

GERAB

BULLETIN

Weekly News



EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent prices are trading higher by 5% WTD and Crude Oil WTI prices are trading higher by 6% WTD and they are trading lower by 30% and 32% respectively than a year ago.
- Coal prices are in downtrend and trading lower by 60% 6MTD but is trading lower by 49% than a year ago prices.
- Steel HRC (FOB China) prices in uptrend and trading higher by 13% 6MTD.
- Steel HRC(North America) prices are in uptrend and is trading higher by 42% 6MTD
- Natural Gas prices are in downtrend and is trading lower by 12% YTD

The Currency summary

- Euro has gained strength against USD and is stronger by 11% 6MTD
- The US Dollar to CNY is stronger by more than 9% YTD

The Rig count summary

- The Rig counts in Europe have gone down by 6% MTD and the rig counts in North America have gone down by 8% MTD.

Project summary

- ADNOC L&S signs \$2.6 billion contract for new logistics platform project
- Oman offers three oil and gas blocks in latest licensing round
- Technip Energies secures contract for Aramco's Riyadh refinery upgrade
- MHI awarded seven year long term service agreement for 400MW combined cycle power plant in Bangladesh
- Air Liquide to modernize oxygen production units in Tianjin
- IndianOil gets stage-I approval for \$740m Paradip petrochemical complex
- Aether Industries to invest Rs 1000 crore on setting up new manufacturing plant
- Middle East to launch over 600 oil and gas projects until 2027
- African banks invest \$16 billion in oil and gas projects - Oil & Gas Middle East
- Technip Energies Consolidates Namibia's Diverse Energy Mix with Multi-Project Developments
- McDermott wins FEED contract for Shell's gas project offshore Trinidad & Tobago

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	10,274.77	-1.32	-2.60	1.49	6.08	-9.70
Coal	USD/MT	194.56	1.44	-20.10	-55.99	-59.80	-48.63
Cobalt	USD/MT	35,803.07	1.82	2.30	-18.99	-35.55	-56.69
Copper	USD/MT	8,945.00	2.26	-0.44	6.19	16.63	-12.43

Crude Oil	USD/BBL	76.15	5.76	-4.99	-2.75	-13.19	-31.07
Crude Oil Brent	USD/BBL	78.73	5.44	-5.60	-2.48	-13.47	-30.12
Crude Oil WTI	USD/BBL	73.57	6.12	-4.33	-3.03	-12.88	-32.07
Iron Ore	USD/MT	126.01	-1.56	1.01	14.69	27.77	-16.49
Molybdenum	USD/MT	66,216.15	-5.57	-18.60	24.73	80.45	56.60
Natural Gas	USD/MCF	2.09	-11.98	-98.46	-66.02	-74.46	-59.19
Nickel	USD/MT	23,760.00	5.72	-12.58	-18.52	1.72	-36.02
Steel HRC (FOB China)	USD/MT	650.50	-0.23	1.96	13.22	13.26	-24.50
Steel HRC (N. America)	USD/MT	1,254.24	0.00	39.80	75.48	41.89	-0.54
Steel Rebar	USD/MT	663.98	-0.09	0.65	9.12	8.30	-22.93
Steel Scrap	USD/MT	435.00	-1.14	-1.06	13.47	20.62	-32.49

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	1.0829	-0.01	2.39	1.19	10.48	-2.96
USDCNY	1 USD to CNY	China	CNY	6.9053	-1.12	0.70	0.25	3.31	-8.56

Source- Trading Economics

CRUDE OIL STOCK

Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,08,878.00	-0.66	-1.30	1.98	-1.74	-5.75

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	29.47	USD	4.43	-2.58	12.40	48.02	-10.32
Glencore PLC	465.55	GBP	3.09	-6.02	-15.72	-2.64	-7.02
NYSE American Steel Index	1,857.06	Index	3.53	-6.23	7.28	35.35	-7.01
Rio Tinto PLC	5,393.00	GBP	1.99	-5.58	-6.99	10.15	-11.24
Tenaris SA	28.61	USD	1.67	-13.33	-18.63	10.72	-6.04
Tubacex SA	2.37	EUR	-0.84	-3.27	18.50	20.92	30.22
Woodside Energy Group	33.75	AUD	3.56	-6.02	-4.77	6.60	3.72

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	53	*	1.92	3.92	6.00	55.88
GCC	217	*	1.88	-2.69	6.90	16.04
Middle East	322	*	2.22	-1.53	5.23	12.20
Africa	86	*	1.18	3.61	21.13	14.67
Asia-Pacific	188	*	-1.05	0.00	3.30	5.03
Europe	103	*	-5.50	8.42	6.19	9.57
Latin America	181	*	6.47	-2.16	5.85	19.08
North America	920	-3.97	-7.54	6.85	-5.74	13.86
Total	1,800	*	-3.43	3.51	-0.17	12.85

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE

- UAE player awards prized five-year FPSO services contract for Norwegian veteran**
 Operations and maintenance contract is valued at around \$20 million, with a primary term of five years. United Arab Emirates-based Svetah Energy Infrastructure has awarded an operations and maintenance contract for a key floating production storage and offloading vessel to be deployed off India's east coast. India's Asian Energy Services Limited (AESL) said it has received a Letter of Award (LoA) from Svetah Energy for work on the Svetah Venetia FPSO, which will be deployed at the CY-OS-90/1 (PY- 3) offshore field. The estimated value of [the] LoA is around \$20 million. The primary term is proposed to be five years commencing from the date of readiness of Svetha Venetia to receive hydrocarbons from PY-3 field," AESL stated. The floater has a processing capacity of 57,000 barrels per day of crude, 53 million cubic feet per day of gas, and a water handling capacity of 25,000 bpd, along with storage capacity of 437,000 barrels, Upstream understands. While initial oil production from PY-3 is expected to be relatively lower, output is expected to be scaled up in the next year or two with the addition of an incremental well and further exploration, industry sources said. **27th March 2023**
- Adnoc kicks off drilling operation to turn carbon dioxide into rock**
 The state giant confirmed that drilling has commenced for the pilot project, which is seen as a key enabler of its energy transition plans. Abu Dhabi National Oil Company (Adnoc) has initiated a drilling campaign at Fujairah for a project that plans to turn captured carbon dioxide into rock. Adnoc confirmed in a social media post that drilling has commenced for the pilot project, which is seen as an enabler of energy transition plans that propose abatement of emissions from fossil fuels on a huge scale. Adnoc said earlier this year said that it has partnered with compatriots Fujairah Natural Resources Corporation, Abu Dhabi Future Energy Company (Masdar) and Oman-based technology company 44.01 on the innovative project. Award-winning solution The emirati state giant said the project envisages taking CO2 from the atmosphere, mixing it with seawater, and further injecting it into peridotite rock formations underground. **29th March 2023**
- ADNOC L&S signs \$2.6 billion contract for new logistics platform project**
 ADNOC Logistics & Services (ADNOC L&S) has signed a \$2.6 billion contract with ADNOC Offshore to provide integrated logistics services for its new Integrated Logistics Services Platform (ILSP), one of the largest turnkey offshore logistics offerings in the world that is expected to coordinate end-to-end management of logistics and maritime operations at its base in Mussafah, Abu Dhabi. The agreement with ADNOC Offshore runs for five years, with the option of a five-year extension, and includes the provision of port services, warehouse operations, heavy lifting, material handling and shipping, rig and barge moves, marine terminal operations and waste management services. Captain Abdulkareem Al Masabi, CEO of ADNOC L&S,

