

GERAB**BULLETIN**

Weekly News

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

- Nickel prices are in uptrend and trading higher by 36% than a year ago prices.
- Natural gas prices have seen sharp decline and went down by 28% WTD and is lower by 36% 6MTD
- Iron ore prices have gone up by 30% MTD and trading higher by 6 % than a year ago prices.
- Crude Oil Brent prices gained 10% WTD but Crude Oil WTI prices went down by 4% WTD. Crude oil WTI is trading lower by 3% than a year ago prices.

The Currency summary

- US Dollar to Euro is stronger by more than 6% YTD but Euro has gained over USD by 7% 3MTD
- The US Dollar to CNY is stronger by more than 8% YTD

The Rig count summary

- The Rig counts in North America have gone down by 12% MTD and in Europe , it has gone down by 6% MTD

Project summary

- ADNOC allocates \$15 billion to low-carbon projects
- Kuwait's \$6.3bn Clean Energy Projects Under Implementation
- Contracting giants to battle for Saudi Aramco's \$6 billion Jafurah development
- Aramco awards \$693 million contract for desalination plant
- Indonesia approves \$3bn development plan for South China Sea gas block
- India approves \$2.4 billion hydrogen plan
- Indonesia Approves \$3 Billion Development Plan for South China Sea Gas Block

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	10,270.54	2.71	6.14	6.03	-6.43	-4.28
Coal	USD/MT	445.50	0.87	15.77	-7.95	2.18	145.61
Cobalt	USD/MT	41,336.67	-5.21	-6.47	-26.59	-35.54	-44.70
Copper	USD/MT	8,374.00	0.26	-0.59	10.80	11.57	-14.06
Crude Oil	USD/BBL	83.09	7.92	6.11	-7.73	-19.27	-1.06
Crude Oil Brent	USD/BBL	85.91	10.45	6.41	-7.81	-18.52	1.14
Crude Oil WTI	USD/BBL	80.26	-3.75	5.79	-7.64	-20.06	-2.63
Iron Ore	USD/MT	117.15	7.22	29.91	18.79	-14.21	5.61
Molybdenum	USD/MT	58,608.90	5.81	39.25	59.72	52.98	43.01
Natural Gas	USD/MCF	4.64	-27.62	-24.72	-26.81	-36.17	7.57

Nickel	USD/MT	29,920.00	6.51	2.61	35.97	38.90	36.02
Steel HRC (FOB China)	USD/MT	571.16	-1.18	-0.59	2.86	-7.67	-23.82
Steel HRC (N. America)	USD/MT	749.04	0.47	4.80	-11.20	-26.00	-51.90
Steel Rebar	USD/MT	634.15	2.74	13.15	3.43	-14.46	-18.28
Steel Scrap	USD/MT	417.00	8.88	8.77	16.91	11.20	-11.04

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	1.0619	-0.40	1.15	7.22	3.46	-6.13
USDCNY	1 USD to CNY	China	CNY	6.8927	1.14	1.16	2.47	-2.69	-8.15

Source- Trading Economics

CRUDE OIL STOCK

Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	15,83,499.00	-0.92	-1.06	-3.29	-5.66	-11.46

Source: US Energy Information Authority

SELECTIVE COMMODITY TRADERS AND PIPE MANUFACTURERS STOCK PRICES

STOCK PRICES

Name	Latest Value	Units	WTD%	MTD%	3MTD%	6MTD%	YTD%
ArcelorMittal SA	27.48	USD	3.82	3.70	26.40	25.71	-16.80
Glencore PLC	506.60	GBP	-9.26	-9.79	1.26	26.65	28.91
NYSE American Steel Index	1,737.67	Index	-0.30	-1.83	15.10	25.54	6.79
Rio Tinto PLC	5,845.00	GBP	0.19	3.07	14.97	25.94	16.09
Tenaris SA	32.04	USD	-9.24	-1.48	10.37	34.85	46.37
Tubacex SA	2.04	EUR	4.08	0.00	3.03	-2.86	23.94

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	861	-1.37	-11.78	-11.78	-4.86	27.37
Total	1,739	*	-6.35	-3.55	2.72	18.87

