

# GERAB

## BULLETIN

Weekly News



### EXECUTIVE SUMMARY

#### The Commodity summary

- Crude Oil Brent prices are trading lower by 4% WTD and Crude Oil WTI prices are trading lower by 4% WTD but they are trading lower by 24% than a year ago prices.
- Coal prices are trading lower by 38% YTD
- Iron ore prices in downtrend and trading lower by 25% YTD.
- Nickel prices are trading lower by 29% YTD
- Natural Gas prices are trading lower by 67% YTD

#### The Currency summary

- Euro has gained strength against USD and is stronger by 5% YTD
- The US Dollar to CNY is stronger by more than 5% YTD

#### The Rig count summary

- The Rig counts in Africa have gone up by 20% 6MTD and the rig counts in North America have gone down by 16% 3MTD.

#### Project summary

- Front-runner emerges for massive \$10 billion-plus Qatargas LNG trains contract
- Saudi's Rua Al Madinah awards \$160m Contracts
- Alkhorayef awarded \$433m O&M Contracts in Riyadh
- China's Gochin proposes \$10bln investment in Afghanistan's lithium mines
- L&T Secures Multi-billion Dirham Contracts In Middle East, Valued At Over AED 3.15 Billion
- TANZANIA: \$276 million from the AfDB and AFD for the Kakono hydropower plant (88 MW)
- Approximately \$33 billion: Europe's largest-ever energy security contracting package launched
- Sweden's H2 Green Steel plans to raise \$1.65 bln for Boden plant
- Mitsubishi HEISCO JV signed \$298.3m Rehabilitation of Sabiya Power Plant in Kuwait

### COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	10,040.45	-1.49	-2.93	-5.69	6.50	-13.24
Coal	USD/MT	208.39	0.40	5.40	-48.18	-51.59	-38.15
Cobalt	USD/MT	34,766.90	-4.25	0.56	-11.93	-38.25	-59.87
Copper	USD/MT	8,600.00	-4.23	-3.01	-4.35	13.79	-15.45
Crude Oil	USD/BBL	79.16	-1.43	3.88	-3.02	-12.09	-23.85
Crude Oil Brent	USD/BBL	80.95	-4.45	2.27	-4.17	-13.14	-23.73

Crude Oil WTI	USD/BBL	77.37	-4.27	5.63	-1.78	-10.97	-23.97
Iron Ore	USD/MT	117.60	-2.28	-7.76	-2.43	23.34	-24.57
Molybdenum	USD/MT	44,607.15	7.43	-37.51	-34.75	8.10	5.13
Natural Gas	USD/MCF	2.33	-4.96	-7.07	-36.69	-63.32	-66.86
Nickel	USD/MT	23,460.00	-7.55	-0.11	-17.67	6.62	-29.26
Steel HRC (FOB China)	USD/MT	617.00	-1.67	-6.06	0.06	11.11	-27.43
Steel HRC (N. America)	USD/MT	1,292.60	-0.20	6.10	62.48	53.24	-20.81
Steel Rebar	USD/MT	589.56	-6.67	-12.46	-10.61	3.50	-32.24
Steel Scrap	USD/MT	389.00	-6.27	-13.27	-6.08	9.06	-35.18

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	1.1054	0.79	2.39	1.72	10.85	4.75
USDCNY	1 USD to CNY	China	CNY	6.9350	-0.74	-0.77	-2.66	4.34	-5.25

Source- Trading Economics

CRUDE OIL STOCK								
Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %	
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,00,781.00	-0.09	0.21	-0.40	-1.42	-5.64	

Source: US Energy Information Authority

## SELECTIVE COMMODITY TRADERS AND PIPE MANUFACTURERS STOCK PRICES

STOCK PRICES							
Name	Latest Value	Units	WTD%	MTD%	3MTD%	6MTD%	YTD%
ArcelorMittal SA	27.83	USD	-5.02	-2.04	-12.81	21.79	-5.63
Glencore PLC	481.40	GBP	-4.08	7.07	-12.19	-3.91	0.36
NYSE American Steel Index	1,768.97	Index	-5.91	-2.74	-12.98	14.13	-3.23
Rio Tinto PLC	5,037.00	GBP	-7.44	-3.73	-19.93	8.00	-11.24
Tenaris SA	28.49	USD	-1.18	0.28	-19.52	-8.04	-4.33
Tubacex SA	2.59	EUR	-2.26	11.16	8.82	18.26	41.53
Woodside Energy Group	33.70	AUD	0.04	7.10	-7.45	-6.38	9.04

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	52	*	-1.89	0.00	4.00	26.83
GCC	214	*	-1.38	-1.83	2.88	5.94
Middle East	318	*	-1.24	-0.93	3.58	4.95
Africa	89	*	3.49	5.95	20.27	9.88
Asia-Pacific	195	*	3.72	6.56	1.56	11.43
Europe	109	*	5.83	1.87	9.00	57.97
Latin America	183	*	1.10	5.78	2.23	15.09
North America	855	-0.12	-4.04	-15.85	-12.58	8.09
Total	1,749	*	-1.24	-7.17	-4.43	10.84

Source- Baker Hughes

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

## NEWS OF THE WEEK

### GULF COOPERATION COUNCIL ( GCC)

UAE

- L&T Construction's Power Transmission & Distribution Business wins significant orders in India and UAE**  
 The Business won an order to supply, construct, test, and commission a 132kV substation in the UAE, and secured orders to develop distribution infrastructure in two discom circles of western Rajasthan, India. Larsen & Toubro (L&T) Construction's Power Transmission & Distribution (PT&D) Business has recently secured EPC orders in both India and the United Arab Emirates, strengthening the company's position in the global market. The Business won an order to supply, construct, test, and commission a 132kV substation in the UAE, and secured orders to develop distribution infrastructure in two discom circles of western Rajasthan, India. In line with the Reforms-based Results-linked Distribution Sector Scheme (RDSS), distribution utilities in India have taken various modernization measures to improve operational efficiency and financial sustainability. The scheme aims to significantly reduce the Aggregate Technical & Commercial (AT&C) losses at a pan-India level, and as such, the discoms undertake several distribution infrastructure improvements such as segregating feeders, reconductoring, cabling, augmenting line networks and elements, and geo-tagging assets. In addition, L&T's PT&D Business has won a power supply system order for the second phase of the Chennai Metro project in India. **26<sup>th</sup> April 2023**

KUWAIT

- Mitsubishi HEISCO JV signed \$298.3m Rehabilitation of Sabiya Power Plant in Kuwait**  
 Heavy Engineering Industries & Shipbuilding Co. K.S.C. (HEISCO), Kuwait and Mitsubishi Power Limited Consortium signed a Project from Ministry of Electricity, Water and Renewable Energy, Kuwait. The value of the contract is KWD 90.9 million (USD 298.3 million). Earlier during April 2022, the consortium submitted the lowest bid. Project Scope of Works includes modernize steam turbines and electric generators for 8 steam units at the Sabiya Power Plant having plant capacity of 2400MW. As per the tender notification, the plant was commissioned in the year 1998-2002 and the steam turbines and generators are in commercial operation for nearly twenty years. Due to age deterioration, some critical problems was noticed on existing units and facilities. Project scope of work includes study and resolve existing problems and extend the life time of steam turbines and generator by ensuring safe and reliable unit operation for another 20 years along with other required activities as mentioned in tender documents. Read Also: HEISCO Kuwait Submits lowest bid of \$445.5m for Power Plant Rehabilitation Project. **22<sup>nd</sup> April 2023**
- Sparrows Group awarded New Contracts in Kuwait**

Sparrows Group (Sparrows), the engineering and maintenance services specialist for the global energy and industrial sectors, has been awarded work in Kuwait for the first time. The two scopes cover maintenance and provision of certificates of conformance for onshore rigs across sites for two clients. Sparrows will be responsible for servicing a range of critical drilling equipment, including mud pumps, iron roughnecks, catwalks and top drives, to ensure the rigs are safe to return to the field. With Kuwait's oil and gas industry now reinvigorated following a slump, 100 rigs will join the operational fleet by 3Q23. These rigs, both new and old, require high-quality servicing, which is a significant volume of work to place on existing OEMs. Sparrows has been recognised as an approved non-OEM maintenance provider, becoming the first non-OEM service company to hold the NOC approvals to operate in the country, and showcase its expertise and capabilities. Sparrows' highly-skilled staff are sharing knowledge and supervising the client's domestic maintenance teams as they carry out their CAT IV inspections. Sparrows has deployed a team including project managers, drilling equipment supervisors and drilling equipment technicians – including top drive, iron roughneck and BOP hoist specialists – with the numbers onsite increasing to support the growing workload. **19<sup>th</sup> April 2023**

