

Oil and Gas News Briefs

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Cost, offtake contracts will determine next U.S. LNG projects

(Forbes; Sept. 10) - No matter which liquefied natural gas market data source you rely on, an indisputable common fact stands out — the growing volume of U.S. gas heading overseas and proposals for even more. A staggering 15 proposed LNG projects are awaiting Federal Energy Regulatory Commission review and approval, with many in the early stages of permitting and development. David Lang, law firm Baker McKenzie's global head of LNG, advises that several of the early stage projects may never get built.

"FERC permit applications aren't going to be the drivers of what is going to be built. ... The determination is going to be who gets the market, who gets offtake agreements, that is the challenge," he said. "It's easy to get caught up in the market euphoria and forget that U.S. exporters are not the only game in town. American exports are (and will be) toughing it out with Australian and Qatari exports. It's extremely challenging to get long-term, high-volume offtake agreements to support construction of these facilities."

"Buyers aren't willing to sign up to long-term deals right now, and sellers cannot support their projects on short-term deals," Lang said. "Other factors also come into play. For instance, LNG projects in Louisiana and Texas don't generally face regulatory risks, but those planned in other states have an additional layer of complexity in their pathway."

Andy Steinhubl, principal for corporate strategy at KPMG, cautions: "The cost basis of additional U.S. exports will likely be above existing export leaders such as Qatar and Russia. But the question is competitiveness versus other marginal/new sources of LNG supply such as in offshore Africa."

PetroChina contract good for Qatar, not so for U.S. LNG

(OilPrice.com; Sept. 11) – PetroChina's 20-year deal to buy 3.4 million tonnes per year of liquefied natural gas from Qatar is the Chinese firm's largest LNG deal by volume. Deliveries will start later this month and has several market and geopolitical take-aways. First, it comes as President Donald Trump ramps up the ongoing trade war between the U.S. and China. China has already threatened a 25 percent tariff on U.S. LNG imports, which has the potential to dramatically set back the second wave of U.S. LNG projects.

Most new U.S. LNG project proposals have been counting on not only Chinese funding for their capital-intensive ventures, but for Chinese firms to sign much needed long-term offtake agreements that help projects reach a final investment decision. In addition to

possibly affecting new U.S. projects, the deal between PetroChina and Qatargas also could arguably be called a lost opportunity for U.S. LNG projects already operational that need to sign new sales agreements to finance additional production trains.

Another take-away from the deal is that it supports Qatar's determination to remain at the top of global LNG production. Sometime next year Australia is slated to bypass the tiny gas-rich kingdom as the world's largest LNG producer. However, Qatar has fought back by announcing its plan to ramp up LNG capacity from its current 77 million tonnes per year to a market-shocking 100 million tonnes within five or six years, effectively positioning itself to become the world's top LNG producer again around 2023.

Columnist warns U.S. faces highly competitive LNG market

(Financial Times' columnist; London; Sept. 9) - The United States appears to have ambitions to dominate the global market for liquefied natural gas with growing exports of shale gas. The volumes are certainly available and a number of export terminals are being built, but the market is complex and competitive. To sell into Europe, U.S. LNG must compete with gas from North Africa, the Caspian and existing suppliers including Russia, which is determined to maintain its market share. The distances and cost disadvantages of LNG against pipeline gas look set to discourage imports from the U.S.

Across the Pacific, President Donald Trump has repeatedly escalated a trade dispute with China. His actions have reminded Beijing of the risks associated with a president ready to use trade as a tool in essentially political disputes. Even when the current altercation is resolved, the Chinese government — acutely conscious of the strategic role of energy in maintaining the stability of its economy — is unlikely to want to import significant volumes of U.S. LNG that could be cut off at the next trade conflict.

In a buyer's market, Chinese companies, guided as ever by the government in Beijing, can choose their suppliers. There are other markets for U.S. gas, particularly in Asia, but they will all be competitive and there is no shortage of willing suppliers including Qatar, Russia, Australia, and Indonesia. The danger in all this is that the United States will find itself just another supplier in a fully supplied and crowded market.

