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Russia wants to take LNG market share from Australia and U.S.

(Reuters; June 1) - Russia plans to raise its annual production of seaborne liquefied natural gas to as much as 120 million tonnes by 2035 and take market share from Australia and the United States by capitalizing on low costs, Deputy Energy Minister Pavel Sorokin said. In December, Russia's No. 2 gas producer Novatek and its partners including France's Total and China launched the Yamal LNG plant in the Arctic with capacity expected to reach 17.5 million tonnes per year by the end of 2019.

Yamal LNG will double Russia's share of the global LNG market from about 4 percent now. Qatar, aided by production costs that are among the world's lowest, is the biggest LNG exporter with 30 percent market share and has announced plans to boost its annual LNG capacity to 100 million tonnes in the 2020s.

Novatek plans to build a second LNG terminal in the Arctic with an in-service date of the mid-2020s. It has signed up Total as a partner as it moves toward a final investment decision. Added to Yamal, it would give Russia more than 35 million tonnes of annual production capacity in the Arctic. Russia's Gazprom, jointly with partners including Shell, launched the country's first LNG plant in 2009 on the Pacific island of Sakhalin.

According to the Moscow-based Skolkovo think tank, average production and transport costs at Yamal LNG for exports to Shanghai are seen at just above \$8 per million Btu by 2025. That is roughly the same as the cost for LNG projects in Western Australia and less than the approximately \$9 for LNG exports from the U.S. Gulf Coast.

Qatar buys into Exxon's Argentine shale oil and gas assets

(Reuters; June 3) - Qatar Petroleum signed an agreement on Sunday with ExxonMobil to acquire a 30 percent stake in two of Exxon's affiliates in Argentina, giving QP access to oil and gas shale assets in the Latin American country. The deal would give QP, the world's biggest supplier of liquefied natural gas, a big slice of ExxonMobil Exploration Argentina and Mobil Argentina, which holds rights with other partners for seven blocks, QP said in a statement. The announcement did not disclose the value of the investment.

The blocks, in Vaca Muerta in the onshore Neuquén basin in Argentina, are under "unconventional exploration licenses with active drilling plans as well as exploitation licenses with pilot drilling and production," QP said. The U.S. Energy Information

Administration has estimated gas reserves in the Neuquén basin at more than 300 trillion cubic feet. The deal between QP and Exxon comes as the U.S. major looks to rapidly expand its upstream operations under CEO Darren Woods, who inherited a portfolio with relatively few international growth operations compared to peers.

Exxon's development in Argentina has been slow due to a host of factors, including the geographic remoteness of the country from U.S. shale operations as well as government price controls for natural gas. By bringing in QP as a partner, Exxon cuts its financial risk and also pushes the project forward. For QP, the deal offers a chance to invest for the first time in a sizable shale operation while avoiding the public relations difficulties that would have likely arisen had it invested in shale operations in the U.S.

Growing demand pushes LNG industry to respond with new projects

(Financial Times; London; June 2) - China is reshaping the liquefied natural gas market as Beijing's promotion of the fuel for environmental reasons lifts demand outside of the usual winter peaks. LNG prices normally spike in cold weather and fall in the spring, but China's buying has continued this year, with LNG imports for the first four months of 2018 up almost 60 percent compared to the same period last year.

Traders and analysts say China's appetite for the fuel has forced a major rethink in an industry that just 12 months ago was fretting about a glut. This spring the Asian LNG price is at its highest seasonal level since 2014. The Platts' Japan-Korea marker is trading at \$9.60 per million Btu, almost 80 percent higher than last year's price.

"Gas until now hasn't had its China moment," said Trevor Sikorski, head of natural gas and carbon at consultants Energy Aspects. "The China [buying] increases have the market saying, 'LNG is not going to be in massive oversupply. If we continue at this pace, we will be facing a supply shortness'." The shift has reinvigorated an industry.

The turn in sentiment has renewed interest in new LNG supplies. Anadarko said it has reached its near-term target for buyer contracts to support its final investment decision in Mozambique, Total has agreed to take a stake in Novatek's second Arctic project, and Cheniere will add a third liquefaction unit at its Corpus Christi, Texas, terminal.

First gas expected this month at Ichthys project in Australia

(Platts; May 31) - Japan's Inpex expects to start production of gas from the wellhead at the Ichthys project offshore Australia as early as next week or the week after, with the first shipments coming in order of condensate, LNG, and LPG cargoes targeted by the end of September, the project operator said May 31. This follows commissioning of the

project's central processing facility, which marked completion of the necessary commissioning of all key onshore and offshore facilities for production start-up.