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE	<ul style="list-style-type: none"> <u>Veolia Joins Masdar, Beeh to Operate and Maintain Sharjah WtE Plant</u> Veolia Near & Middle East, Beeh Group, UAE and Masdar, UAE have formed a joint venture to operate and maintain the Sharjah Waste to Energy Plant, the region's first of its kind at commercial-scale. The facility, owned by Beeh Group and Masdar through their joint venture, Emirates Waste to Energy, can process 300,000 tonnes of municipal waste every year while producing 30 megawatts (MW) of low carbon energy, enough to power up to 28,000 homes and offset up to 450,000 tonnes of CO2 emissions per year. The joint venture between Veolia Near & Middle East, Masdar, and Beeh Group will operate and maintain the facility for a period of 25 years. The joint venture will also draw from its collective experience and insights to help operate and maintain waste to energy projects across the UAE and the region. 4th January 2023 <u>ADNOC allocates \$15 billion to low-carbon projects</u> ADNOC announced today an investment of \$15 billion in a range of projects by 2030 that will help the state-owned energy company accelerate its low-carbon growth strategy. These projects will include investments in clean power, carbon capture and storage (CCS), further electrification of its operations, energy efficiency, and new measures to build on ADNOC's long-standing policy of zero routine gas flaring. Combined with ADNOC's planned expansion of its carbon capture capacity to 5 million tons per annum (mtpa) by 2030, the UAE will be firmly established as a worldwide hub for carbon capture expertise and innovation. Building on the multi-billion capital investment in decarbonization projects, ADNOC is working closely with its international partners and stakeholders across the energy value chain to collaborate on technology, best practices and policy to support and drive global decarbonization efforts. 5th January 2023
KUWAIT	<ul style="list-style-type: none"> <u>Kuwait's \$6.3bn Clean Energy Projects Under Implementation</u> Kuwait has clean energy projects worth \$6.3 billion under implementation, while it has only 0.5% of the installed clean energy capacity. There is optimism in future renewable and clean energy projects in the region, including blue and green hydrogen and ammonia schemes, as there are projects worth \$54.1 billion, or 1.8 percent of regional GDP, that have exceeded the study phase, of which \$31.5 billion are in the phase of bidding study. Additional projects worth \$282 billion, equivalent to 9.6% of the regional gross domestic product, are under study. The two countries that continue to lead the region in terms of their energy transition potential are Morocco and Jordan, both of which have committed to 50% green energy by 2030. Both countries already have renewable and clean energy totaling more than 33% of total energy demand, both of which have seen above-average spending on green new capacity over the past five years, with each country allocating more than 2% of GDP. 29th December 2022 <u>Technip Energies Awarded PMC Contract in Kuwait</u> Technip Energies announced in a statement that it has been awarded a large contract for Project Management Consultancy (PMC) by Kuwait Oil Company (KOC). The five-year framework agreement contract covers front-end engineering design (FEED), project management, and

associated services for KOC's major projects. This contract represents a renewal of the first five-year framework agreement that was awarded to Technip Energies by KOC in 2014. Charles Cessot, Senior Vice-President T.EN X of Technip Energies, commented: "We are delighted by the continued confidence shown by KOC with this award to support them on their major developments. This award reinforces the strong and lasting relationship we have built with KOC and reaffirms our outstanding consultancy delivery as well as our long-standing presence in Kuwait. A "large" award for Technip Energies is a contract award representing between €250 million and €500 million of revenue. As the framework agreement is call-off in nature, the overall value of the contract will be progressively added to order intake as it is called off by the client. **5th January 2023**

OMAN

- **Oman LNG signed agreements with ITOCHU, JERA and Mitsui**

Oman LNG signed three binding sheet agreements with Japanese firms for the production and delivery of LNG starting from 2025. The total amount of LNG to be delivered is 2.35 million metric tonnes per annum (MTPA). The new agreements will see Oman LNG supplying LNG based on contracts varying from 5 to 10 years. The amount of LNG to be delivered is as follows: 0.8 MTPA to ITOCHU Corporation, 0.8 MTPA to JERA Co., Inc. and 0.75 MTPA to Mitsui and Co. Ltd. Eng. Salim Nasser Al Afi, Minister of Energy and Minerals and Nishimura Yasutoshi, Japanese Minister of Economy, Trade and Industry were present during the signing ceremony. The agreements were signed by Hamad Al Nu'amani, CEO of Oman LNG, Tetsuya Yamada from ITOCHU Corporation, Hitoshi Nishizawa from JERA Co., Inc. and Motoyasu Nozaki from Mitsui and Co. **30th December 2022**

- **Salalah2' Green Ammonia Project likely to be Launched in Q1, 2028**

Japanese trading company Marubeni's green ammonia project in Salalah Free Zone in Dhofar Governorate, Oman, is slated for commercial launch in the first quarter of 2028. Marubeni is the lead developer in a multinational consortium that seeks to set up 'Salalah2' a one million tonnes per annum capacity green ammonia project that will use a combination of solar and wind-based renewable energy to power the multibillion-dollar venture, the report said. **30th December 2022**

