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Asia's LNG import growth slows down, led by China

(Reuters; June 25) - Economic headwinds are limiting the appetite for liquefied natural gas in Northeast Asia, home to the world's biggest importers of the fuel, even as global supply is expected to rise 14 percent this year. The growth rate in monthly imports of LNG into Northeast Asia during the first half of 2019 will decline for the first time since 2015, according to Reuters calculations based on Refinitiv shiptracking data. The region includes Japan, China, South Korea, the world's top three LNG importers, and Taiwan.

Further underscoring the weaker demand, imports into the region in June are set to fall from May for the first time ever, according to data going back to 2013. Imports typically rise in June as gas demand increases to generate power for air conditioners during the summer. The slowdown is occurring as additional LNG from Russia, Australia, and the U.S. are expected to swell overall LNG supplies to 365 million tonnes by the end of 2019 from 320 million tonnes currently, according to consultancy Wood Mackenzie.

The main driver of the slowdown is China, whose LNG imports for June look to drop by 9 percent from May as the country's coal-to-gas switching has moderated amid weaker economic growth. "Asian LNG demand this year so far has been dampened due to a range of factors including mild weather, high storage levels and a lower policy emphasis on coal-to-gas switching in China," said James Taverner of consultancy IHS Markit. While China's long-term LNG demand is still set to grow, the rate will be slower compared with 2017 and 2018, said Wood Mackenzie analyst Nicholas Browne.

Papua New Guinea wants more benefits from LNG, treasurer says

(Reuters; June 26) - Papua New Guinea's new treasurer put Total, ExxonMobil, Newcrest Mining and their partners on notice June 26 that the country wants to extract more benefits from their gas and mining projects. Treasurer Sam Basil said the country also needs better forecasts from Exxon and Total on the expected income from a \$13 billion plan to double the country's liquefied natural gas exports. Basil was appointed this month by Prime Minister James Marape, who succeeded Peter O'Neill in May.

France's Total is leading the Papua LNG project, which will develop the Elk-Antelope gas fields to feed two new liquefaction units to be built at the PNG LNG plant, run by Exxon. At the same time, Exxon and its partners plan to add a third new unit at PNG LNG, which will partly be fed by another new field, P'nyang. Total recently reached an

agreement with the government setting terms for its Papua LNG project, while Exxon is in the process of negotiating a separate agreement with the government for P'nyang.

Treasurer Basil said the projects should all be treated as one, rather than "under the cloak of separate joint ventures." He added, "I am putting each of the project partners in all of these projects on notice that the concerns of our people must be addressed through dialogue and negotiations with the state and that we expect all parties to contribute to a fair and equitable outcome." Exxon's original \$19 billion PNG LNG project is the biggest foreign investment in the country and crucial to the economy, but the plant has been a disappointing contributor since it started exporting LNG in 2014.

New Central Asia gas pipeline into China targets 2022 start-up

(Radio Free Asia commentary; June 24) - After years of false starts and delays, China is still counting on completion of a troubled cross-border Central Asia gas pipeline by 2022 to supply more gas to help meet its goal of improving air quality. Last year China's three pipelines from Central Asia delivered 1.6 trillion cubic feet of gas, according to a pipeline affiliate of state-owned China National Petroleum Corp. The lines through Uzbekistan and Kazakhstan provided nearly 40 percent of China's total gas imports with the rest coming almost entirely by sea as liquefied natural gas.

The pipeline deliveries have been in danger of bumping up against the capacity of the Central Asia-China Gas Pipeline system, prompting plans for a new line, first announced in 2013, to add as much as 1 tcf a year. The new line would follow a shorter but more difficult route through Uzbekistan, Tajikistan, and Kyrgyzstan to China's border. But from the first announcement, the project has been subject to postponements, delays, and revised start dates that have proved to be largely ceremonial. Completion dates were first reported as 2016, then 2020, and now 2022.

