

GERAB

BULLETIN

Weekly News



EXECUTIVE SUMMARY

The Commodity summary

- Crude Oil Brent prices are trading lower by 5% WTD and Crude Oil WTI prices are trading lower by 6% WTD and they are trading lower by 30% and 33% respectively than a year ago.
- Iron ore prices are in uptrend and trading higher by 32% 6MTD but still trading lower by 14% than a year ago prices.
- Steel HRC (FOB China) prices in uptrend and trading higher by 16% 6MTD.
- Steel HRC(North America) prices are in uptrend and is trading higher by 75% 3MTD
- Natural Gas prices are in downtrend and is trading lower by 67% 6MTD

The Currency summary

- US Dollar to Euro is stronger by more than 3% YTD
- The US Dollar to CNY is stronger by more than 8% YTD

The Rig count summary

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

Project summary

- HEISCO Kuwait signed \$223.7m Contract for oil flow line Project
- HEISCO Kuwait Submits lowest bid of \$445.5m for Power Plant Rehabilitation Project
- Oman Signed agreements over \$51bn for Green Hydrogen Projects
- Aramco breaks ground on \$7bn Shaheen Petchemical Project in South Korea
- Exxon poised to invest \$15 billion in Angolan oil exploration and discoveries
- Plans underway for construction of giant \$5-8 billion green hydrogen plant in Egypt
- US\$ 790M deal inked for construction of gas-fired power plants in Libya
- LNG export plant in Tanzania expected to cost \$30B
- Octopus Energy announces €1 billion investment
- BHP, partners award \$188m contracts for Jansen potash project in Canada
- QatarEnergy and CPChem celebrate the ground breaking for \$8.5bn Polymers Plant in Texas
- Thiess wins \$104m contract from Minera Centinela for Llano copper project

COMMODITY UPDATES

COMMODITY	UOM	LATEST PRICE	WTD %	MTD %	3MTD %	6MTD %	YTD %
Chromium	USD/MT	10,395.54	0.23	-1.45	2.68	7.32	-8.64
Coal	USD/MT	198.42	-	-18.52	-55.12	-59.00	-47.61
Cobalt	USD/MT	34,392.11	2.23	-1.73	-22.18	-38.09	-58.40

Copper	USD/MT	8,855.50	0.43	-1.44	5.12	15.46	-13.31
Crude Oil	USD/BBL	75.36	-5.64	-5.97	-3.76	-14.09	-31.79
Crude Oil Brent	USD/BBL	78.42	-5.30	-5.97	-2.87	-13.81	-30.39
Crude Oil WTI	USD/BBL	72.30	-6.01	-5.98	-4.71	-14.39	-33.24
Iron Ore	USD/MT	130.04	2.68	4.24	18.36	31.86	-13.82
Molybdenum	USD/MT	70,449.75	-3.71	-13.40	32.70	91.99	66.61
Natural Gas	USD/MCF	2.67	-1.90	-98.04	-56.61	-67.39	-47.90
Nickel	USD/MT	23,010.00	-3.32	-15.34	-21.09	-1.49	-38.04
Steel HRC (FOB China)	USD/MT	664.00	0.15	4.08	15.57	15.61	-22.94
Steel HRC (N. America)	USD/MT	1,248.49	2.96	39.15	74.68	41.24	-1.00
Steel Rebar	USD/MT	699.73	4.48	6.07	15.00	14.13	-18.78
Steel Scrap	USD/MT	449.50	-1.64	2.24	17.25	24.64	-30.24

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	1.0593	0.13	-0.70	0.08	5.80	-3.85
USDCNY	1 USD to CNY	China	CNY	6.9043	1.03	-0.53	1.04	1.35	-8.50

Source- Trading Economics

CRUDE OIL STOCK

Region	Unit	Latest Count	WTD %	MTD %	3MTD %	6MTD %	YTD %
US Stocks of Crude Oil & Petroleum Products	Thousand Barrels	16,30,001.00	-0.12	0.00	3.32	-0.45	-4.51

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	26.69	USD	-12.75	-13.06	4.83	20.82	-16.70
Glencore PLC	418.40	GBP	-11.62	-17.54	-21.22	-14.49	-11.57
NYSE American Steel Index	1,766.93	Index	-10.20	-13.11	4.15	21.92	-3.03
Rio Tinto PLC	5,335.00	GBP	-6.24	-13.10	-4.94	11.48	-1.53
Tenaris SA	28.65	USD	-12.44	-21.87	-12.63	5.18	7.91
Tubacex SA	2.39	EUR	-2.05	3.91	20.71	10.65	38.95
Woodside Energy Group	31.24	AUD	-11.50	-10.74	-12.25	-4.58	0.90

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	966	-2.62	-2.91	12.20	-1.02	19.55
Total	1,846	*	-0.97	6.15	2.38	15.74

Source- Baker Hughes

(*) No weekly data available for those particular regions

NEWS OF THE WEEK

GULF COOPERATION COUNCIL (GCC)

UAE

- **Wärtsilä Signs Five-year Vessel Maintenance Deal**

Finland-based marine technology company Wärtsilä has signed a five-year vessel maintenance deal with Abu Dhabi-based firm National Petroleum Construction Company (NPCC). Wärtsilä said that the agreement covered seven vessels in the NPCC fleet and was designed to maximize operational uptime. "It will also provide flexibility in maintenance scheduling, which will ease chartering arrangements, while providing long-term cost predictability," Wärtsilä said. NPCC is an engineering, procurement, and construction (EPC) contractor to the offshore oil, gas, and petrochemical industries. Wärtsilä said that the scope of the agreement includes Data-Driven Dynamic Maintenance Planning and 24/7 remote operational support, including Wärtsilä's Expert Insight service. "Expert Insight provides predictive maintenance support by combining artificial intelligence (AI) and advanced diagnostics with Wärtsilä's in-house expertise to identify anomalous behavior in a ship's machinery. **13th March 2023**

- **ENEC, INL Explore Developments in Clean Energy Technologies in UAE**

A delegation from the Emirates Nuclear Energy Corporation (ENEC) met with experts from Idaho National Laboratory (INL) in the US, one of the world's largest and most advanced scientific research institutions, to evaluate the latest developments in clean energy technologies, as part of its mission to rapidly decarbonize the UAE's electricity grid. The senior delegation, led by Mohamed Ibrahim Al Hammadi, Managing Director and Chief Executive Officer of ENEC, received a comprehensive briefing during the two-day tour from officials of INL and the US Department of Energy on the latest developments in the relevant sectors. They discussed plans for advanced nuclear technologies, including small modular reactors, clean hydrogen generation, advanced nuclear fuels and materials, as well as the latest technologies in integrated grid management and cybersecurity. INL is one of the world's most important research centres for clean energy innovation, with a focus on development, demonstration and deployment to support industry in delivering the clean energy transition needed in a realistic and proven manner. **14th March 2023**

