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Papua New Guinea political uncertainty threatens LNG expansion

(Reuters; May 27) - Political turmoil in Papua New Guinea deepened May 27 as the opposition raised doubts about an offer from Prime Minister Peter O'Neill to resign and vowed a long fight to get rid of him. Instability is not unusual in the South Pacific nation and it has not held back mining and energy investment in the resource-rich but poverty-stricken country. However, protests that locals have not received their fair share of the benefits have dogged the government, sapping support from the ruling coalition.

O'Neill had resisted calls to resign for weeks but his opponents said May 24 they had rallied enough support in the Parliament to oust him. The prime minister said on May 26 he would quit in favor of Julius Chan, a two-time former premier. But O'Neill has yet to formally resign. Meanwhile, he said he has filed a court challenge to a looming noconfidence vote in Parliament. At the same time, it is not clear if an opposition-dominated chamber would accept Chan when Parliament resumes work on May 28.

Analysts say political turbulence will delay projects and could blur future plans. Total and ExxonMobil will be watching closely as the impasse threatens to delay their \$13 billion plan led by Total to double PNG's gas exports. "The resignation of Peter O'Neill will delay first gas from LNG expansion projects until beyond 2025," Wood Mackenzie analyst David Low said. "While we still expect the project to go ahead, the political turmoil opens the door to competing projects and increases the risk of knock-on delays." Exxon and its partners had hoped to begin basic engineering planning for the liquefied natural gas plant expansion by mid-2019 and make a final investment decision in 2020.

Gulf Coast LNG developer lacks customers, may run out of money

(S&P Global Platts; May 22) - Shareholders in Australia-based LNG Ltd. expressed concern May 21 that the company — which has been trying for most of this decade to develop an export terminal in Louisiana — will run out of money before reaching a final investment decision for its Magnolia project. While watching competitors sign up buyers over the past year, Magnolia has been offering LNG at a relative bargain price in an effort to secure its first long-term contract and generate enthusiasm for its prospects.

But to date, it has not had any takers, blaming the U.S.-China trade war and what CEO Greg Vesey described as a soft spot market for LNG. During a conference call with investors, Vesey said the company planned to stick with the project and its game plan. "We are a bit frustrated, the board is a bit frustrated, and you our shareholders are

frustrated," Vesey said. If the lack of progress "drags out," LNG Ltd. may have to raise cash in the market to fund operations, he said. It has no income-producing properties.

The company's March 31 cash balance was A\$28.7 million (US\$20 million). Some investors on the call questioned LNG Ltd.'s ability to raise money, noting that the company's stock price was very low. Its U.S. shares have been trading at between \$1 and \$1.50 for months. Vesey did not provide any new guidance about when an FID for Magnolia LNG was expected. The company has obtained Federal Energy Regulatory Commission approval, and has a contractor on board for construction, but it does not have any firm customers. The plant would produce up to 8.8 million tonnes per year.

Louisiana approves property tax break for LNG project

(KPLC TV; Lake Charles, LA; May 22) – Louisiana's state Board of Commerce and Industry has approved an Industrial Tax Exemption Program incentive for the proposed Magnolia LNG export project in Lake Charles, the company announced May 23. The \$4.4 billion Magnolia project could generate 1,500 construction jobs and 200 permanent jobs in Southwest Louisiana, according to the company, Australia-based LNG Ltd., which has been working about seven years to line up permitting, customers and financing for the development, plans for about 8.8 million tonnes annual capacity.

The incentive program provides a five-year, 80 percent property tax abatement with the option to renew for an additional five years. Louisiana has provided property tax relief for other liquefied natural gas projects in the state. There are two LNG export terminals in operation in Louisiana, with construction underway on a third and several more in various stages of planning. Magnolia has secured approval from the Federal Energy Regulatory Commission but lacks any firm contracts for its output. The developer said the tax savings will improve the project's competitiveness in the global market.

Novatek starts planning third LNG terminal in Russian Arctic

(The Barents Observer; Norway; May 23) - Russian gas producer Novatek this week made clear it is starting the development of a third liquefied natural gas export project in the Yamal region. The Ob LNG project would be based on resources of the Verkhnetiuteyskoye and Zapadno-Seyakhinskoye fields, two structures located in the central part of the Yamal Peninsula. The fields hold a total of 5.5 trillion cubic feet of gas and the potential new plant would produce up to 4.8 million tonnes of LNG per year.

