.05	-0.16	8.28	5.99
JGC Holdings Corporation	1,613.50	JPY	-2.89	-12.69	-21.85	-9.66	-10.41

McDermott International Ltd.	0.18	USD	0.00	5.88	12.50	-43.75	-60.00
National Marine Dredging	28.10	AED	1.89	18.47	27.50	47.12	8.08
NYSE American Steel Index	2,013.32	Index	-1.59	4.65	3.72	10.85	13.98
Rio Tinto PLC	5,507.00	GBP	2.00	5.28	13.62	7.92	-1.94
Technip Energies NV	20.05	EUR	-4.39	-8.03	-11.13	36.67	34.11
TechnipFMC PLC	18.86	USD	-8.98	-10.62	-8.31	27.26	65.00
Tenaris SA	33.38	USD	-3.72	-2.91	6.17	20.38	3.54
Tubacex SA	3.33	EUR	-1.33	18.93	16.43	25.19	64.85
Woodside Energy Group	29.25	AUD	-5.65	-12.79	-22.92	-14.97	-18.75

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	813	-0.12	-0.12	0.49	-2.75	-5.57
Total	1,752	*	0.69	1.57	-0.57	0.75

Source- Baker Hughes

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

## NEWS OF THE WEEK

### GULF COOPERATION COUNCIL ( GCC)

UAE

- 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. **5<sup>th</sup> December 2023**

	<ul style="list-style-type: none"> <li> <b><u>UAE's ADNOC and SOCAR to Collaborate on Hydrogen, Carbon Management and Geothermal Technologies</u></b> 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. <b>5<sup>th</sup> December 2023</b> </li> </ul>
OMAN	<ul style="list-style-type: none"> <li> <b><u>Oman to develop world's first liquid hydrogen corridor</u></b>  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 Aufer, 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. <b>3<sup>rd</sup> December 2023</b> </li> <li> <b><u>Oman Signs Agreement to Establish Common Infrastructure for Green Hydrogen Export</u></b>  The Sultanate of Oman, represented by the Ministry of Energy and Minerals and Hydrogen Oman "Hydrom" signed a Joint Study Agreement (JSA) with the Port of Amsterdam, Zenith Energy Terminals and GasLog, to collaborate on the development of a liquid hydrogen route to market for green hydrogen produced in Oman and its export to the Port of Amsterdam and Europe. The Agreement was signed at Oman's pavilion in COP28 in Dubai. The signing ceremony was attended by Eng. Salim Nasser Al Aufer, Minister of Energy and Minerals and Prince Jaime de Bourbon de Parme, the Climate Envoy of the Kingdom of the Netherlands. The Agreement entails conducting a detailed assessment of the requirements to develop an open-access hydrogen liquefaction, storage and export facility in the Sultanate of Oman, along with the provision of specialized vessels for the transportation of the liquid hydrogen, currently under development by GasLog. The primary aim of the Agreement is to establish a green hydrogen corridor between the Sultanate of Oman and the Kingdom of the Netherlands, with the terminal of Zenith Energy as the destination for the import, regasification and further distribution of </li> </ul>

	<p>Oman-produced hydrogen to both local offtakers within the port of Amsterdam, as well as large industries in the European hinterland. <b>3<sup>rd</sup> December 2023</b></p> <ul style="list-style-type: none"> <li> <b><u>PDO partners with Global CCS Institute for carbon capture and storage in Oman</u></b>  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. <b>6<sup>th</sup> December 2023</b> </li> </ul>
KUWAIT	<ul style="list-style-type: none"> <li> <b><u>Kuwait Short-listed the Bidders for 4.5GW Az-Zour North and Al-Khairan IWPP Projects</u></b>  The Kuwait Authority for Partnership Projects (KAPP), in collaboration with the Ministry of Electricity &amp; Water &amp; Renewable Energy of the State of Kuwait (MEWRE), announced the shortlisted bidders for Az-Zour North Phase 2 &amp; 3 IWPP, Al-Khairan Phase 1 IWPP Following are the Shortlisted Bidders:  Abu Dhabi National Energy Company (TQAQ), A.H Al Sagar &amp; Brothers Co and JERA Co.  ACWA Power Company, Gulf Investment Corporation  China Power International Holding Limited, Malakoff International Limited, Abdul aziz Al Ajlan Sons Co, Nebras Power  Sumitomo Corporation  Az-Zour North Phase 2 &amp; 3 IWPP:  The Az-Zour North Phase 2 &amp; 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.<b>3<sup>rd</sup> December 2023</b> </li> </ul>

QATAR	<ul style="list-style-type: none"> <li> <b><u>North Field South Project, Qatar</u></b>  The North Field South project is expected to commence operation in 2026. <div> <div><b>Project Type</b></div> <div>Offshore gas field expansion</div> </div> <div> <div><b>Location</b></div> <div>Ras Laffan, Qatar</div> </div> <div> <div><b>Ownership</b></div> <div>Qatar Energy (75%), TotalEnergies (9.375%), Shell (9.375%), ConocoPhillips (6.25%)</div> </div> <div> <div><b>Capacity</b></div> <div>16 Mtpa</div> </div> <div> <div><b>Start of Production</b></div> <div>2026</div> </div> <div> <div><b>Contractors</b></div> <div>McDermott, Técnicas Reunidas, Technip Energies</div> </div> <div> <div><b>Suppliers</b></div> <div>Baker Hughes, Air Products</div> </div> 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. <b>17<sup>th</sup> November 2023</b> </li> </ul>
SAUDI ARABIA	<ul style="list-style-type: none"> <li> <b><u>Plans afoot for new facility to produce low-carbon chemicals, says Saudi energy minister</u></b>  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. <b>3<sup>rd</sup> December 2023</b> </li> </ul>
<b>ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)</b>	
CHINA	<ul style="list-style-type: none"> <li> <b><u>Chinese contractor launches bid process for new deepwater pipelay vessel</u></b>  Vessel will install pipelines up to 60 inches in diameter in 500 metres of water. Chinese contractor Offshore Oil Engineering Company (COOEC) has initiated a quest for engineering services to facilitate the development of a new deepwater pipelay vessel. This endeavour forms part of COOEC's broader strategy to boost the capabilities of its offshore construction fleet. The company has just approached the market to track down an engineering partner able to deliver the fundamental design for a pipelay vessel which would be equipped with a top-end dynamic positioning system, known as DP3 in the industry. <b>1<sup>st</sup> December 2023</b> </li> </ul>

