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Exxon has it easier in financing LNG project than Anadarko

(Reuters; March 21) - Mozambique, one of the world's poorest nations, is set to become a top global gas exporter thanks to two large liquefied natural gas terminals about to be built in its northern province. But the plans led by Anadarko and ExxonMobil diverge in their financing and marketing strategies, reflecting different companies and uncertainties in a growth industry that has yet to achieve the flexibility and liquidity of the oil market.

Exxon will use its might as a decades-old LNG producer with a 20-million-tonne-a-year portfolio to partially pay for the project, adding the new supply to its marketing — together with its equally hefty partners. LNG novice Anadarko, meanwhile, has had to go through the lengthy process of locking in long-term gas buyers and multibillion-dollar financing from banks mindful of Mozambique's 2016 default and geopolitical hazards. Anadarko and partners Mitsui, Mozambique state energy company ENH, Thailand's PTT, and three Indian energy firms had to seal binding contracts as proof of the venture's viability before receiving financing for two-thirds of the \$20 billion cost.

Over 9.5 million tonnes of the annual capacity of 12.88 million tonnes is committed to eight buyers from seven developed and developing countries with various credit ratings, including utilities, LNG portfolio holders and state companies. Anadarko had to accept lower prices than in the last wave of projects. One source said the prices are between 11 and 12 percent of Brent crude, compared to 14 percent just five to seven years ago.

Exxon, together with its partners Korea Gas, China National Petroleum Corp. and Eni, will take on the LNG volumes in a bet there will be sufficient demand in 2024. Exxon is also seeking project financing — but its experience, robust balance sheet and with eager LNG consumers as partners, finding the money will be easier.

Risk of oversupply could worry LNG project developers

(Reuters' columnist; March 24) - The slump in the spot price of liquefied natural gas in Asia to its lowest in three years should give pause to the slew of companies planning new ventures to produce the fuel. But it probably won't. The spot price for LNG sent to Northeast Asia dropped to \$4.65 per million Btu last week, the lowest since May 2016. The fact that prices have performed poorly over winter is more a reflection of excess supply, rather than weak demand — consumption has been quite robust.

The issue is supply with the last of the eight major Australian projects built the past decade coming on stream and more U.S. LNG capacity coming online. It's a problem that is likely to get worse rather than better for the rest of 2019 with capacity additions likely to swamp demand growth, at least in Asia. The current supply glut and price weakness may also cast a shadow over the next wave of LNG projects, with the frontrunners expected to start taking final investment decisions this year.

There are 14 U.S. and Canadian ventures slated to take FID this year or next, and they will be joined by projects in Mozambique, Russia, Qatar, and possibly Australia. The traditional model of approving multibillion-dollar projects only when offtake agreements for most of the production are finalized is also being upended, with several ventures planning on going ahead on the assumption that the spot market for LNG will grow to absorb all the planned output. This may be somewhat optimistic.

The risk for LNG producers is that if all, or even a majority, of the planned projects take FID this year or next, is that a tsunami of supply will arrive at more or less the same time and will swamp even the most optimistic demand-growth scenarios.

Asian spot-market LNG prices fall to \$4.65

(Reuters; March 21) - Asian spot prices for liquefied natural gas broke below the \$5 per million Btu mark this week following a 13-week price slide that reflects the absence of growth in demand or any major supply outages. Spot prices for May delivery to Northeast Asia dropped 80 cents to \$4.65 per million Btu, according to traders, although there were few actual transactions with Asia's biggest buyers — Japan, Korea, or China. Asian spot prices are now at their lowest level since May 2016 and close to the lowest point in Refinitiv records going back to 2010 of \$4, which was reached in April 2016.

PetroChina lost \$3.7 billion on gas imports last year

(Reuters; March 21) - China's oil majors are filling up at the right time. PetroChina's losses on natural gas imports swelled last year, due to higher import costs and the low prices that the government requires it to charge at home. Yet the \$200 billion oil-and-gas behemoth and its rivals are preparing to buy more liquefied natural gas from the United States anyway. It's a good way to help defuse trade tension, of course. More importantly, the purchases can lock in supply before an expected global shortfall.