China's demand grows to become key driver in global gas markets

(The National; Abu Dhabi; Sept. 10) - China is not a dominant player in natural gas. It consumes just 6.6 percent of the world's total, although it is still the world's third-largest market after the U.S. and Russia. Its own gas reserves are relatively limited compared to its population and economy, though it has vast coal resources that it has relied on for cheap, secure energy and jobs. But the country releases more than a quarter of the world's carbon dioxide, and local pollution cuts life expectancy by at least three years.

In 2017 China decided to get tough on pollution. It banned coal heating across the 78,000-square-mile Beijing-Tianjin-Hebei Capital Economic Circle area in the north, aiming to replace coal with gas and electricity. The resulting surge in demand for gas caused shortages as pipelines, storage and import terminals were unable to keep up. And now, the global liquefied natural gas industry is growing confident in strong Chinese demand, to the point of approving new projects to serve the market in the early 2020s.

However, how much China chooses to rely on seaborne LNG versus alternatives depends on relative prices as well as decisions on pollution and security of supply. Russia is building the Power of Siberia gas line to eastern China, whose cost, along with field development, is estimated at \$55 billion. From receiving almost no gas from Russia today, China next year will vault to its second-largest buyer. It also has ample access to other sources of energy, including pipeline gas from Central Asia, Russia, and Myanmar. Whatever it chooses, China has become a key driver of global gas markets.

Rosneft will let China invest in Siberian oil and gas projects

(Reuters; Sept. 11) - Russia's top oil producer Rosneft said on Sept. 12 it has agreed that China National Petroleum Corp. (CNPC) can buy minority stakes in Rosneft oil and gas projects in Siberia. Rosneft said in a statement that the agreement concerns large oil and gas projects in eastern and western Siberia. It did not provide details about the projects or its agreement with state-owned CNPC.

CNPC already is a partner in the Yamal LNG project in Russia's Arctic. Russian gas producer and exporter Novatek is the majority owner and operator of the gas project, which shipped its first cargo last December. CNPC holds a 20 percent stake in Yamal.

Russia's Novatek, Japanese company will cooperate on Arctic LNG

(Reuters; Sept. 10) - Russia's Novatek said Sept. 10 it signed a framework agreement with Japan Oil, Gas and Metals National Corp. to cooperate on liquefied natural gas projects in the Russian Arctic. "The parties agreed to explore opportunities to cooperate on Novatek's projects in the Yamal and Gydan peninsulas, including the Arctic LNG-2 project, on developing a regular transport link via the Northern Sea Route for LNG deliveries to the Japanese and Asia-Pacific markets," the statement said.

Novatek controls the Yamal LNG project, in which France's Total along with China National Petroleum Corp. and China's Silk Road Fund are minority shareholders. The \$27 billion export operation started shipments in December. Novatek is now looking at building a second project, Arctic LNG-2, to more than double its production capacity. The company also is looking at building a transshipment terminal in Russia's Far East to

transfer LNG from the Arctic aboard expensive ice-class carriers to traditional, lower-cost carriers for the final delivery to customers in Asia.

Russia, Japan draw closer on energy cooperation

(S&P Global Platts; Sept. 12) - Russian and Japanese companies signed several energy cooperation deals during the Eastern Economic Forum in Vladivostok this week, committing to building closer ties despite geopolitical risks that include U.S. sanctions against Russia and an ongoing territorial dispute that dates back to the end of World War II. LNG is a key priority for Russian and Japanese energy companies, as Russia seeks markets for its expanding production and Japan looks to secure supply.

State-run Japan Oil, Gas and Metals National Corp. (JOGMEC) CEO Tetsuhiro Hosono said the company was prepared to be patient when negotiating energy deals with Russia, taking into consideration complications such as U.S. sanctions against Russia. JOGMEC signed a memorandum of understanding on LNG cooperation with Russian gas producer Novatek, and the company sees significant potential for LNG projects in the Russian Arctic, Hosono said.

However, Marubeni Chairman Teruo Asada said U.S. sanctions are making it harder for Japanese companies to attract financing for major projects in Russia. "It is quite difficult for us to get competitive and attractive financing due to the U.S. sanctions. Japanese commercial banking institutions will not be able to provide such financing for large infrastructure projects," Asada said on the sidelines of the forum. "This is a major headache preventing us from proceeding with new projects in Russia," he said.