- **Operations resume at Kuwait's First Al-Zor Refinery**

Preparations are underway for exportation after resuming the operations. Operations have resumed at the First Al-Zor Oil Complex following some technical issues at the refinery that led to halting them partially, Kuwait Integrated Petroleum Industries Company (KIPIC) declared on Friday. KIPIC spokesperson Abdullah Al-Ajmi said in a statement to KUNA that operations and back-up teams exerted intensive and continuous efforts to resume the operations at the refinery gradually and within a record time. Preparations are underway for exportation after resuming the operations, he said. Al-Zor Refinery had met external demand for high-grade oil derivatives, supplying 18 countries until March 13, Al-Ajmi added, noting that the sales would back the state oil-related income and contribute to boosting the economy. KIPIC declared on April 12 that the refinery operations partly stopped due to technical problems. The First Al-Zor Refinery was launched in November in a major step forward for the Kuwaiti oil industries. **21<sup>st</sup> April 2023**

OMAN

- **Oman eyes significant production increase from offshore Block 50**

Operator of offshore Block 50 Masirah Oil Ltd says it is pressing ahead with a strategy to ramp up output from the field during 2023. Block 50, covering an area of approximately 17,000 sq km, located in Oman's Gulf of Masirah, is 100 per cent owned by Masirah Oil Limited. Buoying hopes for an uptick in production from the Yumna field, Masirah Oil undertook several initiatives last year aimed at unlocking the field's hydrocarbon potential. These included a major change-out and upgrade of production facilities at the Yumna field. It also included the replacement of the previous floating storage tanker and a change-out of the Mobile Offshore Production Unit (MOPU) to handle increased liquid production and allow these production facilities to serve until the field's end of life. In 2023, Masirah Oil plans to undertake a block wide review of exploration opportunities. Based on the results of the review, planning of the acquisition of additional targeted seismic will be implemented, majority shareholder Rex International noted in its 2022 Annual Report. **23<sup>rd</sup> April 2023**

<p style="text-align: center;">QATAR</p>	<ul style="list-style-type: none"> <li> <p>• <b><u>Front-runner emerges for massive \$10 billion-plus Qatargas LNG trains contract</u></b>  NFS comprises the second development phase of the North field expansion, with key contracts expected to be dished out within months. A front-runner has emerged for a \$10 billion-plus package from Qatargas to provide the liquefaction facilities for the second phase of the North Field expansion project. Qatar is spending up to \$50 billion on two development phases at the giant gas field North Field East (NFE) and North Field South (NFS) that together aim boost the emirate’s liquefaction capacity to 126 million tonnes per annum, up from the current 77 million tpa level. <b>21<sup>st</sup> April 2023</b></p> </li> <li> <p>• <b><u>Giant Qatar offshore development prize landed by Malaysian player</u></b>  Award from Italy’s Saipem involves detailed engineering design for two compression complexes associated with North Field Production Sustainability project. Malaysia’s Ranhill Utilities has confirmed that its joint venture with global engineering major Worley has been awarded a prized engineering contract for work on giant offshore compression facilities for Qatar’s North Field Production Sustainability (NFPS) project. Ranhill said on Tuesday that it has secured a contract worth about \$50 million from a subsidiary of Italy’s Saipem to carry out detailed engineering design for two compression complexes associated with the project. Ranhill added that the engineering design work is expected to be completed by the third quarter of 2024. Saipem confirmed last year that it has been awarded a record \$4.5 billion engineering, procurement, fabrication and installation contract by Qatargas for the NFPS project, located off the coast of Qatar. Its EPCI workscope includes two offshore natural gas compression complexes intended to sustain production at the North Field, the company said. North Field expansion Qatar is executing the first expansion phase of North Field East, costing about \$28.75 billion, which will increase its liquefied natural gas output to 110 million tonnes per annum by 2026, from the present nameplate capacity of 77 million tpa. The second expansion phase, North Field South aims to further boost output to 126 million tpa. <b>25<sup>th</sup> April 2023</b></p> </li> </ul>
<p style="text-align: center;">SAUDI ARABIA</p>	<ul style="list-style-type: none"> <li> <p>• <b><u>Saudi's Rua Al Madinah awards \$160m Contracts</u></b>  Rua Al Madinah Holding, Saudi Arabia announced that it has signed four contracts with Saudi companies worth SR600 million (\$159.76 million) during the Public Investment Fund’s Private Sector Forum. The agreements come as part of the firm’s effort to achieve the Vision 2030 objective of enabling the Madinah, to host 30 million visitors annually by 2030. Ahmed Al-Juhani, CEO of Rua Al Madinah Holding, signed two of the four contracts, including one with Khaled Al Babtain, the chairman of Al Babtain Contracting Co.. That deal will see the firm design and build four power substations that will provide power to the Rua Al Madinah Project. Al-Juhani told Arab News that deals bring the total value of contracts currently under execution to almost SR5 billion. The second contract was signed with Ahmed Awdah Al Biladi, the CEO of Awdah Al Biladi &amp; Sons Contracting Co., to undertake the preliminary work on superblock 5. <b>18<sup>th</sup> April 2023</b></p> </li> <li> <p>• <b><u>Alkhorayef awarded \$433m O&amp;M Contracts in Riyadh</u></b>  Alkhorayef Water and Power Technologies Co., Saudi Arabia announces the Awarding of Long-Term O&amp;M Contracts for Sewage Treatment Plant PACKAGE 5 Manfouha in Riyadh. The value of the contracts is SAR 1.6bn. The Project was awarded by National Water Company, Saudi Arabia. As part of the contract, the company will perform Design, Rehabilitation Works, testing and commissioning, full operation and maintenance, handover, of the existing three sewage treatment plants (STPs) in Manfouha – Riyadh. The STPs in this Package are: Manfouha North STP (MNN), Manfouha East STP (MNE) and Manfouha Phase 4 STP (MN4). The Rehabilitation works shall be completed in two phases with total period of 36 months from contract start, operation and maintenance period is 15 years (180 months) from contract start, and in conjunction with commencement of rehabilitation work.The total design treatment capacity of the Plants is 700,000 m3/d, statement mentioned. <b>25<sup>th</sup> April 2023</b></p> </li> </ul>

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

AFGHANISTAN

- China’s Gochin proposes \$10bln investment in Afghanistan’s lithium mines**  
 In January, another Chinese firm had signed an oil extraction deal with the Afghan government. Afghanistan’s Ministry of Mines and Petroleum said a Chinese company Gochin expressed interest in investing \$10 billion in the country’s lithium deposits, according to a local media report. The ministry said in a statement on its website that the proposal was made by representatives of the Chinese company during a meeting with acting minister for Mines and Petroleum, Shahabuddin Delawar in Kabul. The Pashto-language statement, dated 13 April, said the lithium would be processed within the country for which Gochin will construct a hydroelectric dam and the Kunar-Laghman Road as supporting infrastructure. The project will create 120,000 direct and a million indirect jobs, the statement said. Additionally, in exchange for the contract, the Chinese company has offered to repair the existing Salang tunnel within seven months and build another tunnel in Salang, it noted. In January 2023, the ministry had signed a 25-year contract with China’s Xinjiang Central Asia Petroleum and Gas Co (CAPEIC), to extract oil from the Amu Darya basin in the country's north. A Reuters report said the Chinese company will invest \$150 million a year in Afghanistan under the contract, which would increase to \$540 million in three years. The Afghan government would own a 20 percent stake in the project. **24<sup>th</sup> April 2023**

