### GLOBAL LNG-Asian prices hit three-week high; tanker rates rise



- \* CNOOC seeks to charter ships to replace COSCO-linked tankers
- \* Japan's Tohoku buys November-delivery cargo sources
- \* China's LNG imports could slow due to terminal repairs

By Jessica Jaganathan

SINGAPORE, Oct 11 (Reuters) — Asian spot prices for liquefied natural gas (LNG) rose to a three-week high this week ahead of winter demand, while tanker rates nearly doubled on limited availability of vessels.

Spot prices for November-delivery to Northeast Asia LNG-AS are

estimated to be about \$5.80 per million British thermal units (mmBtu), up by 25 cents from last week, said several sources who are market participants.

Prices for December delivery are estimated to be about \$6.45 per mmBtu, they added.

Higher oil prices and shipping rates, which have nearly doubled in a week could boost spot LNG prices further, sources added.

LNG tanker rates rose after China National Offshore Oil and Gas Company (CNOOC) sought tankers to charter looking to replace ships it had previously hired that are linked to a Chinese company sanctioned by the United States for allegedly transporting Iranian oil, they added.

Several industry sources said CNOOC is seeking to replace some of six COSCO-linked LNG tankers — Dapeng Sun, Dapeng Moon, Dapeng Star, Min Rong, Min Lu and Shen Hai.

Still, apart from a few spot cargoes, demand from North Asia is yet to increase for winter, trade sources said.

In the spot cargo market, Japan's Tohoku Electric Power bought a cargo for November delivery from a trader at \$5.80 per mmBtu, industry sources said, though this could not immediately be confirmed.

"Demand in Japan is low. I think it is only Tohoku who purchases spot cargoes constantly," a Japan-based trader said.

Essar Steel India is yet to award a tender seeking 12 cargoes for 2020 delivery, a company spokesman told Reuters.

China's LNG imports are expected to slow as repairs to the Rudong LNG import terminal is only likely to be done by mid-November after an accident last month, two company sources said.

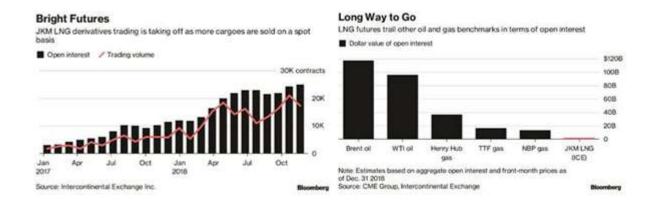
Kunlun Energy, which operates PetroChina's LNG receiving terminals, cut intake capacity at Rudong LNG terminal since Sept. 21 when a tanker collided into a bridge that connects the island where the terminal is located to the mainland during a typhoon.

PetroChina's trading unit Chinaoil is diverting some of the LNG meant for the Rudong terminal to its two other receiving terminals in Tangshan and Dalian, one of the company sources said. The company also offered spot cargoes earlier this week, traders said.

BHP Group has offered a cargo for loading in November from the North West Shelf plant in Australia while Angola LNG plant offered two cargoes for delivery in October and November.

Reporting by Jessica Jaganathan

# Spikes in LNG shipping costs highlight need for hedging tools



A rally in the cost of chartering liquefied natural gas vessels on the spot market has highlighted the lack of tools available to traders to hedge against volatility.

The market for the fastest-growing fossil fuel is expanding quickly, with cargoes changing hands in increasingly short-term deals the way the crude oil trade matured two to three decades ago. But while physical trading is expanding rapidly, the paper market with derivatives and other financial instruments has lagged. That has made it difficult to hedge and offset potential losses both for the cargoes themselves and the freight cost of the ships that carry them.

The issue has come into high relief in the last week as the price to charter a tanker in the Pacific Ocean for December jumped more than 20% in the week to Tuesday, according to Spark Commodities Pte Ltd, which takes assessments from five LNG shipbrokers. That's drawing attention to work to develop hedging tools, with Spark focusing on a paper market for vessels known as a forward freight agreement.

"The increased volatility continues to highlight the need for an LNG FFA to allow market players to manage freight exposure," said Tim Mendelssohn, managing director of Spark, a venture between European Energy Exchange AG and cargo tracker Kpler. "We are attempting to provide a solution to a major challenge facing the industry and drive liquidity as LNG develops."