said: “We are very pleased to extend our decades’ long collaboration with ADNOC Offshore as we unveil our ILSP and continue to revolutionize offshore oil and gas logistics. The ILSP is a unique offering that centralizes all logistics requirements for our customers through a single interface, optimizing efficiencies and reducing logistics costs. **30th March 2023**

- **Eni, ADNOC Ink MOU to Explore New Opportunities in Decarbonization**

Claudio Descalzi, Eni Chief Executive Officer, and his Excellency Dr. Sultan Ahmed Al Jaber, UAE Minister of Industry and Advanced Technology and ADNOC Managing Director and Group CEO, signed a Memorandum of Understanding (MoU) which outlines a framework of cooperation for future joint projects on energy transition, sustainability and decarbonization. The MoU was signed in the presence of the President of the Council of Ministers, Giorgia Meloni, and His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the United Arab Emirates. Through this agreement, Eni and ADNOC will explore potential opportunities in the areas of renewable energy, blue and green hydrogen, carbon dioxide capture and storage (CCS), in the reduction of greenhouse gas and methane gas emissions, energy efficiency, routine gas flaring reduction and the Global Methane Pledge, to support global energy security and a sustainable energy transition. **27th March 2023**

KUWAIT

- **Axens awarded New Contract in Kuwait**

Axens announced in a statement that, its, HySWEET Technology selected by SPETCO International Petroleum Co. Kuwait and Jereh for the acid Gas Removal Units of two new Gas Treatment plants in Kuwait. Axens is supplying the process design packages for the gas treatment of two Gas Plants located in North Kuwait, which EPC are managed respectively by SPETCO and Jereh. Axens licenses two HySWEET™ units for the acid gas removal, as well as two Smartsulf® units for the sulphur recovery and two TEG units for gas drying. The units for both gas plants are now under process design phase and the plants will be commissioned in early 2024. Each HySWEET™ unit will treat 163.4 MMSCFD of gas to remove the acid gases including H₂S, CO₂, COS and mercaptans to meet sales gas specifications. HySWEET™ is a hybrid process for simultaneous removal of mercaptans and acid gases from natural gas, developed by TotalEnergies and commercialized by Axens. It is based on the selection of the most suitable nonproprietary physical solvent for blending a variety of commercial amines (DEA, MDEA, formulated MDEA). **29th March 2023**

OMAN

- **Oman offers three oil and gas blocks in latest licensing round**

Oman is offering three oil and gas concession areas, Blocks 15, 36 and 54, for investments by local and international local companies, the Ministry of Energy and Minerals said on Sunday. The offering is open between March 26 and June 25, according to the statement published on Twitter. Block 15 is located in the Sultanate of Oman’s northern oil province. “Tight gas is the predominant play within Block 15,” the ministry said. Over its history, Block 15 has had several owners including Petroleum Development Oman (PDO). Other companies which have owned this block are: Hydrocarbon Finders Oman E & P, Tethys Oil (Oman) Limited, Novus Oman Limited, Indago Petroleum and Conquest Exploration Oman Inc. Meanwhile, Block 36 which covers 18,625 sqkm area, is located along the border with the Kingdom of Saudi Arabia and the Republic of Yemen and is at the South-Eastern edge of the Eastern Rub al Khali basin, one of the most prolific oil and gas basins in the world. To the south of block, in neighbouring block 38, the Rub al Khali basin is terminated against the Ghudun high that runs from NE to SW and separates the Rub Al Khali from the Southern Oman Salt basin. **28th March 2023**

- **Worley commences work on Framework Bridging Agreement with ENOWA for Desalination and Brine Beneficiation Facilities**

The water infrastructure projects will be powered by renewable electricity, and the desalination process will not discharge any brine into the sea. Under the agreement, Worley will provide engineering and advisory services to ENOWA for the water supply infrastructure that will deliver up to two million cubic meters of desalinated water per day to NEOM, located in the North-West of Saudi Arabia. The project scopes relate to water production, brine beneficiation, management, and storage. These water infrastructure projects will be powered by renewable electricity, and the desalination process will not discharge any brine into the sea. This will help reduce negative environmental impacts on the Red Sea's fragile ecosystem. **23rd March 2023**

- **Hyundai E&C begins the Construction of Aramco's Shaheen Project**

Hyundai Engineering & Construction (Hyundai E&C) and Hyundai Engineering (Hyundai ENG) broke ground for the Shaheen Project, which aims to build the largest petrochemical facility in the history of the South Korean petrochemical industry, while announcing the project's official kick-off. The Shaheen Project is a project in which S-Oil invests 9.26 trillion won to build a high value-added petrochemical production facilities. It is the largest investment in South Korea of Aramco, S-Oil's largest shareholder and Saudi state-run oil and natural gas company, and the goal is to high value-added petrochemical products such as polyethylene (PE) through large-scale facilities including the world's largest Steam Cracker Complex*, where TC2C* technology was first introduced. Hyundai E&C is the project lead and will work with Hyundai ENG, Lotte E&C, and DL E&C on the construction. The project, which fully began construction through a groundbreaking ceremony on February 9 following a signing ceremony between the project owner and the participating consortium companies on February 22, is scheduled for completion in 2026. The construction will be divided into three packages: Hyundai E&C will carry out Package 1 with Hyundai ENG, DL E&C to build steam cracker and TC2C facilities. Package 2 for installing HDPE (high-density polyethylene), LLDPE (linear low-density polyethylene) production facilities and automated warehouses will be led by Hyundai ENG and Lotte E&C, and Package 3 for tank construction will be in charge of Lotte E&C. **24th March 2023**

- **Sinopec says will actively explore opportunities in Saudi Arabia**

Sinopec Chairman Ma Yongsheng made the remarks without elaboration. Hong Kong - Top Asian oil refiner Sinopec said on Monday it will actively explore opportunities in Saudi Arabia, where the state oil and gas major already owns a refinery stake. Sinopec Chairman Ma Yongsheng made the remarks without elaboration during a press briefing after the company announced a 6.9% decline in net profit last year. **27th March 2023**

