

GERAB

BULLETIN

Weekly News



EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent prices trading higher by 3% WTD and Crude Oil WTI prices are trading higher by 3% WTD.
- Coal prices are trading lower by 18% MTD
- Steel HRC (North America) prices are trading higher by 51% YTD
- Iron ore prices are trading higher by 24% YTD
- Natural Gas prices are trading lower by 22 % WTD

The Currency summary

- Euro is weaker to USD by 2% YTD
- The US Dollar to CNY exchange rate differential is 7% YTD

The Rig count summary

- The Rig counts in Africa have gone down by 9% MTD and in North America have gone up by 20% MTD.

Project summary

- Adnoc subsidiary signs key gas supply deal with Asian player
- Larsen and Toubro secures EPC contract for solar plant in Dubai
- Oman's energy giant OQ invests over \$2bln in Musandam projects
- QatarEnergy Awards \$6B in EPCI contracts for Al-Shaheen Oil Field Expansion
- Saudi's SABIC gives go-ahead for \$6.4bln China petrochemical plant
- Finalists in race for \$1 billion-plus offshore deals from India's ONGC
- Linde to build US\$ 60 million new ASU for SAIL (indianchemicalnews.com)
- NTPC Green Energy to invest Rs. 80,000 crore for development of green hydrogen projects in Maharashtra
- Shell and Petronas Carigali among winners in Malaysia award fest
- Tokyo Gas establishes LNG-to-power project in Vietnam
- Germany's SEFE seeks to expand natural gas business beyond Europe
- Construction of four new nuclear reactors in Ukraine in the pipeline

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	8,948.72	-0.92	-4.04	-1.86	0.09	-15.64
Coal	USD/MT	130.07	-6.94	-18.27	-15.81	-12.11	-67.88
Cobalt	USD/MT	27,690.06	-1.10	-6.67	-16.05	-19.14	-29.94
Copper	USD/MT	8,600.00	0.70	1.39	7.39	1.67	-4.32
Crude Oil	USD/BBL	80.00	2.87	6.40	-8.94	3.53	-1.98

Crude Oil Brent	USD/BBL	82.51	2.83	6.09	-7.66	3.94	-2.29
Crude Oil WTI	USD/BBL	77.49	2.91	6.73	-10.27	3.09	-1.65
Iron Ore	USD/MT	135.52	0.33	5.97	13.13	21.75	23.75
Molybdenum	USD/MT	43,703.10	-0.10	9.76	-6.62	-11.32	-35.59
Natural Gas	USD/MCF	2.16	-21.93	-17.70	-31.73	-21.99	-41.23
Nickel	USD/MT	16,405.00	-0.55	-1.57	-11.43	-23.16	-42.43
Steel HRC (FOB China)	USD/MT	568.50	-0.87	1.22	5.91	3.89	-7.75
Steel HRC (N. America)	USD/MT	1,205.19	-0.22	2.82	50.40	24.29	51.33
Steel Rebar	USD/MT	598.05	-1.42	-1.44	8.93	4.75	-9.51
Steel Scrap	USD/MT	420.18	1.62	0.98	14.24	15.05	1.76

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	1.0820	-0.24	-2.03	2.38	-1.48	-1.54
USDCNY	1 USD to CNY	China	CNY	7.1859	-0.08	-0.87	2.03	-0.02	-6.96

Source- Trading Economics

CRUDE OIL STOCK							
Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	15,88,923.00	-0.54	-1.03	-1.54	-1.48	-1.14

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	27.47	USD	-0.36	-3.24	24.64	-3.65	-12.66
Chiyoda Corporation	338.00	JPY	2.74	-0.88	-5.85	-3.70	-12.21
Glencore PLC	420.45	GBP	1.03	-10.94	-2.59	-10.72	-22.50
HD Hyundai Heavy Industries Co. Ltd.	1,11,900.00	KRW	-5.33	-13.26	8.64	-19.03	-3.53
JGC Holdings Corporation	1,706.50	JPY	0.68	4.85	-8.79	-15.33	0.98
McDermott International Ltd.	0.21	USD	27.27	133.33	10.53	16.67	-34.38
National Marine Dredging	30.20	AED	1.75	1.34	27.75	37.65	-2.77
NYSE American Steel Index	2,110.58	Index	0.00	-5.11	13.04	2.26	2.42

Rio Tinto PLC	5,503.00	GBP	0.40	-5.80	4.58	8.01	-11.27
Technip Energies NV	19.30	EUR	-1.63	-8.81	-6.56	-6.61	31.53
TechnipFMC PLC	19.34	USD	-3.15	-3.97	-11.61	8.04	38.84
Tenaris SA	31.81	USD	-3.02	-8.49	-0.06	-5.33	-8.30
Tubacex SA	3.40	EUR	-3.40	-2.71	22.92	19.06	40.70
Woodside Energy Group	32.11	AUD	2.98	3.38	-7.49	-15.90	-10.18

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	*	0.00	3.39	8.93	17.31
GCC	223	*	-4.70	0.90	1.83	2.29
Middle East	329	*	-2.95	1.86	1.54	2.49
Africa	101	*	-9.01	5.21	9.78	20.24
Asia-Pacific	200	*	-0.99	-2.44	-2.44	9.29
Europe	113	*	0.89	4.63	0.89	5.61
Latin America	174	*	-0.57	-0.57	-7.94	0.58
North America	848	0.95	20.11	3.79	-0.24	-16.54
Total	1,765	*	7.29	2.38	-0.40	-6.32

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE

- Tokyo Gas and Osaka Gas join Masdar and INPEX in a feasibility study to produce e-methane in Abu Dhabi**
 Abu Dhabi Future Energy Company PJSC – Masdar (Masdar), INPEX CORPORATION (INPEX), Tokyo Gas Co., Ltd. (Tokyo Gas) and Osaka Gas Co., Ltd. (Osaka Gas) announced they have signed a collaboration agreement to conduct a joint feasibility study on e-methane¹ production in Abu Dhabi in the United Arab Emirates (UAE). Masdar and INPEX have been conducting a joint study to produce e-methane utilizing low-cost renewable energy in Abu Dhabi based on an agreement signed on July 17, 2023. Tokyo Gas and Osaka Gas have newly joined this initiative, and through it plan to off-take e-methane in volumes equivalent to 1% of each company’s annual city gas demand. Tokyo Gas and Osaka Gas are aiming to introduce e-methane to cover 1% of their respective annual city gas demand by 2030 and further increase the introduction volume from the total of their worldwide projects toward 2050. The four partners will evaluate the economics of producing and procuring feedstocks, such as green hydrogen and CO₂, as well as the production and transportation of e-methane. The overall reductions in CO₂ emissions will also be evaluated. Masdar, INPEX, Tokyo Gas and Osaka Gas aim for the early establishment of an e-methane supply chain from the UAE to Japan to contribute to the UAE and Japanese governments’ shared goal of achieving carbon neutrality by 2050. **25th January 2024**
- Daimler Truck and Masdar Signs MOU to explore liquid Green Hydrogen Supply to Europe**
 Abu Dhabi Future Energy Company PJSC – Masdar, the UAE’s clean energy powerhouse, and Daimler Truck Holding AG (“Daimler Truck”), one of the world’s leading commercial vehicle manufacturers, have signed

a Memorandum of Understanding (MoU) to explore the feasibility of liquid green hydrogen exports from Abu Dhabi (UAE) to Europe by 2030. The MoU was signed in Abu Dhabi by Fawaz Al Muharrami, Executive Director of Clean Energy and Deputy COO at Masdar and Martin Daum, Chairman of the Board of Management and CEO of Daimler Truck. The collaboration between the two pioneering companies with complementary roles represents a significant advancement in ongoing efforts to tackle CO₂-emissions in road freight transport. The UAE's plans to establish itself as a leading and reliable producer and supplier of low carbon hydrogen by 2031. Daimler Truck is clearly committed to the Paris Climate Agreement and to lead sustainable transportation. Daimler Truck is building a customer-trial fleet of Mercedes-Benz GenH₂ Trucks which are expected to be deployed in mid-2024. **25th January 2024**