The move by Spark would align the cost of existing deals with liquid cargo-related financial products. The forward freight costs for December, at \$145,250 a day on Tuesday, threaten to reduce the potential profit of keeping a multimillion-dollar cargo on a boat to benefit from higher forward LNG prices.

The same is true for the LNG cargoes the ships are carrying. Of the almost 200mn tonnes of LNG traded in the last year, about a third was in the form of derivatives on the Japan Korea Marker, an industry benchmark, Pablo Galante Escobar, head of LNG at Vitol SA, said at the Oil & Money conference last week. Much more was hedged on liquid European gas hubs, he said.

"You can trade in a liquid way, but of course it is still developing," he said.

Developing the paper market is one of the key steps needed to make LNG a fully tradable commodity, according to Galante Escobar. Despite massive growth since 2016, JKM trading draws about 25% of annual production of the super-chilled fuel.

That is in sharp contrast to crude oil, where physical trading has become just 5% of the total market. Deeper paper markets bring in speculators and provide liquidity, giving producers and consumers greater confidence they can shift their physical cargoes when needed.

Other commodities have "far more paper market than physical market," Patrick Dugas, vice president for LNG trading at Total SA, said at the LNGgc conference in London last week. The so-called churn rate for the JKM market is near one, while the ratio needs to be closer to 10, he said.

## Qatar sets perfect example for would-be energy exporters in Mediterranean



THE PENINSULA DOHA Wednesday 2 October 2019

It's because Qatar had made an early bet on liquefied natural gas that helped the country to emerge as the world's most prolific exporter of LNG, a position it retains to this day. It was good governance that made sure this resource has been very well-managed, a top energy expert said.

Attending a major energy congress in Athens, Roudi Baroudi, a

veteran of the energy business who has helped shape policy for companies, governments, and even entities like the European Union, the World Bank and the United Nations, noted the North Field Expansion Project is a massive undertaking that will grow LNG output from the current 77 million tons per annum to 110 MTPA over the next five years. That will not only increase Qatar's lead over other producers, but also give it the wherewithal to keep diversifying its holdings abroad.

Speaking on the sidelines of the First Annual Eastern Mediterranean Energy Leadership Summit, Baroudi (pictured), currently the CEO of Doha-based Energy and Environment Holding, elaborated on 'how did a tiny country like Qatar become such a giant in the gas business?".

" Once the full extent of the country's natural gas reserves were understood, the government sought out the best advice, then undertook comprehensive studies to understand market and forecasts, define conditions its own needs capabilities, and identify the best partners. As a result of these analyses, Qatar made an early bet on liquefied natural gas that soon made it the world's most prolific exporter of LNG, a position it retains to this day." He noted that it's not only this domestic megaproject (North Field Expansion) that matters. Qatar Petroleum, for instance, is in talks to secure partners for the establishment of a new LNG distribution terminal on Germany's North Sea Coast. Again, this a mutual benefit proposition from start to finish, with the German side increasing its energy security and the Qataris lining up future revenues by securing access to a crucial market. In addition, QP recently entered a new agreement that books LNG offloading facilities at the Belgian Port of Zeebrugge until 2044.

Other developments paint a similar picture of a wide-ranging strategy that keeps Qatar in its leading position by capitalizing on both its market influence and its financial resources. In July, QP took a 49 percent stake in a joint

venture with Chevron Philips Chemical Co. (51 percent) that will see the partners develop a huge petrochemical complex — including the world's largest ethylene cracker — on the US Gulf Coast, taking advantage of the proximity of America's most productive shale gas regions.

And just a couple of weeks ago, QatarGas made history when one of its massive Q-Flex LNG carriers, the Thumama, became the first vessel of its class to complete an open-water ship-to-ship transfer to a floating storage and regasification unit off Bangladesh's Moheshkhali Terminal. Qatari investments and expertise are also driving exploration activities in several countries around the world. "Qatar is not sitting on its hands. Day in and day out, in all sorts of ways, the country is constantly taking stupendous strides toward bigger and better things to come", he said.

Roudi Baroudi

# Russia LNG ambitions advance with plans for remotest regions



Bloomberg/ Vladivostok

Russia took a step closer to becoming a dominant player in the global liquefied natural gas market as two of its biggest energy companies advanced plans to export the fuel from its remotest corners.