- **Shell Plans Blue Ammonia Production from Oman's Mabrouk Gas Field**

Shell plans to exploit the gas reserves of the Mabrouk field to produce blue ammonia for the local market, said a senior official at Shell Oman. Waleed Hadi, Shell's Head of Operations has revealed that by next year, the company in partnership with the Ministry of Energy and Minerals, will arrive at an agreement to exploit the gas reserves from concession Blocks 10 and 11. He added that the project may progress from the evaluation stage to detailed engineering studies in 2023 but a Final Investment Decision (FID) will be taken only if the project is found commercially feasible. ecently, Shell Oman awarded Petrofac three major Engineering and Procurement Services (EPS) contracts for Block 10 of Mabrouk field. **4th January 2023**

- **Saudi Aramco's Riyadh Refinery Upgrade Projects**
Saudi Aramco has awarded a contract for the key desulphurisation project at Riyadh refinery, to Technip Energies of France. The contract for the engineering, procurement and construction (EPC) work is expected to be worth up to \$250mn. The broad scope of work is to modify existing sulfur recovery units (SRUs), as well as install tail gas treatment units (TGTUs), to increase the sulfur dioxide recovery at the two refineries from 96-97 percent to 99.95 percent. Installation of the TGTUs will remove the remaining sulfur dioxide in operations after SRU treatment, preventing its release to the atmosphere. The front-end engineering and design (FEED) work the project has been done by Jacobs-ZATE. The projects aim to meet Saudi Arabia's environmental guidelines with respect to sulfur dioxide emissions from industrial facilities. **28th December 2022**
- **Samsung Secures Hawiyah Unayzah Gas Reservoir Storage (HUGRS)**
Saudi Aramco awarded the project "Construction of Hawiyah Unayzah Gas Reservoir Storage (HUGRS) Project". The project location is in Hawiyah Unayzah area, eastern region of Kingdom of Saudi Arabia. The project has been awarded to South Korean Oil & Gas Company, Samsung Engineering. The value of the project is \$ 1.85 billion. Hawiyah Unayzah Gas Reservoir Storage (HUGRS) Project: The project includes gas injection facility of 1,500 million standard cubic feet per day (MMSCFD) and a gas reprocessing facility of 2,000 MMSCFD. Once the project completed, it will introduce surplus sales gas into existing well during winter and reproduce gas to match the increase in demand in the summer, due to regional characteristics Samsung Engineering will execute the project on engineering, procurement and construction (EPC) basis. Power supply to HUGRS project will be facilitated through Saudi Electricity Company (SEC). Saudi Arabia's Alfanar Construction Company will construct the 380kV Substation for the HUGRS facility. The value of the project is \$58.5 million. India's Larsen & Toubro (L&T) will construct associated 380kV Transmission line network for HUGRS project. The value of the project is \$61.5 million. **28th December 2022**
- **Aramco, TotalEnergies to Build \$11bn Petrochemical Complex in Saudi Arabia**
The Saudi Arabian Oil Company (Aramco) and TotalEnergies have taken the final investment decision for the construction of a world scale petrochemical facility in Saudi Arabia. The 'Amiral' complex will be owned, operated, and integrated with the existing SATORP refinery located in Jubail on Saudi Arabia's eastern coast. The petrochemical facility will enable SATORP to convert internally produced refinery off-gases and naphtha, as well as ethane and natural gasoline supplied by Aramco, into higher value chemicals, helping to advance Aramco's liquids to chemicals strategy. The complex will comprise of a mixed feed cracker capable of producing 1.65 million tons per annum of ethylene, the first in the region to be integrated with a refinery. It will also include two state-of-the-art polyethylene units using Advanced Dual Loop technology, a butadiene extraction unit, and other associated derivatives units. The project alone represents an investment of around \$11 billion, of which \$4 billion will be funded through equity by Aramco (62.5%) and TotalEnergies (37.5%). Its construction is scheduled to begin during the first quarter of 2023 with commercial operation targeted to start in 2027. **3rd January 2023**
- **Contracting giants to battle for Saudi Aramco's \$6 billion Jafurah development**
Second phase of Jafurah project is expected to lift production to 2 Bcfd of gas by 2030. Leading international contracting giants are set to compete for the second development phase of Saudi Aramco's Jafurah unconventional onshore gas project, with key packages worth upwards of \$6 billion. The Saudi state-owned giant recently sought expressions of interest for multiple engineering, procurement and construction (EPCI) packages for Jafurah phase two and is expected to issue tenders to short-listed players promptly, two people close to the bid process said. Saudi Aramco is carrying out a phased development approach for its \$100 billion-plus