Japan's Mitsui joins Gazprom in proposed Baltic Sea LNG project

(S&P Global Platts; Sept. 12) - Russia's Gazprom and Japan's Mitsui signed a memorandum of understanding on the Baltic LNG project, which would include building a liquefaction plant on the Baltic Sea coast, the Russian company said Sept. 12. The MOU was signed by Gazprom CEO Alexei Miller and Mitsui Chairman Masami Iijima during the Eastern Economic Forum in Vladivostok, Russia. Underlining Japan's role as Russia's key LNG buyer, accounting for 36 percent of the country's overall sales, Miller said there is great potential for cooperation between the countries in LNG production.

The MOU follows a Mitsui delegation visit to Moscow in March for talks with Russian energy ministry officials. The Baltic project, at 10 million tonnes per year, is planned for the Russian port of Ust-Luga and is led by Gazprom and Shell. Start-up is planned for 2023. The companies have a joint-venture heads of agreement as well as agreements on feasibility studies for the project. In June, Gazprom Deputy CEO Alexander Medvedev said the company expected to make a final investment decision next year.

Mitsui already is a partner with Gazprom in the Russian Far East Sakhalin-2 LNG plant, which started up in 2009. Gazprom and its partners are looking at expanding the plant's nameplate capacity of 9.6 million tonnes per year. Japan's Mitsubishi also is a partner in the Sakhalin Island project, as is Shell.

Novatek says its next Arctic project will undercut U.S. LNG on price

(Interfax Global Energy; Sept. 7) – Russian gas producer and exporter Novatek expects its second LNG project to undercut U.S. supplies targeting Asia. The company said it will be able to deliver cargoes from Arctic LNG-2 to Asia for \$6.10 per million Btu — a savings from U.S. supplies that the company says will cost about \$7.50. Novatek, which started operations in December at its Yamal LNG plant in the Russian Arctic, is talking with partners and potential investors as it looks to make an investment decision next year on Arctic LNG-2, on the Gydan Peninsula just east of Yamal.

The project is proposed at almost 20 million tonnes annual capacity with a construction estimate of \$25.5 billion. The cost of the Yamal project is put at \$27 billion for 16.5 million tonnes per year. France's Total has signed up for a 10 percent stake in Arctic LNG-2, and Novatek is considering China National Petroleum Corp. as a potential shareholder, CEO Leonid Mikhelson said Sept. 11. Novatek also is in investment talks with Saudi Aramco, while Japan Oil, Gas and Metals National Corp. has shown interest too, he said at an economic forum in the Russian Far East port city of Vladivostok.

An LNG transshipment hub that Novatek plans to build in Russia's Far East would cut shipping costs to Asia by 7 to 10 percent, the CEO said, allowing cargo transfers from costly ice-class LNG carriers to conventional tankers for much of the mileage. Novatek announced Sept. 10 it had signed an agreement of intent for the LNG transfer terminal with the Ministry of the Russian Federation for the Development of the Far East and the Government of the Kamchatka Territory.

Novatek makes plans for temporary LNG transfer terminal

(The Barents Observer; Norway; Sept. 12) – “We will use Norwegian territory in the medium-term for loading ship-to-ship,” Novatek CEO Leonid Mikhelson said at the Eastern Economic Forum in Vladivostok on Sept. 11. Novatek, operator of Yamal LNG, wants to reduce shipping costs from the ice-covered waters north of Siberia by cutting the distance expensive ice-class carriers have to sail. The carriers will transfer LNG to non-ice class ships at the Barents Sea for final delivery to terminals in Europe.

Mikhelson said the Norwegian solution is short term. By 2022 a new major reloading and transshipment terminal will be launched on the Barents Sea coast of Russia's Kola Peninsula. The most likely location is Ura Bay. Novatek is reportedly in discussions

with Russia's Defense Ministry about the exact location. A challenge with Ura Bay is the nearby Vidyayev base for the Northern Fleet's nuclear-powered submarines. Ura Bay is less than 60 miles east of the Norwegian border.