INDIA	<ul style="list-style-type: none"> <li> <b><u>ONGC and OIL in talks with BAPCO, JAPEX, and Mitsui to boost oil and gas production</u></b>  This initiative includes doubling the geographical area under exploration, reducing restricted zones in exclusive economic zones, and actively engaging in multiple production-sharing contracts. State-run <u>ONGC</u> and <u>Oil India</u> (OIL) are in talks with Japan Petroleum Exporation (Japex), Mitsui and Bahrain Petroleum Company (Bapco) to collaborate on enhancing domestic exploration and production (E&amp;P) activities. Indian National Oil Companies (NOCs) (ONGC and OIL) have executed several agreements with International Oil Companies (IOCs) (ExxonMobil, Chevron, TotalEnergies) for collaboration in E &amp; P activities and are also in discussions with BAPCO, JAPEX and Mitsui,” Oil Minister H S Puri said in response to a starred question in Rajya Sabha on Monday. Detailing the efforts made by the government to enhance India’s production of crude oil and natural gas, the Minister said the government has increased the net geographical area under exploration from 2.5 lakh square kilometres (SKM) to 5 lakh SKM. <b>5<sup>th</sup> December 2023</b> </li> <li> <b><u>ONGC advancing on development plan for world’s second-deepest offshore gas discovery</u></b>  Field being targeted at Cluster-3 is dubbed UD-1, which lies in water depths ranging between 2550 and 2850 metres. India’s state-controlled Oil &amp; Natural Gas Corporation (ONGC) is advancing on a crucial field development plan involving its Cluster-3 ultra-deepwater gas project in the Krishna Godavari basin, off the nation’s eastern coast. The basin is home to some of the largest deep-water oil and gas fields in South Asia, operated by ONGC and compatriot Reliance Industries. ONGC is now eyeing the development of the Cluster-3 region of its prolific KG-DWN-98/2 asset in the east coast basin. <b>5<sup>th</sup> December 2023</b> </li> <li> <b><u>Another breakthrough celebrated on Chennai Metro Rail Phase II</u></b>  Chennai Metro Rail Ltd and contractor Tata Projects Ltd have celebrated the breakthrough of the 6.61m diameter EPBM working on Package TU-01 for Phase II – Corridor 3 of the Chennai Metro Rail project in India. Terratec TBM S97, named Podhigai, along with six other TBMs will build approximately 9km of twin tunnels – 18km in total – for Corridor-3, extending from Venugopal Nagar Station to Kelly’s Station. Terratec is supplying five of the seven TBMs required for the package, and commenced dispatch in 2022. Three other TBMs have also broken through this year. TBM S96, launched in October last year, achieved its breakthrough in August at Madhavaran High Road, while TBM S98 made its breakthrough in June, moving from the same shaft at Madhavaran Colony towards Venugopal Nagar Station (of Line 5) to Kelly’s Station. The breakthrough of TBM S99 at Venugopal Nagar Station was celebrated in September. Package TU-01 includes the construction of diaphragm walls and entry and exit structures for Madhavaram Milk Colony Station, Murari Hospital Station, Ayanavaram Station, and Purasaiwakkam High Road Station, and launch and retrieval shafts. One of the project’s major challenges is tunnelling beneath historical structures in densely populated areas. Terratec’s TBMs are equipped with mixed-ground dome-style cutterheads to handle a range of geology, such as sand, silt, clay, and weathered rock. The TBMs progress with the installation of 1,400mm-wide and 275mm-thick universal reinforced concrete lining rings, comprising five segments and a key. <b>1<sup>st</sup> December 2023</b> </li> </ul>
ISRAEL	<ul style="list-style-type: none"> <li> <b><u>Karish North Gas Field Development, Eastern Mediterranean Sea, Israel</u></b>  Project Type : Offshore gas and condensate field development  Location : Eastern Mediterranean Sea, Israel  Owner/Operator : Energean Israel  Discovery : April 2019  Final Investment Decision : January 2021  Expected Start of Production : H2 2023  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) </li> </ul>

	<p>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. <b>5<sup>th</sup> December 2023</b></p>
IRAQ	<ul style="list-style-type: none"> <li> <p><b><u>Iraq Keen to Proceed with the Nebras Petrochemical Industries Project</u></b> 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. <b>6<sup>th</sup> December 2023</b></p> </li> <li> <p><b><u>PetroChina to Replace Exxon as Lead Contractor for West Qurna 1 Oilfield</u></b> 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 Iraqi 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. <b>5<sup>th</sup> December 2023</b></p> </li> </ul>
INDONESIA	<ul style="list-style-type: none"> <li> <p><b><u>Indonesia Approves Delayed Abadi Masela Gas Revised Development Plan</u></b> Indonesia has approved a revised development plan for the long-delayed Abadi Masela gas project with \$20 billion in investment targeting production to start in 2029, an energy ministry official said on Saturday. The project, in which Japanese oil and gas company Inpex (1605.T) is the lead investor, has faced years of delay due to various changes, from moving the project onshore to accommodate the government's request and change contractors. The revised plan "has been approved", said Tutuka Ariadji, director general of oil and gas at the energy ministry. "The investment at around \$20 billion, to</p> </li> </ul>



