

GERAB**BULLETIN**

Weekly News

**EXECUTIVE SUMMARY****The Commodity summary**

- Coal prices are in uptrend and moved up by 15% MTD
- Natural gas prices are down by 17% WTD
- Cobalt, copper, Iron Ore, Steel and chromium are trading lower than a year ago prices
- Crude Oil Brent prices went up by 4% WTD and Crude Oil WTI prices went down by 6% WTD

The Currency summary

- US Dollar to Euro is stronger by more than 6% YTD but Euro is gaining strength against US Dollar
- The US Dollar against CNY is stronger by more than 9% YTD

The Rig count summary

- The Rig counts in Europe have gone down by 6% MTD and in Africa, it has gone up by 8% MTD

Project summary

- Saudi Aramco seeks backers for \$110bn gas development
- Saudi Aramco announces \$11bn megaproject in Jubail
- Front runner emerges for ONGC's \$670 million Daman offshore development prize
- Avaada signs MoU with Govt. of Uttar Pradesh for Rs. 22,500 crore green ammonia plant
- Turkish Petroleum discovers oil worth \$12bn in Mount Gabar News
- Maire Tecnimont awarded US \$1.3 bn petrochemical contract
- Petrofac to secure \$68 billion projects in 2023
- Albemarle to invest US\$ 180 million to set up advanced lithium technology park in North Carolina

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	10,275.98	2.38	6.20	6.09	-6.38	-4.23
Coal	USD/MT	442.41	0.09	14.97	-8.59	1.47	143.90
Cobalt	USD/MT	43,475.16	-0.60	-10.51	-21.74	-44.87	-39.44
Copper	USD/MT	8,338.00	-0.37	3.58	8.72	-7.91	-12.48
Crude Oil	USD/BBL	78.19	2.82	-8.36	-10.86	-32.57	6.16
Crude Oil Brent	USD/BBL	80.20	3.79	-9.54	-11.86	-31.74	6.82
Crude Oil WTI	USD/BBL	76.19	-6.23	-7.09	-9.78	-33.43	6.12
Iron Ore	USD/MT	109.56	-0.83	21.49	11.09	-19.77	-1.23
Molybdenum	USD/MT	54,243.00	-5.24	28.88	47.82	41.59	32.35
Natural Gas	USD/MCF	5.88	-16.76	-15.48	-28.26	-25.46	46.99
Nickel	USD/MT	28,915.00	-1.57	13.59	23.78	11.94	45.59

Steel HRC (FOB China)	USD/MT	573.50	-0.78	9.52	-0.14	-21.86	-25.19
Steel HRC (N. America)	USD/MT	745.56	1.50	3.79	-15.66	-40.84	-58.41
Steel Rebar	USD/MT	614.75	-0.47	9.69	0.27	-17.07	-20.78
Steel Scrap	USD/MT	381.50	-2.43	8.68	5.79	-0.28	-15.96

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	1.0629	0.03	3.13	8.03	0.60	-6.16
USDCNY	1 USD to CNY	China	CNY	6.9823	0.11	2.15	1.37	-4.03	-9.49

Source- Trading Economics

CRUDE OIL STOCK

Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	15,98,236.00	-0.94	-0.14	-2.39	-4.78	-10.63

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	26.43	USD	1.93	-0.34	24.03	11.47	-19.54
Glencore PLC	560.80	GBP	5.29	8.91	14.45	24.80	50.21
NYSE American Steel Index	1,758.84	Index	3.49	1.64	22.22	19.21	12.66
Rio Tinto PLC	5,782.00	GBP	2.21	7.33	19.76	15.20	19.11
Tenaris SA	34.79	USD	4.98	1.19	31.23	30.30	67.99
Tubacex SA	2.00	EUR	-	-2.44	-5.66	-20.95	28.70

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	51	*	-1.92	2.00	6.25	18.60
GCC	223	*	0.45	9.85	4.69	21.86
Middle East	327	*	0.93	6.86	4.47	18.48
Africa	83	*	7.79	16.90	18.57	6.41
Asia-Pacific	188	*	-2.08	3.30	3.87	3.87
Europe	95	*	-5.94	-2.06	33.80	-3.06

Latin America	185	*	-1.07	8.19	20.92	20.13
North America	973	-0.71	-0.31	-0.31	7.51	43.93
Total	1,851	*	-0.32	2.66	9.33	26.52

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE

- ICD-owned Alec Engineering to acquire UAE company Target amid oil and gas expansion**
 Alec Engineering and Contracting, a part of the Investment Corporation of Dubai (ICD), has signed a share purchase agreement to acquire UAE-based Target Engineering Construction Company as it seeks to enter the oil and gas sector. Its completed projects include work at Enec's Barakah nuclear power plant, Adnoc gas processing's Ruwais LNG terminal, Saudi Aramco's Abqaiq plant, and Enoc's Jebel Ali Refinery expansion. Current active projects include Borouge 4 and Delma B in a joint venture for Adnoc. "Bringing Target Engineering within our fold is a move that plays to both these objectives as their specialist skill sets in oil, gas, energy including renewables, marine, and industrial construction perfectly augment Alec's own capabilities. This will enable us to present an even stronger joint value proposition to customers," he said. **20th December 2022**