Completion would make China the world's largest pipeline gas importer by 2022, the International Energy Agency said. But technical, financial, and political obstacles may continue to stall completion. For example, the route outlined by a Tajikistan government decree would require 47 tunnels through mountainous areas.

Thailand more reliant on LNG, but renewable energy gaining ground

(Reuters; June 25) - Thailand's largest energy firm PTT is in no hurry to lock in new long-term liquefied natural gas contracts as it monitors domestic gas output and the growth of renewables over the next two to three years, its chief executive said. The country is expected to become more reliant on LNG imports because of falling output in the Gulf of Thailand, but gas demand growth has slowed to 1 percent or less in recent years because of increases in solar power, said PTT CEO Chansin Treenuchagron.

Renewable energy sources are gaining ground as the cost of solar panels and wind turbines has dropped sharply, while climate change initiatives have also accelerated non-fossil fuel use. Thailand currently consumes 4.7 billion cubic feet per day of gas, of which 3 billion cubic feet is from domestic production, 1 billion cubic feet is piped from Myanmar and the rest is imported LNG, Chansin said. He expects natural gas demand growth in Thailand to hold steady at about 1 percent per year over the next five years.

"If production decreases in Gulf of Thailand then we'll increase (LNG) imports," he said. PTT has long-term LNG purchase contracts for 5.2 million tonnes per year with Qatargas, Shell, BP, and Petronas, but is also looking to ensure sufficient demand before pursuing new contracts, Chansin said. To prepare for more LNG imports, PTT is building a second import terminal that will be completed in 2023, bringing its total LNG regasification capacity to 19 million tonnes per year, he said.

East Timor may borrow billions from China for gas project

(The Australian; June 25) - East Timor is poised to borrow up to US\$11 billion from China to develop the controversial Greater Sunrise gas project, alarming analysts who fear the deal could result in the Chinese military gaining access to a port 310 miles off the coast of Darwin, Australia. State-owned Timor Gap gas company has rejected financing derived from U.S. pension funds and is now ready to sign a commercial loan with China's Exim Bank under President Xi Jinping's signature Belt and Road Initiative.

East Timor is determined to push on with a gas liquefaction plant and port on its south coast, despite warnings that returns "would not be sufficient to meet the industry standard for investment by an international oil company." Australian Strategic Policy Institute executive director Peter Jennings said what began as a business relationship could open the door for Chinese ships and aircraft to visit. "A Timor that is beholden to China is something that I think policymakers would be very concerned about," he said.

Australian National University's Graeme Smith, an expert on Chinese investment in the Asia-Pacific, said countries in the region suffered "buyer's remorse" after rushing into deals with Exim Bank and state-owned enterprises. "A common refrain is they were too trusting and paid too much," he said. East Timor now has a controlling equity stake in the Sunrise gas field, after purchasing shares held by Shell and ConocoPhillips for more than \$900 million. The companies favored piping the gas to an existing LNG plant in Australia, while East Timor wants to build a new liquefaction plant to boost its economy.

Canada will spend \$275 million to help British Columbia LNG project

(The Financial Post; Canada; June 25) - Ottawa is putting up C\$275 million in federal support for LNG Canada's C\$40 billion liquefied natural gas development in Kitimat,

British Columbia, as an investment in "cleaner technology" to get Canadian resources to new markets. The contribution will include \$220 million to help LNG Canada buy more energy-efficient, gas-fueled turbines to power its natural gas liquefaction plant and \$55 million to replace an aging highway bridge on the road to Kitimat's industrial area.

To B.C. Green Party leader Andrew Weaver, the move is another burst of corporate welfare to subsidize the fossil fuel industry a week after Prime Minister Justin Trudeau's government declared a climate emergency and at the same time reapproved the Trans Mountain oil sands pipeline expansion from Alberta to the B.C. coast. "You wonder why Canadians are cynical about the way this government is dealing with the climate crisis," Weaver said.