Rosneft PJSC, Russia's top oil company, said yesterday it plans together with its partners in the Sakhalin 1 project to build an LNG export plant in the far eastern port city of De-Kastri. Meanwhile Novatek PJSC, the country's largest LNG producer, made a final investment decision on its \$21bn Arctic LNG 2 plant on the Gulf of Ob.

Natural gas is expected to be the fastest growing fossil fuel through 2040, and it will increasingly be transported in liquid form, according to the International Energy Agency. China, India and other developing countries plan higher imports to bring energy and electricity to their people at a fraction of the pollution of coal or oil.

The two projects combined could export about 26mn tonnes of LNG a year, which would double Russia's existing capacity. Already the world's top exporter of pipeline gas and second-biggest shipper of crude oil, LNG will give President Vladimir Putin a bigger role in driving the world economy via his

country's massive energy resources.

"After the oil price crash of 2015 and a massive addition of Australian LNG, supermajors held back major LNG investments — but that has changed now. The global LNG market is expected to hit a supply deficit by 2023, according to BloombergNEF's latest Global LNG Market Outlook. Projects are now being lined up to capture that gap in the market, and the front-runners are those supported by Big Oil," said Fauziah Marzuki, analyst, BloombergNEF.

Russia, which had 8% of the global LNG market last year, wants to boost that to 20% by 2035 to put it in league with the world's biggest exporters, such as Qatar and Australia. Yesterday's announcements, made at the Eastern Economic Forum in Vladivostok, underscore how quickly the country is progressing toward that goal. Its first plant, at Gazprom PJSC's Sakhalin 2, opened in 2009 and its second, Novatek's Yamal LNG, only started in 2017.

The first production unit at Arctic 2 LNG will come online by the end of the third quarter of 2023, Novatek chief executive officer Leonid Mikhelson said. Once fully complete, the plant will be able to produce 19.8mn tonnes of LNG annually. Rosneft CEO Igor Sechin didn't give a timeline for the far east LNG plant, which he said would be able to produce about 6.2mn tonnes a year.

For now, several export projects, including Yamal, have come online recently and saturated the market, depressing spot LNG prices in Asia to about 60% below where they were a year ago.

#### LNG investments hit record

#### \$50bn in 2019: IEA chief



Reuters Tokyo

Record investments of \$50bn have turned 2019 into a banner year for liquefied natural gas (LNG), with Canada and the United States being the main drivers, the chief of the International Energy Agency (IEA) said yesterday.

The industrial sector is Asia's biggest driver of LNG growth, with China expected to overtake Japan as the world's top importer of the fuel in five years, said Fatih Birol, the agency's executive director.

"This year, 2019 already broke the highest amount of (final investment decisions) for the first time ever, \$50bn," he told the annual LNG Producer-Consumer conference in Tokyo.

More than 170bn cubic metres (bcm) of natural gas liquefaction capacity is due to take a final investment decision this year, a record far surpassing the previous high in 2005 of 70 bcm, according to the IEA.

The recent boost in contracting activity and project sanctioning follows the growing adoption of the equity offtake marketing structure, where companies have access to LNG volumes according to their equity stake, reducing the need for

long-term sale and purchase agreements, the agency said in a report released this month.

"The biggest growth is coming from China," Birol added. "In the next five years, about one-third of global LNG demand will come from China alone."

While LNG imports by Japan, the world's top buyer of the super-chilled fuel, and Korea are expected to stay important, slowing growth there means the biggest contribution will be from China, Birol said.

Other Asian nations, such as Bangladesh, India, Pakistan, Thailand are also importing more LNG. European LNG imports will also increase as domestic gas production declines and nations diversify supply, Birol said.

For instance, European natural gas production has halved over the past decade, increasing the call on other sources of flexibility, IEA said in the report this month.

The United States will make up two-thirds of global growth in LNG exports, which could turn pricing dynamics in Asia towards more gas-linked, rather than oil-linked LNG contracts, he said.

About 70% of LNG contracts are oil-indexed, with the rest geared to gas.

That could soon change to a 50-50 pricing mix, Birol added.

# Tellurian signs \$7.5bn agreement with India's Petronet for US LNG



Tellurian Inc. said it signed a \$7.5 billion agreement for India's Petronet LNG Ltd. to buy into its proposed liquefied natural gas terminal in Louisiana, in what could potentially be one of the largest foreign investments in the U.S. to ship shale gas abroad.

