## Oil & Gas – Upstream & Downstream

### CNOOC plans to expand its Enping oilfield in the South China Sea

China National Offshore Oil Corporation (CNOOC) is to expand its planned Enping oilfield complex by adding another drilling and production platform to the development in the South China Sea. The additional discovery of the Enping 23-1 gas field has prompted CNOOC to build a second such platform in the Enping development. The eight-leg fixed drilling and production platform is currently being studied at the CNOOC Research Institute. The scheme calls for building a 14-kilometre subsea pipeline to link the floating, production, storage and offloading vessel, which is being built to develop Enping 24-2, the major field for the Enping field complex. The platform will involve 13 drilling slots, with first production expected in 2016, two years after Enping 24-2. Production will peak at 7.1 million barrels per annum. Late last year, CNOOC awarded two separate contracts to National Oilwell Varco (NOV) and Dalian Shipbuilding Industry Corporation (DSIC) to build the mooring system and hull of the Enping FPSO. The mooring system of the 150,000 dwt floater is being designed in Houston by US engineering service provider COTEC Offshore Solutions. Fabrication of the floater's topsides is understood to have been contracted to COOEC, which will likely sub-contract the job to DSIC's offshore unit -DSIC Offshore to save time and cost for integration and commissioning. The crude will be exported from the platform to the FPSO through a subsea pipeline.

### CNOOC is on course for FLNG

CNOOC is set to commission its first floating liquefied natural gas project in Tianjin off Northern China in the current quarter.The company, via its LNG division CNOOC Gas & Power, is now securing the first cargo from its "international portfolio" for delivery in March for a trial run before commercial operation in April. The 145,130-cubic-metre unit has been retooled in Singapore's Sembawang Shipyard since late last year in order to ensure non-stop regasification operation. The FSRU is designed to be able to handle about 3 million tonnes of LNG per annum. Meanwhile, Offshore Oil Engineering Corporation (COOEC) is understood to have secured an engineering, procurement and construction job for building two onshore storage tanks for the Tianjin FLNG project each with holding capacity of 30,000 cubic metres. The tanks is expected for completion in May next year. The onshore facilities will help CNOOC to transport gas to smaller clients via trucks. Under a second phase development in 2015, the Tianjin facilities will be expanded for larger operation with four additional onshore storage tanks, each with capacity of 160,000 cubic metres. The second phase will also call for CNOOC to add a new FSRU to be moored off Tianjin so as to boost the total LNG handling capacity to 6 million tpa, up from 2.2 million in the first phase. The Tianjin FLNG facility is the first of three being pursued by CNOOC. The other two are being planned in Yantai in Shandong province and Yancheng in Jiangsu province.

### Chevron secured South China Sea blocks

Chevron has secured full ownership rights of a pair of blocks in the South China Sea after striking a deal with state-owned China National Offshore Oil Corporation (CNOOC). The US giant's Chinese subsidiary Chevron China Energy has signed production sharing contracts

with CNOOC for shallow-water blocks 15/10 and 15/28 covering 5782 square kilometres in the Xijiang Sag area of the Pearl River Mouth basin during, the company said in a statement. Chevron will hold 100% stakes in each block and will act as operator during the exploration phase, where it will bear the entire cost of work including shooting of 3D seismic. CNOOC has the right to participate with a working interest of up to 51% in any commercial discoveries in the blocks, in a water depth of 50 to 100 metres.

**BP sells Yacheng stake to KUFPEC**

BP has inked a sale agreement with Kuwait Foreign Petroleum Exploration Company (KUFPEC) relating to its 34.3% stake in the Yacheng gas field in the South China Sea, for US$308 million cash. BP's decision to divest its Yacheng stake forms part of a broader program that focuses on high value assets with long-term growth potential. However, as one of the leading foreign investors in the Chinese energy sector, BP will carry on investing in both upstream and downstream areas of China. The field – commissioned in 1996 – was operated by BP till 2004. CNOOC Ltd acquired the operatorship of the field in 2004 and will remain the majority partner post sale with a 51% stake. KUFPEC will hold the remaining 49% stake. Situated about 62 miles (100 kilometers) south of Hainan Island in 295 feet (90 meters) of water, Yacheng 13-1 is the largest producing natural gas field offshore China. BP received interests in deepwater blocks 42/05 and 43/11 in the South China Sea in 2010 and 2012, respectively. Currently, exploration work is in progress in the fields. The deal – likely to close in the second half of 2013 – is subject to regulatory, CNOOC and third party approvals. ***RIA OREANDA, January 10, 2013***