- **Halliburton awarded Technology Contract in UAE**

Halliburton Company announced the award of Technology contract in UAE, as part of Fourth Quarter 2023 Results. Halliburton, and AIQ, joined with ADNOC to successfully launch an AI-enabled Autonomous Well Control solution, RoboWell, across the ADNOC's North East Bab asset in Abu Dhabi, United Arab Emirates. The project, which is the first ever AI-supported Advanced Process Control solution for gas lifted wells, enables autonomous wells that can self-adjust to maximize production within specified operating conditions. The RoboWell system utilizes real time data to continuously react to changing oil field dynamics, and to optimize production processes, as well as ensure operation within safety parameters to minimize well instability and reduce the risk of stoppages or other incidents. Middle East/Asia revenue in the fourth quarter of 2023 was \$1.5 billion, an increase of 7% sequentially. This increase was primarily due to improved activity across multiple product service lines in Kuwait, Saudi Arabia, and Oman, and higher completion tool sales in the United Arab Emirates. Partially offsetting these improvements were decreased drilling-related services in Indonesia and lower pressure pumping services in Asia, statement mentioned. **23rd January 2024**

- **Adnoc subsidiary signs key gas supply deal with Asian player**

Adnoc Gas signed multiple LNG supply deals last year, together valued at between \$9.4 billion and \$12 billion. Adnoc Gas, a subsidiary of Abu Dhabi National Oil Company, has signed a liquefied natural gas supply deal with a leading Indian player, as the Emirati giant continues to expand its presence in the Asian market. Adnoc is building a 9.6 million tonnes per LNG export terminal at Al Ruwais in Abu Dhabi to cater to several international gas markets. The Al Ruwais facility is crucial to Abu Dhabi's ambition to emerge as a key gas exporter in the Middle East region. Adnoc Gas has concluded a long-term LNG agreement to supply around 500,000 tpa of LNG to Gail, the Indian player confirmed on Monday. "Under this agreement, the deliveries will commence from 2026 onwards for a duration of 10 years across India," Gail noted. Adnoc Gas last year signed multiple LNG supply deals, together valued at between \$9.4 billion and \$12 billion, as the state giant continues to invest heavily in gas-based developments. In October, it signed a multi-year LNG supply deal with Japan's Jera, valued "between \$500 million and \$700 million", Upstream reported. Adnoc Gas also signed multiple long-term LNG supply agreements in 2023 including deals with PetroChina International, Japan Petroleum Exploration Company, French giant TotalEnergies and India Oil Corporation. **30th January 2024**

- **Larsen and Toubro secures EPC contract for solar plant in Dubai**

Larsen & Toubro Ltd's Power Transmission & Distribution business has secured an engineering, procurement, and construction (EPC) contract for a 1800MW ac Solar Photovoltaic Plant in Dubai, UAE. The project is part of the Mohammed bin Rashid Al Maktoum Solar Park, and will annually reduce approximately 2.4 million tonnes of carbon emissions. Abu Dhabi Future Energy Company PJSC - Masdar has signed a Power Purchase Agreement with Dubai Electricity and Water Authority for the project. L&T's role encompasses establishment of the photovoltaic plant, evacuation arrangements, Gas Insulated Substations, and distribution networks across three operational phases. The solar park aligns with Dubai's Clean Energy Strategy 2050 and DEWA's initiative for Net Zero emissions by 2050. T. Madhava Das, Whole-Time Director & Sr. Executive Vice-President (Utilities), Larsen & Toubro said, "We thank Masdar and DEWA, who are our longstanding customers, for their support in the project. We are committed to bringing our innovative renewable energy solutions and project management expertise to speed up energy

transition in the region, which is pursuing economic development combined with sustainable practices. **30th January 2024**

MIDDLE EAST

- **Wabag inks MoU with PEAK for installing 100 bio-CNG plants at sewage treatment facilities**
The bio-CNG plants at sewage treatment facilities will be set up across India and other mutually agreed-upon locations in the GCC, Africa, and European countries. VA Tech Wabag Limited (WABAG), a leading pure-play water technology group, has entered into a MoU with Peak Sustainability Ventures (PEAK) to establish 100 Bio-CNG plants at sewage treatment facilities across India and other mutually agreed-upon locations in the GCC, Africa, and European countries. The parties aim to harness the unutilized potential of Sewage treatment plants and to generate Bio-CNG which can be used for mobility application in trucks and heavy duty vehicles, and for industrial applications, thereby reducing the need for fossil fuels. This initiative would not only meet the growing energy demand in a responsible and ecofriendly manner, but also contribute to India's commitment to GHG emission reduction and to reduction of air pollution from methane, which has much higher Global Warming Potential (GWP) than carbon dioxide. WABAG is the 3rd largest private water operator globally with providing safe and clean drinking water and sanitation to over 88.8 million people across the globe. This strategical tieup will further boost WABAG's commitment towards a cleaner and greener world. WABAG has already implemented around 40 large biogas generation facilities in its various projects globally. **29th January 2024**

OMAN

- **Veolia awarded New O&M Contracts in Oman**
Veolia Oman announces the signing of two new contracts with Nama Water Services. The First Contract is related to Operation and Maintenance of Sewage Treatment Plant and Sewage Systems at Musandam, North Al Batinah, Al Dahira, and Al Buraime Governorate (Zone 1). The duration of contract is 2 Years. The Second Contract is related to Operation and Maintenance of Sewage Treatment Plant and Sewage Systems at South Al Batinah and Al Dakhliya Governorates (Zone 2). The duration of contract is 2 Years. The Contract was signed on the sidelines of Oman Water Week. **27th January 2024**
- **Oman's energy giant OQ invests over \$2bln in Musandam projects**
Investments include development of gas and power plants in the governate, along with the management of offshore fields. OQ, the state-backed energy investment company of Oman, has invested 800 million rials (\$2.08 billion) across three projects in the governate of Musandam. The projects include the Musandam Gas Processing Plant, the management of offshore fields in Concession Area 8 and the Musandam Power Plant, Oman News Agency reported. According to OQ, its investments in the Musandam Gas Processing Plant is pivotal to the transformation of the region's energy infrastructure, while also supporting the needs of the governorate. Additionally, OQ stated the operation of the offshore fields, owned by Oman's Ministry of Energy and Minerals, focuses on enhancing operational efficiency, increasing production, and reducing operational costs. The area includes the Bukha and West Bukha fields, which supplies the Musandam Power Plant and provides electricity to the governorate with a production capacity of about 120 megawatts per hour. OQ is also executing several social investment projects across the governorate, valued at RO 4 million, which will focus on urban, environmental and tourism aspects. Projects include developing the Daba Archaeological Centre, the Daba Waterfront Project, and the development of Telegraph Island, among others. **22nd January 2024**
- **Oman's new LNG bunkering project set for 2027 launch**
Marsa LNG will position Oman as a hub for low-carbon LNG bunkering operations once operational by mid-2027. A longstanding plan for the establishment of a renewables-powered liquefied natural gas (LNG) project at the Port of Sohar on Oman's North Al Batinah coast is set to go ahead with French engineering contractor Technip Energies tipped to undertake the construction of the estimated \$1 billion venture. Marsa LNG - a partnership of French-based energy giant TotalEnergies (80 per cent) and Almuzn LNG LLC, a wholly owned subsidiary of Omani integrated energy group OQ (20 per cent - is developing the 1 million tonne capacity LNG project to serve primarily as a bunkering and export terminal. According to