BRUNEI

- Shell awards long-term contract for Brunei operations**  
 UK supermajor Shell has awarded the Serikandi Kent Energy Solutions joint venture a five-year commissioning and start-up services contract for its activities in Brunei Darussalam. The partnership will work for Brunei Shell Petroleum: the 50:50 joint venture between Shell and the Bruneian government. Details and the value of this long-term contract – the first win for Serikandi Kent Energy Solutions - were kept under wraps although Joe McCormick, Kent’s executive vice president for Asia Pacific, said the JV would be building up its local resources in tandem with the BSP work. “We are excited that Serikandi Kent Energy Solutions has won this business. This is another step towards our vision of becoming Brunei's first EPCM (engineering, procurement and construction management) company, supporting Brunei's Wawasan 2035 goals of producing educated, highly skilled and accomplished people and building a dynamic and sustainable economy. **23<sup>rd</sup> April 2023**

CHINA

- Middle East and Brazil top Chinese offshore engineering giant’s international ambitions**  
 Chinese offshore engineering giant looking to standardise EPC schemes to enable fast-track delivery. China’s Offshore Oil Engineering Company (COOEC) is ready to make a splash overseas, giving priority to increasing its international presence. The move will see the Tianjin-based offshore engineering, procurement and construction specialist enhance its expertise to handle more technically sophisticated international projects. Liu Rui, president of the company’s overseas arm, COOEC International, told Upstream that the company will rejuvenate its international contracting business by boosting its EPC capacity, aiming to significantly enhance

revenues earned from international projects. Liu added that by 2035, the international projects it has lined up are expected to account for up to 33% of its total earnings, from 23% now. **24<sup>th</sup> April 2023**

- **Stamicarbon bags contract for new urea plant in China**

Stamicarbon will deliver the Process Design Package and the proprietary Safurex high-pressure equipment and associated services for the urea melt and prilling plant. Stamicarbon BV has signed a contract covering PDP, licensing and equipment supply for an Ultra-Low Energy grassroots urea plant in Jiangxi province, China. This will be the largest Stamicarbon Ultra-Low Energy plant with a design capacity of 3,850 metric tons per day (m.t./d) and already the seventh plant based on this innovative design. Stamicarbon will deliver the Process Design Package and the proprietary Safurex high-pressure equipment and associated services for the urea melt and prilling plant. Unlike the previous Ultra-Low Energy plants, which featured Pool Reactor technology, this design will apply the Ultra-Low Energy principle to the Pool Condenser. The Ultra-Low Energy Design allows heat supplied as high-pressure steam to be used three times instead of two, reducing steam consumption by about 35% and cooling water consumption by about 16% compared to traditional CO<sub>2</sub> stripping processes, as demonstrated in two plants currently in operation. This technology brings energy savings unrivaled by any competitor. **24<sup>th</sup> April 2023**

- **LONGi Hydrogen wins bid for world's largest green ammonia demonstration project**

The Da'an project is designed according to the "new idea of green hydrogen system" of "green hydrogen consumption of green electricity, green ammonia consumption of green hydrogen, and integration of source-grid-load-storage". Jilin Electric Power Co. recently announced that LONGi Hydrogen Energy won the bid for the Da'an Wind and Solar Green Hydrogen Synthesis Ammonia Integration Demonstration Project (Da'an Project) as the first candidate to win the bid for a total of 15 sets of 1000Nm<sup>3</sup>/h electrolytic water hydrogen production system. The Da'an project is designed according to the "new idea of green hydrogen system" of "green hydrogen consumption of green electricity, green ammonia consumption of green hydrogen, and integration of source-grid-load-storage". The total investment of the project is \$0.92 billion, and the construction site is located in the west of Jilin (Da'an) Clean energy chemical industrial park, the project will build a total installed capacity of 800MW of wind and solar, a new 220 kV booster station, supporting 40MW/80MWh energy storage, and a new 46000Nm<sup>3</sup>/h hybrid hydrogen production (50 sets of PEM hydrogen production systems, 39 sets of alkaline hydrogen production system), 60,000Nm<sup>3</sup> hydrogen storage and 180,000 tons of synthetic ammonia plant, pre-reduced CO<sub>2</sub> emissions of 650,000 tons/year. **24<sup>th</sup> April 2023**

- **MECS bags spent acid regeneration plant contract from Sinopec Zhenhai**

Waste sulfuric acid from onsite processes will be regenerated for re-use. Sinopec Zhenhai Refining and Chemical Co. (Sinopec), China's largest integrated refining-chemical enterprise, has contracted with MECS, and MECS Chemical Plants Equipment (Shanghai), subsidiaries of Elessent Clean Technologies (Elessent), for the license, design, engineering, and equipment for a spent sulfuric acid regeneration plant. This plant will be located at Sinopec's petrochemical complex in Ningbo, Zhenhai province, People's Republic of China. The spent acid regeneration plant will be built in conjunction with Sinopec's planned expansion of its sulfuric acid alkylation and acrylonitrile facilities at the Ningbo site. The growing use of sulfuric acid alkylation by refineries and increased production of spent sulfuric acid from chemical plants necessitate a resource to process the additional spent acid being produced. For many companies, consistently dependable regeneration technology is critical to meeting capacity requirements and fulfilling end market demands. **21<sup>st</sup> April 2023**

- **Technip Energies awarded a contract for Juhua's greenfield Chemical Complex in China**

Contract for a 1,3-propanediol (PDO) plant with a capacity of 72 kta and a 150 kta polytrimethylene terephthalate (PTT) plant in Ningbo, Zhejiang, China. Technip Energies has been

awarded a contract by Ningbo Juhua Chemical & Science Co., Ltd. (Juhua) for a 1,3-propanediol (PDO) plant with a capacity of 72 kta and a 150 kta polytrimethylene terephthalate (PTT) plant in Ningbo, Zhejiang, China. These two products are based on Technip Energies' proprietary Zimmer PDO and PTT technologies to strengthen and expand Juhua's petrochemical new materials business while improving its competitiveness. Technip Energies will provide the licenses, Basic Design Packages and proprietary equipment for both technologies, as well as Detail Design services. This PDO technology was originally developed by Shell and Shell Catalysts & Technologies will be the catalyst supplier to the PDO plant. For Technip Energies, this is the first commercial scale application of the Zimmer® PDO technology. PDO is a colorless, odorless organic chemical that can be used in the pharmaceutical, cosmetics and plastics manufacturing fields. It is also the feedstock for PTT, a high performance and versatile polyester, used in the manufacturing of high quality carpet and textiles. **20<sup>th</sup> April 2023**

INDIA

- Reliance and BP begin commissioning work on Indian flagship deep-water gas field**  
 Operator has started testing the FPSO and other subsea structures at the MJ gas field. Indian private-sector giant Reliance Industries and UK supermajor BP have begun commissioning activities at a flagship deep-water asset in the Krishna Godavari basin offshore India's east coast. Reliance has started testing the floating production, storage and offloading vessel and other subsea structures at the MJ gas in field in the KG-D6 block, with "commissioning activities" under way, according to its latest quarterly results. Reliance noted that the incremental gas production from the MJ field, along with ongoing production from R Cluster and Satellite Cluster fields, is likely to boost total gas production from KG-D6 to 30 million cubic metres per day in the current financial year from 1 April to 31 March 2024. The double-hulled Ruby FPSO was built at South Korea's Samsung Heavy Industries yard and has an oil production capacity of 60,000 barrels per day of liquids and about 12.7 MMcmd of gas, Upstream understands. It is expected to have a condensate production capacity of 30,000 bpd and a water-handling capacity of at least 20,000 bpd, with the potential for the latter to be increased. The MJ field is one of three projects being targeted by Reliance and BP in a \$5 billion drive to boost gas production from the KG-D6 block, with the R-Cluster and Satellite Cluster schemes having already been brought on stream. **25<sup>th</sup> April 2023**
- Toyo bags EPC contract for ExxonMobil Lubricants plant in India**  
 ExxonMobil Lubricants Private Limited (EMLPL) has awarded the engineering, procurement, and construction (EPC) contract for its new lubricant manufacturing plant in Izam, Southwestern Maharashtra, India, to Toyo Engineering India Private Limited. ExxonMobil is investing nearly INR900 crore (USD110 million) to build the lubricant manufacturing plant at the Maharashtra Industrial Development Corporation's Isambe Industrial Area in Raigad. Toyo Engineering India Private Limited is the Indian subsidiary of Japan's Toyo Engineering Corporation. Toyo-India will carry out EPC work from design, procurement, construction to commissioning as a lump-sum contract. By getting the EPC contract for EMLPL's lubricant manufacturing plant, Toyo-India has further consolidated its position as an EPC player in the energy sector, especially for high-performance lubricants. EMLPL is a wholly owned subsidiary of Exxon Mobil Corporation (EM), a major U.S. energy company, which sells a wide range of automotive and industrial engine oils, greases and lubricants under the Mobil brand. Plant capacity is 159,000 kilolitres per year. **24<sup>th</sup> April 2023**