	<p>start production by end of 2029." The Abadi liquefied natural gas (LNG) project is expected to produce at its peak 9.5 million tonnes of LNG a year, 150 million standard cubic feet per day of pipe gas and 35,000 barrels of condensate per day, upstream regulator data showed. Inpex submitted the revised development plan for the project earlier this year to incorporate a carbon capture and storage component. Shell Upstream Overseas Services, a subsidiary of Shell, in October completed the sale of a 35% participating interest in Indonesia's Abadi Masela gas project to Indonesia's Pertamina and Malaysia's Petronas. <b>4<sup>th</sup> December 2023</b></p> <ul style="list-style-type: none"> <li> <b><u>Indonesian regulator SKK Migas approves Rantaukais EOR project phase 1</u></b>  The steamflood EOR project, which will be executed by Pertamina Hulu Rokan (PHR), involves an investment of \$239m. Indonesia's Special Task Force for Upstream Oil and Gas Business Activities (SKK Migas) has formally granted approval to the proposed phase 1 plan of development (POD) for steamflood enhanced oil recovery (EOR) at the Rantaukais field. The project is managed by Pertamina Hulu Rokan (PHR), the cooperation contract contractor (KKKS). It involves an investment of IDR3.7 trillion (\$239m). SKK Migas said that the investment will be made for drilling wells, building hot steam production facilities (steam stations), and upgrading production facilities. SKK Migas Exploration, Development and Work Area Management Deputy Benny Lubiantara said that the POD approval was significant as Rantaukais is the second oil field in Indonesia to implement EOR on a commercial scale using steam injection technology (steamflood). The development comes after nearly three decades since the Duri Field initiated the method in 1995. Benny said that the resultant economic impact is substantial with an estimated state revenue of up to IDR4.8 trillion (\$310m) coming from the Rantaukais EOR project. Additionally, he emphasised that the project will not only bolster oil production but also yield substantial economic benefits for Indonesia. <b>6<sup>th</sup> December 2023</b> </li> <li> <b><u>ACWA Power to develop the largest Green Hydrogen facility in Indonesia</u></b>  ACWA Power, Saudi Arabia is set to develop in the largest green hydrogen facility in Indonesia with PT Perusahaan Listrik Negara (PLN), Indonesia's state-owned electricity provider and PT Pupuk Indonesia, a state-owned fertiliser and chemical producer. The announcement was made on the sidelines of 28th United Nations Climate Change Conference (COP28) underway in Dubai. ACWA Power CEO Marco Arcelli signed the agreement with PLN's CEO Darmawan Prasodjo and Rahmad Pribadi – CEO of Pupuk Indonesia Holding Company. The Garuda Hidrogen Hijau (GH2) Project, which is expected to start commercial operations in 2026, will run on 600MW of solar and wind power, and will produce 150,000 tonnes of green ammonia per year. The cost of the project is estimated to be upwards of \$1 billion. The bidding process for engineering procurement and construction (EPC) for the Garuda Hidrogen Hijau project is expected to start in the first quarter of 2024, with financial close planned for the end of 2025. ACWA Power is expanding its green hydrogen portfolio; work is well underway at the 1.2 million tonne-per-year NEOM Green Hydrogen Project in Saudi Arabia and planned for completion in late 2026, and the company broke ground on a second project in Uzbekistan, in November 2023. "Green hydrogen is one of the answers to the energy transition. <b>6<sup>th</sup> December 2023</b> </li> </ul>
MALAYSIA	<ul style="list-style-type: none"> <li> <b><u>Singaporean player eyes production boost at Malaysia asset</u></b>  Jadestone Energy has completed a key drilling campaign. Singaporean independent Jadestone Energy has completed an infill drilling campaign in the East Belumut field offshore Peninsular Malaysia and is eyeing a production boost. The fourth and final well in the East Belumut infill drilling campaign is being tested after reaching 4600 metres measured depth in the southwest of the field, the company said on Monday. This is about 730 metres measured depth more than originally planned. <b>4<sup>th</sup> December 2023</b> </li> </ul>
MYANMAR	<ul style="list-style-type: none"> <li> <b><u>Zawtika project natural gas offshore Myanmar</u></b>  The Zawtika project is a gas field development project located in the Gulf of Martaban, offshore Myanmar. <div> <div>Project Type</div> <div>Gas and condensate development</div> </div> <div> <div>Location</div> <div>Gulf of Martaban, Myanmar</div> </div> </li> </ul>

	<p> <b>First Production</b> 2014  <b>Reserves</b> Two trillion cubic feet  <b>Operator</b> PTT Exploration and Production (PTTEP) International  <b>Expected Commissioning</b> 2025  <b>Partners</b> PTTEP International (80%) and Myanmar Oil and Gas Enterprise (20%)  <b>Contractors</b> Larsen &amp; Toubro Valdel Engineering, some, China Petroleum Pipeline Bureau, Vietsovpetro joint venture, COOEC, Chiwan Sembawang Engineering, FMC, Bredero  Shaw, Sarens, Nautec, PT. Gunanusa Utama Fabricators, Sapura Energy, Offshore Construction Specialists, Process Group, UPCEM Engineering &amp; Consultancy, SR Group, Ace Winches, NRGTech Services, Seaowl, Austin Energy, LCS Cable Cranes, Offshore Oil Engineering, NLT Engineering, GMS INTERNEER, Oriental Construction and Offshore Weather Services </p> <p> The Zawtika project includes the development of the Zawtika, Kakonna and Gawthaka fields, located in blocks M9 and M11 of the Gulf of Martaban, offshore Myanmar. The Petroleum Authority of Thailand Exploration and Production International (PTTEP International) is the operator of the project and owns an 80% interest, with Myanmar Oil and Gas Enterprise (MOGE) holding the remaining 20%. The \$2bn project initially started delivering natural gas for domestic purposes in Myanmar in March 2014 at a rate of 60 million standard cubic feet per day (MMscf/d). In August 2014, it began exporting natural gas to Thailand at a rate of 240MMscf/d. The project is currently in the final Phase 1D, which is expected to be commissioned in 2025. The production capacity of the project will be 400MMscf/d. Myanmar is estimated to contain 3.2 billion barrels of oil and 18 trillion cubic feet (tcf) of natural gas reserves. Almost a quarter of this production is sent to Thailand. Output from the Zawtika field is also being sent to Thailand, increasing its imports to between 1.2 and 1.3 billion cubic feet each day. Contracts awarded for the gas fields Vietnamese-Russian joint venture company Vietsovpetro is responsible for the construction of jackets for ZWP 12 and ZWP 15 platforms for Phase 1D. Sarens, a heavy-lifting and engineered transport company, was subcontracted by Vietsovpetro to assist in the loading of the ZWP12 and ZP15 jackets. <b>17<sup>th</sup> November 2023.</b> </p>
SINGAPORE	<ul style="list-style-type: none"> <li> <b><u>Gamuda wins CRL2 station and tunnels contract</u></b>  Singapore's Land Transport Authority (LTA) has awarded the civil contract for the design and construction of West Coast station and tunnels for the Cross Island Line Phase 2 (CRL2) to Gamuda Bhd Singapore branch. The contract value is around S\$510m (£302.6m). CRL West Coast Station is an underground station situated on West Coast Road. Construction is expected to be challenging because of the mixed ground conditions, which include soft marine clay and hard sedimentary rocks. To ensure safety and ground stability, earth retaining and stabilising structures will be constructed prior to excavation and construction of the station structures. Construction works for the CRL West Coast station are expected to start in the first quarter of 2024, with passenger service for CRL Phase 2 targeted to commence in 2032. Gamuda, in joint venture with Singapore company Wai Fong Construction, also has the S\$467m (£277.1m) contract for the design and construction of Defu station and associated tunnels for CRL Phase 1. The CRL is Singapore's eighth MRT line. It will serve existing and future developments in the eastern, north-eastern and western corridors, linking major hubs such as Jurong Lake District, Punggol Digital District and Changi region. The CRL will have almost half of its stations as interchanges with other rail lines, making it easier and more convenient for commuters to travel across the rail network. The fully underground CRL will be built in three phases. Announced in 2019, CRL Phase 1 is 29km long, and comprises 12 stations from Aviation Park to Bright Hill. As of March 2022, all the civil contracts for CRL Phase 1 had been awarded. Construction works have started and are expected to be finished by 2030. <b>7<sup>th</sup> December 2023</b> </li> </ul>