KUWAIT

- Worley awarded Services Contract from Kuwait Oil Company**
 Worley announced in a statement that, Kuwait Oil Company (KOC) has awarded a five-year agreement for front-end engineering design (FEED) and project management consultancy (PMC) services. Under the agreement, Worley will provide traditional services and sustainability related services to develop new solar, power and water projects that will further improve efficiency and increase the capacity of KOC's facilities. The services will be executed by Worley's offices in Kuwait, Canada and the UK. Worley has been providing professional services to KOC for over 20 years to support construction of new facilities, the upgrade of existing facilities and to implement new technology solutions. This new agreement continues Worley's services for a further 5 years. "This agreement for PMC and other services further strengthens our longstanding relationship with KOC. We look forward to continuing to support KOC with their growth strategy and sustainability targets," said Chris Ashton, Chief Executive Officer of Worley. **21st December 2022**

OMAN

- KCA Deutag awarded Contracts in Oman**
 KCA Deutag announced that it has secured contract awards and extensions in Oman, Northern Iraq and Europe worth more than \$85 million. In Oman, three rigs (the T849, T858 and T899) have been extended for a total of 7 years of work. Additionally, KCA Deutag's Kenera business unit will provide a grid container for rig T-899. This transformer unit will allow the rig to be powered by the electricity grid, reducing emissions from the diesel generators on-site by approximately 2,550 tonnes per year and paving the way to using renewable energy in the future. Elsewhere the T63 has mobilised to drill two wells, with two more optional wells, for a client in Kurdistan. In Europe, an area of increasing rig activity, the T208 has won a contract for 2023, which will see all of KCA Deutag's purpose-built Euro Rigs and the wider fleet in Europe active during the coming year. **19th December 2022**
- Oman issues RFPs for green hydrogen projects, to award first contract in Q1 2023**
 Hydrogen Oman (Hydrom) has issued the Request for Proposals (RFP) to qualified applicants for the first round of its public auction process to award large-scale integrated green hydrogen projects to developers. The Sultanate aims to award the first land blocks for these projects in 2023 as it aims to meet the 2030 production target of at least 1 million tonnes of green hydrogen per annum. The release of the RFP is a key milestone in the auction that started on 6 November 2022 with the release of the Request for Qualifications

	<p>(RFQ). According to Oman News Agency, qualified applicants will have two months to prepare and submit their bids, which will then be evaluated by Hydrom with the goal of awarding the first project by Q1 2023. In fact, Oman has set an ambitious goal to become one of the largest green hydrogen producers and exporters globally, targeting the production of 1 million tonnes annually by 2030. 21st December 2022</p>
SAUDI ARABIA	<ul style="list-style-type: none"> <p>• <u>Saudi Aramco seeks backers for \$110bn gas development</u> Saudi Aramco has started talks with potential backers for its \$110bn Jafurah gas development, according to people familiar with the matter, as the oil producer plans to exploit one of the world’s largest unconventional gas fields. The state-controlled company is seeking equity investors that could help fund the development of midstream and downstream projects at Jafurah in the east of the kingdom, the people said, asking not to be identified as the information is private. 12th December 2022</p> <p>• <u>Saudi Aramco announces \$11bn megaproject in Jubail</u> Commercial operation is set to begin in 2027 with construction scheduled to begin in the first quarter of 2023. Saudi Aramco and TotalEnergies have agreed to invest \$11 billion (AED40.37 billion) in building a world-scale petrochemical facility in Jubail on Saudi Arabia’s eastern coast. The ‘Amiral’ complex will be owned, operated, and integrated with the existing Saudi Aramco TotalEnergies Refining and Petrochemical Company (SATORP) refinery in the location. 16th December 2022</p> <p>• <u>Aramco, Sinopec and SABIC to join hands for refining and petrochemical projects in China, Saudi Arabia</u> Aramco and Sinopec announced signing heads of agreement for a greenfield project in Gulei, Fujian Province. The Saudi Arabian Oil Company (Aramco), China Petroleum and Chemical Corporation (Sinopec) and SABIC, are exploring collaboration across refining and petrochemical projects in China and Saudi Arabia. Aramco and Sinopec announced signing heads of agreement for a greenfield project in Gulei, Fujian Province. The project will include a 320,000 barrels-per-day refinery and 1.5 million tons-per-year petrochemical cracker complex. 19th December 2022</p>
ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)	
CHINA	<ul style="list-style-type: none"> <p>• <u>INEOS signs new joint venture agreement with SINOPEC in China</u> INEOS and SINOPEC have announced a new joint venture agreement that will see INEOS acquire a 50% share in the existing Tianjin Nangang Ethylene Project from SINOPEC. The project is currently building a 1.2 million tonne ethane cracker, which is expected to come on-stream at the end of 2023, and downstream derivative plants in Tianjin, China. A full suite of derivative units is being built at the complex, including 300 kilo tonne per annum (ktpa) of acrylonitrile butadiene styrene (ABS) plant and the 500 ktpa high-density polyethylene (HDPE) plant announced by INEOS and SINOPEC in July. China is a key growth region for INEOS and the agreements significantly extend its petrochemicals business with a focus on products where it has some of the leading proprietary technologies. The ABS plant will be based on INEOS’ Terluran® ABS technology. It is the second of three ABS plants that will be built and operated in China in partnership with SINOPEC, the first being the 600 ktpa plant currently under construction by INEOS in Ningbo. 14th December 2022</p>
INDIA	<ul style="list-style-type: none"> <p>• <u>L&T wins significant orders for its hydrocarbon business (indianchemicalnews.com)</u> The Hydrocarbon Business of L&T has secured two prestigious orders for its Asset The order is in the range of Rs. 1,000 - Rs. 2,500 crore. Larsen & Toubro Energy Hydrocarbon - Asset Management (LTEH-AM), a new</p>