Ichthys is set to become Australia's largest condensate project, with a production capacity of 100,000 barrels a day of condensate and almost 20,000 barrels a day of LPG (liquefied petroleum gas, generally propane or butane). The project involves piping gas from the Ichthys field in the Browse Basin in northwestern Australia 551 miles to the onshore liquefaction plant near Darwin, with a capacity to make 8.9 million tonnes of LNG per year. Construction costs have been reported in excess of US\$37 billion.

Inpex holds a 62.245 percent operating stake in Ichthys, with Japanese LNG customers Tokyo Gas, Osaka Gas, Kansai Electric, JERA Co., and Toho Gas holding stakes of 1.575 percent, 1.2 percent, 1.2 percent, 0.735 percent, and 0.42 percent, respectively. Taiwan's CPC holds a 2.625 percent interest, while France's Total holds 30 percent.

China to double trucked LNG capacity by 2025, Wood Mac says

(Reuters; June 4) - China's liquefied natural gas trucking capacity will double to 38 million tonnes a year by 2025, consultancy Wood Mackenzie said in a report Monday. The flexibility offered from delivering LNG by truck will help offset a lack of infrastructure such as pipelines, storage, and regasification units, the consultancy said.

Wood Mackenzie estimated the country's gas consumption would reach 9.3 trillion cubic feet in 2018, with 12 percent of that delivered by trucks. China is the world's largest LNG tanker truck-delivery market. In 2017, 19 million tonnes were transported via tanker truck from domestic gas liquefaction plants and LNG import terminals.

LNG trucking has played a key role in supporting gas demand in China, especially last winter when the nation faced severe gas shortages as it moved to comply with coal-togas switching mandates. New residential, commercial and industrial gas users outside pipeline coverage resorted to trucked LNG as the only way to fulfil switching targets as there was not enough time nor is it economical to build or expand pipelines. While gas demand is expected to remain healthy this year, the next winter shortage will not be as severe as last season, Wood Mackenzie said.

China embarks on major expansion of LNG import terminal

(Reuters; May 31) – China National Offshore Oil Corp. will start building six liquefied natural gas storage tanks by the end of the year as part of a project to expand its Tianjin LNG terminal to help meet surging demand from households in northern China, CNOOC Gas and Power Group said in statement May 30. The new storage tanks are

expected to start operating in 2022. The terminal is expected to have 7.25 million tonnes of annual LNG processing capacity by 2030, up for 3.21 million tonnes in 2018.

China works toward boosting underground gas storage

(Reuters; June 1) – China National Petroleum Corp. plans to consolidate its billion-dollar underground gas storage assets into one business to expedite the infrastructure upgrade it needs to avert a long-term supply crunch during peak winter heating season, company officials told Reuters. Underground facilities scattered across different businesses, like gas marketing and pipeline units, are expected to be transferred to CNPC's exploration and production department, senior company officials briefed on the plan said. CNPC is the parent of top Asian oil and gas producer PetroChina.

China, the world's third-largest gas consumer, is facing a shortage of underground storage amid Beijing's drive to boost use of gas in order to cut pollution from coal. Currently, its underground storage capacity can only meet 5 percent of total gas used each year versus 20 percent in the United States, leaving China vulnerable to the kind of supply crunch it suffered early this past winter.

CNPC produces some 70 percent of China's domestic gas. It also owns and operates most of the country's underground storage. Led by CNPC, China has embarked on a building boom of underground storage capacity over the next five to eight years, spending more than \$10 billion to nearly double storage. Most will be built from tapped or producing wells.

Schlumberger pulls out of African LNG project

(Reuters; May 31) - A pioneering liquefied natural gas project in Equatorial Guinea, bogged down by delayed financing, ran into further trouble after U.S. oil services company Schlumberger pulled out of the venture, two of the partners said May 31. Ophir Energy, the U.K.-based company heading the Fortuna development, and Golar LNG, which operates floating liquefaction facilities, said Schlumberger withdrew due to problems with the project's financing. Schlumberger was not available for comment.

The Fortuna development would be western Africa's first deepwater LNG project and includes a floating gas liquefaction terminal rather than the traditional onshore plant. Golar GEO lain Ross said funds would take time to find and may come from new equity partners that would replace Schlumberger. "I don't believe it's dead at all," he said. Fortuna is a so-called floating LNG project (FLNG), a pioneering design that shrinks complex infrastructure typically spread over hundreds of acres onto a single vessel.

Golar already operates an FLNG in Cameroon, the world's first. But Ophir, an independent oil and gas company with little experience in complex LNG projects and a small balance sheet, has had problems concluding the \$1.2 billion in financing and was told by the Equatorial Guinea government it may lose the project. Overlooked by Western banks due to Fortuna's design, Ophir wooed Asian lenders instead but were left scrambling after talks with Chinese players collapsed last year.