UZBEKISTAN	<ul style="list-style-type: none"> <li> <b><u>ACWA Power Breaks Ground on 3,000 tonne Green Hydrogen Project In Uzbekistan</u></b>  Saudi-listed ACWA Power, has broken ground on the first phase of a 3,000 tonne-per-year green hydrogen project in Uzbekistan. The project was inaugurated by Shavkat Mirziyoyev, President of Uzbekistan, and His Excellency Khalid Al Falih, Minister of Investment, Saudi Arabia. The event was attended by the prime minister Mr. Abdulla Nigmatovich Aripov, the Ministry of Finance, governor of Syrdarya region, and Uztransgaz Chairman, and Mr. Mohammad Abunayyan, Founder and Chairman, ACWA Power. The project will be developed in two phases. The first phase, a 3,000 tonne green ammonia pilot project, is already underway following the signing of the hydrogen purchase and power purchase agreements in May 2023. Once the second phase is complete, 2.4 GW of wind energy will power the production of 500,000 tonnes of green ammonia per year. When completed in full, this will be ACWA Power's second utility-scale green hydrogen project after the NEOM Green Hydrogen Project in Saudi Arabia, which is a joint venture between ACWA Power, NEOM and Air Products. Uzbekistan is ACWA Power's second-largest market in terms of investments, underscoring the company's long-standing commitment to the country with a portfolio including 12 projects, 11 of which are fully-renewable. <b>30<sup>th</sup> November 2023.</b> </li> </ul>
<b>AFRICA</b>	
CAMERON	<ul style="list-style-type: none"> <li> <b><u>Commonwealth LNG signs MOU with OnStream CO2 on CCS project</u></b>  The companies will develop the carbon capture and storage (CCS) project at Commonwealth's proposed liquefied natural gas (LNG) facility in Cameron. Commonwealth LNG and OnStream CO2 have signed a memorandum of understanding (MOU) to develop a carbon capture and storage (CCS) project in Louisiana, US. OnStream CO2 is a joint venture (JV) between Carbonvert and Castex Carbon Solutions. As part of the MOU, the parties will develop the CCS project at Commonwealth's 9.3 million tonnes per annum (mtpa) LNG facility, which is under development in Cameron. OnStream CO2 will be responsible for the design, construction and operation of carbon dioxide (CO<sub>2</sub>) capture equipment near the Commonwealth LNG site. The captured CO<sub>2</sub> will be sent for permanent sequestration at the Cameron Parish CO<sub>2</sub> Hub. Commonwealth will transport CO<sub>2</sub> produced from the LNG facility for a period of 20 years. <b>29<sup>th</sup> November 2023</b> </li> </ul>
EAST AFRICA	<ul style="list-style-type: none"> <li> <b><u>Has helium heaven been found in East Africa? With gas selling at \$450 per thousand cubic feet, junior player hopes so</u></b>  Australia-listed Noble Helium talks up result of Tanzania well in same play drilled by UK-listed rival. Australia-listed junior Noble Helium believes it has discovered a significant resource of helium — a gas worth about US\$450 per thousand cubic feet in Tanzania with its Mbelele-2 probe in the Rukwa rift basin. However, despite this claim, the company's share price was down 11% at A\$0.17 (US\$0.11) the close of trading on Tuesday on the Australian Stock Exchange. <b>5<sup>th</sup> December 2023</b> </li> </ul>
SOUTH AFRICA	<ul style="list-style-type: none"> <li> <b><u>AGR wins well management contract offshore Guinea Bissau</u></b>  The Ocean BlackRhino ultra-deepwater drillship has been contracted by Apus Energia Guinea-Bissau S.A. for the upcoming drilling campaign. AGR has secured the well management contract with Apus Energia Guinea-Bissau S.A. for a deepwater exploration well in the Sinapa license offshore Guinea-Bissau, with drilling set to commence in summer 2024. The Ocean BlackRhino ultra-deepwater drillship has been contracted by Apus Energia Guinea-Bissau S.A. for the upcoming drilling campaign. Our scope will be executed by our well project management team based in Perth, Western Australia. In this project, AGR will provide consultancy in well construction, drilling engineering, procurement, supply chain </li> </ul>

	<p>management, and operational supervision of the drilling. Earlier this year, AGR became part of the ABL Group, the Oslo-listed global energy, marine and engineering consultancy. In the course of the acquisition, AGR joined forces with Add Energy, another well engineering company within the ABL Group. <b>5<sup>th</sup> December 2023</b></p>
IVORY COAST	<ul style="list-style-type: none"> <li> <b><u>Ivory Coast to construct a US \$186m waste water treatment plant</u></b>  Ivory Coast to construct a US \$186m waste water treatment plant. Fluence along with sub contractor Lavisio have made substantial progress on the building of a water treatment plant that will treat 150,000 m<sup>3</sup>/d water from the Aghien lagoon, producing drinking water for 1.5 million people in Abidjan. The project's genesis was in 2019 when the Federal Government of Ivory Coast set out to construct a waste treatment plant at cost of US \$186m that will treat water from Lagune Aghien, the largest freshwater reserve near Abidjan, to help meet the fresh water needs of the country's largest city. Fluence Managing Director and CEO Henry Charrabé confirmed at the time that the company had won the contract to develop the waste treatment plant. He pointed out that the scope of work includes water intake, water treatment, bulk water piping, water towers and infrastructure. Water treatment plant project "This substantial contract award is testament to Fluence's reputation as a global leader in water treatment technology able to deliver optimal end-to-end custom engineered solutions. The plant will integrate proven technologies smart intake; separation and membrane systems; advanced oxidation; biological filtration; and sludge treatment," said Henry Charrabé. <b>5<sup>th</sup> December 2023</b> </li> </ul>
LIBYA	<ul style="list-style-type: none"> <li> <b><u>Farhat Bengdara leads Libya's ambitious energy renaissance</u></b>  Libya's NOC, led by Farhat Bengdara, plans to double oil output to 2 million barrels per day and reduce gas flaring by 2030. Libya's National Oil Corporation (NOC) has revealed ambitious plans to significantly boost the country's oil and gas production in the coming years. NOC chairman Farhat Bengdara announced the intention to offer new licencing bids for both onshore and offshore exploration by the end of 2024. Speaking at the COP28 climate summit on Tuesday, Bengdara outlined the early stages of this major initiative. <b>5<sup>th</sup> December 2023</b> </li> </ul>
	<ul style="list-style-type: none"> <li> <b><u>Morocco: Chariot signs Partnership Agreements with Energean on Moroccan Offshore</u></b>  Chariot the Africa focused transitional energy group, has signed Partnership Agreements with Energean on the Lixus Offshore licence, where the Anchois gas development project is located, and on the Rissana offshore licence in Morocco. Partnering Rationale: Provides funding for both Chariot and the project through upfront consideration, deferred consideration and potentially a full carry to first gas, with Chariot retaining a material stake in the project Secures an experienced operator for the development of Anchois - Energean is a FTSE 250 company with a proven track record in successfully developing large offshore gas projects Accelerates growth from the portfolio, with the potential to significantly upscale the development and target further exploration prospectivity in the Lixus and Rissana licences. <b>7<sup>th</sup> December 2023</b> </li> </ul>
ZIMBABWE	<ul style="list-style-type: none"> <li> <b><u>A Lot of Gas Discovered in Zimbabwe</u></b>  Australian minnow, Invictus Energy, has moved from citing "encouraging signs of hydrocarbon", in its drilling campaign in Zimbabwe, to formally declaring a hydrocarbon discovery. The company is on the sidetrack to the Mukuyu-2 well, (Mikuyu-2STK), its fourth hole on the Mukuyu prospect, in the Caborra Basa project, onshore Zimbabwe. "We are delighted to declare a gas discovery from the Mukuyu-2 sidetrack well in the Upper Angwa formation", Scott Macmillian, Invictus' Managing Director, declared in a statement. "The discovery represents one of the most significant developments in the onshore Southern Africa oil and gas industry for decades". Invictus explains that the decision to call a discovery was made after an intermediate wireline logging was run with the primary objective of obtaining hydrocarbon samples from Upper Angwa reservoirs located close to the base of the Upper Angwa </li> </ul>