KUWAIT

- **HEISCO Kuwait signed \$223.7m Contract for oil flow line Project**
Heavy Engineering Industries and Shipbuilding Company (HEISCO), Kuwait announced in a statement that it has signed a contract for the tender issued by Kuwait Oil Company (KOC). The value of the contract is KWD 68.5 million (USD 223.7 million). The Company states that the project is related to Construction of Flowlines and Associated Works in West Kuwait Area. The duration of the contract is Five Years. Earlier during August 2022, HEISCO announces that the company submits the lowest bid for this project. **9th March 2023**
- **Mitsubishi HEISCO JV awarded \$298.3m Rehabilitation of Sabiya Power Plant in Kuwait**
Heavy Engineering Industries & Shipbuilding Co. K.S.C. (HEISCO), Kuwait and Mitsubishi Power Limited Consortium awarded a Project from Ministry of Electricity, Water and Renewable Energy, Kuwait. The value of the contract is KWD 90.9 million (USD 298.3 million). Earlier during April 2022, the consortium submitted the lowest bid. Project Scope of Works includes modernize steam turbines and electric generators for 8 steam units at the Sabiya Power Plant having plant capacity of 2400MW. As per the tender notification, the plant was commissioned in the year 1998-2002 and the steam turbines and generators are in commercial operation for nearly twenty years. Due to age deterioration, some critical problems was noticed on existing units and facilities. Project scope of work includes study and resolve existing problems and extend the life time of steam turbines and generator by ensuring safe and reliable unit operation for another 20 years along with other required activities as mentioned in tender documents. **15th March 2023**
- **HEISCO Kuwait Submits lowest bid of \$445.5m for Power Plant Rehabilitation Project**
Heavy Engineering Industries & Shipbuilding Co. K.S.C. (HEISCO), Kuwait announced in a statement that it has submitted the lowest bid for a Rehabilitation Project at Az-Zour South Power & Water Distillation Station. The tender was issued by Ministry of Electricity & Water & Renewable Energy. HEISCO submitted the price of KWD 136.75 million (USD 445.5 million). Project Scope of Work includes Boiler Rehabilitation & Lifetime Extension And Replacement of Control System For Boiler, Steam Turbine And Auxiliaries for (8) Units At Az-Zour South Power & Water Distillation Station. **5th March 2023**

OMAN

- **OQ Chemicals launches isononanoic acid from bio-based feedstocks**
OQ Chemicals, which is part of OQ, an integrated energy company in the sultanate of Oman, announced the launch of the world's first commercially available isononanoic acid that is produced from both bio-based and circular feedstocks, and is ISCC PLUS certified. The new product, OxBalance Isononanoic Acid, has a bio-based content of more than 70%, providing manufacturers with a sustainable and eco-friendly alternative to conventional isononanoic acid, according to the company. To meet the growing demand for carboxylic acids, OQ Chemicals has recently invested in a capacity expansion project in Germany. Isononanoic acid is widely used in the production of various industrial and consumer goods, such as energy-efficient lubricants, plasticizers, and surfactants. "The demand for bio-based raw materials is increasing across different industries. Therefore, the introduction of our ISCC PLUS certified OxBalance Isononanoic Acid is a significant milestone in our journey towards sustainable chemical production. **8th March 2023**
- **Oman Singed agreements over \$51bn for Green Hydrogen Projects**
Hydrogen Oman "Hydrom" company, a subsidiary of Energy Development Oman (EDO), announced in a statement that it has signed 6 term-sheet agreements with a number of developers to invest in green hydrogen projects in the Sultanate of Oman, to the tune of more than RO 20 billion over the next seven years. These term-sheet agreements were signed with developers from Belgium, the Netherlands, the United Kingdom, Japan, Singapore, Germany, India, Kuwait and the United Arab Emirates. The production capacity of these projects reaches 15GW of electricity, built on an area of approximately 1,500 square kilometers in the governorates of Al Wusta and Dhofar. The agreements include contracting for 47 years, of those 7 years are for the development and establishment of the projects and 40 years for operating the projects. These agreements include two projects for BP Alternative Energy Investments Limited. The first project in Duqm will be set up on area of 320 square kilometers. The second project in the Governorate of Dhofar will be set up on an area of 427 square kilometers with a production capacity of 3.3 GW of electricity

and 150,000 metric tons of hydrogen annually, for both projects. The agreements also include Green Energy Oman (GEO) project on an area of 337 square kilometers, SalalaH2 project on an area of 419 square kilometres. The production capacity of these projects is similar to the BP projects. Further, the agreements include Hyport Duqm project on an area of 150 square kilometres. **15th March 2023**

- **DL E&C to Join Aramco's Shaheen Project**

DL E&C, South Korea announced in a statement that it will participate in the Shaheen Project, the largest domestic petrochemical project ever. The company said on March 10 that it will participate in the connection project of TC2C (thermal crude to chemical) in sector 1 of the Shaheen Project and existing plant. DL E&C will participate in the project by taking over part of the package 1 construction from Hyundai E&C consortium. Package 1 is worth approximately KRW 5.4 trillion, and DL E&C's stake is 26% or KRW 1.4 trillion. The construction period is 42 months, and the project is scheduled to be completed in 2026. The project promoted by S OIL is the largest petrochemical project in Korea with KRW 9.2 trillion invested. Hyundai E&C, Hyundai Engineering, and Lotte E&C as well as DL E&C will participate in the project, which seeks to increase petrochemical products' output ratio from 12% to 25% by building oil refining and petrochemical facilities in the Ulsan Onsan National Industrial Complex. DL E&C will perform TC2C construction, reckoned as a key process of the Shaheen Project. **14th March 2023**

- **Aramco targets \$55 billion investments; eyes increased oil and gas production**