- **Forum Energy Technologies Awarded \$25m Contract to Provide Desalter Systems to Saudi Aramco**

Forum Energy Technologies, Inc., USA announced in a statement that it has been awarded an approximately \$25 million contract to design, engineer, and supply four electrostatic desalter systems for an onshore project at the Safaniyah oil field, Kingdom of Saudi Arabia. The desalter systems will utilize FET's EDGETM desalting technology, ForuMixTM high efficiency multiphase mixer technology, as well as in-house manufacturing capabilities at FET's facility in Dammam, Saudi Arabia. Neal Lux, President and Chief Executive Officer, remarked, "This award demonstrates the value FET provides through its extensive technology portfolio and global reach. Building on our technologies' successful track record, we are pleased to be working with Saudi Aramco on another important project." FET is a global company, serving the oil, natural gas, industrial and renewable energy industries. FET provides value added solutions that increase the safety and efficiency of energy exploration and production. We are an environmentally and socially responsible company headquartered in Houston, TX with manufacturing, distribution and service facilities strategically located throughout the world. **28th March 2023**

- **Technip Energies secures contract for Aramco's Riyadh refinery upgrade**

The project will be executed locally, leveraging Saudi economic resources and infrastructure. French engineering and technology company Technip Energies has been awarded a contract to upgrade sulfur recovery facilities at Aramco's Riyadh Refinery as part of its long-term agreement with Aramco. This contract

covers the implementation of three new tail gas treatment (TGT) units, improving the performance of the existing three sulfur recovery units (SRU) to comply with more stringent regulations for sulfur dioxide emissions, with recovery efficiency at more than 99.9%. The project will be executed locally, leveraging Saudi economic resources and infrastructure, Technip Energies said. The existing sulfur recovery units in the Riyadh refinery were designed and built by Technip Energies in the early 2000s. Bhaskar Patel, SVP of sustainable fuels, chemicals and circularity at Technip Energies, commented: "We are pleased to be entrusted by Aramco to work on the upgrading program of their refinery in Riyadh. **24th March 2023**

ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)

BANGLADESH

- MHI awarded seven year long term service agreement for 400MW combined cycle power plant in Bangladesh** Located approximately 200 kilometers northeast of Dhaka, Bangladesh, the Bibiyana-III CCPP is one of Bangladesh's largest gas turbine combined cycle (GTCC) power plants owned by the Bangladesh Power Development Board (BPDB). Mitsubishi Power, a power solutions brand of Mitsubishi Heavy Industries, Ltd. (MHI), secured a seven-year full-turnkey Long Term Service Agreement (LTSA) contract for the Bibiyana-III Combined Cycle Power Plant (CCPP). Under the LTSA, Mitsubishi Power, who supplied the power plant's M701F gas turbine, the country's most efficient, will continue to provide maintenance and inspection services of the plant's gas turbine and related power generation equipment to enhance reliability and drive performance and efficiency. Located approximately 200 kilometers northeast of Dhaka, Bangladesh, the Bibiyana-III CCPP is one of Bangladesh's largest gas turbine combined cycle (GTCC) power plants owned by the Bangladesh Power Development Board (BPDB), a government agency operating under the Ministry of Power, Energy and Mineral Resources **28th March 2023**

CHINA

- HAPCO to start construction on Chinese refinery and petrochemical complex** HAPCO is expected to start construction in Q2 2023 following the receipt of the requisite administrative approvals. Aramco has revealed plans of its Huajin Aramco Petrochemical Company (HAPCO) joint venture (JV) of beginning construction on an integrated refinery and petrochemical complex in northeast China. The company's partners in HAPCO are Chinese manufacturing company NORINCO Group (51%) and Panjin Xincheng Industrial Group (19%). Aramco holds a stake of 30% in the JV, which was established in December 2019. The refinery and petrochemical complex will be located in Panjin city in the Liaoning province. Panjin Xincheng board chairman Jia Fei said: "The project is of great significance for Panjin to promote increasing chemicals and specialty products, strengthening integration of the refining and chemical industry. It is a symbolic project for Panjin as it seeks to accelerate the development of an important national petrochemical and fine chemical industry base." According to Aramco, the greenfield project will house a refinery with a capacity of 300,000 barrels per day (bpd) and a petrochemical plant which will annually produce 1.65 million metric tons of ethylene and two million metric tons of paraxylene. **27th March 2023**
- Rosneft and CNPC hold working meeting** Rosneft is the first Russian company that succeeded to sign long-term contracts with China, including that with CNPC for supplies of 325 million tonnes of oil. Igor Sechin, Chief Executive Officer of Rosneft, has held a meeting with representatives of China National Petroleum Corporation (CNPC) as part of the state visit to the Russian Federation by President Xi Jinping of the People's Republic of China. Our companies cooperate successfully across a range of areas, contributing to the development of energy dialogue between Russia and China and the implementation of large-scale infrastructure projects in Eurasia. We look forward to further developing integral relations with CNPC along the entire technology chain and expanding the range of joint projects," Igor Sechin said. Rosneft and CNPC share a mutually beneficial partnership and strategic cooperation. Rosneft is the first Russian company that succeeded to sign long-term contracts with China, including that with CNPC for supplies of 325 million tonnes of oil. As part of an agreement signed in February 2022, Rosneft and CNPC are also working on the prospects for cooperation in a number of low-carbon

development areas. These include reductions in greenhouse gas emissions, especially methane, energy efficiency technologies, and CO2 capture and storage (CCS). **23rd March 2023**

- **SK Geo Centric to build ethylene acrylic acid plant in China**

Company has signed an agreement with Zhejiang Satellite Petrochemical (STL) to build an Ethylene Acrylic Acid (EAA) China, expecting it to be completed by 2028. SK geo centric (SKGC; Seoul, South Korea) has signed an agreement with Zhejiang Satellite Petrochemical (STL) to b manufacturing plant in Lianyungang, Jiangsu, China, expecting it to be completed by 2028. Last August, SKGC signed an establishment and investment agreement with STL to form a joint venture to build the glo push forward with the establishment of the EAA Plant 4. Plant 3 is currently undergoing Engineering, Procurement, and completed by 2025. Plant 4 is planned to begin construction in the second half of next year with a \$40 billion investmen 2028, with a targeted annual production capacity of 50,000 tons. With the completion of the EAA Plant 4, SKGC's global production capacity for EAA will increase to 140,000 tons per ye capture the Asian market. By taking over Dow Chemical Company's EAA business in 2017, it has been operating manu Tarragona, Spain. **26th March 2023**

- **Saudi Aramco's production of 13 mbpd by 2027 to strengthen Chinese energy security**