business vertical for Operations and Maintenance the global market, has secured its first integrated O&M contract from Vedanta Limited, Cairn Oil & Gas division. This 5- Upstream Oil & Gas Processing Facility at Raageshwari Gas Terminal and associated Gas Well Pads and South Satall Further, the AdVENT business vertical has received an order for Engineering, Procurement and Construction (EPC) of Matheson Tri Gas, Inc. (Matheson), a subsidiary of Nippon Sanso Holdings Corporation (NSHD). Matheson's Global HY HGU from Numaligarh refinery in Assam, on a "Build – Own – Operate (BOO)" basis for 20 years with Topsoe, Denmark L&T. **15th December 2022**

- **Front runner emerges for ONGC's \$670 million Daman offshore development prize**

A leading domestic engineering & fabrication player has emerged as the front runner for a sizeable offshore contract from India's state-controlled Oil & Natural Gas Corporation (ONGC) for its Daman upside gas development project (DUDP) off the country's western coast. Two people close to the bid process told Upstream that commercial offers were recently opened by ONGC for the Daman offshore development, with the contract likely to be awarded within days. The DUDP expansion is crucial to ONGC's strategy of ramping up gas production from its shallow-water fields off India's west coast. Indian engineering giant Larsen & Toubro (L&T) is said to have submitted the lowest price offer and is in pole position to win the offshore project, one person said. "L&T is the L1 bidder and ONGC is expected to award the contract within days," the person noted. Two bidders earlier this year submitted technical and commercial offers to ONGC for the much-delayed Daman development. A pairing of India's Afcons with Indonesia's Gunanusa Utama Fabricators, emerged a distant second, offering close to \$810 million, project watchers have suggested. **20th December 2022**

- **Avaada signs MoU with Govt. of Uttar Pradesh for Rs. 22,500 crore green ammonia plant**

Avaada Ventures, an integrated energy platform, has signed an MoU with Uttar Pradesh Government for setting up Rs. 22,500 crore green ammonia plant. The Memorandum of Understanding (MoU) was signed on 6th December, 2022 between Avaada Ventures Pvt. Ltd. and Development Authority). The facility will have a production capacity of 0.5 million tons per annum and will help in gener people. In October 2022, Avaada Ventures had received an approval from Government of Karnataka for Rs. 45,000 crore Gree In August 2022, Avaada group had signed a Memorandum of Understanding with the Department of Industries and Co Green Ammonia facility and a renewable energy power plant in Kota, Rajasthan. The plant is planned to be located in K facility with a production capacity of 1 million tons per annum Avaada Group proposes an investment of Rs. 40,000 crore for Kota Plant while also providing direct employment oppo people. Social entrepreneur Vineet Mittal-led Avaada Group is an integrated energy platform with business interests ranging fro electrolyzers to renewable power generation, green hydrogen, and green ammonia production. Avaada Group's flagsh growing renewable energy IPP. Within five years, it has developed an impressive portfolio and the firm plans to reach 11 GW by 2025 and 30 GW by 2030. The business comprises a state-of-the-art facility with an annual production capacity of 5 GW for cells and modules. The ca early next year. By 2030, the group plans to scale up to 10 GW along with backward integration into polysilicon, ingots. **20th December 2022**

- **Asia to dominate Global Ethylene Glycol (EG) Capacity Additions by 2026 (offshore-technology.com)**

Major capacity additions will be from two announced projects Reliance Industries Jamnagar Ethylene Glycol (EG) Plant 2 and Haldia Petrochemicals Cuddalore Ethylene Glycol Plant. Global Ethylene Glycol (EG) capacity is poised to see considerable growth over the next five years, potentially increasing from 51.54 mtpa in 2021 to 77.02 mtpa in 2026, registering total growth of 49%. Around 49 planned and announced plants are slated to come online primarily in Asia and Middle East. Within Asia, India has 10 planned and announced Ethylene Glycol capacity additions, with a total capacity of about 8.7 mtpa by 2026. The country is expected to spend a capital expenditure (capex) of US\$4.9 billion. Major capacity additions will be from two announced projects Reliance Industries Jamnagar Ethylene Glycol (EG) Plant 2 and Haldia Petrochemicals Cuddalore Ethylene Glycol Plant. **16th December 2022**