The project and related infrastructure are estimated at \$5 billion and would start operations in 2023, the Russian newspaper Kommersant reported, attributing the information to a high-ranking official at Novatek.

Novatek started shipping gas in December 2017 from its Yamal LNG project, the first such export terminal in Russia's Arctic. The company is working toward an investment decision later this year on its Arctic LNG-2 terminal, which would be 15 percent larger than Yamal, at 19.8 million tonnes annual output capacity. In anticipation of a positive investment decision, Novatek already has selected a contractor to build Arctic LNG-2. Unlike Yamal and Arctic LNG-2, the Ob LNG project would be built exclusively with Russian-made technology, according to the report in Kommersant.

Russia building more nuclear icebreakers for Arctic LNG traffic

(The Barents Observer; Norway; May 25) - Liquefied natural gas is big money for Russia's privately owned Novatek. But for LNG carriers to reach Asian markets, more powerful icebreakers are needed along the eastern part of the Northern Sea Route, from the northern Kara Sea through the Laptev Sea toward the East Siberian Sea. That will be increasingly true as Novatek, which already operates Yamal LNG in the Arctic, has plans to start up a second export terminal by 2023, following by maybe a third.

"Without a modern nuclear icebreaking fleet, it is impossible to imagine development of the Northern Sea Route," Vyacheslav Ruksha, director of the Northern Sea Route Directorate of Rosatom State Corp., said at the May 25 launch of the country's newest icebreaker. "It is important that a decision has been made to conclude a contract for the construction" of additional nuclear icebreakers. ... With their appearance in the Arctic, it will be possible to talk about year-round navigation along the Northern Sea Route."

The 568-foot-long Ural icebreaker, launched at a Baltic shipyard, will sail north to break ice for LNG carriers when construction is complete and it's delivered to Rosatomflot by 2022. "The Ural, together with its sisters, are central to our strategic project of opening the Northern Sea Route to all-year activity," said a Rosatom official. "We also plan to add two more project ships to our nuclear icebreaker fleet by 2027." The Ural's nuclear reactors can generate 350 megawatts of power and break through ice 10-feet thick.

Novatek says it will have a fourth foreign partner for Arctic LNG-2

(S&P Global Platts; May 23) - Russia's Novatek said May 23 it expects to complete talks with a potential fourth foreign partner for its Arctic LNG-2 project by the end of June in order to take the final investment decision in the third quarter. The comments come after Russian daily Vedomosti reported that talks with Saudi Aramco on the project have been dropped because Aramco found Novatek's terms unattractive.

Aramco was expected to join the development in Russia's Gydan Peninsula, following encouraging comments from Russian and Saudi energy ministers late last year. Arctic LNG-2 is planned at 19.8 million tonnes annual capacity, at a cost between \$20 billion

and \$25 billion. Instead of Saudi Arabia, Novatek sold a share of the project to Chinese companies, Vedomosti said, citing an unnamed source. Risks of potential new U.S. sanctions against Russia were also named as a reason for the Saudi deal falling apart.

Novatek said it planned to complete talks with potential partners for the project in the first half of the year. It has sold a 20 percent to two Chinese companies, and a 10 percent stake to France's Total. "We are planning to take the final investment decision on the Arctic LNG-2 project in the third quarter of 2019," Novatek said. The company has said it plans to retain a 60 percent stake in the project, while selling the remaining interest to foreign partners to share financial risks and secure markets for the gas.

Chinese rig scores success in exploring Russian Arctic for gas

(The Barents Observer; Norway; May 20) - A 15,469-deadweight-ton Chinese drilling rig has worked in Russian Arctic waters the past two years, with plans to bring it back this year. In 2017, it drilled in the Leningradskoye license area in the Kara Sea and expanded the resource potential of the structure to more than 65 trillion cubic feet. In 2018, it was back in the area to drill in the nearby Rusanvoskoye area. Both operations were in cooperation with Russian natural gas giant Gazprom.

The company confirms that drilling at Rusanvoskoye found almost 14 trillion cubic feet of gas. The discovery has been named after Soviet Minister of Energy V.A. Dinkov and is located off the west coast of the Yamal Peninsula. With the discovery, the Chinese rig has made two of Russia's biggest offshore finds of the past decade, adding more than 42 tcf of resources. The Nan Hai Ba Hao, owned by China Oilfield Service Ltd., will be back in the Arctic in 2019, according to Russia's Northern Sea Route Administration.