Solar power surge in Japan could affect LNG trade patterns

(Platts; June 1) - The unprecedented surge in Japan's solar power generation over the past few years has affected LNG trade patterns, mainly by amplifying winter season demand for liquefied natural gas, Trafigura's chief economist and global head of research Saad Rahim said May 31. The repercussions of Japan's solar power efforts on the global gas market are substantial, as Japan is the world's largest LNG buyer and because the winter season in North Asia is when global demand for the fuel peaks.

"A large part of this [the impact of solar on LNG] is to do with what's been happening in Japan with solar," Rahim said adding that markets have traditionally been focused on the nuclear side of the power spectrum and a little on coal, while renewables have been ignored. Japan's implementation of a very generous feed-in tariff spurred massive applications for renewables' subsidies and a solar power build-out unprecedented in developed markets, Rahim said at the S&P Global Platts LNG conference in Singapore.

"With around 40 gigawatts of capacity, [Japan's] solar energy output should reach 40 percent of pre-Fukushima nuclear output during peak season, but much less in the winter," Rahim said. As a result, major Asian LNG buyers are going to encounter what Rahim describes as "a more pronounced seasonality effect" in their purchase patterns. Summer demand will drop further and the spread between summer and winter demand will widen, exaggerating gas market tightness in winter and sluggishness in summer.

Japanese company part of international storage-battery venture

(Reuters; May 29) - Japan's JERA Co., a U.S.-German joint venture and an Australian firm have teamed up to develop storage-battery projects in the Asia-Pacific, targeting a market expected to be worth several billion dollars by 2022. The move marks a big green push for JERA, a joint venture between Tokyo Electric and Chubu Electric that is the world's top buyer of liquefied natural gas and one of the world's biggest coal traders.

The plan is for JERA to fund energy storage projects with Australian renewable power developer Lyon Group, while Fluence — a joint venture between U.S. power company AES Corp. and Germany's Siemens — provides battery technology. The companies

will focus first on batteries for three solar farms, together expected to cost up to A\$1.5 billion (\$1.1 billion), that Lyon Group plans to build in Australia.

Globally, demand by 2022 for utility-scale batteries is expected to rise to 28 gigawatts, worth more than \$15 billion, up from 2 gigawatts in 2017, according to estimates from Fluence and others. Batteries play a vital role in maintaining stability on the grid by balancing supply and demand for a few minutes to a few hours when wind and solar energy fluctuate, and can eliminate the need for costly power plants that might be used only a few hours a day. Fluence sees opportunities in Japan, China, Korea, and India.

Canada not looking to make a profit on its oil pipeline purchase

(The Canadian Press; May 31) - If the Canadian government manages to overcome strong opposition in British Columbia and complete construction of the Trans Mountain oil pipeline expansion, experts say the asset will be of great interest to potential buyers. But, given the controversy over the C\$7.4 billion expansion, that's a hefty "if." Experts were quick to add it's unlikely Ottawa will succeed if it tries to sell the Trans Mountain assets it is buying from Kinder Morgan before it starts moving oil.

"The reason for the Kinder sale was that it wasn't able to get the pipeline built," said Joseph Doucet, dean of the Alberta School of Business at the University of Alberta. "The feds need to get the pipeline built before they can realistically look for another buyer." Construction on the 590,000-barrel-per-day expansion to the existing 300,000-barrel-per-day line, halted by Kinder Morgan in April, is to be restarted immediately in the wake of the May 29 announcement of Ottawa's C\$4.5 billion purchase of the company. Kinder Morgan already has spent \$1.1 billion on the project.

"We're not seeking to make a profit. We're seeking to ensure the project gets done," Finance Minister Bill Morneau said May 30. "It's fully subscribed by shippers. ... It would be a good asset and you could sell that at a good price once you've got it done," said Richard Masson, former CEO of the Alberta Petroleum Marketing Commission and a fellow at the University of Calgary School of Public Policy. The project will be worthwhile for the federal and Alberta governments even if it sells for less than it costs because it will improve access by oil producers to world markets, ensuring better prices that will translate into billions of dollars in corporate income taxes and oil royalties, Masson said.

Takeover of oil pipeline a 'black eye' for Canada, columnist says

(Financial Post columnist; Canada; June 1) - Ottawa's purchase of the Trans Mountain oil pipeline expansion project in British Columbia won't solve anything. The action was taken because owner Kinder Morgan was about to quit the project following years of hearings, court cases, criticism, protests, and finally a British Columbia provincial government that flouts the rule of law.