MALAYSIA

- **PTTEP targeting further exploration success offshore Malaysia**

Mong Merah is latest Sarawak wildcat of 2022. Thailand's national upstream company PTTEP has spudded its latest wildcat offshore Malaysia, one of its core focus countries. PTTEP's Mong Merah-1 exploration well on Block SK 314A off the coast of the state of Sarawak is being drilled by Borr Drilling's jack-up Gunnlod, which had recently completed work on the operator's Permas field on Block SK 311. The Mong Merah probe is expected to take until 15 January to complete. This exploration drilling campaign is being supported by three Malaysia-flagged vessels - Jasa Merin's large anchor-handling supply vessels JM Setia and JM Sepoi, and Executive Offshore's platform supply vessel Executive Courage. PTTEP has identified at least one more prospect – Kecapi – on shallow-water Block SK 314A. Between 2020 and 2021, the operator evaluated the block's resource potential and performed 3D seismic reprocessing to prepare for the drilling of exploration wells on the Mong Merah and Kecapi prospects. Earlier this year, PTTEP conducted geophysical site surveying and a soil boring investigation on its Malaysia offshore acreage ahead of these wildcats. Blocks SK 314A, SK 438 and SK 405B comprise PTTEP's Southern Sarawak cluster. Block SK 438 is home to the operator's Kulintang-1 discovery while Block SK 405B contains its successful Sirung-1 wildcat. **20th December 2022**

- **PETRONAS partners with Eni and Euglena for biofuels project**

Petroleum Nasional Berhad (PETRONAS), Malaysia's state-owned oil and gas company, has partnered with Italy's Eni S.p.A and Japan's Euglena Co., Ltd., to study the possibility of developing and operating a biorefinery in the Pengerang Integrated Complex (PIC) in Malaysia. PIC is one of the largest integrated refinery and petrochemical developments in Southeast Asia. The three parties are currently carrying out technical and economic feasibility assessments for the proposed project, with the investment decision expected to be reached by 2023. The plant is targeted to be completed by 2025. To be located adjacent to PETRONAS' existing integrated refinery and petrochemical facilities, the biorefinery will be able to leverage the company's integrated value chain as well as existing utilities and facilities in PIC. The complex's strategic location with easy access to major international shipping lanes will also enhance the planned refinery's ability to cater for the rising demand for sustainable solutions worldwide. The biorefinery is also expected to have the capability to process about 650,000 tonnes per year of raw materials to produce up to 12,500 barrels per day of biofuels, namely SAF, HVO, and bio-naphtha. The raw materials to be used will not compete with those in the food chain such as used vegetable oils, animal fats, waste from the processing of vegetable oils, and other biomass including microalgae oils to be explored in the mid-term. **19th December 2022**

TURKEY

- **Turkish Petroleum discovers oil worth \$12bn in Mount Gabar News (offshore-technology.com)**

Turkish Petroleum discovered 150 million barrels of net oil reserves worth an estimated \$12bn in southeast Turkey. Turkish President Recep Tayyip Erdoğan announced the find during a cabinet meeting on Monday. He said: "It is one of the top 10 onshore discoveries in 2022. The reserve value is approximately \$12 billion. "We produce 5,000 barrels per day in four wells in this region, which has a very high oil quality. With 34 more discoveries in 2021 alone, we added another 71 million barrels to our current reserve," Erdoğan added. Turkey will celebrate its centenary in 2023, and Ankara intends to expand its daily output to 100,000 barrels during that time. The Turkish president also stated that TPAO's daily production, which was roughly 40,000 barrels five years ago, has now increased to 65,000 barrels. The find came at the Sehat Esmâ Cevik-1 exploration well, and TPAO intends to drill 12 more appraisal and production wells in 2023. TPAO hopes the field's oil output is estimated to reach 25,000 barrels per day by the end of 2023. In mid-October, Russian President Vladimir Putin suggested to Erdogan that Russia sell more gas through Turkey and transform it into a new supply hub to maintain Russia's energy leverage over Europe. **15th December 2022**

AUSTRALIA

AUSTRALIA

- **Iberdrola partners with ABEL Energy on green hydrogen and methanol project**

Today, Iberdrola Australia and hydrogen developer ABEL Energy announced that they would work together to deliver a green hydrogen and green methanol production facility at Bell Bay in northern Tasmania, backed

by new renewable energy generation within the state. The total estimated capital requirement for the methanol and renewable energy project is in the order of A\$1.7 billion. The proposed green hydrogen and methanol production facility, known as the Bell Bay Powerfuels Project, was the subject of a A\$1.3 million feasibility study and widely acclaimed Knowledge-Sharing Report completed earlier this year by ABEL Energy with a A\$555,000 hydrogen funding grant from the Tasmanian Government. The scale of the Bell Bay Powerfuels Project, at 200,000 tonnes per year of green methanol for Stage One, will make it one of the largest such projects in the world. Stage Two will increase capacity to 300,000 tonnes per year. ABEL Energy and Iberdrola are looking forward to establishing a new future-proof climate-tech industry for the Tamar Valley community which can play an important role for generations of Tasmanians, as well as kick-starting a commercial-scale green hydrogen industry in Australia. **19th December 2022**

- **LNG deals signed: Equus at a gallop offshore Australia**

Australia's Western Gas has taken a major step towards the final investment decision for its Equus giant gas field development offshore Australia with agreements signed to deliver feed gas to the Woodside Energy-operated North West Shelf (NWS) and Pluto liquefied natural gas projects. Western Gas has signed a non-binding term Sheet with the NWS project partners and a non-binding heads of agreement with Pluto for the processing 2 million to 3 million tonnes per annum of Equus gas from 2027. **21st December 2022**