Aramco aims to become a comprehensive source for energy and chemicals to support the energy security in China in the long term. President and CEO of Saudi Aramco Eng. Amin Al Nasser said that Aramco's increase in production capacity to 13 million barrels per day by 2027 will strengthen the Chinese energy security in the long term. Eng. Al Nasser made the remarks at the China Development Forum 2023, where he affirmed Aramco's support for China's energy development and security. He clarified that this support comes within the joint strategic partnerships and projects, and with the use of emissions reduction technologies, which would enable the manufacture of low-carbon products, chemicals and advanced materials. He added that Aramco aims to become a comprehensive source for energy and chemicals to support the energy security in China in the long term, and guarantee the continuation of the high quality development in it. "The global energy transition desperately needs some realism and clarity," Eng. Al Nasser said. **27th March 2023**

- **Air Liquide to modernize oxygen production units in Tianjin**

Replacing the current steam supply of the ASUs by electricity will avoid the emission of 370,000 tonnes of CO2 per year. Air Liquide will invest around 60 million euros to revamp two Air Separation Units (ASUs) it operates in the Tianjin indus comes within the context of the renewal of a long-term industrial gases supply contract with Tianjin Bohua Yongli Chem Bohua Group. As part of this modernization plan, Air Liquide will significantly reduce the CO2 emissions linked to the production of ox these ASUs so they can run on electrical power instead of steam. In addition, the Group has signed a three-party Mem Tianjin Replacing the current steam supply of the ASUs by electricity will avoid the emission of 370,000 tonnes of CO2 per yea electricity-related emissions of more than one million Chinese households. The two electrified Air Separation Units will YLC as well as other industrial customers in the Tianjin basin. They will have a total oxygen production capacity of ~4,0 2024, the two ASUs will be modernized by Air Liquide Engineering & Construction without any disruption of supply to Y This project also includes the possible supply of low carbon energy to the units through Power Purchase Agreements (allow further emission reductions in the future. This contract extends Air Liquide's involvement in the development of the Tianjin basin, which has spanned more than and local chemical companies. **23rd March 2023**

INDIA

- **IndianOil gets stage-I approval for \$740m Paradip petrochemical complex**

The petrochemical facility will house a cracker unit and downstream process units to produce PP, LLDPE, HDPE, PVC, and other petrochemical products. IndianOil said that its board has given stage-I approval for the company to build the Paradip petrochemical complex in Odisha, India with an estimated investment of INR61bn (\$740m). According to the Indian public sector company, the petrochemical project in Paradip will be its biggest-ever investment at a single location. IndianOil said that the petrochemical facility will house a cracker unit and downstream process units. The processing units will produce polypropylene (PP), linear low-density polyethylene (LLDPE), high density polyethylene (HDPE), polyvinyl chloride (PVC), and other petrochemical products. Besides, the Paradip petrochemical complex will enable the production of phenol

and isopropyl alcohol among other niche chemicals and petrochemicals. IndianOil chairman Shrikant Madhav Vaidya said: “This mega project is aligned with Hon’ble Prime Minister Narendra Modi’s vision of Purvodaya that is sure to accelerate the development trajectory and fuel prosperity in Eastern India. **23rd March 2023**

- **L&T will be both manufacturer and developer of green hydrogen**

The electrolyser plant will come up at L&T’s manufacturing hub at Hazira, Gujarat. L&T, which today announced a tie-up with the French company McPhy, for technology for electrolyser manufacture, will be present in both segments of the green hydrogen ecosystem electrolyser manufacturing and production of the gas, the company’s Whole-time Director and Senior Executive Vice-President (Energy), Subramanian Sarma, told businessline today. But the company is starting its hydrogen innings with electrolyser manufacturing. The tie-up with McPhy is, for the present, only a technology service agreement, under which the French company would transfer the ‘pressurised alkaline electrolyser’ technology to L&T. A call on McPhy co-investing in electrolyser manufacture could be taken later, Sarma said. The electrolyser plant will come up at L&T’s manufacturing hub at Hazira, Gujarat. The precise amount of investment into the plant is yet to be worked out, but will be a part of the ₹10,000-crore grand plan for L&T’s foray into green hydrogen. **23rd March 2023**

- **Aether Industries to invest Rs 1000 crore on setting up new manufacturing plant**

Specialty chemicals manufacturer Aether Industries has signed a Memorandum of Understanding (MoU) with the Gove manufacturing plants at its Panoli site. With an indicated investment of Rs. 1000 crore, generating future employment to commission the plants by the year 2025. The MoU was recently signed in the presence of the Gujarat Chief Minister Bhupendra Patel, in the presence of Balwa Civil Aviation, Rural Development, Labour and Employment and Dr. Rahul Gupta, Industries Commissioner of Gujarat a Nagariya, CFO and Denish Dodhiyawala, Lead-HR & IR, from Aether Industries were also present, wherein the MoU w In recent past, Aether Industries had purchased plots measuring 125,000 sq. at Panoli GIDC, Bharuch District, where t organised a blood donation camp on February 8, 2023. The company aims to utilise the Panoli plots in an efficient man first time in India. As per various Listing Obligation and Disclosure Requirement (LODRs) by the company in the past, various contract m which will be signed shortly. The agreements will enable the Company to optimally utilise the Panoli Plot for new plants margins. **23rd March 2023**

IRAQ

- **Iraq Signs Six O&G Contracts; Takes First Step Towards Energy Independence**

Iraqi Prime Minister Mohammed Shia al-Sudani was present at the signing of six oil and gas contracts in a ceremony held at the Ministry of Oil in Baghdad - the first step towards Iraq’s ultimate goal of energy independence and self-sufficiency. Sudani described the signing of the licences as the “optimal investment of oil wealth, and Iraq’s entry into the global gas market.” Iraq is notorious for the deadly and toxic practice of gas flaring. It is second only to Russia in terms of the amount of gas burned off, though the Iraqi population lives on average much closer to flaring sites than do Russians. The World Bank estimates that Iraq flares around 17 billion cubic metres of gas per year, worth around \$8 billion annually. The practice also causes severe environmental damage and is a risk to the health of people living close to flaring sites, from Basra to the Kurdistan Region, where refugee camps are particularly vulnerable. **29th March 2023**

MIDDLE EAST

- **Middle East to launch over 600 oil and gas projects until 2027**

The Middle East is expected to commence 621 projects between 2023 and 2027, according to data from GlobalData Energy. Out of these, upstream projects would be 81, midstream would be 141, the refinery at 84, and petrochemicals would be the highest with 315 projects. New build projects are expected to lead the upcoming project landscape in the Middle East, constituting around 78% of the total projects across the value chain. The share of new build projects is especially high in the petrochemicals sector accounting for 60% of the total new build projects across the value chain. On the other hand, expansion projects dominate the downstream (refineries) sector with 43%. In the Middle East, more than half of the projects are planned in the construction and commissioning stages and are more likely to commence operations during the