**Frigstad Offshore orders $1.3bn semisub pair**

Frigstad Offshore has ordered two new build ultra deepwater semi submersibles from CIMC Raffles at a cost of $1.3 billion. The Cyprus-registered, Singapore-based contractor has ordered the pair on turnkey contracts from the CIMC Raffles Yantai yard in China, with options for another four units. The dynamically-positioned drilling units are of Frigstad Engineering's Frigstad D90 design. The semi-submersibles are capable of operating in water depths up to 12,000 feet and drilling to a total depth of 50,000 feet, and will be outfitted with two blowout preventers as well as a dual activity drilling package. The pair are due for delivery by the end of the fourth quarter of 2015 and by the end of the second quarter of 2016 respectively. Frigstad Offshore is to manage the construction, marketing and operation of the rigs, which were ordered through its drilling subsidiary Frigstad Deepwater.

**PetroChina starts East China oil line**

PetroChina said on 11 Jan. 13 that the Rizhao-to-Dongming crude oil pipeline in East China's Shandong province had come on stream. The 462km pipeline currently has an annual transport capacity of 10 million metric tonnes (tonnes). It starts at the Lanshan port in Rizhao city, and ends at Shandong Dongming Petrochemical Group Co. Ltd in Dongming county, according to a press release on the website of China National Petroleum Corp. (CNPC), the parent company of PetroChina. According to earlier reports, PetroChina and Dongming Petrochemical hold a 90% stake and a 10% stake respectively in the pipeline project, which involves an investment of 2 billion yuan. ***XINHUA, January 11, 2013***

**PetroChina awards Rolls-Royce WEPP Line 3 Contract**
Rolls-Royce, the global power systems company, on 16th Jan. announced a $75million contract to supply PetroChina with equipment and related services to power the flow of natural gas through Line 3 of the West-East Pipeline Project (WEPP), the world's longest pipeline and a crucial element of China's drive towards cleaner energy consumption. Rolls-Royce will supply PetroChina with an additional six RB211-driven pipeline compressor units, bringing the total number of RB211 units sold for installation on China and Central Asia's vast natural gas pipeline network to 56. Rolls-Royce, which has provided equipment to WEPP since 2004, will manufacture and package the equipment at its energy facilities in Montreal, Quebec, Canada and Mount Vernon, Ohio, U.S.A.

**Rolls-Royce secures design and systems integration contract from COSCO**
On 7th January 13, Rolls-Royce, the global power systems company, announced that it has won a £26 million order to provide an integrated design, power and propulsion and equipment package for four Rolls-Royce UT 771 CDL offshore supply vessels to be built at COSCO (Zhoushan) Shipyard Co. Ltd, in China for a Hong Kong owner. The contract includes options for four additional vessels. In addition to ship design, Rolls-Royce will deliver an extensive integrated systems package including: a propulsion system, a power electrical system, a bulk handling system, deck machinery, an automation and control system, as well as a dynamic positioning system that uses satellite technology to automatically maintain the vessels' position without anchoring. This contract is the first time Rolls-Royce has incorporated high speed MTU-engines as part of an integrated power and propulsion package within the successful UT-vessel series. The four vessels are scheduled for delivery in 2014. At present COSCO group have four other UT-vessels under construction at the COSCO Guangdong ship yard.