PetroChina raises natural gas prices to reduce losses on imports

(Reuters; May 23) – PetroChina is bucking normal practice and raising its wholesale natural gas prices during the weak-demand spring season, sources said, preparing for the coming consolidation of China's pipeline assets and trying to recoup its huge gas import losses. The price increases from PetroChina — which supplies over 70 percent of China's gas — come as spring brings warmer temperatures, when demand and prices typically fall. PetroChina is under pressure to recoup continuing losses from gas imports due to its procurement high costs versus government-capped domestic prices.

PetroChina lost 3.3 billion yuan (\$480 million) on its gas imports in the first quarter of this year due to high costs. During 2018 the Chinese major incurred a net loss on its gas imports of nearly 25 billion yuan (\$3.6 billion). An official with the company also said that PetroChina anticipates losing the guaranteed revenues from its pipeline

business this fall when the country consolidates all lines into a national pipeline group. To prepare for that eventuality, the company wants to pare its losses in the gas import business.

PetroChina loses money on imports, especially supplies of liquefied natural gas under long-term contracts. Its price increases would apply to wholesale rates to provincial gas distributors, power plants and industrial users. PetroChina expects to agree with buyers to prices about 6.4 percent above government-set rates for gas from conventional domestic fields and Central Asia pipeline imports. For higher-cost LNG imports and domestic shale gas output, PetroChina aims to raise prices by up to 30 percent. A fertilizer producer in Sichuan province said his company's gas price went up about 10 percent, to 1.6 yuan per cubic meter (about \$6.50 per 1,000 cubic feet).

China struggles when pollution crackdown affects economic growth

(Reuters; May 23) - For years, China's industrial heartland has been cloaked in smog, its waterways choked with pollution pumped from enormous clusters of factories churning out the mountains of cement and steel needed to build the Chinese economy. Aiming to tackle what has become a huge public health problem, the authorities have cracked down on polluting industries and also promoting natural gas over coal, targeting provinces like Henan, with a population of 100 million and hundreds of factory towns.

According to interviews with factory and business owners, and consumers and workers across Henan, that crackdown — conducted with often heavy-handed local enforcement — is crippling the economies of towns and cities that depend on polluting industries. Manufacturers across Henan have been particularly hard hit by the new environmental regulations, compounding the pressures the province faces from China's slowing economy and a grinding trade war with the United States.

It also highlights the trade-off China faces between a healthier environment for its citizens and maintaining economic growth in a province whose climb from poverty has lagged that of coastal regions. Interviews by Reuters across Henan suggest consumers are spending less, cities are struggling to retool their economies, and the pollution crackdown is hurting businesses and employment. The steel-producing center of Anyang has been hit hard by the anti-pollution campaign. The city of more than 5 million has forced industry to curb pollution, shutting down companies unwilling to comply.

Small LNG plant near Vancouver sells into China

(Business in Vancouver; May 22) - It will be another four or five years before the C\$40 billion LNG Canada project under construction in Kitimat, B.C., begins shipping liquefied

natural gas to customers in Asia. But smaller players are already exporting LNG from a terminal in Canada's western province, thanks to a recent \$400 million expansion of FortisBC's Tilbury Island plant across the Fraser River from Vancouver.

The plant has been used since the 1970s to liquefy and store gas to provide backup for the area. But after the expansion, the plant can produce up to 250,000 tonnes of LNG per year. While some of that LNG is used for the domestic market, primarily trucking, some is being exported. In 2017, Calvin Xu's company, True North, shipped its first test shipment to China in 40-foot-long insulated tanks. Last year, True North shipped 50 containers — equal to about 50 million cubic feet of natural gas. Another company, Beijing Tianhai Cryogenic, shipped close to the same amount — about 1,000 tonnes.

Both companies buy the LNG from FortisBC and transport it aboard container ships to industrial buyers in China. Doug Stout, vice president of market development for FortisBC, said four or five small shippers like True North and BTCE have sprung up in the past year. In addition to the export market, FortisBC is working to develop a new marine bunkering business that would serve vessels fueled by LNG. FortisBC is working with WesPac Midstream to build a marine jetty to create a new LNG bunkering terminal.