Kinder Morgan's departure, along with a decision last year by Malaysia's Petronas to drop its proposed LNG project for the B.C. coast, has solidified that British Columbia, and Canada, is no longer open for business. Petronas abandoned its massive project because the newly elected provincial government declared war against them. With the province's incredible LNG potential damaged, the next target was Kinder Morgan's fully approved C\$7.4 billion oil pipeline expansion. The company has been bombarded with nasty headlines and government threats ranging from new court challenges to higher taxes, more onerous environmental rules, and greater demands by First Nations.

B.C.'s attacks have been not only abusive but illegal. Both projects had been approved by every regulatory and political body at every level of government. Now the federal government has been left holding the bag for Kinder Morgan's pipeline that is critically important to Alberta. This is a huge black eye for Canada and a worrisome outcome that bodes badly for the nation's economic future. Kinder Morgan and other international companies did nothing wrong except invest billions in Canadian resource projects. They were not perpetrators, but victims. Now Canada's taxpayers are victims, too.

Permian oil producers wait for pipeline capacity to catch up

(Dallas Morning News; June 1) - Success is catching up with the Permian Basin, the prolific U.S. oil field that's out-producing many Middle Eastern nations. With oil prices climbing, the basin has become an expensive bottleneck as drillers try to pump more crude and natural gas than what pipelines can send to refineries, storage tanks and ports. Billions of dollars of new and expanded pipelines are in the works, but it could take years before the oil-rich formation in western Texas sees sustained relief.

The inability to produce more oil and gas from the Permian region could help push up global oil prices. "We can drill a well anywhere in the Permian in less than 30 days," said Bernadette Johnson, vice president of market intelligence at Drillinginfo. "We can bring that well online within a couple of months. It takes 18 months to bring on a new pipeline. ... It's not a quick fix."

The Permian has produced oil for nearly a century and is crisscrossed with pipelines. Still, recent production increases have been staggering. At 1 million barrels per day, Permian oil production hit a 13-year high in 2011. Since then it has tripled to 3.1 million barrels, with expectations that it could reach 5 million by 2025. Pipelines have not kept pace, knocking down the price for Permian oil. Until more expansions and new pipelines are completed, Permian producers will not be able to significantly ramp up production.

Exxon says it balances energy demand and environmental projects

(Newsweek; May 30) – ExxonMobil CEO Darren Woods said his company is at the center of a delicate balancing act between those who want a cleaner environment and those seeking economic growth that depends on rising energy demand. Exxon is planning to invest more than \$200 billion in major oil and gas projects around the world over seven years, a signal that growth carries a bit more weight in company plans.

"Society has aspirations for economic growth, reliable and affordable energy, and environment protection," Woods said at Exxon's annual general meeting in Dallas on May 30. "We see our role as helping close the gap between what people want and what can be responsibly done. This is what I believe sustainability is all about."

Woods cited investments in environmental projects such as algae biofuels, and in work to cut emissions in its industrial processes as helpful steps forward. But his comments set him apart from European rivals, many of whom are investing in renewable energy such as wind, solar and battery storage. Exxon won't invest in these areas if it doesn't have a competitive advantage, Woods has said. "We are convinced that technology is going to play a role in bridging that gap and addressing those conflicts" between the growth in energy usage and curtailing emissions, he said at the Dallas meeting.

Shells offers emissions credits with natural gas sales in Europe

(Bloomberg; May 31) - Shell is attempting to market some of its natural gas as clean energy, packaging it with credits for eco-friendly projects that offset pollution coming from the fuel. The oil-and-gas giant is offering business customers in Europe a combination of gas and certificates that show emissions are offset with financing for carbon-reduction projects. It's testing markets in Germany, Italy, Spain, and Britain to gauge demand for what credits to use, said David Wells, head of Shell Energy Europe.

It's the latest sign that oil companies are seeking to adapt to tighter environmental rules and the urge by policy makers worldwide to cut greenhouse gases. Natural gas is the cleanest of fossil fuels, though it still produces carbon dioxide blamed for heating the Earth's atmosphere. By selling pollution offsets with the gas, Shell could "neutralize" the impact of that fuel on the climate.

"Most companies are fairly early in the sustainability journey, so there's a huge amount of interest" from potential customers, Wells said. Shell is offering its credits as oil companies face increasing shareholder pressure to tackle global warming and recognize the need to shift their business plans toward clean-energy targets in the 2015 Paris climate deal. Oil and gas products can be offset by selling emission credits, though it's unclear how to account for such transactions because nations have yet to agree on rules under the Paris deal.