Petronet will spend \$2.5 billion for an 18% equity stake in the \$28 billion Driftwood LNG terminal — the largest outside holding so far in the project — and negotiate the purchase of 5 million tons of gas per annum. The remainder of the total will come from debt, Tellurian Chief Executive Officer Meg Gentle said.

The companies plan to complete the accord by March 31, by which time Tellurian hopes to have signed up partners to enable it to proceed with the project.

"We will sign the document sometime in the first quarter and we will have financing ready to close simultaneously, and then we will begin construction," Gentle said in a telephone interview. "India is one of the fastest growth markets for LNG and should soon become the second-largest LNG importer."

The deal, signed in Houston in the presence of Indian Prime Minister Narendra Modi, underscores a record year for the LNG industry, with tens of billions of dollars worth of export projects given the green light. The surge of new supply from America's trove of shale gas has rendered the once-premium fuel accessible for emerging markets such as India, currently the sixth-largest buyer of U.S. LNG.

"People should not be surprised this came," said Tellurian cofounder Charif Souki, who also started America's largest LNG exporter Cheniere Energy Inc. "The United States and India have a significant issue diametrically opposed. We have too much gas that we don't know what to do with and India needs greater gas, and 1 million tons a time is not going to solve the problem."

The Petronet deal, the largest by an Indian company in U.S. LNG, comes days after the gas industry's all-important GasTech conference and coincides with Modi's much-anticipated visit to Texas. He's set to take the podium at Houston's NRG Stadium with President Trump on Sunday and address a crowd of more than 50,000.

"This deal will further help diversify India's energy supplies," said Lydia Powell, who runs the Centre for Resources Management at the New Delhi-based Observer Research Foundation think tank. "The U.S. wants to displace Middle East supplies and India is a large market."

Petronet's investment is vying to be the largest by a foreign entity with one that Sempra Energy expects to finalize in Texas with Saudi Aramco.

Tellurian expects to finalize the last 4 million tons needed for Driftwood's first phase with one or two partners in the coming months, Gentle said. Petronet's share represents about \$2 billion in annual fuel sales for the life of Driftwood, she said.

"It supports the drilling industry and the pipeline industry, and there is going to be an enormous amount of resources," Souki said.

### Talks on track for Qatar-Germany LNG project: envoy



Preparations are ongoing for the arrival of a large trade delegation led by the Prime Minister of the Federal State of Lower Saxony, Stephan Weil, who is scheduled to visit Qatar by November-end, German ambassador Hans-Udo Muzel has said.

Muzel said Lower Saxony hosts several ports where a proposed LNG distribution terminal would be located.

He said discussions with Qatar Petroleum (QP) are underway and that "there are ports in Germany that are tendering for the project."

"Lower Saxony is where the ports are located and the home of Volkswagen. It is a very commercially active business state

with ports on the North Sea coast, as well as the food chamber of Germany with a lot of agriculture-related and food processing industries. In this context, we are looking forward to have continued talks on the LNG terminal and other projects," Muzel told reporters on the sidelines of a recent meeting.

In an earlier statement to *Gulf Times*, Muzel said Germany is looking to source some of its liquefied natural gas (LNG) needs from Qatar as part of the Western European country's energy supply diversification plans.

"Germany is also actively looking at diversifying its energy supply and considering options to set up an LNG terminal. In this context, German companies are, of course, talking to Qatar Petroleum concerning the supply of LNG to Germany in the near future," the ambassador said.

Quoting HE the Minister of State for Energy Affairs and QP president and CEO Saad Sherida al-Kaabi's interview with business daily Handelsblatt in Berlin last year, Reuters reported that QP was in talks with German energy firms Uniper and RWE for the establishment of a local LNG terminal.

Reuters also reported an RWE spokesperson saying that discussions with QP were not about a shareholding in a potential German LNG terminal but potential gas deliveries to Germany.

Muzel also said the German embassy in Doha is also gearing up for the visit of Deputy Minister of Economics and Energy Thomas Bareiss on November 1 for the 'Qatar IT Conference and Exhibition (2019)'.

Similarly, preparations are being made for the next official meeting of the Joint Task Force on Trade and Investment on the sidelines of the Doha Forum 2019 slated for December 14-15, the ambassador said.

"Qatar and Germany are keen to keep stronger political and economic relations," Muzel said.