AFRICA

EGYPT

- **Egypt assessing new gas discovery in Mediterranean**

Egypt has discovered a large gasfield off its north-eastern Mediterranean coastline, Oil Minister Tarek El Molla said in remarks carried by the state media on Friday. He said the field's reserves were still being assessed but the authoritative Middle East Economic Survey this month said it has 3.5 trillion cubic feet of gas. The find was in Nargis, one of four offshore exploration blocks in which Chevron holds operating interests along with Egypt's Tharwa Petroleum Co, the US oil company's website says. The latest find could provide a boost to Egypt's efforts to position itself as an energy hub in the eastern Mediterranean following the 2015 discovery by Italian energy company Eni of the vast Zohr gasfield. Egypt is the second-biggest producer of gas in North Africa after Algeria and accounts for about 1.7 per cent of the world's proven reserves, according to the BP Statistical Review of Energy 2022. It produced about 67.8 billion cubic metres (bcm) of natural gas last year. **16th December 2022**

UGANDA

- **Shs14 trillion refinery deal set to be closed**

A joint venture of American and Italian firms awarded the tender to design, finance and construct Uganda's Greenfield oil refinery has hinted on closing the \$4 billion (Shs14 trillion) Final Investment Decision (FID) for the project next year. The Albertine Graben Refinery Consortium (AGRC) closed the agreement on capital investments or FID this week on the sidelines of the US-Africa Leaders Summit in the US capital, Washington, according to a statement from State House. "The announcement today brings Uganda and the region one step closer to a long-held dream: to add value to our resources, and achieve energy security and economic prosperity for all its citizens," Mr Museveni was quoted as saying. The consortium had been beaten to the tender by a Chinese joint venture, but the deal was flipped on the premise of balancing foreign interests in Uganda's oil sector. The upstream (operation of the oil fields) are French TotalEnergies EP and China's CNOOC which also carry stake in midstream (East African Crude Oil Pipeline). The refinery once developed will be the first American-Italian investment in Uganda. **18th December 2022**

EUROPE

ITALY

- **Eni and Snam form a joint venture to develop the first CCS project in Italy**

Today Eni Chief Executive Officer Claudio Descalzi and Snam Chief Executive Officer Stefano Venier signed an agreement to jointly develop and manage Phase 1 of the Ravenna Carbon Capture and Storage (CCS) Project through an equal joint venture. The agreement also includes the implementation of studies and preparatory activities for the subsequent development phases. Phase 1 of the Ravenna CCS Project covers

	<p>capturing 25,000 tons of CO₂ emitted from Eni’s natural gas treatment plant in Casalborgorsetti (Ravenna). Once captured, the CO₂ will be piped to the Porto Corsini Mare Ovest platform and injected into the homonymous depleted gas field in Ravenna’s offshore. The project represents a fundamental step to respond to the decarbonisation needs of steel mills, cement plants, ceramics and chemical industries and, more generally, of the “hard-to-abate” industry through an immediately available, highly efficient and effective technological process, which makes it possible to exploit the infrastructures and skills already present in the area. 19th December 2022</p> <ul style="list-style-type: none"> <p><u>Maire Tecnimont awarded US \$1.3 bn petrochemical contract</u> Maire Tecnimont announces that its subsidiary Tecnimont has been awarded an EPC (Engineering, Procurement e Co implementation) of a petrochemical project. The overall value of the contract is approximately US \$1.3 billion and relates to the realization of a petrochemical plant facilities. The project’s scope of work entails complete engineering services, equipment and material supply, erection, a completion which is expected in 2026. Maire Tecnimont, heads an international industrial group that is a leader in the transformation of natural resources (plan technological and execution competences). Through its subsidiary NextChem, it operates in the field of green chemistr transition. Maire Tecnimont Group operates in about 45 countries, through approximately 50 operative companies and and about 9,300 people. 22nd December 2022</p>
GERMANY	<ul style="list-style-type: none"> <p><u>German distributors to convert gas pipelines to hydrogen targeting 2025 start</u> 1100-kilometre corridor would link northern German ports on the Baltic Sea to the south and east of the country, possibly reaching to nearby nations. Three German gas distribution operators have teamed up to convert existing gas pipelines into a hydrogen shipping network connecting the north and south of the country and nearby nations. Gascade, Ontras and Terranets announced the first part of the pipeline would be operational by 2025, and would connect the northern port of Lubmin to the eastern region of Thuringia. By 2028, it would reach further south to Rhineland-Palatinate and, subsequently, Baden Wurttemberg and Bavaria. The plan is to connect the network to the Danish island of Bornholm in 2027, and to Austria, the Czech Republic, Poland and France from 2030, said Gascade managing director Christoph von dem Bussche. 19th December 2022</p>
NORWAY	<ul style="list-style-type: none"> <p><u>Allseas wins big contract - targets 60,000 tonne lift capacity for Pioneering Spirit</u> Ambitious contractor to install 24,000 tonne deck for Aker BP’s Noaka project in Norway as company founder steps aside. Switzerland-headquartered Allseas has landed a major contract that will involve one of the world’s heaviest ever offshore installation operations. The contractor has been selected by Aker BP to transport and install the huge 24,000 tonne production, drilling and quarters deck atop of steel jacket as part of the Noaka project offshore Norway. Contract award follows the completion of front-end engineering and design work for a single-lift transport and installation solution tailored to Allseas’ heavy lift vessel Pioneering Spirit. Allseas head of projects Matthijs Groenewegen said: “It will be one of the heaviest offshore installation projects in history”. 19th December 2022</p> <p><u>Subsea 7 confirms three contracts for field development projects in Norway</u> Aker BP subsea alliance partners Aker Solutions and Subsea 7 have announced signing contracts worth over \$5.06bn for three field development projects in Norway. The contract was awarded as part of the Norwegian oil firm Aker BP’s subsea alliance framework with offshore engineering company Subsea 7. Aker BP will also handle the installation process, while Aker Solutions will provide subsea production systems and umbilicals. The two companies will work on the Yggdrasil (formerly known as NOAKA), Valhall PWP-Fenris, and Skarv Satellites projects after Aker BP and its partners submitted a plan for development and operation. According to the company, the projects intend to generate 1.1 billion barrels of oil equivalent (boe) in recoverable petroleum resources. Aker BP will receive a net 730 million boe at a break-even price of \$35-40 per boe. The North Sea’s largest project, Yggdrasil, formerly known as NOAKA, aims to develop a collection of oil and gas discoveries between the Oseberg and Alvheim fields. These discoveries are estimated to have 650 million</p>