IRAQ

- Iraq to begin construction of three refineries**  
 Iraq's Ministry of Oil has initiated the tendering process for the construction of three refineries as Public-Private Partnership projects. The three projects are as follows: 70,000 barrels per day (b/d) Al-Samawah refinery in Al-Muthanna governorate 100,000 b/d Al- Kut Investment refinery in Wasit governorate 150,000 b/d Al-Nasiriyah refinery in Al-Qadisiyah governorate The price at which crude oil will be supplied to the refinery investor will be based on the international prices



	<p>for one barrel of crude oil delivered in port of shipment Free on Board (FOB) basis less 8 percent of the international price of crude oil provided that the discount shall not be less than \$5 and shall not exceed \$10. The closing date for submitting technical and commercial offers and required documents is 28 May 2023. <b>25<sup>th</sup> April 2023</b></p>
JAPAN	<ul style="list-style-type: none"> <li> <p><b><u>Idemitsu, KEPCO unite on blue ammonia supply chain in Japan and Korea</u></b>  Energy company Idemitsu Kosan has signed a memorandum of understanding (MoU) with Korea Electric Power Corporation (KEPCO) to collaborate on the establishment of a blue/carbon-free ammonia supply chain in Japan and Korea. The companies will jointly do a study on the procurement, marine transportation, and supply of blue/carbon-free ammonia to each country. According to Idemitsu, the companies will partner up for the search for ammonia production projects around the world, optimisation of marine fuel ammonia transportation costs through cooperative ship operations, and optimisation of supply and demand adjustment through mutual product exchange. In 2023, Idemitsu announced several clean energy projects, including a feasibility study of clean hydrogen production in Japan generated from waste, including municipal waste. <b>24<sup>th</sup> April 2023</b></p> </li> </ul>
KOREA	<ul style="list-style-type: none"> <li> <p><b><u>Korea’s first ammonia FSRU wins LR’s green light - Offshore Energy (offshore-energy.biz)</u></b>  Lloyd’s Register (LR) has awarded Approval in Principle (AiP) to HD Hyundai Heavy Industries (HHI) and Korea Shipbuilding &amp; Offshore Engineering (KSOE) for their ammonia floating storage regasification unit (FSRU), the first of its kind in Korea. HHI’s ammonia-FSRU will store liquefied ammonia transported from production areas and can perform regasification to supply to shipowners and operators. FRSUs are an increasingly viable alternative to meet the growing demand for liquefied gas storage and regasification and are significantly more affordable to operate than onshore plants. The AiP follows the launching of a joint development project between LR, Korea National Oil Corporation (KNOC), HD HHI KSOE. As part of the project, HHI performed the basic design of the unit whilst KSOE developed the key equipment for the regasification system and KNOC provided technical information on the construction of domestic clean ammonia acquisition and storage infrastructure projects. <b>25<sup>th</sup> April 2023</b></p> </li> </ul>
MIDDLE EAST	<ul style="list-style-type: none"> <li> <p><b><u>L&amp;T Secures Multi-billion Dirham Contracts In Middle East, Valued At Over AED 3.15 Billion</u></b>  Construction major Larsen &amp; Toubro (L&amp;T) has bagged multiple contracts of worth more than AED 3.13 billion in the Middle East region. Earlier this month, L&amp;T stated that the scope of work for the awarded contracts includes engineering, procurement, construction, and installation for new offshore facilities, as well as integration with existing installations. L&amp;T won “mega” contracts for its hydrocarbon business from a prestigious client in the Middle East, it said. According to its classification, orders of more than Rs 7,000 crore fall under the mega category. Subramanian Sarma, whole-time director and senior executive vice president, said: “Securing these repeat orders indicates customer satisfaction and is a testimony to customer’s faith in the team’s dedicated efforts towards developing and nurturing these capabilities.” Larsen &amp; Toubro is engaged in EPC projects, hi-tech manufacturing and services. It operates in over 50 countries. <b>24<sup>th</sup> April</b></p> </li> </ul>
MONGOLIA	<ul style="list-style-type: none"> <li> <p><b><u>‘India-built Mongolia refinery by 2025’</u></b>  Mongolia’s first oil refinery, built and funded with Indian assistance, will be completed by 2025, said the country’s Ambassador Dambajav Ganbold. In an interview, Ganbold said the first stage of Mongol Oil Refinery, built with a \$1.2 billion Indian soft loan, will be completed at the end of this year. The development comes with strategic implications as Mongolia is entirely dependent on Russia for its energy imports. The refinery, Ganbold said, would help Mongolia meet 70% of its</p> </li> </ul>

	<p>demand domestically. Mongolia also hopes to attract Indian investment in its mining and metals, with plans to start shipping coking coal to India by 2024. Mongolia also has key rare earth metals, which may be crucial to India's ambitions to build cutting edge technological capabilities in semiconductors and green mobility. Indian firms have already visited Mongolia to explore these opportunities. <b>24<sup>th</sup> April 2023</b></p>
TURKEY	<ul style="list-style-type: none"> <li>• <b><u>Türkiye commissions Sakarya gas field development project in Black Sea</u></b> The Sakarya field is expected to yield 10 million cubic metres of natural gas in the first phase, which saw the drilling of 10 wells, and through the drilling of 30 more wells, its production could grow subsequently to 40 million cubic metres to meet around 30% of Türkiye's annual gas demand TPAO announced the gas discovery in August 2020 following the drilling of the Tuna-1 well in the Sakarya Block by the Fatih drillship in a water depth of 2,115m. <b>21<sup>st</sup> April 2023</b></li> </ul>
<b>AFRICA</b>	
BOTSWANA	<ul style="list-style-type: none"> <li>• <b><u>New drilling phase begins at Lesedi Gas-to-Power Project in Botswana</u></b> A new phase of drilling has begun at the Lesedi Gas-to-Power Project in Botswana. In the second week of April 2023, the Australian company Tlou Energy began the work on Lesedi 6 gas production pod. The latter is located to the southwest and parallel to the existing Lesedi 4 gas production pod. As of the 13th date of April 2023, the Lesedi 6 gas production pod had reached a depth of approximately 59m. Eventually, the pod will comprise one vertical production well intersected by two lateral wells. The latter will be drilled horizontally through the target reservoir section for several hundred meters. Once the drilling phase is completed, dewatering will commence and thereafter the well will start to establish an indicative gas flow rate. Noteworthy, Lesedi 6 gas production pod is the first well of a proposed drilling program to expand gas production at the Lesedi Gas-to-Power Project in Botswana. Gas flows from this pod will be converted to electricity. <b>15<sup>th</sup> April 2023</b></li> </ul>
CONGO	<ul style="list-style-type: none"> <li>• <b><u>Eni inaugurates Congo LNG project in the Republic of the Congo</u></b> Launch of project set to transform the country into a natural gas exporter marked by ceremony in the presence of the president of Congo and Eni's CEO. Pointe-Noire (Republic of the Congo), 25 April 2023 –The President of the Republic of the Congo, Denis Sassou Nguesso, and the Chief Executive Officer of Eni, Claudio Descalzi, today laid the foundation stone of Congo LNG, the country's first natural gas liquefaction project and one of Eni's core supply diversification initiatives. The project is expected to reach an overall liquefied natural gas (LNG) production capacity of 3 million tons per year (approximately 4.5 billion cubic meters/year) from 2025. The first FLNG plant, currently under conversion and with a capacity of 0.6 million tonnes per year (MTPA), will begin production in 2023. The second FLNG plant already under construction will become operative in 2025 with a capacity of 2.4 MTPA. <b>25<sup>th</sup> April 2023</b></li> </ul>
EAST AFRICA	<ul style="list-style-type: none"> <li>• <b><u>TotalEnergies signs deal with Chinese contractor for controversial Africa pipeline work</u></b> Chinese fabricator will replace Russian pipe supplier to provide some of the 1443-kilometre pipeline. French energy giant TotalEnergies has concluded a deal with China Petroleum Pipeline Engineering (CPP) and East Africa Crude Oil Pipeline operator EACOP to build the controversial pipeline in Africa. Under the deal signed late last week, pipeline contractor CPP owned by China National Petroleum Corporation (CNOOC) — will carry out engineering, procurement and construction for the 1443-kilometre pipeline, which will transport up to 216,000 barrels per day of oil from the Tilenga and Kingfisher fields in Uganda to Tanga on Tanzania's coast. <b>25<sup>th</sup> April 2023</b></li> </ul>
GABON	