Jafurah project, which is expected to produce up to 2 billion cubic feet per day of gas by 2030.
4th January 2023

- **Aramco awards \$693 million contract for desalination plant**
Saudi Aramco has awarded a \$693 million contract to Lamar Holding to develop a seawater desalination plant, Arab News reported, citing a MEED report. The seawater reverse osmosis desalination plant includes a water distribution network, and is a part of the Jafurah gas development scheme. With a design capacity of 80,000 cubic meters a day, the project also includes power and utility facilities. By 2023, the plant is expected to have a power capacity of 270-320 megawatts. In addition to Lamar Holding, the local utility developer Mowah Co. is also investing in the seawater desalination plant. SEPCO Electric Power Construction Corp., a Chinese company, will be the assigned EPC contractor for the project. **4th January 2023**

ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)

CHINA

- **Sinopec sets a new vertical well depth record of 8,866 meters in the Sichuan Basin, China**
Sinopec officially unveiled the "Project Deep Earth – Natural Gas Base in Sichuan and Chongqing. China Petroleum & Chemical Corporation (Sinopec) announced that its Yuanshen-1 risk exploration well in the Sichuan at a depth of 8,866 meters, beating the previous deepest record in the Sichuan Basin set by its Rentan-1 well. A major breakthrough of Sinopec's "Project Deep Earth," the Yuanshen-1 well has reached the deepest oil and gas form further shows the great potential of deep ancient carbonate rocks in the region. On the same day, Sinopec officially unveiled the "Project Deep Earth – Natural Gas Base in Sichuan and Chongqing", Company, Sinopec Southwest Oil & Gas Company, Sinopec Zhongyuan Oilfield Company, Sinopec Jiangnan Oilfield C Company. This is Sinopec's third "Project Deep Earth" base after the Shunbei Oilfield and Jiyang Shale Oil bases. To date, Sinopec's deep natural gas resources in the Sichuan Basin in areas with mineral rights have reached 15 trillion China's natural gas reserves and production growth. **31st December 2022**
- **Sinopec Bags New Hydrogen Projects**
Asia's largest refiner Sinopec is progressing with its green hydrogen ambitions, bagging approvals for two new projects in Inner Mongolia that are slated to commence construction in the next 12 months. The approvals come on the heels of Sinopec's peak natural gas consumption forecast. The larger of the two projects approved last week is tagged at 20.5 billion yuan (\$2.9 billion) to be sited in Ulanqab in central Inner Mongolia and targets annual green hydrogen production of 100,000 tons, according to a statement last week from the Inner Mongolia energy bureau. The Ulanqab project is to be integrated with a wind farm of 1.7 gigawatts (GW) and a solar farm of 804 megawatts (MW) for supplying the renewable electricity required for manufacturing green hydrogen. The green hydrogen to be produced would be transported via a long-distance pipeline to Sinopec's Beijing Yanshan petrochemical complex, which already houses a hydrogen purification facility that supplied the Beijing Winter Olympics. Construction on the Ulanqab project is slated to start construction in December 2023, with completion scheduled for June 2027. **29th December 2022**
- **Indonesia approves \$3bln development plan for South China Sea gas block**
The Tuna field, located in the South China Sea between Indonesia and Vietnam, is expected to reach peak production of 115 million standard cubic feet per day (MMSCFD) in 2027. Indonesia has approved the first plan of development for the Tuna offshore gas field with total estimated investment of \$3.07 billion up to the start of production, upstream oil and gas regulator SKK Migas said on Monday. The Tuna field, located in the South China Sea between Indonesia and Vietnam, is expected to reach peak production of 115 million standard cubic feet per day (MMSCFD) in 2027, SKK Migas spokesperson Mohammad Kemal said. Natural gas from Tuna

field, which is operated by a local unit of London-listed Harbour Energy, is expected to be exported to Vietnam starting in 2026. **2nd January 2023**

- **Chevron Lummus bags contract for hydrocracking unit in China**

Chevron Lummus Global LLC (CLG) announced that Shandong Yulong Petrochemical Co., Ltd. has selected EST, which CLG licenses, for a slurry residue hydrocracking unit in Shandong Province, China. The unit will produce naphtha, diesel fuel and vacuum gas oil once it is complete. With a capacity of 3.0 million metric tons per annum (MMTA), it will be one of the largest in the world. The project scope includes the technology license, engineering, proprietary reactor internals and catalyst supply. The Yulong project will be the latest addition to China's recent wave of petrochemical investments, according to Reuters, which have been led by the private sector and global players such as BASF, ExxonMobil, INEOS, and Saudi Aramco, build complexes in the world's top petrochemical consumer and importer. Shandong Yulong Petrochemical Co. Ltd, is a subsidiary of Nanshan Group. **4th January 2023**