formation following indications from real-time logging while drilling and mudgas. "A limited suite of wireline logging data was acquired over the interval from 1,969metre Measured Depth (MD) to 2,975mMD in the Basal Pebbly Arkose and Upper Angwa formations which identified multiple hydrocarbon bearing reservoirs in the Upper Angwa. A total of four hydrocarbon samples were recovered to surface from two separate zones in the Upper Angwa using the wireline formation testing tool. A further two formation water samples were recovered from the Basal Pebbly Arkose formation. **7<sup>th</sup> December 2023**

## AUSTRALIA

### AUSTRALIA

- **Barossa Project, Australia**

The project is expected to have a life of approximately 25 years from its first gas production.

Project Type Gas and condensate field

Location Bonaparte Basin, Timor Sea

Water Depth Between 130m and 350m

Discovered 2006

First Gas Production H1 2025 (expected)

Ownership Santos (50%), SK E&S (37.5%), and JERA (12.5%)

Operator Santos

The Barossa project is a gas and condensate field located in the Bonaparte Basin of the Timor Sea, offshore Australia, at water depths between 130m and 350m. The field is being developed along with the nearby Caldita field under the Barossa offshore development project. The field is operated by Santos with a 50% working interest. Other partners in the project are SK E&S (37.5%) and JERA (12.5%). Santos acquired ConocoPhillip's 37.5% stake in the project in October 2019 and sold a 12.5% interest to JERA in April 2022. Environment Plan (EP) Revision 3 of Barossa Drilling and Completions was approved in March by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). **2<sup>nd</sup> November 2023**

- **South Erregulla Gas Field, Australia**

The South Erregulla gas field in Western Australia is scheduled to start operations in late 2024.

**Project Type** Onshore gas field

**Location** Perth, Western Australia

**Developer** Strike Energy

**Reserves** 128 petajoules

**Project Life** 33 years

**Start of Operation** 2024

South Erregulla is an onshore gas field located within exploration permit PL 24 and EP 503 near Perth, Western Australia. Strike Energy, an independent oil and gas exploration company based in Australia, is the 100% owner and operator of the exploration permit. South Erregulla is scheduled to begin production in late 2024. South Erregulla gas field location The South Erregulla field is located in the Shire of Three Springs and the Shire of Irwin, approximately 350km north of Perth. The field lies within the Greater Erregulla region, which also includes the West Erregulla gas field. Discovery and appraisal details of South Erregulla The South Erregulla gas field was discovered in 2022 by the South Erregulla-1 (SE-1) exploration well drilled by the Ensign 970 drilling rig following an extensive 2D seismic campaign. The well encountered 14m of net pay in the Permian-aged Kingia Sandstone and 4m of net pay in the basal Wagina Sandstone. Strike Energy commenced a three-well drilling campaign at the field in 2023, including two up-dip Kingia appraisal wells in the western portion of the field and an easterly Wagina appraisal well. The South Erregulla-2 (SE-2) well was spud in August 2023 and encountered 45m of net pay in the Kingia Sandstone, confirming the presence of a gas-filled reservoir in the southwestern part of the field. **6<sup>th</sup> December 2023**