PetroChina said on March 21 that it took a 24.9 billion yuan (\$3.7 billion) hit on its gas imports last year, 960 million yuan more than in 2017. The company has a mandate to ensure ample domestic supplies — even if that means selling at a loss into the price-regulated market. So it might seem odd that Chinese majors seem so keen to sign

deals abroad. Rival Sinopec aims to sign a 20-year LNG deal with U.S. player Cheniere Energy once a trade dispute between the two countries is resolved. China National Petroleum Corp. last year inked a deal with the same company that lasts through 2043.

Though China's gas consumption is surging and more foreign supplies will be needed, the current buyer's market is probably not a permanent situation. Ample supply has in part driven Asian spot LNG prices to their lowest in years, but it's not expected to last as demand grows. Many analysts reckon an excess of global supply this year will switch to a shortfall in 2021, then a supply gap by 2025. Gas may be a loss-making business now for China's oil majors, but it could be time to lock in long-term supplies.

China reports Russian gas pipeline on track for December start-up

(S&P Global Platts; March 22) - The Power of Siberia gas pipeline from Russia to China is on track, with supply expected to start in December, a senior executive at state-run PetroChina, China's biggest gas importer and producer, said March 21. The pipeline is one of the most anticipated energy projects in Asia, expected to eventually pump 3.6 billion cubic feet of gas per day from East Siberia to China. It has huge implications for China's gas supply, LNG import demand and Moscow's strategic pivot to Asian markets.

"Construction process is right on track and we think we can hit the target to get the supply by Dec. 20," said Ling Xiao, PetroChina's vice president and head of the gas and pipeline business. The volume is supposed to start at 500 million cubic feet a day in 2020, increasing to full capacity by 2025, Ling said. PetroChina's parent company, China National Petroleum Corp., signed a 30-year deal with Russia's Gazprom in 2014.

Though China needs additional supply to meet surging demand, the price for Russian gas imports is higher than current domestic city-gate prices in China. "It is difficult for us to pass through the Russian gas cost to end-users as the government has adjusted the city-gate price several times since 2014 when (both parties) set the import price and signed the contract," Ling said. The exact pricing terms of the deal have not been disclosed. The reported total cost of the 2,000-mile pipeline, and gas field development costs in Siberia, have been estimated at as much as \$50 billion.

PetroChina last year lost Yuan 24.91 billion (\$3.71 billion) selling imported gas and LNG. Much of its imports are linked to oil prices, which have been rising of late, driving imported gas higher than the government-set price for sales in China.

PetroChina plans to boost capital spending 17% in 2019

(Reuters; March 21) - PetroChina, Asia's largest oil and gas producer, plans to boost capital spending to 300 billion yuan (\$45 billion) in 2019, up 17 percent from last year, a

company filing to the Hong Kong Stock Exchange showed. The surge in expenditure to a near-record level came as PetroChina pledged to ramp up oil and gas production and build reserves to answer Beijing's call for greater energy security.

The group expects crude oil output this year at 905.9 million barrels and gas output of 3.811 trillion cubic feet, it said in its earnings statement. PetroChina also plans to buy high-end chemical products and technical equipment from the United States, in addition to liquefied natural gas imports already underway, and increase collaboration on oil and gas investment, company president Hou Qijun told reporters March 21.

Russian gas exporters should work together against competition

(S&P Global Platts; March 21) – Russian gas producers Gazprom and Novatek should develop an integrated strategy to supply their consumers amid fierce competition, said Tatiana Mitrova, director at the Skolkovo Energy Center in Moscow. Speaking at the LNG Congress in Moscow this week, Mitrova described the global LNG market as a "cruel battlefield," pointing to multiple suppliers competing with Russia including Qatar, the United States, and Australia.

At the same time, demand has become highly unpredictable with buyers now seeking more flexibility and short-term commitments. "I was in Singapore last week and Asian participants were talking about 50 percent of the contracts being short term by 2025," she said. "Although that is a wishful thinking, it shows the mood." Companies such as Total and Shell have increased their portfolios to adapt to demand flexibility, she said.