	<p>TotalEnergies, main construction activities on the project are anticipated to commence in the third quarter of this year, with the start-up slated during mid-2027. Phase 1 encompasses all civil works, construction of buildings and installation of temporary site facilities, as well as mechanical and electrical works. The LNG Plant construction activities are planned to take approximately 34 months including pre-commissioning and commissioning phases. As a green energy powered project, electricity supply for Marsa LNG will come for a solar PV project to be established some distance from Sohar Port. 27th January 2024</p>
QATAR	<ul style="list-style-type: none"> <u>QatarEnergy Awards \$6B in EPCI contracts for Al-Shaheen Oil Field Expansion</u> QatarEnergy has awarded the four main Engineering, Procurement, Construction, and Installation (EPCI) contract packages related to the next development phase of the Al-Shaheen field, Qatar’s largest offshore oil field, to increase production by about 100,000 barrels of oil per day (BPD). The award is part of Project Ru’ya, meaning ‘Vision’ in Arabic, which is the third phase of Al-Shaheen’s development since North Oil Company, a joint venture between QatarEnergy (70%) and TotalEnergies (30%), took over the field’s operation in July 2017. Project Ru’ya, which will develop more than 550 million barrels of oil, will be executed over a period of five years with first oil expected in 2027. The project includes the drilling of more than 200 wells and the installation of a new centralized process complex, nine remote wellhead platforms, and associated pipelines. The four EPC packages, with varying scopes of work, have been valued in total at more than \$6 billion. The EPC package for 9 wellhead platforms, valued at about \$2.1 billion, has been awarded to a consortium of McDermott Middle East and Qingdao McDermott Wuchuan Offshore Engineering. The contract for a Central Processing Platform valued at about \$1.9 billion has been given to a consortium of McDermott Middle East and Hyundai Heavy Industries. The EPC package for a riser platform valued at about \$1.3 billion has been awarded to Larsen & Toubro Limited. 31st January 2024
SAUDI ARABIA	<ul style="list-style-type: none"> <u>ALUCOR Announces Strategic Collaboration with DOOSAN for Landmark SWRO Desalination Project in Saudi Arabia</u> ALUCOR is proud to announce its recent engagement with DOOSAN for mechanical, electrical, and instrumentation installation works for Shuaibah 3 IWP – one of Saudi Arabia’s landmark Seawater Reverse Osmosis (SWRO) Desalination Projects. This SWRO Desalination Plant, with an impressive daily capacity of 600,000 cubic meters, is set to become one of the largest desalination facilities in the Kingdom. The project is located in the region of Shuaibah in the Kingdom of Saudi Arabia and is being developed by an ACWA Power led consortium which includes 68% stake of ACWA power and 32% stake of WEHC (PIF). The project involves the transformation and replacement of the existing Independent Water and Power Plant (IWPP), transitioning from an energy-intensive power generation and thermal desalination facility to a state-of-the-art SWRO desalination plant, supported by solar power. This conversion is poised to yield a substantial positive environmental impact, with an estimated annual reduction of nearly 45 million tons of carbon dioxide emissions and conservation of 22 million barrels of light crude oil. ALUCOR’s seasoned project management and construction teams will be dedicated to the successful execution of this project, spanning approximately 18 months, with an unwavering commitment to safety and quality. ALUCOR will deploy innovative construction methodologies and rely on its suite of proprietary construction management software to meet the project’s objectives and effectively manage cost and schedule risks. This project represents one of several desalination plants that ALUCOR has played an integral role in bringing to fruition over the past decade in both KSA and UAE. As a renowned EPC contractor in the Middle East for over three decades, ALUCOR specializes in providing modular construction solutions for industrial plants in the power & water, oil & gas, and metals & mining market segments by leveraging its state-of-the-art manufacturing facilities located in the UAE. 30th January 2024
ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)	
CHINA	<ul style="list-style-type: none"> <u>CNOOC unveils business strategy and development plan for 2024</u> CNOOC announced the capital expenditure as part of its business strategy and development plan for the year 2024 and allocated around 16% of the total capital expenditures for exploration, 63% for development

and 19% for its production operations. China's national oil company China National Offshore Oil Corporation (CNOOC) has unveiled its total capital expenditure for 2024, budgeted at RMB125bn (\$17.6bn) to RMB135bn (\$19bn). The company has allocated around 16% of the total capital expenditures for exploration, 63% for development and 19% for its production operations. CNOOC announced the capital expenditure figures as part of its business strategy and development plan for 2024. Its business development plan focuses on increasing reserves and annual production and promoting the integrated development of new energy and oil and gas businesses. With the global oil and gas demands steadily increasing, the company aims to increase reserves and production and maintain its growth in production volume. CNOOC targets a net production of 700 million to 720 million barrels of oil equivalent (BOE) in 2024, comprising 69% production from China and the remaining 31% from overseas. Also, the company targets a net production of 780 million to 800 million BOE in 2025, and 810 million to 830 million BOE in 2026. In 2023, the company's net production is estimated to be around 675 million BOE, a record high for five consecutive years, attributable to new projects and adequate capital investment. CNOOC said it focuses on the efficiency of investment and makes realistic plans for capital expenditure to achieve sustainable development of the oil and gas business. **26th January 2024**

- **Saudi's SABIC gives go-ahead for \$6.4bln China petrochemical plant**

The project, expected to cost around \$6.4bln, will be developed in a joint venture with state-owned Fujian Fuhua Gulei Petrochemical. Saudi Basic Industries Corp (SABIC) will go ahead with building a petrochemical complex in southeastern China's Fujian province, the company said in an exchange filing on Sunday, shoring up Saudi ties with China, the world's top oil importer. The project, expected to cost around \$6.4 billion, will be developed in a joint venture with state-owned Fujian Fuhua Gulei Petrochemical. First proposed in 2018, the joint venture marks the latest in a series of tie-ups between Saudi firms and Chinese refiners. The complex is expected to be able to produce 1.8 million metric tons of ethylene per year, and is designed to expand SABIC's manufacturing presence in Asia and diversify its feedstock supply chain, SABIC said. Construction is expected to begin in the first quarter of 2024, with completion expected in the first quarter of 2027. The announcement follows a number of similar investments by the kingdom's oil giant Saudi Aramco in China's downstream sector. Early in January, Chinese privately-controlled refiner Rongsheng Petrochemical and Aramco announced they were in talks to take a 50% stake in each other's refineries in China and Saudi Arabia. Aramco previously announced it had agreed to acquire a 10% stake in Rongsheng, an investment attached to a 20-year crude oil supply deal with Rongsheng-controlled Zhejiang Petrochemical Corp. The deal closed in July at a valuation of \$3.4 billion. In September last year, Aramco announced plans to become a strategic investor in another private Chinese refiner Jiangsu Shenghong Petrochemical, which operates a 320,000 bpd refinery and petrochemical complex in the eastern province of Jiangsu. Aramco is also in talks to acquire a 10% stake in Shandong Yulong Petrochemical Co, which is building a refinery complex that can process 400,000 barrels of crude a day in eastern China's Shandong province. **22nd January 2024**

INDIA

- **Finalists in race for \$1 billion-plus offshore deals from India's ONGC**

Projects include the Daman upside gas development project and the eighth phase of the company's flagship pipeline replacement project offshore western India. Two leading offshore contracting players are competing for key engineering, procurement, construction and installation contracts from India's state-owned Oil & Natural Gas Corporation (ONGC) for work offshore the country's western coast. ONGC is targeting multiple offshore facilities over the next three years, with combined investments likely to be about \$11 billion. The Indian state giant recently said it is "embarking on an expedited development of multiple offshore fields" across the country's eastern and western coasts. **25th January 2024**

- **Linde to build US\$ 60 million new ASU for SAIL (indianchemicalnews.com)**

Expands industrial gases supply agreement with SAIL. Linde announced today it has expanded its existing long-term agreement for the supply of industrial gases with Steel Authority of India Limited (SAIL), one of the largest steelmaking companies in India. Linde currently supplies oxygen, nitrogen and argon to SAIL's Rourkela steel plant in Odisha, eastern India, from two on-site air separation units (ASUs), which are

operating at full capacity. Under the terms of the new agreement, Linde will now build, own and operate an additional 1,000 tons per day ASU, nearly doubling Linde’s on-site production at Rourkela. Linde’s investment is expected to be approximately \$60 million. Linde’s energy-efficient ASU will supply oxygen, nitrogen and argon to support SAIL’s expansion and modernization program at Rourkela. Expected to come online in 2026, Linde’s new facility will also supply industrial gases to Linde’s existing and new local merchant customers in the region. “We look forward to supporting SAIL’s expansion, building on our track record of safely and reliably supplying industrial gases across three major sites,” said Moloy Banerjee, President ASEAN & South Asia, Linde. “This investment will also enhance Linde’s local network density in Odisha, enabling us to meet demand for industrial gases in one of the fastest growing regions in India. **25th January 2024**

- **NTPC Green Energy to invest Rs. 80,000 crore for development of green hydrogen projects in Maharashtra**

NTPC Green Energy Limited (NGEL) has signed a Memorandum of Understanding (MoU) with Government of Maharashtra for development of Green Hydrogen and derivatives (Green Ammonia and Green Methanol) of up to 1 million Ton capacity per annum, including Pumped Storage Projects of 2 GW and development of renewable energy projects with or without storage up to 5 GW in the state. The MoU has been signed as a part of Government of Maharashtra’s Green Investment Plan for the next five years. The agreement envisages a potential investment of approximately Rs. 80, 000 crores. The MoU was exchanged on 29th January, 2024 between Chief Executive Officer, NGEL, Mohit Bhargava and Deputy Secretary (Energy), Government of Maharashtra, Narayan Karad in the presence of Chief Minister of Maharashtra Eknath Shinde; Deputy Chief Minister of Maharashtra, Devendra Fadnavis; and other senior officials. NTPC is on the path of building a renewable energy capacity of 60 GW by 2032. NGEL is a wholly-owned subsidiary of NTPC and aims to be the flag bearer of NTPC’s Renewable Energy journey with an operational capacity of over 3.4 GW and 26 GW in pipeline including 7 GW under implementation. **31st January 2024**