	<ul style="list-style-type: none"> <li> <b><u>Gabon's Oil and Gas Industry: Exploring Opportunities in Mature Fields</u></b>            In 2019, the Gabonese government had set an ambitious target of 220,000 bpd of crude oil production by 2023. Although that target was missed, production in April stood at 200,000 bpd, up from 180,000 in 2020. The 20,000 bpd of production needed to close the remaining gap is in sight, largely thanks to 18 exploration and appraisal wells drilled in 2022 and 2023, and further investment from a handful of leading international companies seeking to cash in on rising global prices. Given Gabon's background, it is no surprise that much of the country's upstream efforts are being focused on the redevelopment of mature or marginal oil fields. Prioritizing short-cycle developments generate cash flow at lower cost by utilizing existing discoveries and infrastructure, which can bring production online within a few years. After 30-years of front-line service in Gabon, Perenco is producing some 100,000 bpd from its on- and offshore fields, most of which are mature, by applying its trademark EOR technologies. During the price crash of 2014-15, the company went against the grain with a foresighted 40-well drilling campaign, accompanied by 200 km of pipelines, processing facilities, and the Mayumba FSO to gather production from its various offshore interests. These investments had paid off by 2023, which saw Perenco secure a final investment decision for the \$1-billion Cap de Lopez liquified natural gas facility, as well as an MOU signed with Gabon Power Company to construct a gas-fired power plant in the south of the country, both of which speak to the success Perenco's upstream and associated gas-harnessing capabilities <b>17<sup>th</sup> April 2023</b> </li> </ul>
LIBERIA	<ul style="list-style-type: none"> <li> <b><u>ExxonMobil reignites West Africa exploration focus with Liberia return</u></b>            US supermajor applies for acreage in a country it quit six years ago as lure of potential Guyana-like resources revives interest. ExxonMobil has stepped back into the African exploration game after applying for acreage offshore Liberia, a country it quit in 2017. In recent years, the US giant has been heavily focused on exploring its prolific Stabroek block offshore Guyana where billions of barrels of oil have been found, only now and then dipping into other wildcat plays in Cyprus and Canada to hunt down further resources. Africa, where countries like Angola and Nigeria were once the supermajor's go-to exploration venues, have gradually dwindled in importance becoming production cash cows. <b>24<sup>th</sup> April 2023</b> </li> </ul>
MOROCCO	<ul style="list-style-type: none"> <li> <b><u>Chinese contractor to build green hydrogen project in Morocco</u></b>            Project promises output of 1.4 million tonnes per annum of green ammonia. Chinese energy engineering procurement and construction contractor Energy China International Construction Group is moving to develop a major green hydrogen project in the North African country. The Shanghai-listed company has signed a memorandum of understanding with Saudi conglomerate Ajlan Bros and Morocco's Gaia Energy to build a green hydrogen project in the south of the North African nation. The project describes a green ammonia plant with future output of 1.4 million tonnes per annum produced from about 320,000 tonnes of green hydrogen with a 2 gigawatt photovoltaics solar plant as well as a 4 GW wind power project. The MoU also calls for the project partners to operate and maintain the facilities after completion. Energy China International Construction said that green hydrogen project will provide clean energy to southern Morocco and Europe. <b>21<sup>st</sup> April 2023</b> </li> </ul>
MOZAMBIQUE	<ul style="list-style-type: none"> <li> <b><u>Eni Prepares First Exploration Well in 8 Years Off Mozambique</u></b>            Eni SpA, the Italian oil and gas major, is preparing to drill Mozambique's first offshore exploration well in about eight years, according to the southeast African country's regulator. The West Capella vessel has already started initial drilling at the Raia-1 well that will explore what could be a new oil and gas basin off Mozambique's coast. The target is near Angoche, about 375 miles (604 kilometers) south of the Rovuma basin where the Rome-based company began producing liquefied natural gas last year. While it's unknown whether Eni will find economic deposits of oil         </li> </ul>

and gas off Angoche, the drilling could be the start of a new round of investments in Mozambique’s hydrocarbon industry. The company in 2018 signed the exploration contract with the authorities for Area A5-A, which fell under Mozambique’s fifth round of hydrocarbon block auctions. Eni declined to comment. **24<sup>th</sup> April 2023**

NIGERIA

- Chevron extends Agbami and Usan oilfield leases to 2042**  
 Chevron operates the Agbami oilfield, which is a subsea development. Agbami lies 113 km off the coast of the central Niger Delta region and spans 182 square km. The oilfield was discovered in 1998 and is at a water depth of approximately 4,800 feet. Chevron has a 67.3% interest in the field. Meanwhile, Chevron holds a 30% non-operated working interest in the Usan oilfield (OML 138), in 2,805 feet of water, and located 100 km off the coast of the eastern Niger Delta region. The extension of the leases until 2042 would provide Chevron with long-term access to these assets. Additionally, the company’s increased investment emphasis on short-cycle projects suggests that it may be shifting its focus towards projects that have shorter lead times and quicker returns on investment. The report also stated that about 27% of Chevron’s net oil-equivalent production in 2022 occurred in OPEC+ member countries like Nigeria, Angola, Equatorial Guinea, Kazakhstan, the Partitioned Zone between Saudi Arabia and Kuwait as well as the Republic of Congo. **20<sup>th</sup> April 2023**
- Top Upstream Oil and Gas Projects in Nigeria 2023-27**  
 Nigeria is expected to implement over 115 new oil and gas projects across the upstream, midstream and downstream sectors between 2023 and 2027 in a bid to maximize the development and exploitation of energy resources to achieve energy security and drive economic growth. Upstream, up to 32 projects are in motion that aim to address nationwide production declines by bringing new supplies on the market. OML 13 Field Operated by the Nigerian Petroleum Development Ltd, the \$3.15 billion OML 13 field development will significantly expand Nigeria’s crude oil reserves and daily production. Currently in its construction stage, the project has a capacity of 184,333 barrel per day (bpd). OML 13 will increase government’s earnings from energy monetization with the federal government expected to generate \$10.2 billion in revenue from the project for 15 years. The \$5 billion project will unlock an estimated 525 million barrels of additional crude oil reserves in the Bonga field following the field reaching a one-billion-barrel milestone in February 2023. **19<sup>th</sup> April 2023**

NAMIBIA

- QatarEnergy Signs MoU to Strengthen Cooperation with Namibia**  
 QatarEnergy has signed a memorandum of understanding (MoU) with the Ministry of Mines and Energy of the Republic of Namibia to strengthen cooperation in the energy sector. The agreement was signed by Saad Sherida Al-Kaabi, the Minister of State for Energy Affairs, the President and CEO of QatarEnergy, and Tom Alweendo, Minister of Mines & Energy of the Republic of Namibia in a special signing ceremony held at QatarEnergy’s headquarters in Doha. The MoU paves the way for continued cooperation and covers key areas such as knowledge sharing, workforce development and exploring further investment opportunities in Namibia. Minister Al-Kaabi said: “We are pleased to further enhance our cooperation with the Government of Namibia and build on our recent successes. This agreement further strengthens our relationship as we work jointly towards a prosperous future. **25<sup>th</sup> April 2023**

TANZANIA

- TANZANIA: \$276 million from the AfDB and AFD for the Kakono hydropower plant (88 MW)**  
 Tanzania, which is 66% dependent on natural gas and oil for its electricity production, will diversify its national electricity mix through the construction of the Kakono hydropower plant in the northern region of Kagera. The 87.8 MW facility is being co-financed to the tune of US\$276.2