Versatility, creativity, and speed are key to success in the evolving market, Mitrova said. Gazprom and Novatek, Russia's leading pipeline gas and LNG players, compete with each other in Europe and Asia. Mitrova pointed to a reduction in Gazprom's exports to Europe in December, while exports grew from Novatek's Yamal LNG terminal. Russia could implement an integrated export strategy like it did with oil, she said, adding there is an opportunity to provide pipeline gas supply for baseload and LNG for peak demand.

Anadarko seeks long-term LNG carrier charters for Mozambique

(Reuters; March 21) - Anadarko said on March 21 it would seek long-term charters for about 16 liquefied natural gas carriers it would need to ship gas from its proposed project in Mozambique. The company aims to take a final investment decision on the \$20 billion project in the coming months, having signed up long-term buyers for its LNG. Anadarko said most of the contracts signed so far require the project to handle delivery of the gas. The plant's initial capacity is planned for 12.88 million tonnes per year.

"The project needs approximately 16 LNG vessels to service the contracts," Helen Rhymes, an Anadarko spokeswoman, told Reuters. "While the specifics of the tendering process are confidential, the project plans to enter into long-term time charters with selected shipowners rather than own the vessels. An invitation to tender will be issued sometime after FID (final investment decision)," she said.

Anadarko will start work on construction of the onshore terminal once it takes the final investment decision. Several thousand workers already are on site clearing the ground. Anadarko's project is one of the largest planned in the world, alongside ExxonMobil's proposed LNG project in the same remote northern region of Mozambique. Both are 600 miles north of Beira, the town at the center of the devastation from a cyclone last week. Both projects will take gas from the Rovuma basin offshore.

Tanzania plans to negotiate LNG project deal this year

(Reuters; March 23) - Tanzania says it plans to conclude talks in September with a group of foreign oil and gas companies led by Norway's Equinor for developing a liquefied natural gas project in the East African country. Construction of an LNG export terminal near huge offshore natural gas discoveries in deep water south of the country has been held up for years by regulatory delays.

"The government has officially decided to begin talks in early April for construction of the LNG project," Tanzania's energy ministry said March 22. "We are keen to implement this key project for the economy and we plan to ... conclude the talks in September this year," the ministry said. The talks will try to negotiate a host government agreement, a crucial step toward reaching a final investment decision for the long-delayed project.

The decision to speed up the talks was reached after a meeting between the country's energy minister, Medard Kalemani, and Mette Ottøy, a senior vice president at Equinor, who is also the company's country manager in Tanzania. Equinor, alongside Shell, ExxonMobil and Ophir Energy, plan to build a \$30 billion onshore LNG plant. The firms plan the project in partnership with the state-run Tanzania Petroleum Development Corp. Tanzania has estimated recoverable reserves of over 57 trillion cubic feet of gas.

Exxon/government talks to develop Algerian gas field break down

(Reuters; March 20) - Talks between ExxonMobil and Algeria to develop a gas field in the North African country have stalled because of unrest, industry sources said, the first economic fallout from the almost month-long anti-government protests. Exxon entered into talks with Algeria's national oil company Sonatrach several months ago to develop the field in the southwestern Ahnet Basin, the sources said. The talks were part of a deepening of ties between the two companies.

Last week, officials from the two sides held talks in Houston to hammer out details, but Exxon opted to suspend the discussions, temporarily at least, due to the wave of protests in Algeria over President Abdelaziz Bouteflika's 20-year rule, the sources said. Exxon and Sonatrach declined to comment. Sonatrach is eager to modernize its business and reduce reliance on fuel imports under CEO Abdelmoumen Ould Kaddour.

The collapse of the talks follows years of attempts by Sonatrach to attract foreign companies to develop its vast oil and gas resources. Sonatrach hopes to tap foreign experience in fracking to develop its own shale gas reserves, estimated at more than 700 trillion cubic feet, the world's third largest. Bouteflika appointed Kaddour in 2017 to turn around the company hit by fraud scandals, lethargy, and red tape. He has managed to rebuild ties with oil majors, some of which had shunned Algeria due to bureaucracy.

Vietnam looks to LNG to displace coal for power generation

(Bloomberg; March 21) - Vietnam's latest plans for \$7.8 billion in gas-fired power projects may see the nation become one of the world's newest liquefied natural gas importers and cut its use of coal. The Ninh Thuan provincial government has met with Thailand's Gulf Energy Development over plans to build four gas-fired plants with total capacity of about 6,000 megawatts, as well as LNG import facilities, the government said on its website March 20.