- **World on cusp of last big refining boom as India starts capacity expansion**

The world is on the cusp of what’s likely to be the last big refining boom as India embarks on a capacity expansion to accommodate the country’s rising thirst for fossil fuels. The South Asian nation has set in motion a building blitz at its oil refineries to raise production of traditional transport fuels such as gasoline and diesel, which could lift capacity by more than 20 per cent over the next five years. Rystad Energy puts the cost of additions at around \$60 billion. It’s a rare boost for a global refining industry that’s in a state of decline in the US and Europe, while China’s massive sector is adjusting to Beijing’s green goals after years of development made it a processing powerhouse. By contrast, India’s growing transport demand and the slower adoption of electric vehicles will keep appetite for gasoline and diesel higher for longer. Expansions in the West are non-existent,” said Giovanni Serio, Vitol Group’s head of research. “Expansions continue to be based in the areas where demand is growing. India is the one where we see the continuation of a trend of growth of over 200,000 barrels a day between now and the next four or five years.” India’s refining capacity is projected to increase by 56 million tons by 2028, Junior Oil Minister Rameswar Teli said last month, without elaborating. That equates to an overall capacity boost of 22 per cent, or 1.12 million barrels a day. The government has not provided details of how it will reach those lofty levels. By Bloomberg calculations, state-run refiners have announced about 50 million tons of expansions that could fit Teli’s timeline. Projects that account for almost 37 million tons have commissioning dates from 2024 to 2026, but completion of the remaining capacity remains unclear and includes planned additions that are under execution and a consideration stage. The biggest is at Indian Oil Corp.’s Panipat plant in Haryana state, which is adding 10 million tons and is due to be commissioned at the end of next year. Hindustan Petroleum Corp.’s new Barmer refinery in the northwestern state of Rajasthan is the next largest at 9 million tons. Development is expected to be completed in 2024, with the facility to run at full capacity by 2025. Smaller expansions are being conducted at the Visakhapatnam and Gujarat refineries, and the Barauni plant at Begusarai city in Bihar state. **31st January 2024**

INDONESIA

- **Independent tenders Indonesia field development aiming for 2025 start-up**

	<p>Indonesian independent Medco Energi has hit the streets with the main engineering, procurement, construction and installation contract for its Terubuk field development in the Natuna Sea offshore Indonesia. The company is looking to achieve production start-up in 2025 from Terubuk, which is located on its prolific South Natuna Sea Block B production sharing contract, while the Siput discovery on the same block is expected to follow suit the following year. Medco's latest Terubuk prequalification notice stated the successful contractor would be responsible for carrying out all of the work including project management, project services, coordination with the company and its other contractors, company supplied data verification, detailed engineering, procurement (excluding company furnished material), construction, installation, pre-commissioning, commissioning support and start-up support as required to perform the work and deliver the contract objects. Both sole contractors and consortia are eligible to bid for the EPCI contract which requires a minimum local content (known locally by the acronym of TKDN) of 55%. The operator is also prequalifying companies to supply the internal part of the gas production scrubber for the Terubuk project. Medco E&P Natuna operates the 11,155 square-kilometre South Natuna Sea Block B asset with a 40% interest on behalf of its partners Medco Daya Abadi Lestari having 35% and Prime Natuna on 25%. The current PSC is due to expire in 2028, so an extension will likely be needed to accommodate the upcoming new production. 23rd January 2024</p>
<p>JAPAN</p>	<ul style="list-style-type: none"> <p><u>Japan's JOGMEC gearing up to support new LNG projects</u> The Japan Organization for Metals and Energy Security is preparing to give financial assistance to Japanese companies for new LNG projects to ensure a stable supply of the fuel, its CEO said in an interview this week. Japan is the world's second-biggest importer of LNG after China passed it last year. The fuel makes up 34% of the country's electricity energy mix. State-owned JOGMEC has in the past provided financial support, mainly through equity investment, for many LNG projects, including Indonesia's Tangguh project, to help Japan secure a stable energy supply. "We have received several queries from Japanese companies regarding new LNG projects and we are preparing to decide on financial assistance," Ichiro Takahara, JOGMEC's chairman and CEO, told Reuters, without giving any details on project locations or companies involved. Resource-poor Japan aims to raise its self-sufficiency for oil and gas to more than 50% in 2030, from 33.4% in 2022, by boosting equity stakes held in overseas development projects. According to a budget request from the industry ministry, which oversees JOGMEC, Japan's investment in oil and gas exploration and asset acquisition is expected to double in the fiscal year starting in April to 108.2 billion yen (\$733 million), from 47.9 billion yen for the current year. 26th January 2024</p>
<p>MALAYSIA</p>	<ul style="list-style-type: none"> <p><u>PTTEP to spud key wildcat offshore Malaysia</u> Thailand's national upstream company PTTEP is due to imminently spud the Satong-1 wildcat on its prolific Block SK 405B offshore Sarawak, East Malaysia, where success could see the discovery being exploited as part of the operator's Sirung (southern cluster) project. The Satong-1 exploration well will be drilled by Noble Drilling's rig Noble Tom Prosser on an undisclosed dayrate. Drilling operations are expected take one month to complete. PTTEP is already progressing plans to exploit its Sirung and Chenda oil discoveries on Block SK 450B. Reservoir modelling and production projection studies are ongoing and pre-front engineering and design work is expected to soon commence for the proposed cluster development, which could come on stream in 2027. The shallow-water SK 405B production sharing contract is located approximately 137 kilometres off the coast of Bintulu, Sarawak, which is home to the Petronas LNG Complex. PTTEP has a 59.5% operated interest in the offshore block and its partners are Japan's Moeco (Mitsui) on 25.5% and Malaysia's national upstream company Petronas Carigali with 15%. The Noble Tom Prosser recently completed drilling of PTTEP's Lang Lebah-3 appraisal well, the second appraisal well on the company's Lang Lebah sour gas field on Block SK 410B, also offshore Sarawak. The Lang Lebah-3 well, which was completed last week, was drilled with tight hole status. 29th January 2024</p> <p><u>Shell and Petronas Carigali among winners in Malaysia award fest</u> Malaysia's national energy behemoth Petronas has awarded production sharing contracts (PSCs) for six exploration blocks and one discovered resource opportunities (DRO) cluster, which were offered under the</p>

	<p>Malaysia Bid Round 2023 (MBR 2023) and are expected to see combined investments totalling more than 1.3 billion ringgit (\$274.5 million) in exploration ventures alone. The seven new PSCs were awarded to national upstream company Petronas Carigali, Shell, Inpex, E&P Malaysia Venture (EPMV), Petroleum Sarawak Exploration & Production (PSEP), Jadestone Energy, SMJ Energy, Indonesia’s national oil company Pertamina and E&P O&M Services (EPOMS). This is a great start to 2024. The award of the seven PSCs from MBR 2023 is a testament to the investors’ confidence in Malaysia as a promising E&P investment destination,” commented Bacho Pilong, senior vice president of Malaysia Petroleum Management (MPM). “With these awards, all exploration blocks [in the] offshore Sarawak basin and Northwest Sabah basin have been fully licensed. Similarly in Peninsular Malaysia, we are pleased to see the ever-growing demand in its proven basins, which are supported by well-established and easily accessible infrastructure. Petronas said development of these resources is very much aligned with its efforts to ensure energy security and create a more sustainable upstream industry, underlying the group’s commitment to a lower carbon future. 25th January 2024</p>
SINGAPORE	<ul style="list-style-type: none"> <p><u>LTA awards further contract for CRL2</u> Singapore’s Land Transport Authority (LTA) has awarded the civil contract for the design and construction of Maju station and tunnels under Cross Island Line Phase 2 (CRL2) to KTC Civil Engineering & Construction Pte Ltd. The contract is valued at approximately S\$480m (£282.4m). KTC Civil Engineering & Construction, a Singapore company, previously constructed Tampines interchange station on the Downtown Line and Orchard Boulevard station on the Thomson-East Coast Line (TEL). It is currently in the finishing stage of the construction of TEL Sungei Bedok station. CRL Maju station is an underground station located along Clementi Road, situated near existing residential developments and educational institutions. The undulating terrain and mixed ground conditions are expected to make the works challenging. Earth retaining and stabilising structures will be built before excavation and construction works for station structures commence. Construction works for the station are expected to start in the second quarter of this year and passenger service for CRL Phase 2 is targeted to commence in 2032. 31st January 2024</p>
VIETNAM	<ul style="list-style-type: none"> <p><u>Jadestone, PV Gas agree to commercialise NDUM gas fields offshore Vietnam</u> The HoA specifies a daily contract of 80mmscfd under a take-or-pay arrangement over a targeted minimum plateau period of 55 months and demands an initial wellhead gas price that is comparable to the recent Vietnam pipeline gas imports. Singapore-based upstream oil and gas company Jadestone Energy has entered the initial step in the commercialisation of the Nam Du and U Minh (NDUM) gas fields offshore Vietnam. Jadestone has signed a Heads of Agreement (HoA) with PetroVietnam Gas Joint Stock (PV Gas) for the Gas Sales and Purchase Agreement (GSPA) relating to the NDUM fields. The Singaporean company currently owns 100% working interests in the NDUM fields, which are in Block 46/07 and Block 51 in shallow water offshore southwest Vietnam. HoA specifies a daily contract of 80mmscfd under a take-or-pay arrangement over a targeted minimum plateau period of 55 months, with the first gas expected in late 2026. It demands an initial wellhead gas price that is comparable to the price of recent Vietnam pipeline gas imports, subject to annual escalation. Jadestone president and CEO Paul Blakeley said: “Securing a signed Heads of Agreement is a crucial step which helps to restart the commercialisation of our Vietnam discoveries and regain momentum for the development of this very important asset within our portfolio. 29th January 2024</p> <p><u>Tokyo Gas establishes LNG-to-power project in Vietnam</u> Three companies from Japan and Vietnam have joined forces to establish a new LNG-to-power project offshore Vietnam. Japanese fuel majors Tokyo Gas and Kyuden have established a joint venture (JV) with Vietnam’s Truong Tan Vietnam Group to develop the project in the Thái Bình province in the north of Vietnam. The Thai Binh LNG Power (TBLP) JV will build and run a floating terminal for LNG imports off the coast of Thái Bình province, as well as a natural gas-fired power plant, with the aim of both procuring LNG and selling electricity to Vietnam Electricity Corporation. The planned natural gas-fired plant will have a capacity of 1.5 million kilowatts and commercial operations are due to start by 2029. This is Tokyo Gas’s</p>