	<p>million by the French Development Agency (AFD), the African Development Bank (AfDB) and the European Union (EU). In Tanzania, the Kakono hydropower project is on track. The French Development Agency (AFD) and the African Development Bank (AfDB) have confirmed their financing of USD 120.7 million and USD 116 million respectively. The loans, which will be repaid by the Tanzanian government over 17 years, will be used to build a run-of-river power plant with a capacity of 87.8 MW. The Kakono hydropower scheme also benefits from a \$39.5 million grant from the European Union (EU). This brings the total cost of the project to 276.2 million dollars. <b>19<sup>th</sup> April 2023</b></p>
UGANDA	<ul style="list-style-type: none"> <li>• <b><u>TotalEnergies signs deal with Chinese contractor for controversial Africa pipeline work</u></b> Chinese fabricator will replace Russian pipe supplier to provide some of the 1443-kilometre pipeline. French energy giant TotalEnergies has concluded a deal with China Petroleum Pipeline Engineering (CPP) and EACOP to build a controversial crude oil pipeline in Africa. In the deal signed late last week, CPP, the pipeline contractor owned by China National Petroleum Corporation, will deliver the engineering, procurement and construction for the 1443-kilometre EACOP pipeline that will transport up to 216,000 barrels per day of oil from the Tilenga and Kingfisher fields in Uganda to Tanga on Tanzania’s coast. The pipeline will start in Kabaale Hoima in Uganda and end on the Chongoleani peninsula near Tanga on the Indian ocean coast of Tanzania. <b>25<sup>th</sup> April 2023</b></li> </ul>
ZAMBIA	<ul style="list-style-type: none"> <li>• <b><u>Zambia: Arc Minerals, Anglo American Sign JV for Copper Exploration</u></b> Africa-focused exploration and development company Arc Minerals has signed a joint venture (JV) agreement with a subsidiary of Anglo American over its copper interests in the northwestern region of Zambia. As part of the agreement, <u>Anglo American</u> will have the right to retain a 70 % stake in the JV for an aggregate investment of up to \$88.5 million, including cash consideration of up to \$14.5 million, based on exploration expenditures announced in May last year. The JV holds licenses to explore copper and cobalt projects in the northwestern province of the East African country, which serves as the second largest producer of copper in Africa. What’s more, Zambia has set a target to more than triple its annual copper production of approximately 800,000 tons to three million tons per year over the next 10 years. <b>24<sup>th</sup> April 2023</b></li> </ul>
<b>AUSTRALIA</b>	
AUSTRALIA	<ul style="list-style-type: none"> <li>• <b><u>Woodside and Keppel Data Centres progress liquid hydrogen supply deal ne</u></b> Initial imports could be as early as 2030. Australia’s Woodside Energy and Keppel Data Centres of Singapore are advancing their hydrogen cooperation for potential imports of H2 into the city state following the completion of feasibility studies that started in late 2021. The duo on Tuesday signed a non-binding heads of agreement to evaluate the potential supply of liquid hydrogen to Singapore from Woodside’s portfolio of planned production facilities, including its proposed H2Perth facility in Western Australia. The companies said the HOA “provides a pathway for the parties to jointly develop further commercial principles for key hydrogen supply chain agreements”. The terms reference Keppel Data Centres potential purchasing approximately 1000 tonnes per day of liquid as early as 2030, when it and Woodside expect the associated production technologies and shipping systems will reach maturity. They added it is envisaged that a hydrogen supply chain would benefit Keppel Data Centres’ data centre facilities, including its planned Datapark+, which is envisioned to be an energy-efficient data centre park development in Singapore. <b>25<sup>th</sup> April 2023</b></li> </ul>
<b>EUROPE</b>	
FRANCE	<ul style="list-style-type: none"> <li>• <b><u>NextChem awarded new engineering contract for biomethane project in France</u></b></li> </ul>

NextChem’s scope also includes the evaluation and estimate of the Engineering, Procurement and Construction activities for the full gasification and methanation package of the project. Maire Tecnimont S.p.A. (MAIRE) announces that its Sustainable Technology Solutions subsidiary NextChem, after having completed the methanation advanced basic engineering study announced in July 2022 for the Salamandre project in the Normandy region, has been awarded a new contract by Storengy to carry out a further advanced basic engineering study for the gasification of the waste wood and the purification system of the syngas to produce biomethane. NextChem’s scope also includes the evaluation and estimate of the Engineering, Procurement and Construction activities for the full gasification and methanation package of the project, including the relevant utilities and ancillary units, which will be considered as part of the Client’s Final Investment Decision. **24<sup>th</sup> April 2023**

GERMANY

- Approximately \$33 billion: Europe’s largest-ever energy security contracting package launched**  
 TenneT’s four cooperation partners sign to develop North Sea hub for sustainable and independent European energy production. The Hitachi Energy and Petrofac pairing and three consortia GE with Sembcorp Marine; GE with McDermott; and Siemens Energy with Dragados have signed contracts in Berlin to formalise Europe’s largest-ever tender award for energy transition infrastructure. The total volume of the contracts for the components of the 14 high voltage direct current (HVDC) substations amounts to around €30 billion (\$33 billion). The offshore wind projects in the German and Dutch sectors of the North Sea that will generate as much electricity as 28 large-scale power plants, McDermott said. **21<sup>st</sup> April 2023**
- Técnicas Reunidas and FCC in consortium with Entrade GMBH win contract to develop large regasification terminal in Germany**  
 The German company has awarded the design and development of an emission free regasification terminal to a consortium led by Técnicas Reunidas and made up of the Spanish company FCC and Entrade GMBH. Hanseatic Energy Hub GmbH is developing an import terminal that will contribute to secure Germany’s supply of LNG and green gases while preparing for the market ramp-up of hydrogen. The German company has awarded the design and development of an emission free regasification terminal to a consortium led by Técnicas Reunidas and made up of the Spanish company FCC and Entrade GMBH. This is an EPC (Engineering, Procurement and Construction) contract for the execution of a new storage and regasification terminal for liquified gases in the river port of Stade, which is part of the metropolitan region of Hamburg (Germany). The land on which the facility will be built belongs to the large chemical company Dow Chemicals, which is participating in the project as one of the development partners. The terminal will utilize Dow’s industrial waste heat and therefore will be able to regasify the gases without additional CO2 emissions. **20<sup>th</sup> April 2023**

ICELAND

- Landsvirkjun join forces with Linde to develop clean fuels and hydrogen projects in Iceland**  
 Such projects will be pivotal in decarbonizing the transport sector and industry in Iceland and worldwide. Landsvirkjun and Linde have signed a collaboration agreement that will facilitate the energy transition in Iceland through the development of clean hydrogen and e-fuel projects. Such projects will be pivotal in decarbonizing the transport sector and industry in Iceland and worldwide. The production of e-fuels is technically complex and a novel field for Landsvirkjun. Therefore, it has joined forces with Linde, which has extensive knowledge of the chemical industry, hydrogen production via electrolysis, as well as the operation of green industrial parks. The experience of the two companies spans decades, Landsvirkjun in the field of renewable, green energy and Linde in industrial gases. Linde is a leading industrial gases and engineering company that serves customers in more than 100 countries worldwide. Linde already supplies Icelandic customers with locally produced oxygen, nitrogen, carbon dioxide and operates a cylinder filling site. **21<sup>st</sup> April 2023**