Asked about the status of the €10bn pledged by His Highness the Amir Sheikh Tamim bin Hamad al-Thani during the 'Qatar-Germany Business and Investment Forum' held in September 2018 in Berlin, Muzel said some of the funds would be utilised to spur further growth in the SME sector and in promoting young entrepreneurs through private sector expertise to steer the direction of the investments.

"There are key investments in many different sectors, and Qatar's investments are very much welcome because they contribute a lot, and we have a great experience with Qatari investors," Muzel added.

# Exxon Mobil, Shell among groups picked to build 5 Pakistan LNG terminals



Pakistan has selected groups that include Exxon Mobil Corp and Royal Dutch Shell to build five liquefied natural gas (LNG) terminals as it aims to triple imports and ease gas shortages. The terminals could be in operation within two to three years, Omar Ayub Khan, Pakistan's minister of power and petroleum, said in an interview on Friday.

Pakistan is chronically short of gas for power production and

to supply manufacturers such as fertilizer makers, hobbling the country's economy.

"It will make a significant dent in the gas shortage," Khan said.

The groups selected to build terminals are Tabeer Energy, a unit of Mitsubishi Corp; Exxon and Energas; Trafigura Group and Pakistan GasPort; Shell and Engro Corp; and Gunvor Group and Fatima.

It was not immediately clear if the companies involved had made final investment decisions to proceed.

The five must submit plan details to the ministry of ports and shipping by Nov. 5 for approval, but cabinet has already approved them, Khan said.

Pakistan's two LNG terminals currently have 1.2 billion cubic feet per day of capacity, and a third expected to come on line next year will add 600 million cubic feet per day, Khan said.

The country has sought bids for a 10-year LNG supply tender for the current terminals and the results will be announced in two to three weeks, Khan said.

It was unclear what capacity the five new terminals will have, but Khan said they could collectively triple Pakistan's LNG import capacity.

The arrests this summer of two LNG industry executives by the National Accountability Bureau raised some concerns about the risks of investing in Pakistan.

But Khan said the interest of five investment groups speaks for itself.

"That is a ringing endorsement that (Pakistan's) policies are clear and transparent," he said. "It's a competitive market."

The cost of building the terminals and finding buyers for the gas will be up to the groups, and they will pay Pakistan a royalty based on volume, Khan said.

Pakistan's contribution will be funding construction of a \$2 billion north-south pipeline to distribute the gas, and storage facilities, he said.

Pakistan's fertilizer industry has coped in the past year with a steep increase in government-set natural gas prices, Sher Shah Malik, executive director of Fertilizer Manufacturers of Pakistan Advisory Council, said in an interview on Thursday.

Gas is the main ingredient in production of urea fertilizer.

Two of Pakistan's urea plants lack gas to run regularly, and one closed last year, forcing Pakistan to import fertilizer.

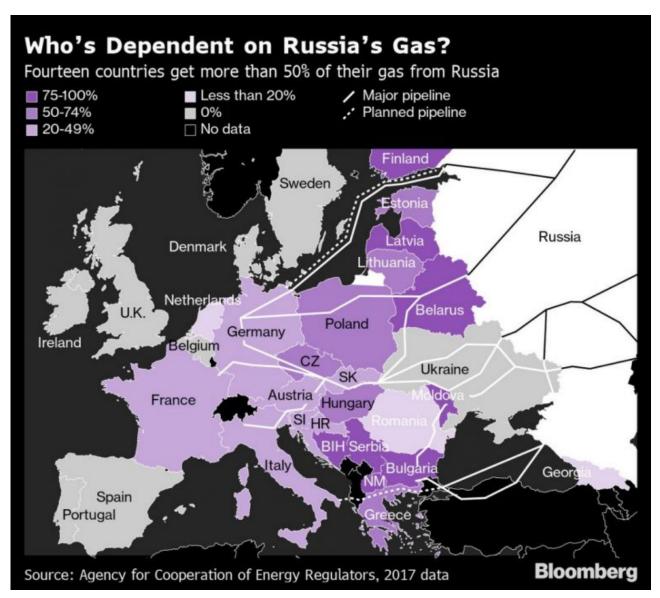
Since LNG is often too expensive for making fertilizer, the government should also expand domestic gas exploration before reserves are depleted, Malik said.

"We are heading for very difficult times," he said. "If nothing happens, we'll be high and dry."