**Linde wins fourth LNG project in China**
Chinese firm Sichuan Tongkai Energy and Technology Development has awarded a contract to Germany's Linde for the design and construction of a 300,000 t/yr LNG liquefaction plant in Sichuan, China. The Bazhong LNG plant, Linde's fourth such project in China, will be able to process different compositions of feed gas. The LNG will be transported on trucks to local industrial regions not serviced by pipeline grids.
China mining 26 Dec

**Sinopec, Conocophilips to research China shale gas**
The Sinopec Group, the world's fifth-largest oil company, said on 26th Dec.12 it will jointly study shale gas development with Conocophilips in west China's Sichuan Basin over the next two years. A statement from Sinopec said the Sinopec Exploration Southern Company, a Sinopec subsidiary, will conduct research on the exploration, development and production of shale gas with Conocophilips China in the Qijiang block, an area located in the southwestern Sichuan Basin, where rich shale gas is deeply embedded. Conocophilips will carry out two-dimensional seismic surveys and drill two wells in the block.

**Sinopec approved for UK deal**
China's National Development and Reform Commission in December approved Sinopec's acquisition of a 49% stake in Talisman's UK assets, according to an announcement made by

the National Energy Administration (NEA) on 11 Jan.13. The Asia's largest oil refiner, the Sinopec Group, parent of Sinopec (Sinopec, SNP.NYSE; 00386.HK; 600028.SH), announced on July 23 2012 that it had reached an agreement through its subsidiary with Canadian company Talisman Energy Inc. to acquire a 49% equity interest in Talisman's assets in the North Sea for 1.5 billion U.S. dollars. ***XINHUA, January 11, 2013***

**Sinopec wins EPC contract for PTA plants in Texas, US**
The M&G Group has selected the Sinopec Engineering Group (SEG) to build its new facilities, which include a polyethylene terephthalate (PET) facility with a capacity of one million tonnes per year (tpa) and 1.2 million tpa purified terephthalic acid (PTA) plant in Corpus Christi, Texas, US. As part of the $1bn engineering, procurement and construction (EPC) contract, M&G's engineering arms including Chemtex and M&G Finanziaria will provide critical equipment and services on a subcontracting basis to Sinopec. M&G polymers business unit CEO Marco Ghisolfi said: "This is the largest PET investment ever in the western world and probably one of the largest investments recently announced in the US in the private sector."Construction of the plants is expected to be completed within 36 months.

**PetroChina to buy BHP's stake in Browse LNG**
China's state-controlled PetroChina has agreed to acquire BHP Billiton's stake in the Browse LNG project in Australia for US$1.63 billion. PetroChina will buy BHP Billiton's 8.33% stake in the East Browse joint venture and its 20% stake in West Browse, which are both led by Woodside Petroleum. The deal is expected to complete in the first half of 2013. Current partners in the US$30 billion project still have the right, however, to match PetroChina's offer for BHP's stake in the project.

**Power, New Energy (renewables)**

**China tops the world in wind and hydro power**
The China Electricity Council (CEC) said that in the last six years, China's installed wind power generating capacity has increased from 2,000 megawatts (MW) to 52,580 MW. In 2011, China generated 70.6 terrawatt hours of wind power, a 96% increase. China estimates its wind generating capacity at more than 100,000 MW in 2015 and 200,000 MW in 2020. Its cumulative capacity is now 118 times more than that of 10 years ago, making China the world's top wind energy provider, said CEC. China is also increasing its construction of hydro power projects. CEC said that China is witnessing soaring growth in other clean energy sectors. Its solar photovoltaic power capacity has been increasing by over 50% annually. China's plan is continue to optimize its energy infrastructure by developing new energy sources to secure future energy supplies.

**Beijing approved 16 power projects in Dec. 2012**
Economic rebound drives power project approval. The NDRC approved 16 power projects at the start of December, mainly transmission and conversion, which analysts said was a sign

that policymakers in Beijing are preparing for a rebound in economic activity. Stronger economic growth will lead to further power investment.

**China fires up its first IGCC thermal power plant**

China Huaneng Group, the biggest power producer in China by installed capacity, has put into operation the country's first integrated gasification combined cycle (IGCC) thermal power station in Tianjin Municipality. The 265-megawatt thermal power demonstration plant came on-line on Dec. 12 after more than three years of construction, Huaneng said in an internal newsletter recently. China is only the fifth nation to have put the technology into play. The United States and Japan are among the others. IGCC is touted by proponents as the leading environmentally-friendly technology for thermal plants, which generate approximately 82 percent of China's electricity. IGCC combines two advanced technologies, coal gasification, or the production of clean-burning gas from coal, and combined-cycle. "The technology is still in the demonstration stage in China, and there are many uncertainties for the future development of the technology," said by a researcher with Huaneng's Xi'an Thermal Power Research Institute subsidiary. The Tianjin project cost about RMB 3 billion ($479 million) – two times higher than a similar project with no IGCC technology. For the Tianjin project, Huaneng independently developed the technology deployed and built and put the plant into operation on its own.