"If the federal government wants to spend funds subsidizing a project where a final investment decision has been made, that is their choice," said Clean Energy B.C. executive director Martin Mullany. "We think it would have been better spent on electrifying the upstream value chain," Mullany said. Renewable energy proponents have leaned on the LNG sector to electrify its process as much as possible — rather than burning more oil or gas — to reduce the industry's greenhouse-gas impacts.

Arctic LNG-2 partner says construction will be cheaper than Yamal

(Reuters; June 25) - Russia's Arctic LNG-2 project will be about a third cheaper to build than the country's Yamal LNG plant thanks to technology being built by Italy's Saipem, stakeholder Total said June 25. Arnaud Le Foll, Total's head officer in Russia, said Saipem was building gravity-based structure platforms (GBS) for the gas liquefaction facility. GBS platforms have been used often in North Sea and other gas projects but not in Russia.

"There will be three such structures," Le Foll told Reuters on the sidelines of a conference in St Petersburg. "They are being built in Murmansk by Novatek's shipyard ... it's contracted with Saipem." Russian gas producer Novatek owns a 60 percent stake in the Arctic project, while Total, two Chinese companies, and a Japanese partnership each own 10 percent. The GBS platforms will be towed to the project site and held in place on the seabed by ballasts with the LNG facilities installed atop the platforms.

Novatek has estimated that the project will cost \$20 billion to \$21 billion. The Yamal project, operating since December 2017, cost \$27 billion. The new plant on the Arctic Gydan Peninsula is due to start operations in by 2023 with a total annual capacity of 19.8 million tonnes, the largest LNG project in Russia.

Nova Scotia LNG developer buys gas assets in Alberta

(Reuters; June 26) – Calgary-based Pieridae Energy will buy gas assets in Alberta from Shell for C\$190 million (US\$144.77 million), Pieridae said June 26, securing additional supply for its proposed C\$10 billion liquefied natural gas plant in Nova Scotia. The deal will consist of all of Shell's midstream and upstream assets in the southern Alberta Foothills area, which produce 29,000 barrels of oil equivalent a day of natural gas liquids, condensate and gas. Pieridae is also buying three sour-gas processing plants.

The deal gives Pieridae more supply for the first phase of its proposed Goldboro LNG plant. If it goes ahead, it would be Canada's first East Coast LNG project, producing 10 million tonnes per year. The deal follows Pieridae's C\$94 million acquisition of Alberta gas producer Ikkuma Resources last year. "This deal (with Shell) helps us secure the remaining conventional natural gas supply needed for the first train of the Goldboro LNG project," said Pieridae CEO Alfred Sorensen.

Shell and its partners are building Canada's first LNG export terminal in Kitimat, British Columbia, but the company has scaled back operations elsewhere in the country, including in Alberta's oil sands. Pieridae requires more gas production to anchor its LNG project before making a final investment decision. The company plans to use existing pipelines to get Alberta gas to the plant. Investors are not convinced of the venture, however. Shares in Pieridae have tumbled more than 80 percent from a year ago.

LNG looks better long term than coal, columnist says

(Reuters columnist; June 25) - Everywhere Asia's coal industry looks it sees headwinds, from the current slump in prices induced largely by oversupply, to the lack of financing available for new projects, to the risk of restrictive regulations and the rise of cleaner energies. But perhaps the biggest risk in most of Asia, home to the world's top four coal importers and two biggest coal exporters, is from liquefied natural gas, the fuel that is rapidly expanding market share versus a largely moribund coal sector.

Perhaps the surprising thing at this year's Coaltrans Asia event, held this week on the Indonesian resort island of Bali, was that most delegates didn't seem too concerned about LNG, or rising pipeline supplies of natural gas from Central Asia and Russia to China. When it came to LNG, the general view was that the fuel will be too expensive to be viable in countries that are planning to expand their electricity generation capacity with power plants that will run on imported fuel.