INDIA

- **Vedanta invites bids for natural gas from its Rajasthan block.**

Vedanta invites bids for natural gas from its Rajasthan block. Vedanta has invited bids for natural gas from its Rajasthan block at a floor price of \$9.57 per mmBtu. Vedanta plans to sell 3 million metric standard cubic meters a day (mmscmd) of gas in an auction slated for January 18, according to the e-auction document. The supply will be offered for a year beginning April 1 from the Raageshwari gas terminal at Barmer, Rajasthan. The floor price will be one dollar above the domestic formula price, revised every six months and currently at \$8.57 per mmBtu. The sale price will be the lower of Platts LNG West India marker, or 15.25% of the average Brent price plus premium bidders would quote. At the current Brent price of \$82 per barrel and zero premium, the sale price would be \$12.5 per mmBtu. Vedanta enjoys pricing freedom for the gas it produces from its Rajasthan block. Most producing fields in the country don't have pricing freedom, and their gas is sold at the domestic formula price. Gas from difficult fields can be sold at market rates subject to a ceiling, currently at \$12.46 per mmBtu. **31st December 2022**

- **NTPC Signs MoU with Tecnimont to Develop Green Methanol Facility**

NTPC has signed a non-binding memorandum of understanding (MoU) with Tecnimont, an Indian subsidiary of Maire Tecnimont Group, Italy to jointly evaluate and explore the possibility of developing commercial scale green methanol production facility at an NTPC project coming up in India. The green methanol project involves capturing carbon from NTPC power plants and converting it into a green fuel. Green methanol has a wide range of applications, including serving as a base material for the chemical industry, storing renewable electricity, and even as a transportation fuel. It is also considered as a substitute fuel for maritime fuel applications. Currently, NTPC is executing pilot scale green methanol plant at its Vindhyachal thermal power station in Madhya Pradesh. **30th December 2022**

- **MATHESON Wins Large Hydrogen Contract for NRL's Refinery Units**

Nippon Sanso Holdings Corporation ("NSHD", President CEO: Toshihiko Hamada) hereby announces that Matheson Tri-Gas, Inc. ("MATHESON", headquartered in Texas, U.S.), NSHD's U.S. operating company, received the Award for the Supply of Hydrogen and coproduct steam for a period of 20 years from Numaligarh Refinery Limited (NRL), a Public Sector affiliate of the Government of India. MATHESON will invest in, and establish a large, multi-feed hydrogen plant to supply up to 132 kNm³/hr (285 Tons/day) to NRL's refinery units at Numaligarh in Assam, India. The engineering and construction of the plant will be executed by Larsen & Toubro Limited, India, and the reforming technology will be licensed from Topsoe A/S, Denmark. Hydrogen and coproduct steam from the plant will support the highly strategic Numaligarh Refinery Expansion Project (NREP) of the prestigious Northeast development initiative of the Government of India that also includes the Paradip Numaligarh Crude Pipeline (PNCP) project,