Aramco, the world's most profitable energy company forecast its capital expenditure for 2023 between \$45 to \$55 billion in its largest spending exercise to date as it looks to increase its output capacity to 13 million b/d by 2027, the Saudi giant said in its full year financial results on March 12. Aramco continues to execute its growth plans to promote long-term productivity of Saudi Arabia's reservoirs. Aramco's net income increased by 46.5% to a record \$161.1 billion in 2022, compared to \$110.0 billion in 2021. Given that we anticipate oil and gas will remain essential for the foreseeable future...Aramco has embarked on the largest capital spending program in its history," Aramco CEO Amin Nasser said in a statement. Aramco project updates Aramco noted that construction and engineering activities for the Marjan and Berri crude oil increments continue to progress, and are expected to add production capacity of 300,000 barrels per day b/d and 250,000 b/d, respectively, by 2025. The Zuluf crude oil increment is in the engineering phase, Aramco noted, and is expected to provide a central facility to process a total of 600,000 b/d of crude oil from the Zuluf field by 2026. **14th March 2023**

- **Aramco, Linde to jointly develop ammonia cracking technology**

Saudi energy giant Aramco will partner with global industrial gases and engineering company Linde Engineering to jointly develop a new ammonia cracking technology. The collaboration between the two companies will combine Linde Engineering and Aramco's experience and capabilities in industrial research and development, lower-carbon hydrogen, and ammonia cracking technology, Aramco said in a press release. A potential differentiator of this new technology is the ammonia cracking catalyst, jointly developed by Aramco and the King Abdullah University of Science and Technology (KAUST), which will be evaluated against other catalysts. Through this agreement, Aramco and Linde Engineering plan to build a demonstration plant in northern Germany to showcase this new ammonia cracking technology. Linde Engineering intends to offer this ammonia cracking technology to current and new customers, creating new commercial opportunities within the global lower-carbon energy supply chain. The emerging lower-carbon ammonia business may prove to be key in bridging the gap between a country's domestic renewable energy production capacity and total energy demand. **15th March 2023**

SAUDI ARABIA

- TAQA signs agreement to establish Riyadh-based geothermal venture**
 PIF-backed Industrialisation and Energy Services Co (TAQA) has signed a joint venture agreement with Reykjavik Geothermal to establish TAQA Geothermal Energy LLC, headquartered in Riyadh, Saudi Arabia. TAQA Geothermal will explore and develop geothermal resources in Saudi Arabia and the MENA region contributing to Saudi and Middle East Green Initiatives' decarbonisation targets. TAQA said in a press release that the new joint venture is in "full alignment with the Kingdom's efforts to reduce carbon emissions toward achieving net zero while diversifying the Kingdom's energy mix, in line with Vision 2030," Khalid Nouh, Group CEO of TAQA, said the new company will explore and develop the equivalent of 1GW of Geothermal power from resources in the Kingdom and to further contribute to the realisation of the Saudi and the Middle East Green Initiatives decarbonisation targets. **16th March 2023**

ASIA EXCLUDING GULF COOPERATION COUNCIL (GCC)

INDIA

- ONGC Signs MoU with France's TotalEnergies**
 India's top explorer Oil and Natural Gas Corp has signed a memorandum of understanding with French major TotalEnergies for exploration of deep-water blocks, the company tweeted. India, the world's third biggest oil importer and consumer, ships in over 85% of its oil from overseas. The country wants to quickly monetize its oil and gas resources to reduce its reliance on costly imports. The MoU seeks to provide technical help for ONGC's push to explore and reduce greenhouse emissions in development of deep-water blocks especially in Mahanadi and Andamans, off India's east coast. **15th March 2023**

INDONESIA

- Indonesia Invites Oil Firms to Set Up Carbon Capture facility**
 Oil and gas companies operating in Indonesia are being encouraged to install carbon capture facilities in their working areas, the Energy Ministry said on Friday. The resource-rich country, which is also one of the world's biggest greenhouse gas emitters, issued a new regulation it said was aimed at lowering emissions while boosting the country's declining oil and gas output, but did not make it mandatory for companies to install such facilities. "Indonesia has geological formations that can be used to store carbon emissions permanently through the use of technology," the ministry said, adding that companies should put forward detailed proposals for government approval. The carbon injected into their reservoirs could come from the oil and gas industry as well as other industries, the regulation showed. **10th March 2023**

TURKEY

- Trillion Energy discovers 55+ metres of potential gas pay in West Akcakoca 1 well at SASB gas field**
 Trillion Energy International Inc. ("Trillion" or the "Company") (CSE: TCF) (OTCQB: TRLEF) (Frankfurt: Z62) is pleased to announce the preliminary gas indications from the West Akcakoca 1 well, the fourth well in our multi-well program at the SASB gas field, Black Sea, Turkiye. On March 10, West Akcakoca 1 reached 3,839 metres total measured depth (TMD) and true vertical depth (TVD) of 1,677 meters. During the drilling, an abundance of gas pay was discovered. Our analysis of logging while drilling (LWD) data suggests 55 metres of potential natural gas pay within 6 sands in the Akcakoca member (SASB production zone). That is 4 for 4 success at SASB, as Trillion successfully executes its gas development program at SASB. We eagerly await the gas flow rates and plan to put the wells into production, end of this month. As South Akcakoca 2, Guluc 2 and West Akcakoca 1 wells targeted resource prospects, not reserves, Trillion has significantly increased the proved reserves through the drilling program to date. We expect to release our updated reserve report by the end of the month. **15th March 2023**

MALAYSIA

- PTTEP steps up the pace offshore Malaysia**
 Thailand's national upstream company PTTEP is ramping up exploration on Block SK 405B offshore Sarawak, East Malaysia, which hosts the operator's Sirung oil and gas discovery that is under appraisal as part of a proposed cluster development. PTTEP has brought in another rig Velesto Energy's jack-up Naga 3 — to the block to imminently spud the Chenda-1 wildcat offshore the northwest coast of Borneo. The Chenda-1