While this may currently be the case, the trends already underway would seem to be swinging the pendulum in favor of LNG over coal, even for power generation in Asia. One senior executive at a major Indonesian miner said financing is becoming "very difficult," with banks reluctant to lend to the coal industry. In contrast, global LNG

supply looks to be expanding rapidly in the coming decade, as oil and gas majors rush to bring projects to final investment decisions. A 40-year generation asset needs certainty above all else, and it appears that LNG may be the safer bet in Asia.

Russia plans for \$11.7 billion investments in Northern Sea Route

(Reuters; June 24) - Russia's ambitious Northern Sea Route requires 735 billion rubles (\$11.7 billion) in investments, with the state budget to provide a third and the rest to come from private companies and banks, the head of state nuclear firm Rosatom, Alexey Likhachyov, said. Rosatom, which operates a nuclear-powered icebreaker fleet, was selected by the Russian government to operate the Northern Sea Route — which Moscow wants to turn into a new Suez Canal — coordinating the effort among users.

Rosatom this month agreed on joint development of the Arctic sea route with the Russian Direct Investment Fund; Nornickel, one of the world's top nickel and palladium producers; and Dubai-based DP World, among the world's leading port operators. The firms have yet to agree on how their NSR partnership will work. DP World wants to operate the ports and infrastructure that Russia plans to build, its CEO told Reuters.

Likhachyov said the state budget would provide 274 billion rubles for the project with the other two-thirds to come from Rosatom, Nornickel, and oil and gas producers Gazprom Neft, Gazprom, Rosneft, and Novatek. Future users of the route would contribute as well. And bank loans will be part of the mix, he said. "As soon as we create commercially attractive cargo shipments, people will be ready to invest in roads, railways, ports and terminals as this will become profitable," Likhachyov said.

Strait of Hormuz closure would hit Qatari LNG the hardest

(S&P Global Platts; June 24) - Spot liquefied natural gas prices could double if the Strait of Hormuz is disrupted, effectively placing all of Qatar's export capacity under force majeure — a disruption of contractual obligations due to unforeseen circumstances — S&P Global Platts Analytics said in its latest Global LNG Monthly Forecast. While Platts Analytics did not expect the waterway to be closed, if it were to occur it could potentially wipe out about 22 percent of global supply capacity, it said in the report.

Unlike Saudi Arabia and Abu Dhabi, Qatar does not have export sea routes that can be used as an alternative to bypass the Strait of Hormuz, Platts Analytics said. "This massive exogenous supply shock easily holds the potential to double spot LNG prices in short order," Platts Analytics said, adding there was not enough spare shipping capacity to completely offset the loss.

"Demand destruction from a price shock would make up the difference and lead to a market equilibrium at a notably higher price point. From a longer-term perspective, the event would prove problematic for Qatari efforts at renewing expiring contracts." However, if all other producers ramped up production capacity to 100 percent, global markets could cover much of the loss of Qatari LNG, Platts Analytics estimated. Those with most capacity to boost output are Russia, Australia, Malaysia, and the U.S., it said.

Bulgaria takes first cargo of U.S. LNG

(S&P Global Platts; June 25) - Southeast Europe — for decades an isolated gas region almost entirely dependent on Russian gas — is set for a significant transformation in the coming years, with changes already taking place now bringing new flexibility. Bulgaria — often highlighted as the country most vulnerable to Russian supply disruption — last month bought its first U.S. LNG cargo via a Greek LNG import terminal.

LNG imported into Revithoussa can be sent northward into Bulgaria through the existing Sidirokastro interconnection point thanks to a 2016 agreement to allow for reverse flow. The Marvel Falcon brought an LNG cargo from the Cheniere-operated Corpus Christi, Texas, LNG terminal to Revithoussa on May 29. A second, smaller U.S. LNG cargo was expected in the third quarter, Bulgaria's Energy Minister Temenuzhka Petkova said.

"One of the main priorities of the government in the field of energy is the diversification of gas supply sources and routes," Petkova said. "Gas from the U.S. is now entering the Bulgarian gas transmission system." Importing LNG at "competitive prices" is a serious step toward liberalization of the market in southeastern Europe, Petkova said. Greece itself has imported two cargoes of U.S. LNG for its own use, including the first cargo shipped from Corpus Christi last December.