	<p>Crude Oil Import Terminal (COIT) at Paradip, India-Bangladesh Friendship Pipeline (IBFP), Numaligarh-Siliguri interstate products pipeline and 2G Ethanol Project. We are proud and honored to be an integral portion of the initiative. 4th January 2023</p> <ul style="list-style-type: none"> <p><u>India approves \$2.4 billion hydrogen plan</u> Green hydrogen is emerging as a future alternative to fossil fuels. Indian government approved on Wednesday a \$2.4 billion plan to promote the green hydrogen industry to reduce carbon emissions and become a major exporter in the field. "The mission aims to make India a global hub for production, utilization and export of green hydrogen," Information Minister Anurag Thakur told reporters after a Cabinet meeting that approved the plan on Wednesday. The project targets the production of 5 million tons of green hydrogen generating 125 GW of power a year by 2030, cutting about 50 million tons of annual carbon emissions. It is also forecast to help reduce dependence on fossil fuels and cut import costs by 1 trillion rupees. The development is also expected to help the country, the world's third-largest emitter of greenhouse gases, achieve net-zero carbon emissions by 2070. 5th January 2023</p>
INDONESIA A	<ul style="list-style-type: none"> <p><u>BP to further develop Tangguh with PSC extension</u> The signing was witnessed by Anja-Isabel Dotzenrath, bp executive vice president, gas & low carbon energy. The Government of Indonesia has granted a 20-year extension of the Tangguh production sharing contract (Tangguh P Tangguh PSC partners. Under the agreement, the Tangguh PSC, which consists of the Berau, Muturi and Wiriagar PSC extended to 2055. The Tangguh PSC extension agreement was signed in Jakarta by Arifin Tasrif, Indonesia's Energy and Mineral Resour Migas (Indonesia's upstream oil & gas regulatory body), Kathy Wu, bp regional president, Asia Pacific gas & low carbo partners. The signing was witnessed by Anja-Isabel Dotzenrath, bp executive vice president, gas & low carbon energy. 28th December 2022</p> <p><u>Indonesia Approves \$3 Billion Development Plan for South China Sea Gas Block</u> Indonesia has approved the first plan of development for the Tuna offshore gas field with total estimated investment of \$3.07 billion up to the start of production, upstream oil and gas regulator SKK Migas said on Monday. The Tuna field, located in the South China Sea between Indonesia and Vietnam, is expected to reach peak production of 115 million standard cubic feet per day in 2027, SKK Migas spokesperson Mohammad Kemal said. Natural gas from Tuna field, which is operated by a local unit of London-listed Harbour Energy, is expected to be exported to Vietnam starting in 2026, Indonesia's energy minister has previously said. The Indonesian navy will also participate in securing the upstream oil and gas project so that economically and politically, it becomes an affirmation of Indonesia's sovereignty." Energy activities in the South China Sea have in recent decades been held hostage by disputes over which country has sovereign rights, with work by Vietnam, Malaysia and the Philippines in their exclusive economic zones disrupted by Chinese coast guard or marine surveillance vessels. 2nd January 2023</p>
MALAYSIA	<ul style="list-style-type: none"> <p><u>Petronas awards onshore EPCC prize for latest floating LNG project</u> Malaysian contractor to power ZLNG project in Sabah. Petronas has awarded Malaysian contractor Kejuruteraan Asastera (KAB) a letter of award for the engineering, procurement, construction and commissioning of a 52-megawatt power plant and associated facilities for its ZLNG floating liquefied natural gas project in Sabah, East Malaysia. Subsidiary KAB Energy Holdings has been tasked with the newbuild power plant that will be located at the Sipitang Oil & Gas Industrial Park. The facility will be the sole source of power for Petronas' nearshore FLNG project for which it recently took the final investment decision. 4th January 2023</p> <p><u>Baker Hughes secures contract for world's largest offshore carbon capture project</u></p>

	<p>Baker Hughes has secured a contract to supply equipment for one of the world’s largest offshore carbon capture and sequestration projects Petronas’ Kasawari project in Malaysia. The Houston-based service firm will supply turbo-compression equipment to Petronas Carigali’s Kasawari CCS project, which will feature state-of-the-art compression technology with a minimised footprint and lower weight that is ideal for offshore, Baker Hughes said. “This award demonstrates the viability of significant, commercial-scale carbon-capture projects, which are critical for the energy transition,” said Rod Christie, executive vice president of industrial and energy technology at Baker Hughes. “This project proves that CCS technology can be deployed even in challenging environments, including offshore gas facilities, and provides an important step forward for reducing emissions from natural gas production. 4th January 2023</p>
SINGAPORE	<ul style="list-style-type: none"> • <u>Keppel O&M win offshore substation contract</u> Singapore contractor boosts track record for offshore wind solutions with sixth OSS. Singapore’s Keppel Offshore & Marine has won a contract from an unnamed international renewable energy company for the construction of an offshore substation worth approximately S\$130 million (US\$96.8 million). Wholly owned subsidiary Keppel Fels’ workscope comprises the engineering, procurement, construction, testing and commissioning for the complete substation. The 600-megawatt OSS is scheduled to be completed during 2025. When completed, the OSS will be deployed at a mystery offshore wind site in the Asia Pacific region. “We are pleased to strengthen our track record in offshore wind solutions. As we extend our footprint and deepen our expertise in the offshore renewables industry, Keppel O&M is well-placed to support the growing demand for offshore wind solutions and contribute towards the global energy transition,” said Tan Leong Peng, managing director (new energy/business), Keppel O&M. 4th January 2023
AFRICA	
ALGERIA	<ul style="list-style-type: none"> • <u>Sonatrach to Explore Downstream Projects with German Firm</u> Algerian national oil company, Sonatrach, has signed Memorandum of Understandings with two German companies to cooperate on green hydrogen and downstream projects. Sonatrach and H&R Group have agreed to cooperate on a feasibility study exploring the use of by-lubricants of the Arzew refinery in Algeria to develop mineral oil specialties including white oils, petroleum jellies, paraffin waxes and lubricants. Arzew Refinery has a distillation capacity of 3 million tons of oil per annum and 60,000 barrels of oil per day. The deal is part of efforts by Sonatrach to deliver more value from its operations at Arzew, according to a statement. In addition, Sonatrach signed an agreement with Leipzig-based natural gas company, VNG AG, to conduct green hydrogen and green ammonia demonstrations with the aim to export to Germany to meet growing energy demand. Sonatrach and VNG AG will work together on projects aimed at maximizing Algeria’s entire green hydrogen value chain from production, transportation, storage and marketing. The two parties will co-assess the commercial viability of projects to be developed. 2nd January 2023
EGYPT	<ul style="list-style-type: none"> • <u>Egypt Makes 53 New Oil And Gas Discoveries In 2022</u> Egypt has witnessed a spike in its energy reserves in 2022, with 53 new oil and gas discoveries, according to a report by the country’s Ministry of Petroleum and Mineral Resources. The new discoveries include 42 oil wells and 11 gas wells in the Western Desert, the Suez Gulf, the Mediterranean Sea, and Nile Delta. The latest gas discovery in the Nargis block occurred in December. Reuters reported that the discovery has 3.5 trillion cubic feet of natural gas reserves. The Minister of Petroleum and Mineral Resources Tarek El-Molla did say earlier this month that the volume of Nargis gas discovery was still under assessment. 30th December 2022