## EUROPE

AZERBAIJAN	<ul style="list-style-type: none"> <li> <b><u>First Production Well at \$6-Billion Azerbaijan Oil Field Spudded</u></b>  The well was spudded from the new Azeri Central East platform in the giant ACG field in the Caspian Sea. BP has spudded the first production well from a new platform installed in the Caspian Sea offshore Azerbaijan, the London-based energy supermajor said on 5 December. BP, as operator of the Azeri-Chirag-Deepwater Gunashli (ACG) field development project, said the first production well was drilled from the new Azeri Central East (ACE) platform following the safe completion of all offshore hookup, installation, and commissioning of the ACE topsides unit which sailed away from the Bayil fabrication yard in August 2023. The company said drilling operations are expected to take around 3 months to reach the well's total depth of 3188 m. "We are excited to commence drilling the first platform production well on ACE. This allows us to meet our first oil production target for ACE and deliver it in early 2024," said Gary Jones, BP's regional president for Azerbaijan, Georgia, and Turkey. "A great deal of preparation has been made to ensure a safe and robust drilling program using our experience, as well as our innovative approach, automated processes, and advanced technology. We look forward to delivering this first ACE production well safely, efficiently, and on schedule," he added. The \$6-billion project is the next stage of development of the giant ACG field in the Caspian Sea. <b>5<sup>th</sup> December 2023</b> </li> </ul>
GERMANY	<ul style="list-style-type: none"> <li> <b><u>Germany commits \$4.37 bln for green energy in African projects at Berlin summit</u></b>  The German government pledged Monday to invest 4 billion euros (\$4.37 billion) in African green energy projects until 2030, with Chancellor Olaf Scholz saying that countries in Africa should benefit more from their wealth of raw materials. Scholz discussed the pledge at a news conference on the G20 Compact with Africa summit taking place in Berlin. He did not mention any specific projects but said the materials used in green energy should be processed in the African nations they come from. Compact with Africa is based on an initiative launched by Germany during its chairmanship of the Group of 20 leading rich and developing nations. It aims to improve the economic conditions in the participating countries in order to make them more attractive for foreign private investment. Scholz said Germany should become a long-term and reliable partner to countries in Africa. <b>20<sup>th</sup> November 2023</b> </li> <li> <b><u>Lhyfe unveils 800-MW hydrogen project in German</u></b>  Lhyfe unveils 800-MW hydrogen project in German On Thursday, French green hydrogen developer Lhyfe unveiled plans for a 800-MW electrolysis venture In Lubmin in the German coastal state of Mecklenburg-Vorpommern. On top of the 70 MW project in Sarre, this 800 MW project will be the biggest plants ever built in the region. The project is going to be strategically located near the future German hydrogen backbone, with a projected production capacity of 330 tonnes of green hydrogen per day, commencing in 2029. Lhyfe highlighted that it has developed over 3.8 GW of electrolysis projects over the past two years, representing over 37% of its portfolio and this current one is located near the future hydrogen transport infrastructure in Europe. This follows the German government's announcement of a plan to develop a core hydrogen network across the country. Part of Lhyfe's backbone development strategy is that this plant will feed into the German core hydrogen pipeline network. The project will have access to offshore wind generation as it is going to be set up at a decommissioned nuclear power plant. This will be supported by electricity from a 50-hertz transformer station in Lubmin In an effort to support both the company's backbone and Germany's green hydrogen development strategy, the Lubmin plant will utilize more green hydrogen as a means of reducing reliance on imported fossil fuels. This was confirmed by the government's recent announcement to invest an estimated €20 billion. <b>4<sup>th</sup> December 2023</b> </li> </ul>
ITALY	<ul style="list-style-type: none"> <li> <b><u>Italy, Saudi Arabia discuss joint investments in oil, defense, and more</u></b>  Italy is discussing joint investments with Saudi Arabia in the automotive, mining, oil &amp; gas, defense, hydrogen and space sectors, Industry Minister Adolfo Urso said on Monday. Since taking office in October 2022, Italian Prime Minister Giorgia Meloni has sought to forge closer ties with the Gulf. Urso is visiting the Arabian Peninsula until Tuesday, with meetings in Qatar, Saudi Arabia and the United Arab </li> </ul>

	<p>Emirates. “Italy and Saudi Arabia are committed to developing a regulatory and industrial framework that favors and accelerates strategic autonomy in the critical raw materials sector,” Urso said in a statement after a meeting in Riyadh with Khalid Al Saalem, president of the Royal Commission for Jubail &amp; Yanbu, which helps oversee development of Saudi Arabia’s energy industry. “We explored the possibility of partnerships and joint investments especially in the mining sector, both in our respective countries and in third areas, such as the African continent.” Top representatives of companies including Pirelli , Maire Tecnimont and Prysmian attended the meeting, the minister added. <b>27<sup>th</sup> November 202</b></p>
NORWAY	<ul style="list-style-type: none"> <li> <b><u>Harbour Energy gearing up to kick off North Sea ops with Noble rig</u></b>  Harbour Energy Norge, a Norwegian subsidiary of Harbour Energy, has secured a drilling permit from the country’s authorities to spud a wildcat well in the North Sea, using one of Noble Corporation’s jack-up rigs. The Norwegian Petroleum Directorate (NPD) gave Harbour Energy Norge a drilling permit on November 30, 2023, for the well 15/9-25 in production license 1138, which was awarded on March 11, 2022, and is valid until March 11, 2028. Harbour Energy Norge holds an ownership interest of 40% and acts as the operator of the license, while its partners are Sval Energi (30%) and Aker BP (30%). The well will be drilled with Noble Corporation’s Noble Integrator jack-up rig, which scored a one-well contract with Harbour Energy on the Norwegian Continental Shelf (NCS) in the summer of 2023, with an estimated duration of 35 days. The 2014-built Noble Integrator is a Gusto MSC CJ70 X150 MD jack-up rig, which was constructed at Keppel FELS shipyard in Singapore. It can accommodate 150 people. Capable of working in a water depth of 492 ft, the rig’s maximum drilling depth is 40,000 ft. Previously, Aker BP contracted the rig under the frame agreement with Maersk Drilling in 2017 when the Aker BP Jack-up Alliance, including Halliburton, was established. In December 2021, a deal to renew the frame agreement was disclosed. The Noble Integrator rig secured more work with Aker BP after the Norwegian player entered into drilling and wells alliance agreements in January 2023 with Noble Corporation, Odfjell Drilling, and Halliburton to undertake drilling activities on the NCS. <b>4<sup>th</sup> December 2023</b> </li> <li> <b><u>Fulla Field Development, Yggdrasil Area, North Sea</u></b>  Project Type : Offshore Gas and Condensate Development  Location : Yggdrasil area in central North Sea  Discovery : 2009  Final Investment Decision : December 2022  Original Recoverable Reserves : 12.6 million standard cubic metres of oil equivalent  Expected Start of Production : 2027  Partners : Aker BP (47.7%, operator), Equinor (40%), and LOTOS (12.3%)  Fulla is an offshore oil and condensate development located in the Yggdrasil area (previously NOAKA) in the central North Sea. The field is owned by Aker BP (47.7%, operator), Equinor (40%), and LOTOS (12.3%). The partners decided to develop the Yggdrasil area in 2022 and the Plans for Development and Operation (PDO) were approved by Norway’s Parliament Storting in June 2023. The plan will involve the development of Fulla and the redevelopment of the Lille-Frigg field. <b>PROJECT GALLERY</b> Overall, the NOAKA area is estimated to contain 103 million standard cubic metres of oil equivalent. Fulla has recoverable reserves of 12.6 million standard cubic metres of oil equivalent, according to the Norwegian Petroleum Directorate (NPD) data. <b>5<sup>th</sup> December 2023</b> </li> </ul>
UK	<ul style="list-style-type: none"> <li> <b><u>Masdar, Iberdrola signs agreement to co-invest up to €15bn in offshore wind, green hydrogen projects</u></b>  Global green energy giants Iberdrola and Masdar announced today, at the UN Climate Change Conference (COP28) in Dubai, a €15 billion strategic partnership agreement to evaluate the joint development of offshore wind and green hydrogen projects in key markets including Germany, UK and the USA. After the parties’ successful co-investment in Baltic Eagle, in Germany, the new milestone of this alliance will be to achieve a further co-investment in relation to the 1,400-megawatt (MW) UK East Anglia 3 offshore wind project. This deal has been under negotiation for the last few months and could </li> </ul>