**China, Mongolia to deepen cooperation in mining, energy sectors**

China and Mongolia have broad prospects to deepen cooperation in mineral resources and energy, a senior Chinese official said on 16th Jan. Mongolian Mining Minister D. Gankhuyag highlighted the rapid development of Mongolia-China economic and trade cooperation, saying that Mongolia has seen Chinese investment rapidly increasing in the country in the last few years. The minister also suggested the two sides strengthen cooperation in deep processing of resource products and adopt measures to solve difficulties in coal transportation.

**Shenhua Energy wins shale gas block in southern China**

China Shenhua Energy Co Ltd , the country's largest coal producer, said on 14th Jan. that it has won the auction of a shale gas block in southern China as part of its efforts to further integrate its energy business. Shenhua Geological Exploration Company, a wholly owned unit of Shenhua Energy, has won the tender for the 1,189-square-kilometre Baojing Shale Gas Block in Hunan province via an auction held by the Chinese government last year, it said in a filing with the Hong Kong bourse. The move was part of the state-owned giant's strategy to "broaden its presence in the energy market and optimise its business model as an integrated energy company," said Shenhua Energy, which also owns power plants and railways and ports. Shenhua also announced on the same day that it had won official approval to build a 3.28 billion yuan ($527 million) thermal power plant in the northwestern region of Xinjiang. Shenhua said it will invest 874 million yuan ($140.42 million) in the exploration of the shale gas block over three years, but it also cautioned against investment risks.

**China's semi-desert region to host 50MW solar plant**

Trina Solar has obtained approval to develop a 50MW grid-connected solar project in Wuwei, Gansu. The semi-desert region in north-west China is said to be well suited for solar energy,

with high irradiance and the ability to sell surplus power to other parts of the country as well as supply its own needs."We are delighted to have been granted the rights to develop this solar project in Wuwei, Gansu province. This project will bring not only job opportunities to the Wuwei region of Gansu, but also environmentally friendly renewable energy which is vital to the overall economic development of the region," said Jifan Gao, Chairman and Chief Executive of Trina.

**Datang Corp. to deploy $2.3 bln on Jiangxi thermal power plant**

China Datang Corp. will deploy RMB 15 billion ($2.38 billion) on a four-gigawatt (GW) thermal power plant in east China's Jiangxi Province to boost electricity generation in a region with few energy resources of its own. Datang Corp. will install four one-GW rated generators at the plant, which will be capable of producing 10 terawatt hours of power a year when it comes into full operation in 2015, the company said in a statement on Jan. 8.

China will build its 4th –generation features nuclear reactor

China has broken ground on a 3 billion-yuan (US$476 million) nuclear power project that will be the first in the world to put a reactor with fourth-generation features into commercial use, a Chinese energy company said on 6th Jan. It also marks China's latest move to speed up nuclear power development, which came to a halt after the Fukushima nuclear crisis in Japan in 2011. Construction of the project at Shidao Bay in the coastal city of Rongcheng in Shandong Province began last month, Xinhua learned from Huaneng Shandong Shidao Bay Nuclear Power Co Ltd (HSNPC), the builder and operator of the plant. With a designed capacity of 200 megawatts and "the characteristics of fourth-generation nuclear energy systems," the high-temperature gas-cooled reactor will start generating power by the end of 2017, HSNPC said in a statement e-mailed to Xinhua news agency. Independently developed by Tsinghua University, the reactor has the fourth-generation features of "inherent safety" and "passive nuclear safety," which provides for a safe shut-down in an emergency without causing a reactor core meltdown or massive leakage of radioactive material, according to the statement. The project is part of HSNPC's broader plan to build a 6.6-gigawatt nuclear power plant that will require an investment of around 100 billion yuan over 20 years. If completed, it would be China's largest nuclear power plant. said the official.