<p>ITALY</p>	<ul style="list-style-type: none"> <li> <p><b><u>Saipem secures two-year drillship contract extension by Eni</u></b>            Eni has extended its contract with Saipem for the Santorini drillship, starting from this August. Currently the vessel is working for Eni in the Gulf of Mexico. Saipem estimates the value of the extension at about \$280 million, plus additional income linked to investments for improvements to the vessel. The company acquired the seventh-generation drillship last December from Samsung Heavy Industries. It is designed to drill in water depths of up to 12,000 ft (over 3,500 m), with innovative digitalization and automation solutions, Saipem added. <b>9<sup>th</sup> April 2023</b></p> </li> </ul>
<p>NORWAY</p>	<ul style="list-style-type: none"> <li> <p><b><u>Norway's third-largest operator Vaar has Barents Sea on its mind</u></b>            Vaar supports gas pipeline from remote offshore region as it targets doubling of production in 2025. Norway's third-largest oil and gas operator Vaar Energi had a solid operational first-quarter performance underpinned by steady production, good progress on major development projects and exploration success in the Barents Sea. The company said today its first-quarter production was 214,000 barrels of oil equivalent per day, stable from the fourth quarter of 2022. The cost of production reduced to \$13.1 per boe based on efficient production and less maintenance. Production guidance for 2023 was maintained at between 210,000 and 230,000 boe per day. <b>24<sup>th</sup> April 2023</b></p> </li> <li> <p><b><u>Berling gas and condensate field in Norwegian Sea</u></b></p> <p><b>Project type :</b> Offshore gas and condensate field  <b>Location :</b> Haltenbanken, Norwegian Sea  <b>Recoverable Resources :</b> 45 million barrels of oil equivalent  <b>Development Cost :</b> NOK9.1bn (~\$900m)  <b>Discovery :</b> 2018  <b>Expected start of production :</b> 2028</p> <p>The cost of development is estimated to be NOK9.1bn (~\$900m). PROJECT GALLERY Production from the Berling field is expected to commence in 2028. Berling field location details Berling field is located on Haltenbanken in the Norwegian Sea within the production licence (PL) 644, PL 644 B and PL 644 C. It comprises two reservoirs- Hades and Iris. Morvin field and Equinor-operated Asgard and Kristin fields are situated near the discovery. Berling Project development details The recommended Berling field development plan involves a four-slot subsea production template that will be tied back via a 24km pipeline to the Åsgard B platform, which is operated by Equinor. The gas from the field will be processed at the Åsgard B platform and will be exported to the Karsto gas processing plant through Åsgard Transport System for further processing. The condensate will be mixed with other Åsgard production for storage and eventually, it will be exported by shuttle tankers. In February 2023, Baker Hughes won a four-year frame agreement for integrated well construction and completion (IWCC) services as OMV plans to drill three production wells on the Berling field developments between 2023 and 2027. <b>25<sup>th</sup> April 2023</b></p> </li> <li> <p><b><u>Gas takes centre stage as Equinor wraps up ground-breaking oil drilling at Troll field</u></b>            Norway's largest gas field has a thin oil column that Equinor has expertly drilled and produced. Equinor has completed a complex multi-year programme of continuous oil drilling on the massive Troll field offshore Norway while continuing to explore for, produce and develop the field's huge gas resources. The company told Upstream that work on what is currently the last oil well on Troll was completed on 17 April, and the drilling rig Transocean Endurance is preparing to leave the field after being located at Troll for several years. The Endurance was one of four drilling rigs</p> </li> </ul>

	<p>Equinor had deployed at Troll for up to eight years during which time many dozens of oil wells were drilled. <b>25<sup>th</sup> April 2023</b></p>
<p>NETHERLAND</p>	<ul style="list-style-type: none"> <li> <p><b><u>BioBTX and Agilyx announce collaboration for the production of circular aromatic chemicals</u></b>            Agilyx's pyrolysis technology for difficult-to-recycle post-use plastics combined with BioBTX catalytic technology to convert pyrolysis vapours into aromatic chemicals will create a unique synergy for the production of renewable aromatic chemicals (BTX). BioBTX B.V. (BioBTX), the global leader in renewable aromatics technology, and Agilyx ASA, a leading post-consumer plastics recycling company have entered into a strategic collaboration to explore the scale-up of BioBTX technology at a commercial demonstration plant for the production of renewable aromatic chemicals (benzene, toluene, xylene: BTX). The partnership will bring Agilyx technology into BioBTX's first commercial plant. Agilyx's pyrolysis technology for difficult-to-recycle post-use plastics combined with BioBTX catalytic technology to convert pyrolysis vapours into aromatic chemicals will create a unique synergy for the production of renewable aromatic chemicals (BTX). <b>24<sup>th</sup> April 2023</b></p> </li> <li> <p><b><u>Gasunie to upgrade Dutch pipeline for biogas distribution</u></b>            Netherlands aiming to produce 2 Bcm per annum of renewable gas by 2030. Dutch grid operator Gasunie will upgrade a section of its pipeline network to allow the transport of renewable gas for domestic consumption, with first volumes due to flow in 2025. Gasunie will convert a 60-kilometre natural gas pipeline between the city of Emmen and a compressor station at Ommen into a transport line for biogas, with work due to begin in early 2024. The work will involve modifications at valve locations and at connection points to the regional grid, allowing local biogas producers to feed into the network. <b>20<sup>th</sup> April 2023</b></p> </li> </ul>
<p>SWITZERLAND</p>	<ul style="list-style-type: none"> <li> <p><b><u>Technip Energies partners with Casale on blue hydrogen technology</u></b>            New partnership to jointly license oxidative reforming-based technologies; autothermal reforming (ATR) and partial oxidation (POx) technologies for the blue hydrogen market. Technip Energies and Casale announce a new partnership to jointly license oxidative reforming-based technologies; autothermal reforming (ATR) and partial oxidation (POx) technologies for the blue hydrogen market. ATR is a process to produce syngas that contains hydrogen, CO and CO<sub>2</sub>. It becomes cost-effective for low-carbon hydrogen when combined with carbon capture technology and suitable for larger-scale facilities. As part of this collaboration, Technip Energies and Casale will be co-licensors of the technology and will offer Process Design Package (PDP), proprietary equipment and entire plants. In order to decarbonize hydrogen facilities, the ATR-based solution could achieve up to 99% of carbon capture rate. Technip Energies' two centers of excellence for hydrogen, Claremont CA, US and Zoetermeer, NL, will jointly execute with Casale PDP for ATR-based blue hydrogen projects. <b>20<sup>th</sup> April 2023</b></p> </li> </ul>
<p>SLOVAKIA</p>	<ul style="list-style-type: none"> <li> <p><b><u>Eni signs deal with SPP on Slovakia gas supply diversification</u></b>            Agreement involves regasification of LNG and supply of gas to the central European country. Italy's Eni and Slovakia's SPP will co-operate on trading and distribution of natural gas and liquefied natural gas supplies to Slovakia. The two energy companies have signed a memorandum of understanding (MoU) aimed at strengthening security of supply to Slovakia, specifically through a diversification of gas sources. The agreement was signed during a state visit to Slovakia by Italy's President Sergio Mattarella. The co-operation will involve natural gas and LNG volumes supply, regasification and transport activities by Eni, for final consumption in Slovakia. <b>20<sup>th</sup> April 2023</b></p> </li> </ul>
	<ul style="list-style-type: none"> <li> <p><b><u>Ohmium announces green hydrogen agreement with E4Efficiency</u></b></p> </li> </ul>