Source: Reuters (Reporting by Rod Nickel in Islamabad; additional reporting by Sabina Zawadzki in London; editing by Tom Hogue and Jason Neely)

### Russia's Main Gas Route to Europe Seen at Risk After

### Opal Ruling



(Bloomberg) — Russia may hesitate to strike a multiyear deal with the European Union and Ukraine on natural gas supplies after an EU court ruling on a key German pipeline.

The judgment last week reduces the options Gazprom PJSC has to ship billions of dollars of gas to its biggest market without using Ukraine's pipeline network. But Russia may see the logic in the decision as flimsy and consider it to be a political rather than a valid legal move, said Katja Yafimava, a senior research fellow at the Oxford Institute for Energy Studies who specializes in European gas regulation.

The three sides are poised to resume talks this week on a

replacement transit deal via Ukraine, because the existing one ends this year. There's a lot at stake for all parties. Europe gets more than a third of its natural gas from Russia and has limited options to replace all the supplies, while Russia gets a huge chunk of its foreign income from the sales and Ukraine is heavily reliant on the payments it gets from shipping the fuel through its territory.

"The European Commission might think it's got a stronger hand in negotiations, but I think that's faulty logic," said Yafimava by phone. "It lowers the chance of a long-term transit contract across Ukraine."

How Russia supplied Europe last winter

Poland successfully challenged a 2016 European Commission decision that allowed Gazprom to use most of the capacity on the Opal pipeline, which carries Russian gas from the Nord Stream line to Germany. German regulator Bnetza followed up on the decision, enforcing its implementation, and said Gazprom's shipments through Opal must be reduced to half the capacity. Shipments began slowing along the pipeline on Saturday.

Other analysts including Rystad Energy AS and BloombergNEF have said the decision might actually spur a deal as it limits Gazprom's options. Russia will study the ruling, which "affects the overall situation with the energy supply of European countries," Energy Minister Alexander Novak said Thursday.

Gazprom could even blame the decision for increasing the risk of supply shortages this winter, Yafimava said.

"The ruling adds pressure to Europe's supply situation," said Yafimava. "It was not expected and the timing was very bizarre, a little before the trilateral negotiations for the Russian-Ukraine agreement. Before the ruling, Gazprom would have the insurance that it would have this capacity and now it is not sure anymore."

The U.S. and Poland are among nations seeking to hamper Nord Stream 2, a doubling of the capacity of the current link, which is meant to be finished this year but has faced issues with construction permits. Supplies from Russia via Ukraine's gas grid may halt if an expiring transit deal isn't replaced by the end of the year.

The latest court ruling moves Russia and Europe further away from each other and from a five-to-10 year Ukraine transit deal, because it further erodes what little goodwill was left, Yafimava said.

"It's a big gamble. Nowhere is Gazprom obliged to book on a 10-year basis," she said. "A long-term deal could have been done in exchange for removing obstacles for NS2, for instance, but the court decision on Opal makes it less likely."

-With assistance from Anna Shiryaevskaya.

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### Qatar Petroleum signs deals with Total to enter

#### exploration blocks in Namibia



Qatar Petroleum has entered into agreements with Total for a share of exploration and production rights in two blocks offshore the Republic of Namibia.

Under the agreements, which are subject to customary regulatory approvals by the government of Namibia and approvals by the partners in the blocks, QP will hold a 30% participating interest in Block 2913B, with Total (the Operator) holding a 40% participating interest.

The other partners in the block are Impact 0il (20%), and Namcor (10%). A first exploration well is scheduled to be drilled in the first half of next year.

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Also under the agreements, QP will hold a 28.33% participating interest in Block 2912, with Total (the Operator) holding a 37.78% participating interest. The other partners in the block are Impact Oil (18.89%) and Namcor (15%).

On the agreements, HE the Minister of State for Energy Affairs Saad bin Sherida al-Kaabi, also the president and CEO of QP, said, "We are pleased to expand our global exploration

activities into Namibia, which further strengthens our presence in Africa. Working on these prospective frontier blocks with our valuable long-term partner, Total, will give another boost to our efforts towards implementing our international growth strategy."

Al-Kaabi added, "We look forward to working together with the Namibian Government and with our partners in these blocks to achieve positive results that meet the interests of all parties."

Blocks 2913B and 2912 sit adjacent to one another offshore Namibia. Block 2913B is 2,600-3,300 metres deep with an area of about 8,215 square kilometres, while Block 2912 is 3,300-3,800 metres deep with an area of about 7,813 square kilometres.