	<p>outlook period 2023–2027. About 34% of the projects are in the planning stages, and the rest have been approved or awaiting approval. Among countries, Iran leads the upcoming projects landscape in the Middle East, accounting for 45% of the projects expected to start operations by 2027. 24th March 2023</p>
MALAYSIA	<ul style="list-style-type: none"> <p><u>PTTEP advances giant gas field development offshore Malaysia</u> Final investment decision for Lang Lebah project expected later this year. Thailand’s national upstream company PTTEP is forging on with key preparatory work for its Lang Lebah giant gas field development offshore Malaysia ahead of taking the targeted financial investment decision later this year. PTTEP has kicked off a soil boring investigation for the Lang Lebah development wells located on Block SK 410B offshore Sarawak, East Malaysia. The initial work will focus on six proposed development wells designated CPP-WP2-CG01, -02, -03 and -04; BSL and BSF in a campaign expected to take less than a week. The Thai operator will then continue with the evaluation the location of its proposed Lang-Lebah-3 well, also on Block SK 410B an approximate six-week scope that is scheduled for completion on 7 May, according to the Malaysia Coast Guard. 29th March 2023</p>
PHILIPPINE	<ul style="list-style-type: none"> <p><u>Petronas partners with Phoenix Petroleum to explore opportunity in the Philippines</u> Under the MOU, PETRONAS and Phoenix Petroleum will conduct a joint feasibility study to take the collaboration to the next phase of execution PETRONAS and Phoenix Petroleum have signed a Memorandum of Understanding (MOU) to jointly explore a partnership opportunity in the Philippines in the area of downstream marketing business and associated technology solutions. Under the MOU, PETRONAS and Phoenix Petroleum will conduct a joint feasibility study to take the collaboration to the next phase of execution. This would see the two companies come together to potentially create a unique experience, capitalising on high-quality fuels and innovative digital solutions. If materialised, the collaboration would give Phoenix access to PETRONAS’ branded marketing offerings, including its fuel and fluid technologies, while allowing PETRONAS to expand its footprint into the Philippines. PETRONAS Vice President Refining, Marketing & Trading, Downstream Business, Ahmad Adly Alias said, “PETRONAS is excited at the prospect of delivering an elevated fuel experience to customers in the Philippines. 24th March 2023</p>
NETHERLAND	<ul style="list-style-type: none"> <p><u>LyondellBasell and EEW sign Lol for waste sorting</u> LyondellBasell and EEW Energy from Waste recently signed a letter of intent (Lol) to explore a potential long-term strat out of incineration waste streams.The proposed collaboration would potentially include construction of waste pre-sorting facilities at or near EEW incinera streams bound for incineration, and investment in advanced sorting facilities to further sort and refine the plastic that ha The collaboration supports the new LyondellBasell strategy to invest in advanced sorting infrastructure to produce plas and Low Carbon Solutions business, and deliver on its value creation ambitions.27th March 2023</p>
AFRICA	
AFRICA	<ul style="list-style-type: none"> <p><u>African banks invest \$16 billion in oil and gas projects</u> The African Export-Import Bank (Afreximbank) and the African Finance Corp (AFC) have invested about \$16 billion in oil and gas projects across Africa, the Guardian reported. This was disclosed at the recent African Refiners and Distribution Association conference in South Africa, where stakeholders urged companies to keep funds within the continent to finance the over \$190 billion yearly energy investment requirements. Afrximbank’s oil and gas portfolio exceeds \$15 billion with a healthy pipeline across the continent, according to Rene Awembeng, the company’s Global Head, Client Relations. “Africa has not invested in its refineries or refining capacity. We’ve not invested in our storage facilities. We’ve not invested in our pipelines sufficiently to meet the demand. So, with the [COVID-19] crisis, and now the Ukraine crisis... we are in a very difficult position,” he added. AFC has disbursed \$800 million towards Africa’s refinery sector, with \$210 million in its near-term pipeline, according to Shayo Olumide, AFC Senior Investment Associate.</p>

	<p>He emphasised the need to focus on the environment, sustainability, and governance when it comes to funding. 24th March 2023</p>
LIBYA	<ul style="list-style-type: none"> <p><u>Zallaf Libya selects Honeywell-UOP for South Refinery project</u> Honeywell – UOP will be responsible for the initial engineering works for the refining units. Zallaf Libya Oil & Gas, a subsidiary of Libya’s state-owned National Oil Corp (NOC) has awarded a contract to US company Honeywell-UOP for the construction of the proposed South Refinery project. Planned to be built in Ubari, the refinery project is being developed in two phases at an estimated cost ranging between \$500m and \$600m, reported Reuters. The contract, which comes as part of the first phase will involve the front-end engineering design (FEED) of the project. Under the contract, Honeywell–UOP will be responsible for the initial engineering works for the refining units and granting technical licences to the licensed units. To implement the second phase of the project, Zallaf Libya will sign another contract with a potential firm to undertake installation works and final trials for the project. The South Refinery will be equipped to process nearly 30,000 barrels per day (bpd) of crude oil to produce cooking gas, jet fuel and other products, including a daily production of 1.4 million litres of petrol and 1.1 million litres of diesel. In a press statement, Zallaf Libya said: “This step comes among other steps within the new vision adopted by the National Oil Corporation, and the promises made by the chairman of the board of directors of NOC to expedite the establishment of the South Refinery and assist in the development of the south region. 27th March 2023</p>
MOZAMBIQUE	<ul style="list-style-type: none"> <p><u>Technip Energies Advances Mozambique’s Gas Agenda with Pioneering Floating Liquefied Natural Gas (FLNG) Solutions</u> With over 100 trillion cubic feet (tcf) of proven natural gas reserves, Mozambique has quickly emerged as one of the most attractive gas plays worldwide, with three large-scale project developments placing the country on a positive trajectory towards long-term economic growth. While offshore gas projects alone provide key opportunities for energy access and job creation, Floating Liquefied Natural Gas (FLNG) solutions currently being developed by French-based engineering and technology company Technip Energies are set to position the country as a global liquefied natural gas (LNG) producer and exporter. For Africa, natural gas represents the fuel of the future, serving as both a clean and widely available resource as well as the solution to making energy poverty history by 2030. The continent’s gas future is bright and through the development of LNG, a new era of electrification and industrialization is in sight. In this scenario, Technip Energies represents a critical partner for African gas producers looking at deploying FLNG solutions. 27th March 2023</p>
NAMIBIA	<ul style="list-style-type: none"> <p><u>Technip Energies Consolidates Namibia’s Diverse Energy Mix with Multi-Project Developments</u> French-based engineering and technology company Technip Energies has emerged as the partner of choice for African oil and gas producers, with the company deploying its state-of-the-art technology and developing a series of large-scale projects across the African continent. To date, the company has delivered more than 100 projects in Africa, offering technological solutions, products and services as well as turnkey contracting and construction expertise across the downstream, Liquefied Natural Gas (LNG), gas-to-power, mining & metals and offshore industries. With this background, Technip Energies serves a key driver of large-scale hydrocarbon projects in Africa, and the company has now turned its attention to Namibia’s promising sector. Namibia is set to witness unprecedented growth across the oil, gas and renewable energy industries owing to sizeable oil and gas discoveries made in 2022 and 2023 as well as significant potential for green hydrogen. While Technip’s footprint in Namibia goes as far back as 2008 when the company was awarded a contract for a uranium treatment plant located in the western part of the country (closed in 2012), large-scale oil and gas discoveries made in 2022 by Shell and TotalEnergies signaled new opportunities for the French firm in the country’s energy sector. 27th March 2023</p>
SOUTH AFRICA	<ul style="list-style-type: none"> <p><u>Eco Atlantic and partners to seek environmental permit for works at Block 3B/4B</u></p>