	<p>boe worth of recoverable resources. Monica Th. Bjørkmann, senior vice president for Subsea 7 Norway, said: “The partnership enables Subsea 7 to engage early in the field development process, optimising design solutions and contributing to a positive final investment decision.” Aker Solutions also signed a two-year contract renewal worth up to \$408m for maintenance and modification work for Aker BP’s operated field centres Valhall, Ula, Alvheim, and Skarv offshore Norway. 16th December 2022</p> <ul style="list-style-type: none"> • <u>Aker BP plan \$20bn investment to develop Norwegian offshore fields (offshore-technology.com)</u> The projects are expected to increase Aker BP’s oil and gas production to approximately 525,000 barrels per day in 2028. Aker BP and its partners plan to invest more than NOK200bn (\$20.5bn) to develop several oil and gas fields offshore Norway. The partners have filed ten plans for development and operation (PDOs) and a plan for installation and operation (PIO) to the Norwegian Ministry of Petroleum and Energy (MPE). The latest move comes as oil firms working offshore Norway seek approval for new projects to benefit from temporary tax benefits, which would expire this year, reported Reuters. The field development projects are expected to increase Aker BP’s oil and gas production to approximately 525,000 barrels per day in 2028 from about 400,000 barrels per day this year. With an estimated investment of NOK115bn (\$11.65bn), the Yggdrasil project comprises multiple discoveries with total recoverable resources of about 650mboe. For the project, which is planned to start production in 2027, Aker BP has partnered with Equinor and Lotos Exploration & Production Norge. The Valhall PWP Fenris project, which will see an investment of NOK50bn (\$5.07bn), involves installation of a new process and wellhead platform bridge that will be connected to the Valhall field centre as well as an unmanned wellhead platform on the Fenris field. 19th December 2022
NETHERLANDS	<ul style="list-style-type: none"> • <u>Air Liquide receives support from Netherlands for two large-scale electrolyzer projects</u> The two projects will produce a total of around 30,000 tonnes of renewable hydrogen per year without generating any CO2 emissions. Air Liquide welcomes the Dutch State decision to support its large-scale renewable hydrogen projects, named ELYgato Common European Interest (IPCEI) Hy2Use program. These electrolyzer projects, which will each have a capacity of 2 decarbonization of the Dutch and neighboring countries’ industry and support the growth of clean mobility markets. Both electrolyzers will run on renewable electricity. The two projects will produce a total of around 30,000 tonnes of renewable hydrogen per year without any CO2 emissions. Compared to a traditional process, this will avoid the emission of more than 5 million tonnes of CO2. The ELYgator project will be located in Terneuzen, the Netherlands. 22nd December 2022
SWITZERLAND	<ul style="list-style-type: none"> • <u>Bachem signs long-term follow-on contract for peptides manufacturing</u> Bachem Group today announced the signing of a further work order for the delivery of large volumes of peptides for a 4-year period from 2025-2029, which follows the conclusion of two large volume contracts announced on 20 September 2022. The companies have agreed not to disclose additional details and respect customer confidentiality. Bachem is pursuing an investment program across all sites to expand capacity. A modern large-scale facility for the manufacture of peptides (Building «K» – TIDES FABrication Plant) with the potential to double the manufacturing capacity at the Bubendorf site (canton of Aargau) and is intended to further strengthen the production network from the end of the decade onward. Bachem across its global manufacturing network at sites in Vionnaz (Switzerland), Torrance (USA), Vista (USA) and St. Helens. 17th December 2022
SWEDEN	<ul style="list-style-type: none"> • <u>Ørsted to develop Europe’s largest green e-methanol project ‘FlagshipONE’</u> FlagshipONE is expected to enter into operation in 2025 and will produce around 50,000 tonnes of e-methanol each year to help decarbonise the world’s shipping industry. Ørsted’s Board of Directors has taken final investment decision (FID) on the 50,000 tonnes/year FlagshipONE e-methanol commercial-scale Power-to-X facility and is an important steppingstone towards Ørsted’s ambition of taking a leading role in reinforcing the commitment to the FID, Ørsted has taken full ownership of FlagshipONE by acquiring the remaining 55% from the original developer of the project. Located in Örnsköldsvik in Northern Sweden, FlagshipONE is Europe’s largest FID’ed green e-methanol facility. FlagshipONE is expected to start production in 2025 and will produce around 50,000 tonnes of e-methanol each year to help decarbonise the world’s shipping industry. Mads Nipper, Group President and CEO of