The Ca Na LNG project would bolster Vietnam's entry into the ranks of LNG buyers, adding further demand to the fast-growing market, and give the cleaner-burning fuel an inroad into a nation that's expected to drive regional coal use. A separate 3,200-megawatt power project has also been proposed for Bac Lieu province, and analysts at Sanford C. Bernstein & Co. said in a report earlier this month that Vietnam is expected to join the LNG importing club in 2027 as its domestic gas reserves are depleted.

Until then, electricity demand continues to grow at a fast pace and coal plants will run at high utilization rates to serve baseload demand, according to Yun Ben Yap, a research analyst at Wood Mackenzie. Vietnam has been seen as one of the world's few bright spots for coal-fired power despite a broader global shift from the fuel. Coal will dominate its power sector over the next decade, providing 50.5 percent of generation by 2028, compared with 22.5 percent for gas, according to a Fitch Solutions report in February.

Chinese state investor will not put more money into new coal plants

(Bloomberg; March 20) - One of China's largest state investment companies vowed to stop plowing money into new coal-fired power plants, joining a global shift by financiers

away from the polluting fossil fuel. Although State Development & Investment Corp.'s (SDIC) withdrawal is in line with China's ambition to use less coal and more cleaner fuels, it doesn't mark a broader shift away from the cheap and plentiful energy source that will provide the bulk of the nation's power for years to come.

In its battle against pollution, the world's biggest coal consumer is seeking to bolster the use of gas and is spending more on renewables than any other country. But it's still spending money at home and abroad on coal-fired generation, which will grow by 21 percent before peaking in 2030, Bloomberg New Energy said in a 2018 report. "China will continue to be a main coal consumer and investor in the coming decade," and it isn't retreating from the fuel, said Tian Miao, an analyst at Everbright Sun Hung Kai Co.

SDIC will no longer invest in new thermal power plants, a Beijing-based spokesman said March 20. He declined to comment on SDIC's plans for its existing thermal power assets. Large investors and lenders are moving away from coal in growing numbers as public pressure to meet global climate targets gets stronger, particularly in developed economies. Banks including Standard Chartered, HSBC Holdings and Societe Generale have made pledges to stop providing capital for coal plants, while Japanese lenders, among the biggest funders of coal projects, have also begun a shift away, too.

Coal-seam gas development an issue in Australia election

(Reuters; March 21) - A \$2 billion coal-seam gas project that could ease a looming gas shortage in eastern Australia is at risk of becoming a casualty in the March 23 election in the country's most populous state. The Narrabri project, owned by Australia-based Santos, could supply up to half of New South Wales' gas needs and help ease soaring energy prices, but has faced fierce opposition from farmers and green groups in a campaign that has resonated widely, particularly in key Sydney city electorates.

A failure to proceed with the gas production would provide a boost to rival schemes to import liquefied natural gas, but unions and industry say this won't do enough to lower energy costs and save jobs in manufacturing. "Without an affordable supply of gas, it is no exaggeration to say that tens of thousands of jobs could be lost across New South Wales," Australian Workers Union National Secretary Daniel Walton told Reuters.

Wary of a potential gas shortage in the 2020s, the conservative coalition state government has allowed the project, situated in a state forest 320 miles northwest of Sydney, to undergo an independent planning review. However, the opposition Labor Party has vowed to kill off the project, saying Narrabri poses an unacceptable risk to water for farming and indigenous communities. Farmers are worried coal-seam fracking will damage their water supply.

Review starts for Vancouver LNG loading terminal

(Business in Vancouver; March 21) - A provincial environmental review has begun for a \$150 million LNG shipping terminal that would supply domestic and international markets with liquefied natural gas from the FortisBC Tilbury Island plant across the Fraser River from Vancouver, B.C. The WesPac Tilbury Marine Jetty project has entered the provincial environmental assessment review process. A 45-day public comment period starts April 2.