Decision next year on new gas supply to feed 30-year-old LNG plant

(Australian Financial Review; June 24) - Woodside Petroleum CEO Peter Coleman acknowledges that a deal targeted for this month on terms for processing third-party gas through the 30-year-old North West Shelf LNG plant in Australia will not meet the deadline. But he is sticking with a target of late next year for a final go-ahead for the US\$20 billion Browse project that would supply gas to the liquefied natural gas plant.

Coleman told investors that the failure to reach agreement between all the North West Shelf partners was "not surprising" but was "disappointing." A preliminary accord on the terms for gas processing was reached in November, paving the way for billions of dollars of investment in offshore gas production and the potential extension of the North

West Shelf plant in Karratha for decades beyond 2025. The Browse field is intended to act as the new "anchor tenant" for NW Shelf after the fields now supplying it run down.

A delay in the final deal was flagged by Shell Australia chairman Zoe Yujnovich last week. She referred to "real issues" that had to be resolved now rather than run the risk of "significantly more complicated problems" down the track. The venture also involves BP, BHP, Chevron, and two Japanese partners. Still, Coleman said June 24 that all the parties involved had committed to reaching a deal on the terms for Browse gas processing in time to start initial engineering work on the project by the end of the year.

Kuwait plans to boost oil and gas output in Canada and Australia

(Bloomberg; June 26) - Kuwait plans to boost production from Canadian shale deposits by two-thirds and increase its output of natural gas in Australia as the OPEC member ramps up its efforts to find and develop overseas deposits of the fuel. The international upstream arm of state-owned Kuwait Petroleum Corp. sees output of almost 20,000 barrels of oil equivalent a day at its Canadian shale gas project by year-end, up from 12,000 currently, said Sheikh Nawaf Saud Al-Sabah, acting chief executive officer.

"It will rise to about 60,000 or so once we fully develop it, which will be in the mid-2020s," he said of the company's Canadian assets. "We're just beginning to understand its potential." In Australia the company known as Kufpec won exploration rights to three new blocks in February and April. It is producing almost 40,000 barrels of oil equivalent a day in that country and aims to raise output and produce more liquefied natural gas for export, Al-Sabah said, without specifying targets.

Like many energy producers, Kuwait sees gas as crucial to future growth. Gas use is seen rising faster than demand for oil and coal as policies shift toward lower carbon emissions. In Alberta, Kufpec plans with its joint-venture partner Chevron to start developing the Waskahigan and East Kaybob areas drilling the first of more than 370 wells over 10 years. The areas are part of the Kaybob Duvernay project producing shale gas and natural gas liquids.

Qatar, Chevron Phillips plan large-volume ethylene plant

(Bloomberg; June 24) - Chevron Phillips Chemical will help gas-rich Qatar build the Middle East's largest plant for production of ethylene, a key ingredient in plastics. Qatar Petroleum chose Chevron Phillips Chemical — a joint venture of Chevron and Phillips 66 — as its partner to produce as much as 1.9 million tonnes a year of ethylene, Saad Sherida Al-Kaabi, QP's chief executive officer, said in Doha. The venture will process the chemical from ethane, a natural gas liquid, pumped at Qatar's giant North Field.

The venture will cost billions of dollars, though a more precise estimate awaits completion of engineering studies, Al-Kaabi said. State-run QP raised the production target from an initial plan for 1.6 million tonnes a year. "We saw better results than expected from the North Field, and we were able to have more ethane available for extraction," Al-Kaabi said June 24, referring to Qatar's portion of the offshore reservoir it shares with Iran.

Qatar, the world's second-largest exporter of liquefied natural gas, plans to boost its LNG output by more than 40 percent by 2024, reaching 110 million tonnes annual capacity. This latest push into chemicals reverses its previous pullback from the industry, when it ended plans to build two projects valued at \$12.5 billion after oil prices collapsed in 2014. The new joint venture will be the biggest facility in the Middle East for processing ethane — "cracking" it, in industry parlance — into ethylene, Al-Kaabi said. QP will own 70 percent of the project with the Texas-based company holding the rest.