second LNG-to-power project in Vietnam, having previously developed a similar onshore project with PetroVietnam in Quang Ninh province, due to come online by late 2027. The Su Tu (Lion) oilfield in Vietnam's portion of the South China Sea was Asia's fifth-largest producing oil field in 2022. Owned by Geopetrol, Korea National Oil, Perenco Holdings, SK Innovation Co and Vietnam National Oil and Gas Group, and operated by Cuu Long Joint Operating Co, the field produced 0.06 million barrels per day in 2022. **26th January 2024**

AFRICA

ANGOLA

- **Afentra updates LWI, drilling programs offshore Angola**
Afentra has issued an update on development plans for Block 3/05A offshore Angola, in which the company has a minority (5.33%) interest. Afentra has issued an update on development plans for Block 3/05A offshore Angola, in which the company has a minority (5.33%) interest. An extended production test continues at the Gazela Field, where operations were restored last March with the Gaz-101 well averaging 970 bbl/d through the remainder of 2023. The test is designed to will help determine the long-term resource potential and the development concept for the Caco-Gazela discovery. In addition, a seabed survey will be acquired over the Punja discovery to support planning for a future gas pipeline as part of a potential zero-flaring wellhead platform development. This year the partners in blocks 3/05A and 3/05 (Afentra 18%) plan a further light well intervention (LWI) campaign involving more than 30 activities. Water injection capacity should increase steadily with a view to doubling last year's average injection rate. Offshore Somaliland, Afentra has a 34% interest in the Odewayne Block, fully carried by operator Genel Energy. The partners have completed updated petroleum systems and satellite seep studies and are working on with borehole planning. **29th January 2024**

EGYPT

- **ENAP Sipetrol Egypt to invest \$70m in 2024 drilling plans**
ENAP Sipetrol Egypt will pump investments worth \$70 million during 2024, the company's Chief Executive and Managing Director Denisse Abudinén revealed in a meeting with Minister of Petroleum and Mineral Resources Tarek El-Molla. These investments will be directed to drilling four development wells and three exploratory ones in the Shahd, northeastern Shahd, and Al-Zahraa areas in the Western Desert, Abudinén explained. She also referred to the firm's execution of a sustainable energy initiative in the northern Ras Qattara region to reduce dependence on diesel and increase dependence on associated gases in generating electricity. Moreover, she announced the completion of the seismic search carried out in the Eastern Desert's West Amer block at an estimated cost of \$11.5 million, paving the way for starting drilling operations in the coming period. **31st January 2024**
- **Longitude Gets Subsea Engineering Job on Egypt's Burullus Gas Field**
Longitude Engineering, part of Oslo-listed ABL Group, has secured a contract to provide detailed design and engineering services for the subsea development of Phase-X at Egypt's West Delta Deep Marine concession, part of the Burullus Gas Field in the Mediterranean Sea. The West Delta Deep Marine (WDDM) concession is located approximately 90 kilometers offshore Egypt, on the north-western part of the Nile Delta. Significant gas volumes have been discovered in numerous fields and reservoirs. These reservoirs have been progressively developed to maintain current and future gas supplies to the Egyptian domestic market and the Egyptian Liquefied Natural Gas (LNG) plant. Burullus Gas Company is continuing the expansion of the WDDM facilities through the current phase of the development known as WDDM Phase-X. We are delighted to collaborate with PMS to provide the detailed design and engineering support for this deepwater project. We believe that the project highlights our ability to quickly develop and manage remote teams ensuring client expectations are met through the lifecycle of the project" said Daniel McGowan, Offshore Project Director at Longitude Engineering. **23rd January 2024**

NAMIBIA

- **Galp to Further Evaluate Extent of Mopane Oil Discoveries with Hercules Rig**

Portuguese oil and gas Galp has set out plans to drill another well using Odfjell Drilling-managed semi-submersible rig Hercules, after discovering significant column of light oil at Mpane-1x well in Namibia's PEL 83 block. Galp (80%, operator), together with its partners NAMCOR and Custos (10% each), has drilled, cored, and logged a deeper target (AVO-2) of the Mopane-1X well in block PEL83. In AVO-2, Galp has also discovered a significant column of light oil in reservoir-bearing sands of high quality. Earlier in January, the Portuguese oil and gas major reported the discovery of light oil in Mpane-1X well, following the initial report of preliminary signs of hydrocarbon presence at the site. The discovery was made using Odfjell Drilling-managed Hercules rig, which is expected to be relocated to the Mopane-2X well location to evaluate the extent of the Mopane discoveries, according to Galp. After the relocation, a Drill Stem Test (DST) is planned to be performed in Mopane-1X, the company said. Galp added it would continue to analyse the acquired data during the coming weeks to assess the commerciality of the discoveries. **26th January 2024**

AUSTRALIA

AUSTRALIA

- McDermott and Baker Hughes install subsea infrastructure for Inpex off Australia**
 A consortium of McDermott and Baker Hughes has completed the installation of subsea infrastructure for Inpex its gas field located offshore Australia. Awarded to the consortium in 2019, the subsea infrastructure development project for the Ichthys field included engineering, procurement, construction and installation (EPCI) of umbilicals, risers and flowlines (URF), a subsea production system comprised of a new seven-inch vertical Christmas tree system (VTX), all forming a subsea well gathering system (GS4) tied back to the existing Ichthys Explorer central processing facility. The companies' scope of work also included an in-fill URF EPCI involving the development of new subsea wells tied in to the existing gathering systems. Located about 220 kilometers offshore Western Australia and 820 kilometers southwest of Darwin, the Ichthys field covers an area of around 800 square kilometers in water averaging depths of around 250 meters. It is estimated to contain more than 12 trillion cubic feet of gas and 500 million barrels of condensate. **25th January 2024**
- Santos busts the budget at Barossa, start-up delayed**
 Australia's gas-focused Santos has finally admitted that the legal challenges that derailed work on its giant Barossa gas project have impacted both the budget and onstream date. Santos on Thursday said that it expects the project will require an additional US\$200 million to US\$300 million in capex, bringing the total investment for Barossa, including the Darwin Pipeline Duplication (DPD), to between US\$4.5 billion to US\$4.6 billion. Following judgement in Munkara v Santos NA Barossa, and [Australia's offshore regulator] NOPSEMA accepting the revised drilling and completions environmental plan, Santos as operator has revised cost and schedule for the Barossa project," the company stated. Santos added that first gas is now expected in the third quarter of 2025, rather than before the end of June that year as per the original schedule. The additional capital expenditure for Barossa will be incurred in calendar year 2025. Despite the cost increase and project delay, work is getting back on track and the Barossa project is now 66.4% complete. Following approval of the revised drilling and completions EP on 15 December, drilling has recommenced. Santos' 2024 guidance envisages production of between 84 million and 90 million boe, sales volumes in the range of 87 million to 93 million boe, capital expenditure sustaining including decommissioning of approximately US\$1.25 billion and capex for major projects including Santos Energy Solutions of around US\$1.6 billion. **25th January 2024**
- Bored tunnel approved for Sydney Harbour**
 The New South Wales planning authority has approved a bored tunnel under Sydney Harbour. The New South Wales Department of Planning, Housing and Infrastructure has approved the modification to the Western Harbour Tunnel Stage 2 project, changing the tunnelling method between Birchgrove and Waverton from an immersed tube tunnel to using TBMs. Acciona, which has the design and construction contract, said the decision marked a significant step forward to build Sydney's new harbour crossing in a way that significantly reduced the impact of construction on the community and environment. It is the first new road crossing of the harbour in over 30 years. The tunnel's twin three-lane motorways are expected