	<ul style="list-style-type: none"> • <u>Egypt targets 36 Tcf of gas in latest bid round</u> Egypt has launched its latest bid round with 12 blocks available in the Mediterranean Sea and the onshore Nile Delta that between them have the potential to house some 36 trillion cubic feet of gas. This licensing round follows hard on the heels of a 3.5 Tcf gas discovery made by Chevron in the offshore Nile Delta play and aims to stimulate more exploration in a country whose demand for gas continues to rise. 4th January 2023
TANZANIA	<ul style="list-style-type: none"> • <u>Mtwara Gas Power Plant</u> The Mtwara Gas Power Plant is a 300MW gas fired power project planned in Mtwara region in Tanzania. The project will be developed in a single phase. To date work has not commenced on the project despite earlier reports indicating it was scheduled for completion at the end of 2022. The power plant is anticipated to have a 25-year plant service lifetime. The power generated from gas and steam turbine generators will be connected to an adjacent 400 kV substation located within the project site. The Mtwara Gas Power Plant will be a combined cycle gas turbine (ccgt) power and is estimated to cost around \$421.1m. The project is being developed by GE Power, Symbion Power and Tanzania Electric Supply. The power plant is currently owned by Tanzania Electric Supply and Symbion Power. It will be a combined cycle gas turbine (ccgt) power plant. The estimated project cost for the Mtwara Power Plant is \$421.1 million. 4th January 2023
UGANDA	<ul style="list-style-type: none"> • <u>Chinese contractor kicks off Kingfisher development in Uganda Upstream Online</u> A joint venture between China's Offshore Oil Engineering Company (COOEC) and China Petroleum Engineering & Construction Corporation (CPECC) has started construction work on the onshore facilities for the Kingfisher oilfield in western Uganda's Albertine basin. The joint venture, known as CCJV, broke ground last week on a central processing facility (CPF) with crude processing capacity of 40,000 barrels per day, a pump station and well pads under sub-package one of the EPC 3 tender package. The CPF will be built on the south-eastern shore of Lake Albert and is expected to be completed by the end of 2024. 30th December 2022
AUSTRALIA	
AUSTRALIA	<ul style="list-style-type: none"> • <u>Iberdrola and ABEL to build green methanol plant in Australia</u> Iberdrola Australia and hydrogen developer ABEL Energy will build a green hydrogen and green methanol production plant at Bell Bay in northern Tasmania, Australia. The project, called Bell Bay Powerfuels, is backed by the Australian government and will involve an investment of EUR1.1 billion (USD1.17 billion). Bell Bay Powerfuels will produce 200,000 tonnes of green methanol per year in its first phase of development, rising to 300,000 tonnes in its second phase. Iberdrola, a multinational electric utility company based in Bilbao, Spain, is developing 60 renewable and green hydrogen (H2) initiatives in eight different countries. Its goal is to reach 35,000 tonnes of hydrogen per year by 2025 and more than 350,000 tonnes per year by 2030. To this end, the company has a project portfolio of 2,400 megawatts (MW) in different regions, mainly in Spain, the United States and Australia. 5th January 2023
EUROPE	
SWEDEN	<ul style="list-style-type: none"> • <u>Ørsted makes final investment decision on FlagshipONE project</u> Ørsted A/S, a Danish multinational power company, announced that its Board of Directors has made the final investment decision (FID) on the 50,000 tonne-per-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 in renewable hydrogen and green fuels. Ørsted will start onsite construction of FlagshipONE in the spring of