<p>SPAIN</p>	<p>Ohmium International announced a new agreement with Efficiency for LNG Applications (E4Efficiency), a leading Spanish energy efficiency company, to provide green hydrogen for the Huelva project in Andalusia, Spain. The project will supply up to 52 tons of green hydrogen annually to replace the methane used in the gas flare pilot flame of the Huelva Liquefied Natural Gas (LNG) regasification terminal and other potential uses in the future. This will mitigate up to 343 tonnes of CO2 from being emitted each year equivalent to the carbon sequestered by up to 400 acres of forest. This pioneering project is being supported by the European Regional Development Fund (ERDF) and Spain's Institute for Energy Diversification and Saving (IDAE) as part of the Low Carbon Economy Call designed for electric power generation projects with renewable energy sources, named EFFI SOLAR GREENH2 PORTUARIO and the project ID is FD-ELE-AND-C1-2020-000106. <b>20<sup>th</sup> April 2023</b></p>
<p>SWEDEN</p>	<ul style="list-style-type: none"> <li> <p><b><u>Sweden's H2 Green Steel plans to raise \$1.65 bln for Boden plant</u></b>            Swedish steel producer H2 Green Steel is seeking to raise more than 1.5 billion euros (\$1.65 billion) of equity funding for its iron, steel and hydrogen plant in Boden, the company said on Monday. H2 Green Steel, launched in 2021, is currently developing its direct reduced iron (DRI) plant in Boden, which is expected to be powered by hydrogen plants running on renewable electricity. The company plans to start production at the end of 2025 and a ramp-up in 2026, H2 Green Steel said in a statement to Reuters. <b>24<sup>th</sup> April 2023</b></p> </li> </ul>
<p>UK</p>	<ul style="list-style-type: none"> <li> <p><b><u>Peterhead's JBS secures £3 million worth of contracts in 2023 so far</u></b>            The Peterhead-based engineering firm, JBS Group, has had what it describes as its "best ever start to a year", securing £3 million worth of contracts. A number of these contracts were made up of fabrication deals, having served energy services firms in the UK, Europe, Brazil, USA, South-East Asia and the Middle East. The latest contracts involve fabrication work, screw conveyors and its patented Sea Axe subsea excavation technology. Providing screw conveyors and its patented Sea Axe subsea excavation technology, JBS believes that its policy on the former will win it more work in Brazil as all conveyors must be dual drive from now on. JBS took over the Aberdeen-based firm, Screw Conveyors in 2017 following the high court in London putting the acquired business into administration. The Peterhead company has also seen increased demand for its patented Sea Axe technology, which is manufactured at Peterhead and enables fast, large-scale mass flow subsea excavation. <b>20<sup>th</sup> April 2023</b></p> </li> <li> <p><b><u>Kellas Midstream and RWE announce partnership to explore green hydrogen production on Teesside</u></b>            Kellas Midstream, a UK based independent energy infrastructure company, and RWE, the UK's largest power generator, have announced a partnership to explore the potential for large-scale green hydrogen production on Teesside, an area committed to playing a vital role in helping the UK achieve its 2050 net zero ambitions by becoming one of the world's first decarbonised industrial clusters through the production, consumption, and export of low carbon hydrogen. Kellas and RWE have signed a Memorandum of Understanding (MoU) to jointly progress opportunities for gigawatt-scale green hydrogen production on Teesside in a phased development matched to customer demand. The company has a wealth of knowledge and experience in the development of green hydrogen projects across Europe including involvement in GET H2 and Hollandse Kust West. The company is targeting 2GW of green hydrogen development in its core markets by 2030. <b>20<sup>th</sup> April 2023</b></p> </li> <li> <p><b><u>Shell completes Pierce redevelopment project to enable production of gas</u></b>            The Haewene Brim FPSO has been now restarted at the Scottish field for the first time since it stopped production in October 2021 to allow it to transform into a vessel that can also produce gas, which was re-injected previously into the reservoir. Shell and Ithaca Energy have completed</p> </li> </ul>

the Pierce redevelopment project in the Central North Sea of the UK Continental Shelf to enable the production of gas. Discovered in 1975, the Pierce field, located offshore Scotland, has been producing only oil since its start-up in early 1999. Shell and Ithaca Energy took a final investment decision (FID) on the Pierce depressurisation project in October 2019. Owned and operated by Bluewater, the FPSO was in dry dock in Aibel's shipyard in Haugesund, Norway for nearly six months to transform into a vessel that can also produce gas, which was re-injected previously into the reservoir. Shell is the operator of the Pierce field with a stake of 92.52%, while Ithaca Energy holds a stake of 7.48%. Ithaca Energy CEO Alan Bruce said: "We are delighted that operations have resumed at the Pierce field, with the redevelopment project highlighting Ithaca Energy's commitment to invest in the UK North Sea at a time where additional supply is critical to the UK's Energy Security Strategy. **19<sup>th</sup> April 2023**

**NORTH & SOUTH AMERICA**

CANADA

- Moment of truth: BP to start critical drilling at multibillion-barrel prospect**  
 Anticipation builds as Drillship Stena IceMax heads to Canada for decisive wildcat. BP is within weeks of spudding a highly anticipated wildcat on a huge prospect offshore eastern Canada, with its chosen drillship having just started its voyage west across the Atlantic Ocean. Results from the well on the multibillion-barrel Ephesus prospect offshore Newfoundland & Labrador will be keenly awaited and will very likely influence the take up of exploration acreage in bid rounds launched by the province earlier this week. If the probe is successful, it could trigger a flurry of interest in the Orphan basin parcels on offer, but a flop could have the opposite effect. **20<sup>th</sup> April 2023**

USA

- Orion installs cogeneration technology at its Louisiana plant**  
 The cogeneration system, which includes a steam turbine generator, uses the waste steam from the carbon black plant's production process and converts it to electricity. Orion Engineered Carbons, a specialty chemicals company, announced today that cogeneration technology that produces renewable energy has been installed at its Ivanhoe plant in the southern U.S. state of Louisiana, making the facility more efficient, reliable and sustainable. This is the second significant upgrade at the Ivanhoe plant in the last three years. In late 2021, Orion installed air emissions control technology that captures pollutants and converts them to sulfuric acid, commonly used in a wide range of products -- from fertilizers and glue to dyes and car batteries. The project was a major milestone in Orion's commitment to developing circular solutions for its waste streams. **21<sup>st</sup> April 2023**
- Biden administration gives go-ahead to Texas LNG export projects**  
 NextDecade and Glenfarne schemes clear regulatory panel but further litigation not out of the question. The US Federal Energy Regulatory Commission (FERC) has issued certificates for two controversial South Texas liquefied natural gas export projects to proceed. At a 20 April open meeting in Washington, DC, FERC commissioners signed off on NextDecade's Rio Grande LNG export scheme and the Texas LNG proposed development, a project led by Houston and New York-based Glenfarne Group. Commissioners deemed both projects "not inconsistent with the public interest", reaffirming the agency's earlier rulings granting approval for the export terminals, both located at the southern Texas port of Brownsville. **21<sup>st</sup> April 2023**
- 88 Energy's subsidiary secures Project Leonis acreage in Alaska**  
 The Project Leonis acreage contains ten leases covering around 25,430 contiguous acres, fully covered by the Storms 3D seismic data suite, and is surrounded by oil fields, Orion, Polaris, West Sak and Milne Point. Australia-based oil explorer 88 Energy, through its wholly owned subsidiary Captivate Energy Alaska, has secured the acreage covering the entire Project Leonis lease area. The oil and gas Division of the Alaskan Department of Natural Resources (DNR) has formally issued the award notices, after completing the adjudication process. Last year, Captivate Energy Alaska

has been declared as the highest bidder for the acreage, offered as part of the 'North Slope Areawide 2022 Oil and Gas lease sale'. 88 Energy managing director Ashley Gilbert said: "Formal award of this new acreage provides confirmation of a further highly attractive Alaskan exploration proposition for our business. 88 Energy said that the review of Hemi Springs Unit 3 well showed more than 200ft of low resistivity bypassed log pay within the USB reservoir, with good porosity and oil shows. **20<sup>th</sup> April 2023**

- **Grand Gulf confirms helium discovery at Jesse Field in Utah, US**

The Jesse-2 well, part of the Red Helium project, was drilled to 8,215ft measured depth, about 50ft above the gas water contact observed at Jesse-1A, which confirmed a helium discovery in the Jesse Field with 192ft gross gas column. Australia-based helium exploration and production company Grand Gulf Energy has announced the completion of drilling operations and the discovery of helium at the Jesse-2 well in, Utah, US. The Jesse-2 well, part of the Red Helium project, has successfully flowed helium gas to the surface and confirmed a helium discovery in the Jesse Field with a 192ft gross gas column. It was drilled to 8,215ft measured depth, about 50ft above the gas water contact observed at Jesse-1A, while monitoring geologic gas inflow. The well reached a total depth in target Leadville Formation, and was intersected at 8,082ft measured depth in line with geologic prognosis, It produced helium gas at maximum flow rates of around 30,000 cubic feet of dry gas per day, with average helium concentrations of 0.7%, and up to 0.9%1, with no water production. **24<sup>th</sup> April 2023**

- **KBR bags contract from Chemours to expand capacity of Nafion ion exchange materials**

The contract is part of Chemours' \$200 million investment to expand the Nafion membranes and dispersions technology platform to support the growing hydrogen economy. KBR announced it has been awarded an engineering and design services contract from The Chemours Company to increase capacity and advance technology for its industry-leading Nafion ion exchange materials platform. The contract is part of Chemours' \$200 million investment to expand the Nafion membranes and dispersions technology platform to support the growing hydrogen economy. Nafion membrane technology is the heart of hydrogen power generation, storage and use. Its chemical properties help generate clean hydrogen from water electrolysis, with vapor water as the only byproduct. Fuel cells another Nafion™ proton exchange membrane application convert hydrogen to create power instantly, making zero-emission fuel cell-powered vehicles a reality. **24<sup>th</sup> April 2023**

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