	<p>Ørsted, says: “Now more than ever, the world needs bold green energy pro to-electrify sectors, and secure regional energy independence. Ørsted is determined to lead the green transformation o constructing projects like FlagshipONE. E-methanol is the best solution currently available to decarbonise hard-to-elec first commercial-scale project, Ørsted will break first ground in advancing our industry-leading pipeline of e-methanol projects. 22nd December 2022</p>
UK	<ul style="list-style-type: none"> <p><u>Plans approved for Keadby 3 carbon capture power station in UK</u> The government approved plans to build a 910MW combined cycle gas turbine power station. It will be constructed alongside a carbon capture and compression plant. The scheme will cost around £2.2 billion in total. The plant would also be connected to the shared CO2 and hydrogen pipelines. These are proposed by the Zero Carbon Humber and East Coast Cluster proposals. SSE Thermal and Equinor are joint venture developers. They have awarded a front-end engineering design contract to a consortium consisting of Aker Solutions, Siemens Energy, and Doosan Babcock. Aker Carbon Capture will also assist with carbon capture technology. The consortium will bring a detailed plan for the proposed plant in North Lincolnshire over the next 12 months. Keadby 3’s effort in the green economy When completed in 2027, Keadby 3 will have removed 1.5 million tonnes of carbon from the atmosphere. This accounts for approximately 5% of the UK total. At the same time as it granted development consent for Keadby, the Government approved more contentious plans for a £165 million new coal mine in West Cumbria. 15th December 2022</p> <p><u>Petrofac to secure \$68 billion projects in 2023</u> Petrofac expects continued growth next year with a “healthy” pipeline of \$68 billion contract awards expected in the next 18 months, the company said in a trading update today. Although the company will record a loss of \$100 billion for the group in 2022 recording a challenging year for the engineering and construction division, the group’s market outlook “remains positive” and the company is “well-positioned on a number of near-term prospects,” Sami Iskander, Petrofac’s group chief executive noted. He added that the company has submitted bids for projects worth \$5.5 billion, out of which the company is at “preferred bidder stage” for \$1.5 billion projects. “We expect these opportunities to provide backlog growth in 2023 and lay the foundations for a return to profitability, positive free cash flow and continued recovery thereafter,” Iskander said. Engineering and construction In 2023, Petrofac will continue to close out the legacy engineering and construction division portfolio and associated commercial settlements. 20th December 2022</p>
NORTH & SOUTH AMERICA	
BRAZIL	<ul style="list-style-type: none"> <p><u>QatarEnergy and partners win Agua Marinha exploration block - NS Energy</u> A consortium comprising QatarEnergy, TotalEnergies and Petronas has won the Production Sharing Contract (PSC) Agua Marinha exploration located in the Campos Basin, Brazil. The consortium secured the licence during the first cycle of open acreage under the production-sharing regime by Brazil’s National Agency of Petroleum, Natural Gas, and Biofuels (ANP). Under the terms of the PSC, QatarEnergy will have a 20% stake, and serve as the operator, while Petrobras will have a 30% stake, TotalEnergies a 30%, and Petronas Petroleo Brasil (PPBL) the remaining 20%. QatarEnergy said that the award further strengthens its position as an upstream player in Brazil, where it already owns a stake in two producing fields and several exploration blocks. TotalEnergies exploration senior vice president Kevin McLachlan said: “TotalEnergies is pleased to expand its presence in the Campos Basin with this new exploration block, alongside three strategic partners. 20th December</p>
USA	<ul style="list-style-type: none"> <p><u>Energy Transfer gets US FERC approval for Gulf Run gas pipeline</u> The pipeline will supply natural gas from key US producing regions to meet the demand along the Gulf Coast and international markets. Ørsted’s Board of Directors has taken the final investment decision (FID) on the 50,000 tonnes/year FlagshipONE e-methanol project. FlagshipONE will be Ørsted’s first commercial-scale Power-to-X facility and is an important stepping stone towards Ørsted’s ambition of taking a leading position</p>

in renewable hydrogen and green fuels. Reinforcing the commitment to the FID, Ørsted has taken full ownership of FlagshipONE by acquiring the remaining 55 % stake in the project from Liquid Wind AB, the project's original developer. Located in Örnsköldsvik in Northern Sweden, FlagshipONE is Europe's largest FID'ed green e-methanol facility. FlagshipONE is expected to enter into operation in 2025 and will produce around 50,000 tonnes of e-methanol each year to help decarbonise the world's shipping industry. Global shipping accounts for around 3 % of global carbon emissions. **20th December 2022**

- **Technip Energies awarded ethylene cracker contract by CPChem and QatarEnergy**

The cracker is designed using modern emissions reduction technology and processes that result in lower greenhouse gas emissions than similar facilities in the United States and Europe. Technip Energies has been awarded a contract for the supply of proprietary cracking furnaces for the 2,000 kta ethane project, a joint venture between Chevron Phillips Chemical (CPChem) and QatarEnergy, along the Gulf Coast in Oran. This latest award is in line with our early engagement strategy with CPChem and QatarEnergy, which resulted in the successful completion of the ethylene license and Process Design Package (PDP). **22nd December 2022**