	<p>be signed by the end of Q1 2024. Masdar's stake in this wind farm could be 49 percent. <b>5<sup>th</sup> December 2023</b></p> <ul style="list-style-type: none"> <li> <b><u>Shell's sights on two drilling targets next year in the UK North Sea</u></b>            Selene exploration prospect and Pensacola appraisal planned for second half. Supermajor Shell is targeting the second half of 2024 for two important exploration and appraisal wells in the UK southern North Sea. An exploration well on the Selene prospect is on track to be drilled in the third quarter of next year, while an appraisal well on the Pensacola discovery is scheduled for late 2024, Shell's joint-venture partner Deltic Energy said. <b>5<sup>th</sup> December 2023</b> </li> </ul>
<b>NORTH &amp; SOUTH AMERICA</b>	
BRAZIL	<ul style="list-style-type: none"> <li> <b><u>Seatrium wins FPSO topside modules fabrication contract from MODEC</u></b>            Under the terms of the contract, BrasFELS, a member of the Seatrium Group, will modify the topside modules of an FPSO for the Equinor-operated Raia project in Brazil. Singapore-based shipyard company Seatrium, previously known as Sembcorp Marine, has secured a Floating Production Storage and Offloading (FPSO) fabrication contract from Japanese shipbuilding company MODEC. Offshore Frontier Solutions, a MODEC Group company, has awarded the contract to BrasFELS Shipyard (BrasFELS), a member of the Seatrium Group. Under the contract, Seatrium is responsible for fabrication works on parts of the topside modules of an FPSO for the Raia project in Brazil. The Raia project is operated by Norwegian oil and gas company Equinor, on behalf of the consortium in the Raia project. BrasFELS' scope of work includes the fabrication of vapour recovery unit/ flare knockout, oil separation and stabilisation modules, along with flowline circulation, metering, and utility systems. Seatrium Oil and Gas (Americas) executive vice president Marlin Khiew said: "We are pleased to partner with MODEC on yet another FPSO topside modules fabrication project, affirming Seatrium's position as a leading global player in FPSO newbuilds and conversions. <b>5<sup>th</sup> December 2023</b>" </li> <li> <b><u>Brazil yard wins major contract for FPSO topsides work</u></b>            A Brazilian shipyard has secured a key contract to engineer and fabricate topsides modules destined for Equinor's Raia floating production, storage and offloading vessel that will tap the Pao de Acucar pre-salt field off the coast of Brazil. Fred-Olav Kyrre Bjerkas, Equinor's FPSO hull and living quarters manager, said at a Norway-China FPSO seminar this week in Shanghai that Estaleiros do Brasil shipyard has been tasked with the engineering of five modules, collectively weighing 10,600 tonnes. <b>6<sup>th</sup> December 2023</b> </li> </ul>
MEXICO	<ul style="list-style-type: none"> <li> <b><u>Mexico Pacific pens 20-year LNG supply deal with Woodside</u></b>            Mexico Pacific, the developer of the planned \$14 billion Saguaro Energia LNG export project, has signed a long-term deal to supply liquefied natural gas to Australian LNG player Woodside. Under the 20-year SPA, Woodside will offtake 1.3 million tonnes per year of LNG on a FOB basis from Mexico Pacific's anchor LNG export facility, Saguaro Energia, located in Puerto Libertad, Sonora, according to a statement by Mexico Pacific. The deal for about 18 LNG cargoes per year includes volumes from the third train of Mexico Pacific's Saguaro Energia LNG project with pricing linked to US gas indices. Mexico Pacific said the SPA remains subject to the firm taking a final investment decision (FID) on the proposed third train which is expected in the first half of 2024. This is the third SPA for the two firms as they announced a 20-year deal in July last year for 2.6 million tonnes per year of LNG from the first two trains. Besides Shell, Mexico Pacific signed two long-term LNG SPAs with a unit of US energy giant ExxonMobil. Under these SPAs, ExxonMobil LNG Asia Pacific will purchase a combined 2 million tonnes per year of LNG on a free-on-board basis from the first two trains of Mexico Pacific's anchor LNG export facility. Moreover, the firm controlled by Quantum Energy Partners also signed a contract last year with China's Guangzhou Development Group for 2 mtpa of LNG. <b>6<sup>th</sup> December 2023</b> </li> </ul>



USA

- **US, China, and UAE convene summit to accelerate actions to cut methane and other non-CO2 greenhouse gases**

Governments also reiterated their recent agreement to the largest ever replenishment of the Montreal Multilateral Fund with \$965 million in funding to support Kigali Amendment implementation and energy efficiency. The United States, People's Republic of China, and United Arab Emirates today convened a Summit to accelerate actions to cut methane and other non-CO2 greenhouse gases as the fastest way to reduce near-term warming and keep a goal of limiting global average temperature increase to 1.5 degrees Celsius within reach. At the Summit, the United Arab Emirates announced a call to action for Parties to the Paris Agreement to submit 2035 nationally determined contributions that are economy-wide and cover all greenhouse gases, which is encouraged by the G20 Leaders Statement and echoes the U.S. and PRC commitments in the Sunnylands Statement. Governments, philanthropies, and the private sector joined together to announce an unprecedented over \$1 billion in new grant funding for methane reduction mobilized since COP27, which more than triples current annual grant funding and will leverage billions in project investment. Governments also reiterated their recent agreement to the largest ever replenishment of the Montreal Multilateral Fund with \$965 million in funding to support Kigali Amendment implementation and energy efficiency. Governments welcomed the imminent launch of the Global Cooling Pledge, a landmark COP28 initiative to reduce global cooling-related emissions across all sectors and to increase access to sustainable cooling substantially by 2030. **4<sup>th</sup> December 2023**

- **Ecopetrol Group will invest between 23 and 27 trillion pesos in 2024**

Approximately 19 trillion pesos will be allocated to profitable production, with daily averages ranging from 725,000 to 730,000 equivalent barrels. On November 30, 2023, Ecopetrol's Board of Directors approved maintaining investment levels between 23 and 27 trillion pesos in 2024, aligning with the commitment to energy security and the country's energy transition under the 2040 "Transforming Energy" Strategy. Approximately 19 trillion pesos will be allocated to profitable production, with daily averages ranging from 725,000 to 730,000 equivalent barrels. This includes refinery loads between 420,000 and 430,000 barrels per day and daily transportation of over one million barrels. Over 40% of the plan (approximately 12 trillion pesos) is directed toward energy transition projects, including low-emission solutions, natural gas supply, TSEG, decarbonization, electrical transmission, and infrastructure. Close to 3,7 trillion pesos will be allocated to projects and activities related to TSEG, primarily in the areas of territorial development, climate change, science, technology, and innovation. The 2024 – 2026 Plan incorporates commercial and operational efficiency goals, expenditure control, and austerity measures totaling around 7 billion pesos. The 2024 Financial Plan aims to generate competitive returns at Brent levels of US\$ 75/Bl, with an approximate ROACE of in the 9% range, an EBITDA margin of approximately 38%, and transfers to the Nation exceeding 38 trillion pesos. **4<sup>th</sup> December 2023**