Eco Atlantic and its partners have contracted Environmental Impact Management Services (EIMS), which will undertake the required Environmental Impact Assessment (EIA). Eco Atlantic Oil & Gas, together with its partners, is seeking Environmental Authorisation to start exploration activities in Block 3B/4B in the Orange Basin, offshore South Africa. The joint venture (JV) partners in Block 3B/4B include the company's wholly-owned subsidiary Azinam, which holds a 26.25% stake, The other partners include Ricocure with a 53.75% stake, and Africa Oil, a wholly-owned subsidiary of Africa Oil, which holds a 20% interest and is also the operator of the block. Eco Atlantic and its partners have contracted South Africa-based independent specialised environmental consulting firm Environmental Impact Management Services (EIMS). EIMS will undertake the required Environmental Impact Assessment (EIA) and procure permits for drilling wells within an area of interest in the Block. Eco Atlantic co-founder and COO Colin Kinley said: "We are excited about 3B/4B and the inventory prospective resource targets on the Block as recently announced in the Operator's Competent Persons Report. **23rd March 2023**

EUROPE

AUSTRIA

- **Evonik starts up new gas separation membranes production plant in Austria**

The new production capacity enables the company to meet the continuing strong demand for SEPURAN® membranes applications. Evonik is driving the defossilization of the energy sector towards a sustainable gas economy: The specialty chemicals spinning plant for the production of gas separation membranes in Schörfling am Attersee in Austria. The new production continues to meet the continuing strong demand for SEPURAN membranes in biogas, nitrogen, hydrogen and natural gas applications. Evonik is investing in the new plant and created around 30 new jobs in Schörfling. Lauren Kjeldsen, Head of the Smart Materials Division, says: "The growth path of the membranes business clearly followed. Last May, Evonik announced plans to invest €3 billion by 2030 in Next Generation Solutions, products with superior sustainability. Sales of Next Generation Solutions from the current 37 percent to more than 50 percent by 2030. The rapid increase in Solutions offers above-average growth potential for Evonik. "With our innovations, we support our customers in making their own products more sustainable and improving their own efficiency for efficient gas separation is a living example of how Next Generation Solutions from Evonik contribute to sustainable market players," says Kjeldsen. In the new production plant, a high-performance polymer is processed into fine hollow-fibres in several process steps. The membrane technology. **26th March 2023**

BELGIUM

- **Air Liquide announces ammonia conversion into hydrogen with new cracking technology**

When transformed into ammonia, hydrogen can be easily transported over long distances. Air Liquide announces the construction of an industrial scale ammonia (NH₃) cracking pilot plant in the port of Antwerp. Hydrogen can be easily transported over long distances. Using innovative technology, this plant will make it possible to convert, with an optimized carbon footprint, ammonia into hydrogen. Air Liquide will further contribute to the development of hydrogen as a key enabler of the energy transition. Ammonia - a molecule made of hydrogen and nitrogen - can be used as an energy carrier. It can be produced with local geographies with abundant renewable energy sources such as sun, water and wind, or other low-carbon power. A global supply chain infrastructure is already in place for its production, transportation and utilization at large scale to allow us with abundant renewable energy to export ammonia to end users across the globe, where it can be converted back to industry and mobility. **24th March 2023**

GERMANY

- **ADNOC to Explore Low Carbon Ammonia Value Chain in Germany**

ADNOC announced today that it will explore opportunities to support the climate-neutral transformation of industry through the creation of a low-carbon ammonia value chain with state government and industry representatives in Germany's North Rhine-Westphalia. The announcement was made following the signing of a memorandum of understanding (MoU) between the Government of North Rhine-Westphalia, ADNOC and Currenta GmbH & Co. OHG (Currenta), a chemical industry services provider that manages and operates one of the largest chemical sites in Europe, Chempark, with locations in Leverkusen, Dormagen and Krefeld-Uerdingen, in North Rhine-Westphalia. Ammonia, a compound of nitrogen and hydrogen, can be used as a

low-carbon fuel across a wide range of industrial applications, including transportation, power generation, and industries including steel, cement and fertilizer production. **27th March 2023**

NORWAY

- **Equinor and Transocean team up for 28 firm wells offshore Norway**

Equinor pleased to continue using two ‘hot’ rigs specially built for Norwegian conditions. Norwegian energy giant Equinor and global offshore driller Transocean have signed contract extensions for the continued use of two sixth-generation fully-winterised drilling rigs offshore Norway. The semi-submersible Transocean Encourage will be used for production and exploration wells in the Norwegian Sea, and the semisub Transocean Enabler will work on development wells on the Johan Castberg field in the Barents Sea. The rigs have been on eight-year contracts with Equinor that expire on 1 December 2023 and 1 April 2024, respectively. The estimated total value of the nine-well assignment for the Transocean Encourage is about \$191 million, starting on 1 December, said Equinor. For the Transocean Enabler, the total contract value is \$415 million which comprises a fixed \$295 million for 19 firm wells at the Johan Castberg field plus \$110 million for eight optional wells. The new contract comes into effect after 1 April 2024. The drilling programme in the Norwegian Sea will consist of nine wells to be drilled on the Tyrihans, Verdande, Andvare and Vigdis fields located in the Tampen area of the North Sea. Verdande and Andvare will be tied in to the Norne field. The drilling programme also includes exploration wells, and may be further extended with up to six wells. **28th March 2023**