	<p>exploration well is expected to take six weeks to complete. This latest probe on Block SK 405B is being supported by three Malaysia-flagged vessels: the large anchor-handling tug supply vessel JM Ehsan, and the very large AHTS vessels Sealink 178 and Sealink 179. In tandem, PTTEP has chartered another Sealink vessel the small AHTS vessel Cassandra VI — to perform a geophysical survey over the location of its planned Satong-1 exploration well, also on Block SK 405B. Shallow-water Block SK 405B is located about 137 kilometres offshore Bintulu, which is home to the Petronas LNG Complex. 13th March 2023</p>
MONGOLIA	<ul style="list-style-type: none"> <p><u>Mongolia to decide on gas pipeline route after Russia-China cost agreement</u> Russian energy company Gazprom is planning to build the 2,600 km Power-of-Siberia 2 gas pipeline to supply 50 billion cubic metres of gas per year to China by 2030. Mongolia will take a decision on which part of its territory will be used to construct the Russia-China gas pipeline once its neighbours reach an agreement on costs, the country's prime minister said. Russian energy company Gazprom is planning to build the 2,600 km Power-of-Siberia 2 gas pipeline to supply 50 billion cubic metres of gas per year to China by 2030. Mongolian Prime Minister Luvsannamsrain Oyun-Erdene told Reuters on Tuesday that talks between its two big neighbours had been put on the back burner due to the Ukraine war, but there was a likelihood of them coming back to the negotiating table. After Russia and China decide on the pricing, Mongolia will decide on how they can use its territory to transport the gas, Oyun-Erdene said. Nearly 80% of Mongolia's total exports go to China, but the mineral-rich country is working to expand trade and mining relationships beyond China and Russia and hopes to become a bridge between Europe and Asia. 15th March 2023</p>
SOUTH KOREA	<ul style="list-style-type: none"> <p><u>Aramco breaks ground on \$7bn Shaheen Petrochemical Project in South Korea</u> Saudi Aramco announced in a statement that, Ground Breaking ceremony was held for Shaheen petrochemical project in Ulsan. South Korean President Yoon and Aramco President & CEO Amin H. Nasser attended the groundbreaking ceremony for the \$7 billion Project. Ministers and senior officials from both countries also attended the milestone event. The Shaheen project, which was announced in November 2022, is being developed by Aramco affiliate S-OIL and is a key part of Aramco's regional crude to chemicals strategy. Amin H. Nasser, Aramco President & CEO, said: "We are deeply honored by the presence of His Excellency President Yoon at this historic groundbreaking ceremony. Shaheen is among Aramco's biggest international downstream investments, representing a significant and sizeable step forward in our liquids-to-chemicals expansion and another major milestone in further strengthening our presence in Korea." Shaheen is Aramco's biggest investment in Korea to date and is expected to be one of the largest integrated steam crackers in the world. It is also the first major commercial deployment of Aramco's thermal crude to chemicals technology, that was developed in collaboration with Lummus Technology. The new plant is planned to have the capacity to produce up to 3.2 million tons of petrochemicals annually and include a facility to produce high-value polymers. The project is expected to be completed by 2026. 9th March 2023</p>
AFRICA	
ANGOLA	<ul style="list-style-type: none"> <p><u>Exxon poised to invest \$15 billion in Angolan oil exploration and discoveries</u> Exxon Mobil Corp. could invest \$15 billion through 2030 if it makes commercial oil discoveries in the Namibe Basin, Paulino Jeronimo, chairman for the Angola National Agency for Petroleum, Gas and Biofuels, said in Luanda. ANPG, Exxon and state-owned Sonangol signed an addendum to blocks 30, 44, and 45 in the Namibe Basin to make exploration in the area more competitive. Exxon will pursue a potential exploration well in 2024 as a result of improved fiscal terms. The move is part of an effort by the Angolan government to attract investment into the oil sector, which accounts for more than 90% of the country's exports, even as it privatizes state-owned enterprises in a bid to diversify the economy. Exxon Mobil Corp. could invest \$15 billion through 2030 if it makes commercial oil discoveries in the Namibe Basin, Paulino Jeronimo, chairman for the Angola National Agency for Petroleum, Gas and Biofuels, said in Luanda. The move is part of an effort by the Angolan government to attract investment into the oil sector, which accounts for more than 90% of the country's exports, even as it privatizes state-owned enterprises in a bid to diversify the economy. 14th March 2023</p>

EGYPT	<ul style="list-style-type: none"> <u>Energean announces first gas at North El Amriya and North Idku project</u> The company produced the gas from the well, NEA#6, marking a development period of two years and two months from the final investment decision, and the remaining three wells are expected to be operational this year. UK-based oil and gas exploration and production company Energean announced that the first gas was produced at North El Amriya and North Idku (NEA/NI) development offshore Egypt. The company sanctioned the project in January 2021, which represented a development period of two years and two months from the final investment decision to the first gas. It has produced the first gas from well NEA#6, and the remaining three wells are expected to be operational this year. The NEA/NI development contains an estimated 39mmboe of 2P reserves with 88% gas, and a net working interest production is expected to peak at 15 to 20kboed in 2024. The development leverages existing infrastructure and involves the subsea tieback of four wells to Energean’s North Abu Qir PIII platform. 10th March 2023 <u>Plans underway for construction of giant \$5-8 billion green hydrogen plant in Egypt</u> Plans are underway for the development of a giant \$5-8 billion green hydrogen plant in Egypt. This was announced by the chairman of China International Energy Group (CIEG) Sisi. The announcement comes in light of Egypt’s significant resources in the field of green hydrogen according to Egyptian Presidential Spokesperson Ahmed Fahmi. CIEG met with Egyptian President Abdel Fattah El-Sisi and a number of Egyptian officials regarding the \$5-8 billion green hydrogen plant in Egypt. During the meeting, Sisi affirmed Egypt’s eagerness to increase economic cooperation and investments with Chinese companies in the different fields of mutual concern. Remarks on the proposed green hydrogen project in Egypt The Chairman of CIEG said, “China is eager to increase its investments in Egypt over the upcoming period. This is all thanks to the close ties that exist between the two nation’s leaders.” “This is especially relevant in light of Egypt’s industrial infrastructure’s qualitative improvement over the past few years, which created new investment prospects,” the chairman continued. 14th March 2023
GABON	<ul style="list-style-type: none"> <u>Paris-headquartered Maurel & Prom pledges to invest \$85m in Gabon</u> Maurel & Prom, an oil company based in Paris, has announced it will invest \$85 million to develop its activities in Gabon this year after spending \$67 million in the African country last year. Maurel CEO Olivier de Langavant indicated that planned investment in Gabon is a chunk of the company’s total 2023 investment put at \$100 million. The company is also planning to produce 26,200 barrels of oil equivalent per day this year, of which 15,600 bpd will come from Gabon. In 2022, Gabon produced 14,646 bpd. An accident at the Cap Lopez export terminal in April 2022 reportedly brought down production which however returned to normal in the third quarter of the year. Maurel began a well-stimulation campaign in the fourth quarter of 2022, finishing in early 2023. There has been a “significant increase” in production potential, now said to be over 21,000 bpd. The company also aims to invest in a 3D seismic shoot on Ezanga this year. This had been planned for 2022. Maurel has an 80% stake in Ezanga. 16th March 2023
LIBYA	<ul style="list-style-type: none"> <u>US\$ 790M deal inked for construction of gas-fired power plants in Libya</u> A deal worth \$790 million has been signed for the development of gas-fired power plants in Libya. The deal was signed between Daewoo Engineering & Construction and General Electricity Company of Libya. According to the agreement, Daewoo E&C will construct the gas-fired power plants in the Libyan provinces of Mellitah and Misurata. The Libyan government issued the construction order because it required more power plants to meet the rising demand for electricity throughout the summer. Remarks on the deal to build gas-fired power plants in Libya. Several building projects have been carried out by Daewoo E&C in other African nations, such as Nigeria, Algeria, and Morocco. Since last year, the company has signed two sizable partnerships, particularly in Nigeria. The company and Nigeria’s Warri Refining and Petrochemical Company inked a \$492 million agreement in June 2022 to restore the oil refinery at Warri. The construction company and the Nigerian National Petroleum Corporation also agreed to a \$590 million contract in February this year. For the renovation of the Kaduna Refinery. 14th March 2023