Malaysia's Petronas looks for more Canadian LNG export prospects

(S&P Global Platts; May 22) - Malaysia's Petronas is focused on Canada over the United States for growth in its LNG export business as it seeks outlets for the significant gas resources it holds in the Montney play in northeastern British Columbia, Petronas Canada CEO Mark Fitzgerald said May 22. In addition to its investment in the Shell-led LNG Canada project under development in Kitimat, B.C., Petronas wants to find more opportunities to move more gas to market, he said at a conference in Vancouver.

Lack of sufficient pipeline infrastructure in the Montney makes it difficult to move larger quantities of Western Canada gas eastward across the country or southward to the U.S. Liquefied natural gas exports to Asia remain the best long-term answer, Fitzgerald said. "Our focus is entirely right now on how we monetize the resource that we have." Petronas is talking to other market participants about how to grow the Western Canada gas export trade, Fitzgerald said, though he would not disclose any names.

Unfavorable economic and market conditions forced Petronas in 2017 to cease work on its Pacific NorthWest LNG project near Prince Rupert. In May 2018, Petronas jumped back into the market, taking a 25 percent stake in LNG Canada. Backed by a consortium of portfolio players and end-users, including Shell, PetroChina, Japan's Mitsubishi, and Korea Gas, that project, with a price tag of up to C\$40 billion, made a positive final investment decision in October and has started early construction work.

First Nations could consider investing in Canadian LNG projects

(S&P Global Platts; May 23) - Indigenous groups are floating the idea of investing in LNG export projects as a way to help get more terminals built in Western Canada and tap the cheap, abundant gas resources available in the region. As the Canada Gas & LNG Exhibition and Conference wrapped up May 23 in Vancouver, stakeholders and developers were left to consider how to achieve their aspirations, and more specifically how to compete with the U.S. for a bigger share of the global supply market.

One answer may be to bring the First Nations groups that want more say over the construction and operation of the multibillion-dollar facilities in on the front end as financial partners. Discussions are currently underway in Canada about pursuing equity interests in projects, said Mark Podlasly, chairman of First Nations Limited Partnership. "The pace of indigenous involvement in projects like these worldwide is accelerating," he said. The partnership includes 16 First Nations' groups in British Columbia.

Adopting such relationships could be a way to help advance more liquefaction projects in Canada, which face financing challenges due in part to much higher construction costs than similar projects on the U.S. Gulf Coast. "It's examples like this of corporate structures or partnerships that are starting to really take flight around the world," Podlasly said at the conference. Making First Nations groups financial partners in the projects also would create more collaboration between communities and developers.

Conoco CEO says demand growth will consume LNG supply

(Reuters; May 28) - ConocoPhillips expects current weak global liquefied natural gas prices to improve as growing demand soaks up the excess supply in the market, the company's chief executive said May 28. "LNG prices are pretty weak right now, but we believe it's a short-term phenomenon," ConocoPhillips CEO Ryan Lance said at an industry conference in Australia. "We believe that demand growth will absorb the current supply excess that exists in the market today."

ConocoPhillips operates Darwin LNG in northern Australia, at 3.7 million tonnes per year, and Australia Pacific LNG, at 9 million tonnes per year, on the East Coast. The company expects to make a final investment decision with its partners later this year whether to develop the Barossa gas field to supply Darwin LNG when gas runs short around 2022 from the Bayu Undan field in the Timor Sea. Barossa, about 186 miles north of Darwin, is owned by ConocoPhillips, South Korea's SK E&S Co., and Santos.

Lance said LNG buyers are taking advantage of current weak spot LNG prices, now at three-year lows below \$5 per million Btu, to demand shorter contracts and more pricing latitude from suppliers. "It's a buyer's market today," he said. "As for the long term, we expect the current oversupply to tighten by the mid-2020s." By then new gas fields

filling existing plants will have come online and new plants will be needed. Producers will need to win longer contracts from buyers to be able to fund those projects, he said.

Saudi Arabia's long-term plan looks to gas for power generation

(Wall Street Journal; May 22) - Saudi Arabia's deal this week to buy U.S. liquefied natural gas is part of a decade-long \$160 billion plan to build up its gas assets, as the kingdom's demand for new energy is projected to soar. Saudi Arabia foresees a gas empire that fuels new cities and helps develop manufacturing, mining, and technology. The kingdom produces enough oil now to meet power demand, but Saudi leaders are trying to stop burning oil to make electricity because it lowers its oil export revenues.