The company behind the project, WesPac Midstream Vancouver, plans to build a temporary floating bunkering berth until a permanent one is built, sometime in 2022. The temporary facility would accommodate one LNG carrier along with smaller LNG bunkering barges. In addition to a domestic bunkering market, WesPac expects there will be LNG export opportunities with Asia being the main market. The Tilbury plant, which opened in 1971, is undergoing a \$400 million expansion to boost its liquefaction capacity to more than 2 million tonnes per year.

The company wants to have the temporary floating terminal in place by 2020 to meet what is expected to be new demand for LNG bunkering from the marine sector. That is when new sulfur emissions caps come into effect for the international shipping industry and some vessels are expected to switch from bunker fuel to cleaner-burning LNG.

Court stays property condemnation for pipeline in New Jersey

(S&P Global Platts; March 20) - PennEast Pipeline would be able to continue the environmental survey work needed to move its project along in New Jersey, despite a partial stay to property condemnation granted by the 3rd U.S. Circuit Court of Appeals. The 116-mile line would move up to 1.1 billion cubic feet per day of Marcellus Shale gas to markets in Pennsylvania, New Jersey, and New York. It could reduce price spikes during high-demand periods and provide a new outlet for growing shale gas production.

The 3rd Circuit on March 19 partially granted a stay sought by New Jersey state agencies that contend granting condemnation rights to the pipeline violates sovereign immunity principles of the 11th amendment of the U.S. Constitution for states. Because the start of construction was not expected until later in 2019, the ruling may not affect the construction schedule but it does enable PennEast to continue survey work it would need for its application in New Jersey for a federal Clean Water Act permit.

The case involves New Jersey's argument that the condemnation of state-preserved properties is at odds with state policies of protecting open space and farmland, and that under the state constitution tax dollars are set aside to preserve the land. State entities appealed a December 2018 federal district court ruling that granted PennEast's application for orders of condemnation and allowed immediate possession of state-preserved properties.

Pennsylvania produces 20% of U.S. natural gas

(Forbes; March 21) – Coal-legend Pennsylvania has become the nation's second most vital natural gas state. At over 18 billion cubic feet per day, Pennsylvania now yields more than 20 percent of all U.S. gas, only behind Texas at 22 bcf per day. In the 10 years since a shale revolution took flight in its Marcellus play, Pennsylvania's gas output has exploded 32-fold. Over that time, Pennsylvania has been responsible for 6 trillion cubic feet of the nation's 11.6 tcf of new gas supply.

For its own part, with massive low-cost supply, Pennsylvania has been turning more to gas to meet energy demand. Gas is now 35 percent of the state's power generation, up from 23 percent in 2012. More gas has displaced coal and lowered Pennsylvania's power sector carbon dioxide emissions by 30 percent. From 2016-2018 Pennsylvania saw some 16 new gas plants built worth \$15 billion.

The state is also looking to become a shale-based manufacturing hub for plastics with an ethane cracker plant from Shell beginning operations next year 30 miles northwest of Pittsburgh. Thanks to evolving technologies and practices, numerous Marcellus gas producers can break even when gas prices are just \$2.15 per million Btu or even below. But even with booming production, Pennsylvania's role as a gas giant continues to be constrained by a lack of pipelines that ship gas out of the state.

Permian gas drops to 12 cents after pipeline equipment failure

(Reuters; March 20) - Next-day natural gas prices for March 20 at the Waha hub in West Texas plunged to a record low due to an equipment failure in New Mexico that stranded gas in the Permian Basin. Spot prices at the Waha hub collapsed to an average of just 12 cents per million Btu.

That compares with an average of \$1.72 this year, \$2.10 in 2018 and a five-year (2014-2018) average of \$2.80, according to data from Refinitiv Eikon back to 1991. The equipment failure was at two compressor stations on the El Paso Natural Gas Pipeline. That failure, which caused El Paso to declare a force majeure, cut capacity through the stations by about 200 million cubic feet per day starting March 19. El Paso, a unit of Kinder Morgan, said the reduction will remain in effect until further notice.

The Permian is the biggest oil-producing shale basin in the United States and since much of that oil comes out of the ground with gas, it is also the nation's second-biggest shale gas producing region, behind Appalachia in Pennsylvania, West Virginia, and Ohio. With production of both oil and gas more than doubling to record highs over the past five years, the pipeline infrastructure in the Permian has not been able to keep up with the rapid growth in output.