- **Aker Solutions to tie back Berling gas fields to Åsgard B platform**

Under the engineering, procurement, construction, installation and commissioning (EPCIC) contract, Aker will tie back the two offshore gas fields, Iris and Hades (Berling), to the Åsgard B floating production platform. Equinor has awarded Aker Solutions a subsea contract for the tie-back of Berling, previously known as Iris and Hades gas fields, to the Åsgard B platform in the Norwegian Sea. The value of the contract ranges between NOK0.5bn (\$47.3m) and NOK1.5bn (\$142.5m). Under the engineering, procurement, construction, installation and commissioning (EPCIC) contract, the company will tie back the two offshore gas fields to the floating production platform. Aker said that two EPCIC scopes define the project, with the first one to start immediately, and the second in September 2023. The company intends to commence offshore mobilisation in November 2025, with plans to complete the tie-back in December 2027 and is expected to start production in 2028. Aker Solutions executive vice-president and electrification, maintenance and modifications (EMM) business head Paal Eikeseth said: “The expected recoverable reserves are estimated to be around 45 million barrels of oil equivalent, consisting mostly of gas. The tiebacks will enable a significant contribution to energy security in Europe. **28th March 2023**

SCOTLAND

- **Scotland names offshore wind projects to supply oil and gas platforms with clean energy**

Crown Estate Scotland picks 13 projects for ground-breaking INTOG leasing scheme that links turbines to fossil assets.Scotland has picked 13 projects under its pioneering INTOG seabed leasing scheme that includes deployment of large-scale wind power to decarbonise offshore oil and gas production.Seabed landlord Crown Estate Scotland will offer initial exclusivity agreements for potential lease options that could support up to 5 gigawatts of wind linked to oil and gas decarbonisation, with another 499 megawatts under a separate innovation pot for new technologies.The biggest winners are Cerulean Winds and Flotation Energy, which between them took almost all the capacity under the targeted oil and gas ‘TOG’ component (see table).World first INTOG is the first auction in the world to award leases to projects dedicated to helping decarbonise oil and gas production through the ‘TOG’ part of the auction that aims to replace power from diesel or other polluting sources with green electricity from offshore wind.The ‘IN’ element was set up to award leases for projects no larger than 100 MW using innovative technologies.Crown Estate Scotland said that 19 projects in total entered, 10 related to the innovation element and nine for TOG. We look forward to working closely with the Aberdeen region on this project, welcoming local suppliers to register to work with us. **24th March 2023**

UK	<ul style="list-style-type: none"> • <u>TotalEnergies starts drilling important new gas well offshore UK</u> Well is being drilled in the West of Shetland's Greater Laggan Area. French supermajor TotalEnergies has started drilling an important gas exploration well in the Greater Laggan Area in the UK's West of Shetland oil and gas arena. The Benriach-1 well, located on Block 206/05c, has been spudded using the semi-submersible drilling rig Transocean Barents, said joint venture partner Kistos Holdings. The prospect is targeting proven plus probable prospective resources of 638 billion cubic feet of gas on an estimated gross basis. The well is expected to be completed in the third quarter this year. 29th March 2023
NORTH & SOUTH AMERICA	
BRAZIL	<ul style="list-style-type: none"> • <u>Petrobras tender sparks four-way race for large 3D seismic offshore Brazil</u> Brazilian player looking to contract survey for Marlim Sul, Marlim Leste, Barracuda and Caratinga fields. Petrobras has welcomed four proposals in a key tender to contract a 3D seismic survey encompassing a quartet of mature fields in the prolific Campos basin, where the Brazilian oil giant is injecting cash in order to revitalise operations. Petrobras is looking to contract a seismic player to carry out a 3D campaign featuring the use of ocean-bottom node (OBN) technology and gravimetric services in the Marlim Sul, Marlim Leste, Barracuda and Caratinga fields. Two industry sources told Upstream that PXGEO easily defeated competition by submitting a commercial bid worth 698.5 . 27th March 2023 • <u>Petrobras to conclude works on UPGN of Itaboraí Gaslub Cluster</u> With the resumption of the UPGN works, the forecast for the start of gas processing operations in the GasLub Cluster is maintained to occur in 2024, in accordance with the Strategic Plan 2023-2027. Petrobras, following up on the release disclosed on 09/23/22, informs that it has signed a contract with the company Toyo Setal Empreendimentos Ltda. to conclude the works on the Natural Gas Processing Unit (UPGN) of the Itaboraí Gaslub Cluster, which had been halted since June 2022. With the resumption of the UPGN works, the forecast for the start of gas processing operations in the GasLub Cluster is maintained to occur in 2024, in accordance with the Strategic Plan 2023-2027. The other units required to start these operations, such as the auxiliary units located at the GasLub Cluster, and the subsea and onshore pipelines, have already completed their scope, and are in the final commissioning or pre-operation phase. 27th March 2023
CANADA	<ul style="list-style-type: none"> • <u>QatarEnergy strikes offshore exploration deal with ExxonMobil</u> QatarEnergy entered into a farm-in agreement with ExxonMobil Canada for two exploration licenses offshore the province of Newfoundland and Labrador in Canada. According to the agreement, QatarEnergy holds a 28% working interest while ExxonMobil Canada (operator) holds 50% while Cenovus Energy holds 22%. QatarEnergy also holds a 40% working interest in license EL 1162, while ExxonMobil Canada (operator) holds the remaining 60%. Commenting on this occasion, HE Saad Sherida Al-Kaabi, president and CEO of QatarEnergy, said: "We are pleased to sign this agreement with our strategic partner, ExxonMobil, to further grow our offshore Atlantic Canada portfolio as part of our international growth drive, and look forward to continue working within Canada's transparent and stable regulatory environment." Located offshore Eastern Canada, EL 1167 and EL 1162 lie in water depths ranging from 100 to 1,200 meters and cover an area of approximately 1,420 and 2,400 square kilometers, respectively. 29th March 2023
MEXICO	<ul style="list-style-type: none"> • <u>Pemex submits development plan for Zama oil field to Mexico's CNH</u> Pemex is the operator of the offshore Mexican oil field which was discovered in 2017 and fully appraised in 2019. Petróleos Mexicanos (Pemex) on behalf of its partners has submitted the development plan for the Zama oil field to the Mexican National Commission of Hydrocarbons (CNH) for seeking formal approval from the regulator. The company's partners in the offshore field located in Block 7 in the Sureste Basin include Talos Energy, Wintershall Dea, and Harbour Energy. Pemex is the operator of the offshore oil field which was discovered in 2017 and fully appraised in 2019. As per the Zama unit development plan (UDP) submitted to CNH, the field is expected to have two offshore fixed platforms. It will see the drilling of 46 dry-tree wells

apart from enabling oil and gas transportation to new facilities to be built in Terminal Maritima Dos Bocas in Tabasco. The Zama oil field is targeted to have a production of up to 180,000 barrels of oil equivalent per day. This is equivalent to more than 10% of the present oil production of Mexico, said Talos Energy. **24th March 2023**