MOROCCO	<ul style="list-style-type: none"> <u>Chariot completes FEED for Anchois gas development project offshore Morocco</u> The FEED for the Anchois development, initiated in June last year, comprises three initial subsea producer wells, including the Anchois-2 well drilled last year, with multi-zone completions for gas recovery across multiple stacked sands. Africa-focused oil and gas company Chariot has completed Front-End Engineering and Design (FEED) on the major components of its Anchois gas development project, offshore Morocco. Anchois is located in the Lixus licence, in which Chariot owns a 75% stake and is also the operator, while Office National des Hydrocarbures et des Mines (ONHYM) holds the remaining 25% stake. Chariot initiated the FEED for the Anchois development in June last year, which confirmed individual components of the initial development, as part of subsurface development studies. 9th March 2023
NIGERIA	<ul style="list-style-type: none"> <u>Shelf Drilling secures long-term rig contract offshore Nigeria</u> Dubai-headquartered offshore drilling contractor Shelf Drilling has secured a long-term contract for one of its jack-up rigs with an undisclosed company for operations offshore Nigeria. Shelf Drilling announced on March 9 that it had won a two-year contract for the Shelf Drilling Scepter jack-up rig for operations offshore Nigeria. While the contract value for the firm period, including mobilisation revenue, is approximately \$118 million, this deal also entails a one-year option, thus, the contract could be extended. According to the offshore drilling player, the start-up of operations is planned for May 2023. The 2008-built Shelf Drilling Scepter jack-up rig is of a Keppel FELS Super B Class design. It had an upgrade in 2019. This rig is capable of operating in water depths of up to 350 ft and can accommodate 150 people. Shelf Drilling's was awarded a contract extension in February 2023 for one of its jack-up rigs offshore Egypt. The contract extension came after the UAE-based company got another contract extension offshore Egypt in January 2023 and won a three-year deal with ONGC off India and a contract extension with Chevron's subsidiary in Angola. 11th March 2023
SOUTH AFRICA	<ul style="list-style-type: none"> <u>Large finds in South Africa's Orange Basin</u> Africa Oil Corporation has identified significant oil and gas resources at Block 3B/4B in the Orange Basin in South Africa, the Canadian independent announced on Wednesday. RISC Advisory completed a 3D seismic analysis of 2,2000 square kilometres of the offshore block, which showed potential resources of around 4 billion boe. The company and its partners are planning a two-well campaign on the block and are considering farming out 55% gross working interest in the block. Africa Oil operates the concession with a 20% participating interest. South African player Ricocure holds a 53.75% share and Azinam South Africa holds the remaining 26.25% share. Three discoveries have been made on the same Orange Basin in Namibia. In March 2023, a Shell-led consortium hit pay on the Jonker-1X well on the PEL-39 concession. In February 2022, the same group hit oil at the Graff-1x well in the same licence area. Later that month, a separate consortium led by TotalEnergies made a significant light oil discovery at the Venus-1x well in the PEL-56 concession. 10th March 2023
TANZANIA	<ul style="list-style-type: none"> <u>LNG export plant in Tanzania expected to cost \$30B</u> Tanzania's government recently concluded discussions with supermajors <u>Shell</u> and <u>Equinor</u> regarding the potential construction of a \$30 billion LNG export plant. The plant is expected to take advantage of the country's vast offshore natural gas resources. The Tanzanian energy ministry said that talks are complete and that the experts will soon start drafting contracts. According to Tanzania's Energy Minister, January Makamba, two contracts are being drafted: one for the host government agreement and the other for blocks 1, 2, and 4 that will provide the LNG project with natural gas. In 2016, Shell acquired BG Group, along with its partners Medco Energi (Ophir Energy) and Pavilion Energy. The company became the operator of two offshore blocks in Tanzania, Block 1 and Block 4. Natural gas reserves totaling 16 trillion cubic feet (Tcf) were discovered in the blocks. For its part, Equinor began exploratory drilling operations in Block 2 off the shore of Tanzania in 2011. Since then, it has made nine discoveries, totaling an estimated 20 Tcf of in-place gas.

The government of Tanzania aims to make a final investment decision for the LNG project in 2025. Russia is no longer seen as a desirable provider of energy for the West. Analysts and industry executives say Africa might play a crucial role in helping Europe with its gas supply. **13th March 2023**

AUSTRALIA

AUSTRALIA

- **TotalEnergies' arm unveils 30GW green-hydrogen pipeline in Australia, despite HyEnergy exit**
A 40-strong team has been identifying potential hydrogen developments for the past 18 months. Total Eren has built up a green-hydrogen project pipeline of up to 30 gigawatts in Australia, after a dedicated 40-strong team spent 18 months identifying potential developments, the company has revealed. The renewables arm of TotalEnergies highlighted this business potential last week when it confirmed a decision to exit the HyEnergy green-hydrogen project in Gascoyne, Western Australia. HyEnergy was to be powered by 8GW of wind and solar as part of a partnership with local developer Province Resources, as first announced in April 2021. Last week, Province announced the end of the partnership saying it will move ahead with HyEnergy alone, and that the project's feasibility study has been fully funded. Total Eren's 30GW hydrogen pipeline is spread across the Northern Territory, Queensland, South Australia and Western Australia, and it is opening an office in WA. "Australia is key in Total Eren's global strategy. **13th March 2023**