- **The new Corpus Christi Polymers plant in to become the world's largest**

Corpus Christi Polymers' (CCP) new petroleum derivatives processing and manufacturing plant in Texas will become the largest in the US and in the world once it's fully operational producing 1.1 million tons of polyethylene terephthalate (PET) and another 1.3 million tons of purified terephthalic acid (PTA) materials. Sarens, world leader in heavy lifting, engineered transport and crane rental, will have a crucial role as a supplier of the cranes required for this work. Sarens will move various units, including a Liebherr LR1350 unit with a maximum capacity of 350 tons and a Demag CC2800 with a maximum capacity of 660 tons, to the new CCP facility. During this work, which will begin in January 2023 and last approximately 18 months, Sarens will also offer various transport services on site. This new plant will represent an important step forward for the region's economy, which will see the creation of more than 2,500 direct jobs during the 18-month construction period, in addition to another 250 once the plant is fully operational in 2025. **19th December 2022**

- **Albemarle to invest US\$ 180 million to set up advanced lithium technology park in North Carolina**

Albemarle expects initial occupancy of the new facility by early 2025 and completion of the ATP campus by late 2026. Albemarle Corporation, a leader in the global specialty chemicals industry, announced it has acquired a location in China for at least \$180 million to establish the Albemarle Technology Park (ATP), a world-class facility designed for novel materials acceleration of next-generation lithium products to market. The company anticipates that innovations from the new site will enhance lithium recovery, improve production methods breakthrough levels of battery performance. "Albemarle Technology Park is part of our mine-to-market innovation strategy to invest in the U.S. EV battery supply chain materials for next-generation energy storage," said Kent Masters, Albemarle CEO. "This facility will focus on accelerating and enabling the world's transition to more sustainable energy." Albemarle was awarded a nearly \$13 million incentive package from the State of North Carolina to develop the advanced development, and product innovation facility in Mecklenburg County, North Carolina. "Albemarle's work on the next generation of products related to lithium batteries really advances North Carolina's leadership," said Governor Cooper. **15th December 2022**

- **Thyssenkrupp Uhde selected by CF Industries and Mitsui for blue ammonia project in U.S.**

The new greenfield facility will produce blue ammonia by leveraging carbon capture and sequestration processes to reduce carbon emissions by more than 60% compared to conventional ammonia. Thyssenkrupp Uhde has been selected as technology provider for a new "Blue Ammonia" plant in the United States by ammonia marketers in the world, and CF Industries Holdings, Inc. (CF), the world's largest producer of ammonia. The new ammonia by leveraging carbon capture and sequestration processes to reduce carbon emissions by more than 60% cost step, Thyssenkrupp Uhde will conduct a front-end engineering and design (FEED) study for the proposed joint venture of export-oriented greenfield blue ammonia facility in Ascension Parish, Louisiana, USA. Demand for blue ammonia is increasing as an energy source, both for its hydrogen content and as a fuel or feedstock itself. CF and Mitsui had previously signed a joint development agreement that provides

the framework for the FEED study. In the third quarter of 2022 on the west bank of Ascension Parish, Louisiana, on which the proposed facility would be con forward. CF Industries and Mitsui expect to make a final investment decision on the proposed facility in the second half new world-scale capacity ammonia plant typically takes approximately 4 years. Dr. Cord Landsmann, CEO thyssenkrupp Uhde. **17th December 2022**

- **Air Liquide scoops Woodside hydrogen prize**

French contractor Air Liquide has won a major contract to supply liquefaction equipment for Woodside Energy's proposed H2OK hydrogen project in Ardmore, Oklahoma, in the US. Air Liquide will provide the engineering and fabrication of two 30 tonnes per day liquefaction units, which will liquefy hydrogen produced through electrolysis in preparation for storage, loading and transportation to customers. Woodside chief executive Meg O'Neill said the contract award was a significant milestone for H2OK, for which front-end engineering and design activities are targeted to be completed this year. Project sanction next year Woodside is targeting the final investment decision for H2OK in 2023, subject to all necessary approvals and appropriate commercial arrangements being finalised. In addition to H2OK, Woodside is working on the proposed H2Perth and H2TAS hydrogen projects in Australia; while the company was recently named the preferred partner to progress to the development stage of the proposed Southern Green Hydrogen project in New Zealand. **20th December 2022**

- **The new Corpus Christi Polymers plant in to become the world's largest**

Corpus Christi Polymers' (CCP) new petroleum derivatives processing and manufacturing plant in Texas will become the largest in the US and in the world once it's fully operational – producing 1.1 million tons of polyethylene terephthalate (PET) and another 1.3 million tons of purified terephthalic acid (PTA) materials. Sarens, world leader in heavy lifting, engineered transport and crane rental, will have a crucial role as a supplier of the cranes required for this work. Sarens will move various units, including a Liebherr LR1350 unit with a maximum capacity of 350 tons and a Demag CC2800 with a maximum capacity of 660 tons, to the new CCP facility. During this work, which will begin in January 2023 and last approximately 18 months, Sarens will also offer various transport services on site. This new plant will represent an important step forward for the region's economy, which will see the creation of more than 2,500 direct jobs during the 18-month construction period, in addition to another 250 once the plant is operational in 2025. **19th December 2022**

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