- **Controversial giant Mexican offshore oilfield moving forwards**

Talos Energy submits development plan for Zama discovery with Pemex at the helm and co-operation between partners. Mexico's state-owned Pemex has filed the development plan for the unitised Zama giant oilfield offshore Mexico to industry regulator the National Commission of Hydrocarbons (CNH) for approval. Zama was discovered by Talos Energy in 2017 on offshore Block 7 and the field was fully appraised in 2019 by the Block 7 consortium, which includes Talos, Wintershall Dea and Harbour Energy. Pemex had already drilled a well on a neighbouring block with the reservoirs proving to be contiguous and it subsequently forced through a claim to take over operatorship and pursue unitisation, which Talos ultimately accepted rather than carrying out its threat to move to arbitration. **24th March 2023**

- **Baker Hughes picked as main supplier of Port Arthur LNG liquefaction equipment**

Sempra Infrastructure reached final investment decision sanctioning the Texas liquefied gas project earlier this month. Baker Hughes has won a contract to supply critical liquefaction equipment for the recently sanctioned Port Arthur LNG project in Texas. The oil and gas services giant said on Monday that Bechtel, the main constructor in charge of developing Sempra Infrastructure's liquefied natural gas project in Jefferson County on the Gulf of Mexico coast, awarded it a contract to provide two main refrigerant compressors (MRCs). The contract includes the supply of four Frame 7 turbines and eight centrifugal compressors for the site's two LNG liquefaction trains, as well as two electric motor driven compressors for the site's boosting services. **27th March 2023**

- **Technip Energies commences study for Texas green fuels export complex**

TGF's export complex will produce industrial-scale, cost-effective, and sustainable fuels such as clean ammonia, hydrogen, and methanol. Technip Energies has been selected by Texas Green Fuels (TGF) to commence pre-FEED (Front-End Engineering and export project. TGF's export complex will produce industrial-scale, cost-effective, and sustainable fuels such as clean a With Texas' abundance of low-cost renewable energy, developed infrastructure, competitive skilled workforce, governm relative to other regions, TGF expects to become one of the world's lowest-cost producers of clean fuels. Technip Energies, a world-leading engineering and technology player for the energy transition, will perform pre-FEED w and economic feasibility of the project. The partnership between Technip Energies and TGF will leverage Technip Ener (engineering, procurement, and construction) of the TGF complex Laure Mandrou, SVP Carbon-free solutions of Technip Energies, commented: "Technip Energies is committed to bringi export project to the execution phase as clean fuels made from renewable electricity is an important path to support the world's energy transition. **24th March 2023**

- **Montauk Renewables announces planned entrance into South Carolina with new RNG project**

The planned Project is expected to contribute approximately 900 MMBtu per day production capacity upon commissioning of the Project. Montauk Renewables, Inc. (NASDAQ: MNTK) (the "Company") announces its planned entrance into South Carolina with the development of a new landfill gas-to-RNG facility located in South Carolina (the "Project"). The planned Project is expected to contribute approximately 900 MMBtu per day production capacity upon commissioning of the Project. The Project is expected to be completed mid-2024. "Montauk is excited to announce its entrance into South Carolina and the development of our newest RNG site," said Sean McClain, Montauk Renewables President and CEO. "This new project in South Carolina demonstrates the continued execution of Montauk's diversified development growth strategy, as it continues to select and win projects in an increasingly dynamic industry. The Company expects to invest approximately \$25 million in total Project costs over the next 18 months, beginning immediately. **24th March 2023**

USA

- **McDermott wins FEED contract for Shell's gas project offshore Trinidad & Tobago**
 Manatee field could hold estimated resources of 2.7 trillion cubic feet of natural gas. European supermajor Shell has awarded US-based player McDermott International a front-end engineering and design contract for a major natural gas development offshore Trinidad & Tobago. Under the contract scope for the Manatee shallow-water gas project, McDermott will provide comprehensive FEED services for a wellhead platform, export pipeline system, shore approach, midstream pipeline and onshore control room. According to McDermott, the award follows the successful completion of an early contract engagement with Shell. Engineering and execution planning efforts for the Manatee contract will be led by McDermott's team in the US with support from Malaysia, China and Mexico. Shell operates Manatee, located in water depths of about 91 metres, with a 100% stake. It has been previously estimated the field could hold 2.7 trillion cubic feet of gas. The 48-square kilometre Manatee production sharing contract straddles the Trinidad-Venezuela maritime border, with the Loran field in Venezuelan waters. The two nations had agreed to independently develop the portions of Loran-Manatee under a new unitisation agreement that delinks the two fields. **28th March 2023**
- **Agilyx and Ineos advance development of large scale chemical recycling facility in Illinois**
 Under the agreement, Agilyx and Technip Energies will collaborate with INEOS Styrolution and together develop the basis for constructing the chemical recycling facility. Agilyx ASA, a technology company that enables customers to recycle post-use plastics to high value, virgin-equivalent the global leader in styrenics, are pleased to announce that they are advancing the development of a previously announced recycling facility in Channahon, Illinois. TruStyrenyx is a partnership between Agilyx and Technip Energies and provides an all-in-one solution for the chemical styrene monomer. The styrene monomer can be used to make new, food-grade plastic products or packaging. Under the agreement, Agilyx and Technip Energies will collaborate with INEOS Styrolution and together develop the design and engineering that will serve as the basis for the anticipated completion of engineering in 2023, which will form the basis for a financial investment decision. **28th March 2023**
- **88 Energy Ltd sees evidence of hydrocarbons in Hickory well's primary targets**
 88 Energy Ltd told investors it has successfully intersected the first three of its reservoir targets in the Hickory well onshore Alaska, with well data indicating the presence of hydrocarbons. The company, in a statement, said that the drilling had reached around 8,820 feet and had so far encountered all three of the 'SMD' reservoir targets (SMD-A, B and C). It said that it saw oil shows, elevated mud gas readings along with other data indicators which suggest potential hydrocarbon pay. Drilling will now continue down through the remaining reservoir targets, down to around 11,000 feet, which is expected to take another three to five days of drilling. Providing additional details on the findings to date, 88 added: "All three primary SMD reservoir targets were intersected slightly shallower than prognosed depths, with reservoir thicknesses consistent with pre-drill interpretation. "Logging-while-drilling data collected over the primary targets has indicated potential hydrocarbon pay that will be further assessed by the wireline logging and coring program. This program is set to commence immediately after the well reaches total depth. **29th March 2023**
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