EUROPE

AUSTRIA

- **ADX secures license to develop Anshof oil field offshore Austria**
With the license, ADX will expand the oil field development, which includes the drilling of two development wells, in addition to the already-producing Anshof-3 discovery well. Austria's Ministry of Finance has awarded ADX VIE (ADX) a production license to develop Anshof oil field, located within the ADX-AT-II exploration license in Upper Austria. The license provides ADX with a regulatory framework for the development of the Anshof oil field, including the planned drilling of Anshof-2 and Anshof-1 wells, starting from the third quarter of 2023. ADX will drill Anshof-2 and the Anshof-1 development wells from the same site as the Anshof-3 well, to target thicker reservoir intersections on the 25km² mapped structure. A long-term production test at Anshof-3 well, started in October 2022, has been producing light crude oil at an average stable rate of 113 barrels of oil per day. The production performance from Anshof-3 has delivered at the upper range of predrill expectations during the ongoing well test, said the company. ADX intends to increase the average daily oil production to around 150 barrels, once the crude oil storage capacity at the Anshof-3 well site is expanded in the second quarter. ADX executive chairman Ian Tchacos said: "The Board of ADX is delighted by the award of the Anshof production license less than 12 months after the initial testing of the Anshof-3 discovery well. **13th March 2023**

FRANCE

- **Octopus Energy announces €1 billion investment**
Octopus Energy, the UK's third largest energy retailer, has announced plans to invest €1 billion in the French green energy market over the next two years. The investment will be used to accelerate the energy transition in France and generate enough local green power to supply 300,000 households. Building on its investments already made in France, the company is launching a new European tech hub in Paris through its subsidiary Kraken. The new hub will create hundreds of clean energy jobs and support millions of customers across the continent. Octopus Energy first entered the French market in January 2022 with its acquisition of French energy supplier Plüm énergie. The company is now targeting 1 million customers by 2026 in France. While offering better customer service and bringing down prices, Octopus Energy France is also helping and rewarding French households to lower their energy consumption through innovative products. The company's customers already use 10% less energy than the average French household, and Octopus is committed to continuing innovating to help French consumers use less but stay warm. **13th March 2023**

GERMANY

- **Saudi Aramco, Linde to build demo petchem plant in Germany**

The collaboration will see Linde Engineering and Aramco's experience and capabilities being utilised in industrial research and development. Aramco, one of the world's leading integrated energy and chemicals companies, has joined forces with Linde Engineering, a global leader in the production and processing of gases, to develop a new ammonia cracking technology. The collaboration between the two companies will see Linde Engineering and Aramco's experience and capabilities being utilised in industrial research and development, lower-carbon hydrogen, and ammonia cracking technology. A potential differentiator of this new technology is the ammonia cracking catalyst, jointly developed by Aramco and the King Abdullah University of Science and Technology (KAUST), which will be evaluated against other catalysts. As per the agreement, Aramco and Linde Engineering will be building a demonstration plant in northern Germany to showcase this new ammonia cracking technology. Linde Engineering said it aims to offer this ammonia cracking technology to current and new customers, creating new commercial opportunities within the global lower-carbon energy supply chain. **16th March 2023**

NORWAY

- **The Utsira High Project in central part of the North Sea**

The Utsira High Project involves bundling three separate subsea tie-in projects in the central part of the North Sea. As part of the development, Symra (previously named Lille Prinsen) will be tied-in to the Ivar Aasen platform, while Solveig phase 2 and Troidhaugen will be connected to the Edvard Grieg platform. The three developments are operated by Aker BP. The company submitted plans for the Utsira High Project to the Norwegian Ministry of Petroleum and Energy (MPE) in December 2022. Overall, the Utsira High Project will develop recoverable resources of 124 million barrels of oil equivalent (mboe). Total investments are estimated to be NOK21bn (\$2.02bn). Contractor involved: In January 2023, TechnipFMC secured an integrated Engineering, Procurement, Construction, and Installation (iEPCI) contract for its Utsira High development. The contract, awarded by Aker BP, was categorised as a large contract worth between \$500m and \$1bn. The scope of work includes engineering, procurement, construction, and installation of the subsea production systems, controls, pipelines, and umbilical cables for the development. The contract was awarded following a two-year integrated front-end engineering and design (FEED) study to optimise field layout. **15th March 2023**

- **Equinor makes Norway oil and gas discovery**

The discovery, which contains slightly more oil than gas, is commercially interesting, partly because it can use existing infrastructure connected to the company's floating processing and accommodation platform Troll B, Equinor said. Equinor has made an oil and gas discovery near the Troll field in the North Sea, believed to contain between 24 million and 84 million barrels of oil equivalent, the company said on Tuesday. The discovery, which contains slightly more oil than gas, is commercially interesting, partly because it can use existing infrastructure connected to the company's floating processing and accommodation platform Troll B, Equinor said. However, an appraisal well is needed to estimate the size of the find and the volumes that can be recovered more precisely, it added. Named Heisenberg, the find is Equinor's eight discovery in the Troll field area since 2019. Equinor holds a 51% stake in the licence while DNO holds 49%, according to Norway's Petroleum Directorate. **14th March 2023**

- **Aker BP starts operations at Frosk field in Central North Sea, Norway**

The field development was completed within the initial investment estimate of around NOK2bn (about \$230m), as per the schedule, 18 months after the submission of the Plan for Development and Operation (PDO). Norwegian oil exploration and development company Aker BP has completed the development and started production at the Frosk field in the Alvheim area. The field development was delivered within the initial investment estimate of around NOK2bn (about \$230m) and was brought on stream as per the schedule. It was completed 18 months after the submission of the Plan for Development and Operation (PDO) to Norway's Ministry of Petroleum and Energy (MPE), said the company. Aker BP completed the development building on targeted exploration and reservoir development, and collaboration with key suppliers under its alliance model. The company said that its alliance model delivered several benefits to Alvheim, including continuity on rigs, vessels, facilities and personnel. The other two subsea projects, Kobra