In Saudi Arabia's north, Aramco has launched what some analysts call its smallest-ever project but one of its most important. Around the city of Turaif, Aramco has successfully begun producing gas from fracking techniques that unlocked the U.S. shale boom but have rarely been used in Saudi Arabia. The gas is being used to power a mining facility, providing a glimpse into how gas can power new industries in the future. Aramco has also ramped up gas production efforts on large fields in its oil-rich Eastern Province.

The company has begun taking seismic readings around the Red Sea, which some believe holds large gas deposits. "They're after every molecule they can get," said Stewart Williams, a Wood Mackenzie analyst. The country wants to produce enough gas to meet its needs, but for now imports are the near-term option. Saudi gas is difficult and expensive to exploit compared with other producers, and Saudi officials had long seen gas as secondary to oil despite having the world's fourth-largest gas reserves. The deal to buy LNG from Sempra's planned terminal in Texas marks a first step.

Sempra asks FERC for extension to bring Cameron LNG online

(Reuters; May 22) - Sempra Energy has asked U.S. energy regulators for more time to complete its \$10 billion Cameron liquefied natural gas export terminal in Hackberry, Louisiana. The Federal Energy Regulatory Commission in 2014 approved construction of three liquefaction trains at Cameron with a requirement that the project be completed within five years. Sempra said the first liquefaction train at Cameron started producing LNG earlier in May and is expected to export its first cargo in the coming weeks.

The company said the second and third production units will enter service in the first and second quarters of 2020. Sempra has asked FERC for a 15-month extension for a full in-service date of Sept. 19, 2020. Cameron's first three trains will produce about 12 million tonnes per year of LNG, or roughly 1.7 billion cubic feet of gas per day.

Cameron is jointly owned by Sempra, at 50.2 percent, along with Total, Mitsui, and Japan LNG, a company jointly owned by Mitsubishi and Nippon Yusen Kabushiki Kaisha.

Norwegian cruise line signs long-term supply deal for liquefied biogas

(Reuters; May 23) - Norwegian cruise ship operator Hurtigruten has signed a 7.5-year deal to buy liquefied biogas made from dead fish and other organic waste to help power its vessels, the firm said May 23. Under the contract with Biokraft, Hurtigruten ships will start receiving near-daily supplies of liquefied biogas with the first delivery in 2020. The company last year said it would invest about \$800 million to refit six vessels to partly run on the renewable fuel.

"Our ships will literally be powered by nature. Biogas is the greenest fuel in shipping, a no-brainer for us, and a huge advantage for the environment," Hurtigruten CEO Daniel Skjeldam said in a statement. The firm declined to provide a figure for the total value of the biogas contract. The hybrid ships will run on a combination of electric power from batteries, liquefied natural gas, and liquefied biogas. Biogas is already used as fuel in parts of the transport sector, especially in buses. It can be produced from organic waste, such as from fisheries and forestry, which the Nordic region has in abundance.

B.C. loses round in court in its effort to stop oil pipeline expansion

(Calgary Herald; May 25) - Moments after the British Columbia government lost its defense of a provincial law intended to stanch the flow of oil sands bitumen over the Rockies, B.C. Attorney General David Eby was surveying the battleground. Unbowed, Eby said the government remains opposed to expanding the Trans Mountain oil pipeline, pointing to the risk of a "catastrophic" spill. "We disagree with the decision and we're disappointed," Eby said after the 5-0 defeat in the province's high court.

In a dense 65-page ruling May 24, a unanimous five-justice division of the B.C. Court of Appeal told the province it had no jurisdiction to enact legislation that would restrict the contents of a federally regulated pipeline. Eby said he will ask the federal government to help expedite a hearing before the Supreme Court of Canada because protecting the coast and environment was so important. "We always said it should be before the Supreme Court," the attorney general said. "We believe we need clarity on this."

The appellate panel concluded the Trans Mountain pipeline — formerly owned by Kinder Morgan until it was purchased last May by the Canadian government for C\$4.5 billion — and its expansion "affects the country as a whole, and falls to be regulated taking into account the interests of the country as a whole." The federal government

and Alberta argued the B.C. law was nothing but sleight-of-hand to delay or prevent the C\$7.4 billion pipeline expansion project from Edmonton to tidewater at Burnaby, B.C.