2023. The project will be located on the grounds of the biomass-fired combined heat and power plant Hörneborgsverket in Örnsköldsvik, operated by Övik Energi. The e-methanol from FlagshipONE will be produced using renewable electricity and biogenic carbon dioxide captured from Hörneborgsverket. **30th December 2022**

NORTH & SOUTH AMERICA

BRAZIL

- **Petrobras to proceed with engineering study of GasLub project**

Petróleo Brasileiro S.A. (Petrobras), Brazil’s state-owned oil and gas company headquartered in Rio de Janeiro, on December 22 approved the engineering project for the implementation of production units at the GasLub Hub in Itaboraí to produce ultra-low sulfur diesel fuel, sustainable aviation fuel and Group II base oil. The project includes catalytic hydrocracking (HCC), hydrotreating (HDT), dewaxing by hydrogen isomerization (HIDW) units, auxiliary units, utilities and off-sites (extramural). The next stage will be the development phase, in which the basic engineering studies that will support the project planning will be carried out. Following the company’s project approval governance, the conclusion of the planning phase will support the final investment decision (FID) and the contracting process for the start of the construction. The GasLub Hub project is one of three refining projects that were announced as part of Petrobras’ strategic plan for 2023-2027 which included a Capex of USD78 billion, 10% of which was allocated to downstream projects and 6% for low-carbon initiatives. **30th December 2022**

CANADA

- **Mega carbon capture project in Canada gains new momentum**

An alliance of Canada’s dominant oil sands producers has struck a deal to begin evaluating one of the world’s biggest proposed carbon capture and storage projects in Alberta, targeting initial capacity of 22 million tonnes per annum. Launched in 2021, the Pathways Alliance brings together Canadian Natural, Cenovus Energy, ConocoPhillips, Imperial, MEG Energy and Suncor Energy, which together operate some 95% of Canada’s oil sands production. This CCS project proposed for Alberta’s Cold Lake region is critical to meet the alliance’s objective of cutting CO2 emissions from its member companies’ oil sands operations by 22 million tpa by 2030 and enabling the goal of net zero by 2050, equivalent to about 30 million tpa. **4th January 2023**

USA

- **Talos starts the year in the US Gulf with a pair of discoveries**

US Gulf of Mexico operator Talos Energy has made a pair of deep-water oil and gas discoveries that will be tied back to its nearby Ram Powell tension-leg offshore production platform. Talos said the Lime Rock and Venice prospects were commercial discoveries made during sequential drilling operations in the fourth quarter of 2022. Lime Rock and Venice hit 78 feet and 72 feet of net hydrocarbon pay, respectively, in the primary reservoir targets. Expected combined gross production rates are in-line with pre-drill estimates of between 15,000 and 20,000 barrels of oil equivalent per day. Combined expected gross recoverable resources are in-line with pre-drill estimates of between 20 million and 30 million barrels of oil equivalent. First production from both wells is targeted for the first quarter of 2024 through a shared riser system at the Ram Powell TLP. They are the first two deep-water exploitation wells in Talos’ current “open-water” rig programme that started in the fourth quarter of 2022 and which will continue in the first half of 2023 with the Rigolets and Lisbon prospects. Separately, Talos said it expects results from its operated Mount Hunter development well and its non-operated Puma West exploration well in the first quarter of 2023. The company’s non-operated Pancheron exploration well is also expected to spud in the first half of 2023. **4th January 2023**

- **Transocean Ltd. Announces Contract Awards and Extensions Totaling \$488 Million**

Deepwater Invictus, an ultra-deepwater drillship, was awarded a new three-well contract with an estimated 100-day duration in the U.S. Gulf of Mexico with an independent operator. The

	contract contributes an estimated \$43 million in backlog and is expected to commence in direct continuation of the rig's current program. Transocean Barents, a harsh environment semi-submersible, was awarded a new one-well contract with an estimated 110-day duration in the U.K. North Sea with a major operator. The contract contributes an estimated \$34 million in backlog and is expected to commence in the first quarter of 2023. 5th January 2023
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