	<p>East & Gekko planned to commence production in early 2024 and Tyrving is expected to come on stream in 2025. 15th March 2023</p>
SPAIN	<ul style="list-style-type: none"> <p><u>CEPSA to build second-generation biofuel plant in Huelva, Spain</u> Compañía Española de Petróleos, S.A.U., commonly known as CEPSA, will build a new second-generation biofuel plant (2G) in Palos de la Frontera, Huelva, in southern Spain. This new plant, which will be located in the Energy Park ‘La Rabida’, will produce both renewable diesel and sustainable aviation fuel (SAF) and will involve an investment of up to EUR1 billion (USD1.07 billion). CEPSA said up to 1,600 jobs, direct and indirect, during the construction phase. The multinational oil and gas company headquartered in Madrid, Spain, plans to become the 2G biofuel leader in Spain and Portugal, reaching an annual production of 2.5 million tons in 2030. The use of biofuels can reduce CO2 emissions by up to 90% compared to traditional fuel. Within the framework of its 2030 strategy, Positive Motion, Cepsa is promoting the development of an ecosystem focused on accelerating its decarbonisation and that of its customers, by the production of green molecules, mainly renewable hydrogen and biofuels. In its strategic plan, the company has established an ambitious roadmap. Specifically, in 2030, it will reduce its CO2 emissions (Scope 1 and 2) by 55% and its carbon intensity index by 15-20%, with the aim of getting to zero net emissions in 2050. 13th March 2023</p>
UK	<ul style="list-style-type: none"> <p><u>BP submits plan for Aberdeen Hydrogen Hub</u> UK supermajor eyes building solar farm to power a green-hydrogen plant and a vehicle refuelling facility. BP’s Aberdeen Hydrogen Energy joint venture has submitted a planning application for the Aberdeen Hydrogen Hub in Scotland, which would involve a green-hydrogen production and a vehicle refuelling facility powered by a solar farm. The application comes after a period of public comment that BP said helped shape the proposal. “Today marks a milestone for the project, building on our shared vision with Aberdeen City Council to establish the city as a centre of excellence for hydrogen and fuel-cell technologies, and BP’s ambition to build a leading position in hydrogen globally,” BP Aberdeen Hydrogen Energy chief executive Oliver Taylor said. The hub will be developed in three phases to supply a growing demand for hydrogen in the UK, delivering more than 800 kilograms of green hydrogen per day, enough to fuel 25 buses and other public and private fleet vehicles. The project targets first production for phase one in 2024. 16th March 2023</p>
NORTH & SOUTH AMERICA	
BRAZIL	<ul style="list-style-type: none"> <p><u>thyssenkrupp nucera and Unigel inks MoU to increase production capacity of green hydrogen plant</u> Thyssenkrupp nucera and Unigel have signed a Memorandum of Understanding (MoU) to increase the capacity of the green hydrogen in Bahia, Brazil, from 60 MW to 240 MW of water electrolysis. The signing ceremony was held in Belo Horizonte, during the visit of the German Federal Minister for Economic Affairs a key step for both companies continue their good collaboration to accelerate the green transformation through the dev worldwide. Unigel's facility will be the first industrial-scale green hydrogen plant in Brazil. It is planned to be delivered at the end of total water electrolysis capacity of 60 MW with thyssenkrupp nucera standard electrolyzers and an initial production ca and 60,000 tons/year of green ammonia. Unigel is one of the largest chemical companies in Latin America and the largest producer of nitrogen fertilizers in Braz for the development of the entire region. “Unigel's green hydrogen plant will be the first on an industrial scale in Brazil. 15th March 2023</p>
CANADA	<ul style="list-style-type: none"> <p><u>BHP, partners award \$188m contracts for Jansen potash project in Canada</u> The contracts, valued at more than C\$260m (\$188m), were awarded for works including camp management, site services and raw ore/handling foundation works at the Jansen potash project in Saskatchewan, Canada. Australian mining company BHP, together with local First Nation communities, has awarded three new contracts for the construction of the Jansen potash project in Saskatchewan, Canada. The three-and-a-half-year contracts, valued at more than C\$260m (\$188m), cover the camp management, site services and raw</p>

ore/handling foundation works. Wicehtowak Frontec Services, a joint venture between ATCO Frontec and George Gordon Developments, has been granted the camp management contract. The JV was created to support the construction of the Jansen Discovery Lodge and has evolved into a majority Indigenous-owned company. 2 Nations Bird will work closely with KDM Constructors, who represent Kawakatoose, Day Star and Muskowekwan Nations, along with George Gordon Developments, the economic development arm of the George Gordon First Nation. **13th March 2023**

- **Haisla Nation and Pembina's Cedar LNG project gets BC environmental approval**

An environmental assessment certificate for the 3Mtpa floating liquefied natural gas project proposed to be built in Kitimat, British Columbia, Canada was issued by the British Columbia Environmental Assessment Office following a joint decision by provincial ministers. The Cedar LNG project, which is proposed to be developed by the Haisla Nation and Pembina Pipeline in British Columbia (BC), Canada, has secured provincial environmental approval from the BC government. An environmental assessment certificate (EAC) was issued to the floating liquefied natural gas (FLNG) project by the BC Environmental Assessment Office. The certificate was released after a joint decision by provincial ministers. Cedar LNG is proposed to be built on Haisla Nation-owned land in Kitimat. It is designed to have a capacity to export three million tonnes per year (Mtpa) of LNG "With Cedar LNG, we are setting a new standard of responsible and sustainable energy development. Haisla Nation and Pembina Pipeline have also announced the signing of a 20-year liquefaction services agreement with ARC Resources for the project. A definitive agreement is in the process of getting finalised by the parties for 1.5Mtpa of LNG, which is equivalent to nearly 200 million standard cubic feet per day of natural gas. A final investment decision (FID) for the Cedar LNG project is expected to be made in Q3 2023. **15th March 2023**

USA

- **Venture Global reaches FID, closes \$7.8bn financing for Plaquemines LNG**

The LNG producer has also given full notice to proceed to KZJV to continue the development of phase two of Plaquemines LNG. US-based Venture Global LNG has made a final investment decision (FID) for the second phase of the Plaquemines LNG facility in Louisiana, US. The LNG company has also secured \$7.8bn project financing to support the construction and commissioning of the second phase of the 20 million tonnes per annum (Mtpa) nameplate capacity project. Together, phases one and two of the Plaquemines LNG project involve an investment of nearly \$21bn, which marks the largest project financing ever done, said Venture Global. The LNG producer has also given full notice to proceed to KZJV to continue the development of phase two of Plaquemines LNG. KZJV is a joint venture between Zachry Group and KBR. The JV was assigned to execute the development, engineering, procurement and construction under the EPC contract for the initial phase of the LNG facility in 2021. Venture Global LNG CEO Mike Sabel said: "Venture Global is proud to announce a positive final investment decision (FID) for phase two of Plaquemines LNG, less than 10 months after sanctioning phase one. The FID and financial close of \$13.2bn for the initial phase of the Plaquemines LNG facility and the associated Gator Express pipeline was achieved in May 2022. **14th March 2023**

- **Freeport LNG receives regulatory approval for restart of final liquefaction train**