to reduce traffic on the Western Distributor by 35%, the harbour tunnel by 20% and the harbour bridge by 17%. Stage one, which is under way, involves creating the 1.7km southern section of the tunnel from Rozelle to Birchgrove and is expected to be complete next year. Stage two includes construction of the northern end of the tunnel, connections to the Warringah Freeway, tunnelling underneath Sydney Harbour and the complete tunnel fit-out. It is expected to take approximately five years. **31st January 2024**

EUROPE

AZERBAIJAN

- BP Launches Its ‘Largest-Ever’ Seismic Program at Azerbaijan Oil Field**
 BP has started a new four-dimensional (4D) high-definition ocean bottom node seismic program on its Azeri-Chirag-Deepwater Gunashli (ACG) oil field in the Caspian Sea, offshore Azerbaijan. This is the largest-ever seismic acquisition commitment made by BP globally by all its aspects – area size, cost and program duration, the company said. The program, which will focus on ACG’s Balakhany and Fasila reservoirs, will cover an area of 740 square kilometers under source and 507 square kilometers under receivers, with a total cost of around \$370 million and a duration of five years (2024-2028). The plan is to conduct five monitors over five years, utilizing ocean bottom nodes, one dual source vessel - the Murovdag, and one node vessel – the Guba. “By committing to this wide-scale seismic acquisition we aim to obtain comprehensive understanding of the reservoir’s architecture and fluid contact movements. “We hope the most up-to-date 4D technology to be used for this program will allow us to acquire further in-depth data about the reservoir helping us identify ways to minimize future well surprises and maximize the field recovery in the next decades,” said Roshni Moosai, BP’s vice president subsurface, Azerbaijan, Georgia and Türkiye region. ACG is the biggest oil field operated by BP, and to date more than 4.3 billion barrels (581 million tons) of oil have been produced from the field. **24th January 2024**

DENMARK

- Engineering firms collaborate on tunnel innovation**
 The three engineering companies are joining forces to develop state-of-the-art tunnel solutions focused on safe, reliable, and enduring mobility infrastructure underground. Engineering consultancies Royal HaskoningDHV, Witteveen+Bos and Ramboll are tier one providers of design services and consultancy for tunnel projects. They say the collaboration will enable them to provide “world class multidisciplinary consultancy and technical advisory for the whole asset life cycle for tunnels from early planning and feasibility, through to the final design, asset management and decommissioning planning and provisions. **25th January 2024**

GERMANY

- Shell to convert Wesseling refinery in Germany to produce base oils**
 Anticipated to begin operations in the latter half of this decade, the new base oil production unit is estimated to have a production capacity of approximately 300,000 tonnes per year. Shell Deutschland, a subsidiary of Royal Dutch Shell, has made a final investment decision (FID) to repurpose its German oil refinery in Wesseling to produce Group III base oils. As part of the initiative, the company will convert the hydrocracker of the Wesseling site located within the Energy and Chemicals Park Rheinland into a base oil production facility. The project will be funded by Shell’s chemicals and products division. The Energy and Chemicals Park Rheinland built near Cologne is made up of two sites, Wesseling and Godorf. According to

Shell, processing of crude oil will cease at the Wesseling site by next year. However, it will be continued at the Godorf site and the supply of fuel for the German market are expected to stay stable and secure, said the company. Currently, the Energy and Chemicals Park Rheinland can process more than 17 million tonnes of crude oil annually. Of this, the Wesseling site has been processing 7.5 million tonnes. The new base oil production unit is anticipated to commence operations in the latter half of this decade. Estimated to have a production capacity of approximately 300,000 tonnes per year, the facility is poised to meet about 9% of the present demand in the European Union (EU) and 40% of Germany's requirements for base oils. **29th January 2024**

- **Germany's SEFE seeks to expand natural gas business beyond Europe**

Fresh from clinching a \$54.43-B pipeline gas deal in Norway last month, Germany's SEFE is looking for more suppliers to offer LNG for its customers, its CEO told Reuters on Thursday. "We will continue to expand our core business. We will further diversify our procurement portfolio," CEO Egbert Laege said on the sidelines of a Handelsblatt conference in Berlin. SEFE is central to European energy supply security as it delivers 200 terawatt hours (TWh) per annum of natural gas to industry and onward distributors predominantly in Germany, Britain and seven other European markets, and operates big underground storage sites. The deal with Norway's Equinor covers half that sum. In its quest to replace the formerly dominant Russian supplier Gazprom, which suspended deliveries in 2022 amid the war in Ukraine, SEFE worked hard to keep other supplies on board, to find new sources and to gain prominence in LNG markets after being nationalized by the German government. "We managed to re-enter into business with all our trade partners, some of whom had suspended cooperation with us because the ownership was unclear," Laege said. This paid off financially, resulting in a "significant triple-digit million euro gross margin" in 2023, he said. In the future, the company will engage in more wholesale trading at European hubs. An LNG sourcing deal in August with Oman opened doors for further talks to procure gas in the Middle East, adding to ventures in the United States, and the intention was also to place volumes in overseas markets in a supplier role, Laege said. **25th January 2024**

ITALY

- **Another Major Announces Conversion of European Oil Refinery**

Italy's Eni said on Monday it would convert its refinery in Livorno into a biofuels-making facility in a second announcement of an upcoming closure of a European oil refinery in less than a week. The Italian energy major confirmed today its decision to build Italy's third bio-refinery in Livorno. The project was first announced in October 2022 and was followed by an application for Environmental Impact Assessment (EIA) in November 2022. The plan to make hydrogenated biofuels awaits official authorization and includes the construction of three new facilities for the production of a biogenic feedstock pre-treatment unit, a 500,000 tons/year Ecofining plant, and a facility to produce hydrogen from methane gas. Currently, Eni produces gasoline, diesel, jet fuel, sustainable aviation fuel (SAF), and lubricants at the Livorno site. The conversion of the refinery into a biofuel refinery would make Livorno Eni's third such site in Italy after Porto Marghera and Gela. Eni has stopped importing crude oil and initiated the shutdown of the lubricants production lines and Topping plant at Livorno, in line with its decision to convert the refinery to biofuels. Fuel distribution in the area will be guaranteed through the import of finished and semi-finished products, the Italian major said. Preparatory work for the construction of the three new bio-refining plants is underway, with construction to commence following regulatory approval. Completion and commissioning are expected by 2026. **29th January 2024**

- **Avista signs new renewable natural gas contract**

In October 2022, Avista released a request for proposal (RFP) to secure RNG resources for its customers over the long term. Avista recently signed an agreement with Pine Creek RNG ("Pine Creek") to purchase renewable natural gas ("RNG") to be produced at the Quad Cities Landfill in Milan, IL. The Quad Cities Landfill is owned by Millennium Waste Incorporated, a subsidiary of Waste Connections. In October 2022, Avista released a request for proposal (RFP) to secure RNG resources for its customers over the long term. RNG is derived from organic waste streams that would otherwise release methane to the environment as they decompose. These sources include, for example, landfills, wastewater treatment plants and food

waste. RNG is produced by capturing that methane that would otherwise escape to the atmosphere and purifying it to make it very similar to conventional natural gas. This latest contract marks Avista's fourth with Pine Creek. Previous RNG projects include the Horn Rapids Landfill in Richland, Washington, Bayview Landfill in Elberta, Utah, and the Black Hawk Landfill in Waterloo, Iowa. Construction on the Milan, Illinois project is expected to be complete by the end of 2024 and produce 3 million therms of RNG annually. **30th January 2024**