- **Delfin LNG Deepwater Port Project, US Gulf of Mexico**

Project Type : Deepwater liquefaction and export facility

Location : US Gulf of Mexico

Capacity : 13.3 million tonnes per annum (MTPA) of LNG

Final Investment Decision : 2023

Owner : Delfin Midstream

Delfin LNG is a planned brownfield deepwater port and floating liquefied natural gas (LNG) export project in the US Gulf of Mexico. Delfin LNG, a fully owned subsidiary of Delfin Midstream, is the developer of the project. The project's Final Environmental Impact Statement (FEIS) was announced in November 2016. It received a positive Record of Decision from the US Maritime Administration (MARAD) in March 2017. PROJECT GALLERY

Delfin LNG has also secured approval from the US Department of Energy for long-term LNG exports to countries that do not have a Free Trade Agreement with the US. Once complete, the project will be capable of supporting four FLNG vessels with a combined export capacity of up to 13.3 million tonnes per annum (MTPA). As of November 2023, the company is working on the final phase towards the Final Investment Decision (FID) on the first three vessels. Delfin LNG Location The Delfin LNG project would

be located in the federal waters in the US Gulf of Mexico. The deepwater port will be approximately 37.4 to 40.8 nautical miles off the coast of Cameron Parish, Louisiana. Water depths in the region range from 64ft to 72ft. **5<sup>th</sup> December 2023**

- **Whiptail Oil and Gas Project, Guyana**

The Whiptail project is located in the Stabroek Block within Guyana's marine zone.

Project Type	Oil and gas field
Location	Stabroek Block, Guyana
Ownership	Esso Exploration and Production Guyana (45%), Hess (30%), CNOOC International
	(25%)
Operator	Esso Exploration and Production Guyana
Discovered	2021
Estimated Investment	G\$2.7tn (\$12.93bn)
Production Capacity	250,000boepd
Expected Start of Operation	2027
Contractors	SBM Offshore, Stena DrillMAX, Noble

The Whiptail project will be developed by ExxonMobil's affiliate Esso Exploration and Production Guyana (EEPGL) in a joint venture (JV) with Hess, and CNOOC International. The JV holds an offshore petroleum prospecting licence for the Stabroek Block, which was awarded by the Government of Guyana. The Whiptail development will be the EEPGL's sixth project in the eastern half of the Stabroek Block. The project is estimated to require an investment of approximately G\$2.69tn (\$12.93bn) and have a production capacity of approximately 250,000 barrels of oil equivalent per day (boepd). The life of the project is estimated at 20 years. Development drilling is expected to begin from late 2024 and continue through mid-2030. **5<sup>th</sup> December 2023**

- **ABB bags Rio Grande LNG gig**

Swiss engineering group ABB has won a contract from Bechtel to provide automation and other solutions for NextDecade's Rio Grande LNG export project in Texas. NextDecade awarded the \$12 billion EPC contract to Bechtel and officially started building the first phase of its Rio Grande LNG export project in October. In July, NextDecade took the final investment decision on the first three trains and completed \$18.4 billion project financing. Phase 1, with nameplate liquefaction capacity of 17.6 mtpa, has 16.2 mtpa of long-term binding LNG sale and purchase agreements. ABB said this order with Bechtel, booked in the third quarter, marks the company's first fully-integrated scope on a major LNG facility. "Automation control systems, digital electrification components, and industrial drives will enable RGLNG Phase 1 to optimize production assets, increase energy efficiency, and operate more sustainably," it said. The firm did not reveal the price tag of the contract. Besides the first three trains, NextDecade is also planning to take a final investment decision to build the fourth liquefaction train at its Rio Grande LNG plant in the second half of 2024. Including trains 4 and 5, the Rio Grande LNG facility would have a capacity of 27 mtpa. **30<sup>th</sup> November 2023.**

- **Michigan approves Enbridge Great Lakes tunnel for oil pipeline**

The Michigan Public Service Commission has approved a siting application to replace a segment of pipelines on the lakebed of the Straits of Mackinac, with a single pipeline in a tunnel deep below the lakebed. The decision is subject to Enbridge Energy LP securing additional government approvals and permits and conditions related to the tunnel's safety and construction. The Commission found there was a public need for the replacement section of Line 5 and the light crude oil and natural gas liquids it carries, and that without the pipeline, suppliers would need to use higher-risk and costlier fuel supply sources and transport. The order also recognised there was a public need to protect the Great Lakes' environmental and culture resources that would be helped by replacing the existing dual pipelines, now exposed to the elements and to risks including ship anchor strikes on the lakebed. Other modes of transporting Line 5's products, such as truck, rail, oil tanker or barges, were likely to increase environmental damage and increase the risk of spills. **4<sup>th</sup> December 2023**

- **Hudson Tunnel breaks ground in New Jersey**

The Hudson Tunnel Project has broken ground in New Jersey with work beginning on the Tonnelles Avenue Bridge and Utility Relocation Project. The Tonnelles Avenue Bridge and Utility Relocation Project is a major early work component of the Hudson Tunnel Project involving the relocation of utilities and the construction of a new roadway bridge for Tonnelles Avenue in North Bergen, New Jersey. The new road bridge will be located immediately above a new future railroad right-of-way, which will allow for a connection to the new tunnel portal at the western slope of the New Jersey Palisades. It will also provide construction access between the staging sites on either side of Tonnelles Avenue, as well as access to the entry point for the TBMs that will dig the Palisades Tunnel portion of the project. Construction is now under way on both sides of the Hudson River. Earlier in November, work began in Manhattan on the Hudson Yards Concrete Casing – Section 3, an essential right-of-way preservation project that guarantees the new tunnel’s connection to New York Penn Station. As we break ground on this side of the Hudson alongside our partners from Washington and New York, we edge one step closer to making our bold vision for the Gateway Project a reality,” said New Jersey governor Phil Murphy. New York Governor Kathy Hochul added after “decades of delays” the Gateway Program was finally moving forward. Following a publicly advertised bidding process, the GDC Board made its first direct contract awards for work on the Tonnelles Avenue Project in September 2023. Naik Consulting Group, P.C. is providing expert professional construction management and related technical services for the Tonnelles Avenue Project, while Conti Civil, LLC is responsible for construction of the project. The Tonnelles Avenue Project is expected to be completed by autumn 2025. **1<sup>st</sup> December 2023**

**Mailing address is:**

[info@gerabgroup.com](mailto:info@gerabgroup.com)

**Gerab National Enterprises L.L.C.**

PO Box 17719, Jebel Ali Free Zone

Dubai, United Arab Emirates

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