Freeport LNG's Trains 2 & 3 returned to full commercial operation in recent weeks, reaching production levels in excess of 1.5 billion cubic feet per day. Freeport LNG Development, L.P. (Freeport LNG) today announced that it has received regulatory approvals from the Federal Energy Regulatory Commission (FERC) and the Pipeline and Hazardous Materials Safety Administration (PHMSA) to restart Train 1, the final train of Freeport LNG's three train liquefaction facility to receive restart authorization. Freeport LNG's Trains 2 & 3 returned to full commercial operation in recent weeks, reaching production levels in excess of 1.5 billion cubic feet per day. As the recommissioning of Freeport's liquefaction facility continues and trains are restarted, changes in feed gas flows and production rates are to be anticipated, given the duration of the plant's outage. As previously stated, a conservative ramp-up profile to establish full three-train production is anticipated to occur over the next few weeks **9th March 2023**

- **QatarEnergy and CPChem celebrate the ground breaking for \$8.5bn Polymers Plant in Texas**

QatarEnergy and Chevron Phillips Chemical Company (CPCChem) marked the ground breaking of the Golden Triangle Polymers Plant in Orange County, in the U.S. State of Texas, marking the beginning of construction of the \$8.5 billion world-scale petrochemical facility. The landmark event was attended by Senior QatarEnergy Executives as well as Mr. Bruce Chinn, the President and CEO of Chevron Phillips Chemical, Mr. Mark Lashier, the President and CEO of Phillips 66, in addition to a number of local elected and appointed officials. In this partnership, we are also working together to enable balanced growth and to facilitate human development in a responsible and sustainable manner.” Highlighting the local impact of the new facility, Mr. Al-Amoodi said: “The Orange community is a direct beneficiary of this strategic partnership. We are investing \$8.5 billion to build this world-scale facility, which is QatarEnergy’s second largest investment in the U.S. after the more than \$11 billion investment in the Golden Pass LNG production and export facility, which is currently under construction about 35 miles from here in Sabine Pass, Texas. This plant will also be, by far, the most significant economic investment in the Orange community in decades, creating jobs and supporting economic growth. **9th March 2023**

- **Thiess wins \$104m contract from Minera Centinela for Llano copper project**

The company’s scope of work includes maintenance, mining operations, and asset management services at the Chilean copper mine. Chile-based mining company Minera Centinela has awarded a letter of agreement (LOA) for a mining services contract worth A\$155m (\$104.3m) to Thiess at the Llano copper project in Antofagasta, Chile. Under the terms of the contract, the Australia-based mining services provider will perform full-service mining at the Llano project in the Sierra Gorda district. The mining services are expected to commence this month. The company’s scope of work includes maintenance, mining operations, and asset management services at the greenfield copper mine. Thiess said that it has established partnerships with local suppliers to deliver essential services. The mining services provider has also agreed to hire locally in order to increase the number of employees living near the mine. **6th March 2022**

- **Sorcía Minerals signs MOU with IBAT for the arrival of direct lithium extraction plants in South America**

In total, these will have the capacity to produce 20,000 tons of lithium carbonate equivalent per year, re-injecting over 90% of the brine extracted from the salt flat. March began with good news for Sorcía Minerals and International Battery Metals (IBAT), as both companies signed a Memorandum of Understanding (MOU) for the arrival of direct lithium extraction plants in South America in 2024. In total, these will have the capacity to produce 20,000 tons of lithium carbonate equivalent per year, re-injecting over 90% of the brine extracted from the salt flat. This technology -the only one in the world validated at industrial level- will come to South America to change the paradigm of lithium extraction, which until now has been carried out through large evaporation pools installed on the salt flats. In addition to having re-injection, a fundamental element to avoid generating water imbalance in the salt flats or harming the surrounding communities, these plants can extract lithium with an efficiency of up to 90%, which is highly superior to current systems. **10th March 2022**

- **DL E&C to Join QatarEnergy's Golden Triangle Polymers Project**

DL E&C, South Korea disclosed that it hosted the groundbreaking ceremony for the Golden Triangle Polymers Project (GTPP) in Orange County, Texas, US on the 7th (local time). DL E&C Plant Biz Director Yu Jae-ho attended the ceremony along with the client’s personnel. GTPP is a project ordered by Golden Triangle Polymers, a joint corporation between the US’s Chevron Phillips Chemical and Qatar Energy. The project involves building two polyethylene production units with annual production capacity of annual 1 million tons—the world’s largest—and aims to start commercial operations in 2026. DL E&C bagged the project in July last year. DL E&C’s local subsidiary DL USA will perform the project jointly with US construction firm Zachry Industrial. DL E&C plans to provide a solution optimized for the project by applying cutting-edge technologies, such as modular tech and BIM, and carry out the project successfully. The company has experiences in carrying out numerous projects ordered by the client, Chevron Phillips Chemical. **14th March 2022**

- **Capstone Green Energy secures new orders from Alaskan distributor Arctic Energy for a major oil field project and two offshore platforms**

Fueled by wellhead natural gas extracted directly from the pipeline, the C600S microturbine will provide primary electrical power to the site's production facility, operating center, seawater treatment plant, and pipelines. Capstone Green Energy Corporation announced that Arctic Energy, Capstone's authorized distributor in Alaska, has received new orders from two leading oil and gas operators. The first order is for a C600S microturbine to power a major oil and gas production site in the North Slope of Alaska. The second order is for two C65 offshore microturbines for use on offshore platforms in Alaska's Cook inlet. The C600S order is scheduled to be commissioned in the summer of 2023, while the C65s will be commissioned in the fall. "Oil and gas industry participants continue to see the value of Capstone Green Energy microturbine technology. Fuel flexibility, superior engineering, and a lower emissions profile make Capstone turbines a compelling choice for these discerning customers. In addition, the low maintenance requirements of the Capstone generation systems are ideal for often remote and harsh locations where these customers need power," said Darren Jamison, President and Chief Executive Officer of Capstone Green Energy. **14th March 2022**

- **Worley awarded FEL 2 contract to engineer Cerilon's US gas-to liquids facility**

Worley will be delivering front-end loading (FEL) 2 engineering for Cerilon's major gas-to-liquids (GTL) facility in North Dakota, US, using modularization to enhance speed to market, as both companies increase their focus on more sustainable projects. Melbourne, Australia (15 March 2023): Worley, a global project delivery and asset services provider, has been selected by Cerilon, a Canadian based energy and resource development company, to provide engineering services for the FEL 2 stage of Cerilon's gas-to-liquids (GTL) facility in North Dakota, US. This GTL facility will convert natural gas to produce up to 24,000 barrels per day of low carbon emission, synthetic energy products, including ultra-low sulfur diesel, naphtha, and lubricant base oils. With new mandates expected in the US on transportation fuels, the production of these liquids will help meet high demand and assist with the country's low carbon objectives. The GTL facility will also include carbon capture and sequestration (CCS), to further enhance the project's sustainability. **15th March 2022**

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