NORWAY

- **Norway's DOF Group wins Philippines subsea prize**

Norway's DOF Group has secured an extension from Prime Energy Resources Development for its multipurpose platform supply vessel (MPSV) Skandi Hawk to the end of 2027. DOF has been providing MPSV and subsea services to Prime Energy (formerly Shell Philippines Exploration) in support of the Malampaya gas field operations offshore Philippines since April 2015, and subsea support and IRM services for 13 years prior to that. An agreement has now been reached to extend the existing contract including project management and engineering services, subsea inspection, repair and maintenance (IRM) services, and the MPSV Skandi Hawk from February 2024 until 31 December 2027 in support of the continued operation and growth of the Malampaya field operations. **26th January 2024**

- **Nextchem (Maire) bags licensing and design contract for Norsk's e-fuel plant**

The contract is related to the development of an industrial scale plant to produce sustainable aviation fuel (SAF) from green hydrogen and CO2 in Mosjøen, Norway. MAIRE announces that NEXTCHEM (Sustainable Technology Solutions), through its subsidiary NextChem Tech, has signed a contract with Paul Wurth, a subsidiary of SMS group (Paul Wurth), and Norsk e-Fuel AS (Norsk e-Fuel) for a licensing and engineering design package relating to NX CPO to be applied in the first industrial scale plant able to produce SAF from green hydrogen and biogenic CO2 in Mosjøen, Norway. This will be the first factory being developed by Norsk e-Fuel AS a Norwegian project developer backed by a strong shareholder group including among others Paul Wurth. NextChem Tech will apply its proprietary NX CPO technology, an advanced innovative process to produce synthesis gas via a controlled partial oxidation, through a very fast reaction. When applied to synthetic fuel production, this versatile technology is contributing to improve carbon efficiency recovery yield. **31st January 2024**

- **Vissim gets contract on oil spill monitoring for Repsol**

The new and upgraded radar-based oil spill detection solution will be installed on the Inspirer jack-up rig that is installed on the Yme oil field, which is located in the Central North Sea approximately 160 kilometres northeast of the Ekofisk field. Vissim has been awarded a contract by Repsol Norge AS (Repsol) to implement an upgraded oil spill detection system at the operator's Yme field on the Norwegian continental shelf (NCS). The new and upgraded radar-based oil spill detection solution will be installed on the Inspirer jack-up rig that is installed on the Yme oil field, which is located in the Central North Sea approximately 160 kilometres northeast of the Ekofisk field. Repsol has utilised Vissim's systems for many years. We have first-hand witnessed the company's dedication to not only comply with rules and regulations, but also push for improved environmental monitoring solutions. This latest contract is proof of the latter, says Håvard Odden, director of Vissim's North Sea operations. **29th January 2024**

- **Norway to add more Arctic acreage for oil and gas drilling**

Norway plans to add another 37 blocks to its annual so-called pre-defined areas oil and gas licensing round in the Norwegian Sea and the Barents Sea, the country's energy ministry said in a statement on Wednesday. In total, 34 of the new blocks were located in the south-east Barents Sea, while the remaining three were in the Norwegian Sea. "Access to new, attractive acreage is a cornerstone of the government's policy to develop the (oil and gas) industry further," the country's Energy Minister Terje Aasland said. The latest expansion of APA areas, which today cover more than two-thirds of the total area on the Norwegian continental shelf, where commercial oil and gas drilling is allowed, is down from 92 blocks added in the previous round, APA 2023. Earlier this month the government awarded 62 exploration permits to 25 oil

and gas companies in APA 2023, but only three Norwegian companies - Equinor ENQR.OL, Aker BP AKRBP.OL and Vaar Energi VAR.OL - showed an interest in the Barents Sea. **31st January 2024**

POLAND

- **Jenbacher engines to power Poland's largest gas-fueled power plant, replacing coal power**
INNIO Group announced that five Jenbacher J920 FleXtra engines will power a 50 MWe combined heat and power project in Bydgoszcz, Poland, for PGE Energia Ciepła S.A. The five Jenbacher CHP units - generating a total of 52.6 MWe - each will consist of a steam generator, a turbocharger, and an auxiliary module. Additionally, under a 10-year service agreement with PGE, the Jenbacher team will provide maintenance and assembly work, as well as start-up and operator training. The "Ready for H2" CHP plant will be fueled with gas, replacing coal-fueled power plants that are currently in use. The Jenbacher team will work with engineering and construction firm Polimex Mostostal S.A. and its subsidiary Polimex Energetyka Sp. z o.o. to implement the design, construction, installation and all other aspects of the building process to construct the turnkey cogeneration power plant, electrode water boiler and standby/peak boiler. The Bydgoszcz CHP facility will be the largest gas-fueled power plant using "Ready for H2" engines to replace a coal-fired power plant in Poland. The CHP plant supports the central aspect of Poland's energy policy of reducing reliance on coal, especially for electricity generation and district heating. The facility marks the first Jenbacher J920 FleXtra project in Poland and is an important milestone for INNIO Group in Poland. **31st January 2024**

UKRAINE

- **Construction of four new nuclear reactors in Ukraine in the pipeline**
Construction of four new nuclear reactors in Ukraine in the pipeline. Plans are underway for the construction of four new nuclear reactors in Ukraine starting in the summer or fall of 2024. The reactors will be built at the Khmelnytskyi Nuclear Power Plant in Netishyn, Khmelnytskyi. Khmelnytskyi Nuclear Power Plant was designed to be a four-unit nuclear reactor power plant. However, only two of its four reactors (Reactors 1 and 2) each of which can generate 1000MW of electricity are operational. Construction of the first reactor started under the Soviet Union back in 1981 while the construction of the second reactor started two years later in 1983. The first unit was put into operation in 1987 and the second unit was expected to come online four years later in 1991. However, a year before 1991, construction of the second reactor was stopped following the Chernobyl disaster. Reportedly, the disaster resulted in public mistrust and consequently suspension of the construction of the new facilities. The construction of the second unit resumed in 1993 after the moratorium was lifted. It was completed in August 2004 and in September 2005 it began commercial operations. **30th January 2024**

UK

- **UK's next big offshore redevelopment project takes decisive step**
Owners Neo Energy and Jersey Oil submit Buchan environmental statement. The co-owners of the UK's third-largest undeveloped offshore oil resource have started the process of gaining environmental approval for a project with an electrification-ready floating production, storage and offloading vessel. Operator Neo Energy and its joint venture partner Jersey Oil & Gas submitted the Buchan redevelopment project's environmental statement to the UK regulator on 16 January 2024. The partnership has agreed to purchase the Western Isles FPSO to use in UK Blocks 20/5 and 21/1 in the Central North Sea, about 115 kilometres north-east of the Aberdeenshire coastline. **23rd January 2024**
- **Sea Lion roars: Falkland Islands' first project picks up speed**
The first-ever offshore oil and gas project in the Falkland Islands is gathering momentum under the guidance of a new operator with a revised and more modest development plan and an optimistic project sanction target. The Sea Lion project can potentially have significant scale, and could be the starting point for the development of other discovered oil deposits in the North Falkland basin, which has an updated certified gross best estimate resource of 791 million barrels of oil. The Sea Lion joint venture partnership of operator Navitas Petroleum and Rockhopper Exploration believe the long-term potential for the North

Falkland basin could see up to three floating production, storage and offloading vessels with a total production of about 200,000 barrels per day of oil. **30th January 2024**

- **Government consultation could boost UK pumped hydro storage**

SSE, the energy company responsible for the Coire Glas pumped hydro project in Scotland, has welcomed the UK government's consultation on how it intends to support the deployment of long-duration electricity storage projects. The consultation announcement, made by the Department of Energy Security and Net Zero (DESNZ), delivers on a commitment in last year's British Energy Security Strategy to have a policy in place to enable private investment in long-duration electricity storage projects by the end of 2024. SSE says the move is a positive step in the continuing development by SSE Renewables of the Coire Glas project at Loch Lochy in the Scottish Highlands, where exploratory works are ongoing. Subject to being successful in the administrative allocation of an investable cap and floor mechanism, SSE Renewables hopes to make a final investment decision on Coire Glas in late 2025 or early 2026, allowing for main construction to commence in the second half of 2026. Construction is expected to last up to seven years. In May last year, SSE announced it was providing a £100m boost for the project, with around half allocated to the project's pre-construction refinement phase, including site investigation works. Coire Glas is expected to require a capital investment of more than £1.5bn. **30th January 2024**