Texas judge denies challenge against gas pipeline route

(Reuters; June 25) - Kinder Morgan can begin work on a \$2 billion natural gas pipeline without having the Texas energy regulator approve its proposed route, a state judge ruled June 25. The decision removes a challenge to the state's licensing process that lets gas pipeline companies determine their own route and acquire land without a landowner's consent. Texas is in the midst of a pipeline construction boom with multibillion-dollar projects under way to bring shale oil and gas to market.

A Travis County District court ruled the Texas Railroad Commission, the state's oil and gas regulator, is not required to set standards for routing the pipelines or private land-takings, Judge Lora Livingston wrote. The state allows gas pipeline operators that qualify as utilities to use eminent domain to take land for the public good.

A group of Texas landowners and officials had sued to block construction, arguing the oil and gas regulator failed to seek public input or properly supervise the routing of Kinder Morgan's Permian Highway Pipeline, which will carry 2 billion cubic feet per day of gas roughly 400 miles from West Texas to the U.S. Gulf Coast. Kinder Morgan had asked the court to throw out the landowners' lawsuit arguing it was up to the state legislature, not the court, to change the pipeline permitting process.

Drillers moving to gas-fueled electric generators instead of diesel

(Bloomberg; June 26) - Thrifty drillers have found a new use for the glut of natural gas that's sent prices for the fuel below zero in America's biggest shale patch: Use it to power fracking operations. For decades drillers have used massive diesel engines

mounted on tractor-trailers to shoot water, sand, and chemicals down wells and blast open oil-soaked shale. That's changing now that soaring output has crushed gas prices, especially in West Texas' Permian Basin, where gas is a byproduct of oil extraction.

Explorers are switching to so-called e-fracking using gas from their own wells to run turbines for electric motors that power drilling pumps. The move helps cut about \$1 million a month in fuel costs for a set of fracking equipment, said Wells Fargo, and it lessens the excess gas burned off at the well site, a practice many groups frown upon. Tudor Pickering Holt & Co. predicts electric pumps will represent about a third of the market in roughly the next five years from about 3 percent now.

A conventional fracking job involves using about 20 giant diesel-powered pumps, each the size of an 18-wheeler trailer. In e-fracking, a small-diameter pipeline shuttles gas from the well to a turbine powering an electric motor. Still, there are hurdles to widespread adoption. Oil field operators struggling with a glut of gear may be reluctant to shoulder the upfront cost of deploying e-fracking, which Tudor Pickering estimates at \$50 million to \$60 million, compared with \$30 million to \$40 million for diesel fleets.

Small Russian outpost in middle of big plans for coal, oil shipments

(The Barents Observer; Norway; June 26) - The 550 people living in the small Russian community of Dikson on the Kara Sea coast could soon face big changes as the federal government early this month decided to give the Arctic seaport international status. Behind the decision lies a plan to boost shipments on the Northern Sea Route. Foreign vessels will now be allowed to sail into local ports to load and unload goods.

Dikson is on the northwestern coast of the Taymyr Peninsula, near the major Taybass coal deposits owned by Vostok Coal. The company, controlled by powerful businessman Dmitry Bosov, intends to ship out as much as 20 million tonnes of coal a year by 2024. Two major fields are under development and commercial production is due to start in 2019, the company said, with two major new seaports to be built for exports. And the future of Dikson is more than coal. It is also oil.

Neftegazholding intends to build a 250-mile oil pipeline from its fields to one of the new terminals. The development plans come as authorities are grappling with President Vladimir Putin's order to boost shipments on the Northern Sea Route. The remote peninsula is the northernmost part of mainland Russia and climatic conditions are extreme. The plans to develop the area's coal resources and the projected seaports have already encountered opposition from environmental authorities who argue that they could encroach on protected nature territories.