- **Tunnelling under way on Northern Ireland water project**

A 1.8m diameter TBM has started work on NI Water's wastewater network upgrade in Portadown, Northern Ireland. The TBM will dig around 385m of the new sewer under Meadow Lane, allowing the road to remain open during tunnelling works. "By employing innovative trenchless pipelaying techniques, our contractor BSG can install the new larger diameter sewer without any impact to motorists or pedestrians in the Meadow Lane area of Portadown," said NI Water. The tunnelling works are due to be completed by the summer. At the centre of the £7.8m network upgrade is the construction of a new wastewater pumping station which includes a 20m diameter underground storage tank capable of holding 1.5 million litres of stormwater. NI Water said the new infrastructure would support economic growth and future development in the area and deliver important environmental benefits for the community, including reduced risk of out-of-sewer flooding and improved water quality in local watercourses through the closure of storm overflows. **23rd January 2024**

NORTH & SOUTH AMERICA

BRAZIL

- **Bauna woes continue for Karoon offshore Brazil**

Australian operator Karoon Energy's woes at its Bauna oilfield project offshore Brazil are not yet over, despite the company last week successfully completing remediation work on the Cidade de Itajai floating production, storage and offloading vessel. Even so, the operator within weeks could elect to progress the exploitation of its Neon oilfield either as part of the Bauna development or as a standalone project. Bauna produced a record 5.38 million barrels of oil last year Karoon's guidance had been between 4.5 million and 6 million barrels however output towards the end of the fourth quarter was impacted by operational issues related to the gas lift dehydration unit on the FPSO. While remediation of the topsides and downhole hydrate issues was completed on 20 January, a deeper mechanical blockage was identified in the SPS-88 well, which will require a well intervention to replace the gas lift valve. The Bauna project has a dozen subsea wells including two at the Patola satellite field that came on stream in 2023 and it currently produces via the Cidade de Itajai that can handle around 80,000 bpd of oil and has crude storage capacity of more than 600,000 barrels. The company in the fourth quarter of 2023 spent US\$60 million relating to Bauna's production costs, including US\$13.2 million on FPSO lease charter payments and US\$21.9 million on royalties and other government take. As of 31 December 2023, Karoon had a net debt position of US\$103.7 million, which comprised US\$170.4 million in cash and cash equivalents, and US\$274.1 million of drawn debt. **29th January 2024**

- **SLB helps Equinor platform achieve fully autonomous drilling operations**

	<p>SLB and Equinor report they have drilled the most autonomous well section to date at the Peregrino C platform offshore Brazil. LB has made a significant step toward fully autonomous drilling operations at Equinor's Brazilian Peregrino C platform. SLB digital technologies for surface automation, autonomous on-bottom drilling, and directional drilling were combined to enable 99% of a 2.6-km section to be drilled in autonomous control mode. Over a five-well program, a 60% increase in rate of penetration was achieved, resulting in faster well delivery while reducing cost and carbon emissions, according to SLB. The DrillOps and DrillPlan tools are cloud-based applications on the Delfi digital platform. The platform is designed to combine apps, AI, physics-based science and free-flowing data to accelerate and improve exploration, development, drilling, production and new energy operations. 31st January 2024</p>												
<p>MEXICO</p>	<ul style="list-style-type: none"> <p><u>Seadrill Secures \$97.5M in New Drillship Contracts</u> Offshore drilling contractor Seadrill has secured multiple contract awards totaling approximately \$97.5 million for its West Vela and West Cappella drillships, announcing also it would resume management services for its West Auriga drillship earlier than expected. Talos Production has awarded the West Vela a contract with an estimated duration of 150 days in the U.S. Gulf of Mexico. The contract is expected to start in the third quarter of 2024 and represents a total contract value of approximately \$73.5 million, excluding managed pressure drilling (MPD) services. The West Vela is a 7th generation ultra-deepwater dual activity drillship with operational history in the U.S. Gulf of Mexico, built by Samsung Heavy Industries in 2013, and capable of operating at 12,000 ft water depth with maximum drilling depth of 37,500 ft. The operator of the West Capella exercised a one-well option with the existing third-party manager, extending its operations by approximately two months. The contract is in direct continuation of the rig's current program and represents a total contract value of approximately \$24 million. In December 2023, Mubadala Energy made a significant gas discovery from the Layaran-1 Exploration well, drilled in South Andaman, offshore North Sumatra in Indonesia using the West Capella drillship. Later in the month, Harbour Energy started drilling the Gayo-1 exploration well in the Andaman II block using the drillship. 30th January 2024</p> 												
<p>USA</p>	<ul style="list-style-type: none"> <p><u>Commonwealth LNG Terminal, Louisiana, USA</u> The Commonwealth liquefied natural gas (LNG) export terminal is expected to start operations in 2027.</p> <table border="0"> <tr> <td>Project Type</td> <td>LNG export facility</td> </tr> <tr> <td>Location</td> <td>Cameron, Louisiana, Gulf of Mexico, US</td> </tr> <tr> <td>Operator</td> <td>Commonwealth LNG</td> </tr> <tr> <td>Start of Construction</td> <td>H1 2024</td> </tr> <tr> <td>Capacity</td> <td>9.3 million metric tonnes per annum (Mmtpa)</td> </tr> <tr> <td></td> <td>Expected Commissioning</td> </tr> </table> <p>The pre-filing process for the project commenced in July 2017 with the application to build, construct and operate the facility submitted to the Federal Energy Regulatory Commission (FERC) in August 2019. Subsequent amendments were made to the application in July 2021. The FERC granted approval to proceed with the project in November 2022. The final investment decision for the project is anticipated in the first quarter of 2024. The terminal is expected to have an export capacity of 9.3 million tonnes per annum (Mtpa) of LNG. Construction activities at the project site are scheduled to begin in the first half of 2024, with commercial operations scheduled to start in 2027. Project location The Commonwealth LNG terminal will be developed in south-central Cameron Parish, Louisiana, on the west bank of the Calcasieu ship channel in the Gulf of Mexico. The terminal's infrastructure will encompass an area of 118.8 acres. 26th January 2024</p> <p><u>GATE Energy wins commissioning contract for Shenandoah FPS project</u> The scope of works under the contract includes final pre-commissioning and commissioning planning and execution works for the US portion of the Beacon Shenandoah FPS project, following sail away from South Korea. GATE Energy, a provider of commissioning and start-up services in the energy sector, has secured a commissioning contract for the US portion of the Beacon Shenandoah FPS project. The company's scope</p> 	Project Type	LNG export facility	Location	Cameron, Louisiana, Gulf of Mexico, US	Operator	Commonwealth LNG	Start of Construction	H1 2024	Capacity	9.3 million metric tonnes per annum (Mmtpa)		Expected Commissioning
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of works under the contract includes final pre-commissioning, commissioning planning, and execution following sail away from South Korea. The deepwater Shenandoah field is located in the Gulf of Mexico, in the Walker Ridge blocks around 230 miles (370km) from New Orleans. Shenandoah is a conventional oil development located in ultra-deepwater in the US, operated by Beacon Offshore Energy in partnership with Navitas Petroleum and HEQ Deepwater. Discovered in 2009, the field lies in the Walker Ridge 51, Walker Ridge 52, and Walker Ridge 53, at a water depth of around 5,900ft. **30th January 2024**

- **Aecom joint venture to support delivery of New York water project**

An Aecom joint venture has been selected to provide inspection services for New York's Kensico – Eastview Connection project. Appointed by the New York City Department of Environmental Protection (NYCDEP), the joint venture will oversee the delivery of the Kensico Third Conveyance Tunnel, which will supply water from the Kensico Reservoir, 24km north of New York City, to the Catskill-Delaware Ultra Violet (CDUV) Disinfection Facility in Eastview, New York. Designed to carry 9 billion litres of water a day, the third conveyance tunnel will provide an increased water flow into the CDUV before it is delivered to New York City residents. The tunnel will provide more efficient movement of water and ensure the city has a reliable back-up in the event of a disruption to its existing supply routes. The joint venture will supervise three concurrent teams to complete the project. The first team will oversee the delivery of the 3.2km-long, deep rock tunnel. The second team will build the new facilities and connection to the tunnels and the existing CDUV facility in Eastview. With the connection to the Eastview UV Facility through an additional hydraulic link, the New York City water supply system will be better protected should the Delaware Aqueduct become unavailable. **29th January 2024**

Mailing address is:

info@gerabgroup.com

Gerab National Enterprises L.L.C.

PO Box 17719, Jebel Ali Free Zone

Dubai, United Arab Emirates

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