Similar to a transshipment facility in Ura Bay, Novatek plans to set up an LNG transshipment hub on the coast of the Kamchatka Peninsula in Russia's Far East so that the costly ice-class tankers don't have to sail all distance to markets in Asia.

Malaysia cancels three China-backed pipeline projects

(Bloomberg; Sept. 10) - Malaysia has finally scrapped three China-backed pipeline projects after halting work on them following the shock elections in May that saw an opposition alliance assuming power for the first time in the country. The cancellations affect two oil and gas pipelines that cost more than \$1 billion each, as well as a \$795 million pipeline that would link the state of Malacca to a refinery and petrochemical plant in the state of Johor, the Financial Times reported.

The Financial Times earlier cited Malaysian Finance Minister Lim Guan Eng saying he had sent a letter to "relevant parties" in Beijing to terminate the planned projects. He did not disclose the cancellation fees Malaysia would incur for stopping the pipeline projects but said lawyers were handling the matter, the report said.

Since taking office Malaysian Prime Minister Mahathir Mohamad has been reviewing infrastructure projects undertaken by the former administration. The cost-cutting is aimed at tackling the country's liabilities that surged with state guarantees on borrowing by state investment firm 1MDB, which is at the center of a multibillion-dollar scandal. Lim also told the newspaper that another China-backed project — the East Coast Rail Link — is under review. The line is being built by China Communications Construction.

Argentina looks at LNG exports to handle growth in shale production

(S&P Global Platts; Sept. 10) - Argentina's biggest natural gas distributor, Transportadora de Gas del Sur, and Texas-based Exceleerate Energy said Sept. 10 they signed a memorandum of understanding to evaluate building the country's first liquefaction plant, as rising gas output fuels export prospects. The companies will look at putting the LNG plant in Bahia Blanca, a port city in southern Buenos Aires province. They plan to complete the study by the end of the year, when they will share it with government and industry leaders to decide their next steps.

Neither TGS nor Exceleerate said if the facility would be floating or onshore. Exceleerate already supplies the two floating storage regasification units Argentina uses to import LNG. The idea is that LNG exports would help underpin production growth of Vaca

Muerta, the country's biggest shale play, the companies said. Production from the play is surging, helping to offset declines in maturing conventional fields. From January through July 2018, gas production rose to an average 4.5 billion cubic feet per day, led by a 150 percent increase in shale gas, according to the latest Energy Secretariat data.

Producers are concerned that without increasing demand — the country consumes an average of almost 5 bcf a day — the production growth could stall, forcing them to shut wells in the summer and reopen them when demand rises in the winter. The first step before exports would be to reduce imports of Bolivian pipeline gas and LNG.

Egypt's biggest offshore gas field already at 2 bcf per day

(S&P Global Platts; Sept. 10) - Italy's Eni has increased production at its supergiant Zohr field offshore Egypt to 2 billion cubic feet per day following start-up of the project's fifth production unit. Zohr started production in December 2017 — just 28 months after its discovery — and is on track to reach plateau production of 2.7 bcf per day next year. The production peak would represent more than half of Egypt's current gas demand.

Egypt — which until a few years ago was a fairly stable exporter of both liquefied natural gas and pipeline gas — began importing LNG in April 2015 to fill a growing supply-demand gap caused by a major slowdown in domestic gas development. But with the start-up of Zohr and other gas fields in Egypt, the country expects to halt LNG imports by the end of 2018 and become an exporter of gas again in 2019.

Zohr is the largest deepwater gas field offshore Egypt, and the biggest discovered to date in the Mediterranean with an estimated 30 trillion cubic feet of reserves. Eni holds a 50 percent stake in the block, together with Russia's Rosneft (30 percent), BP (10 percent), and the United Arab Emirates' Mubadala Petroleum (10 percent).

Ghana selects Chinese partners to build LNG import facilities

(Reuters; Sept. 11) - Ghana has chosen two Chinese companies to build the facilities it needs to import liquefied natural gas, resurrecting the \$350 million Tema terminal project that would make the country the first in sub-Saharan Africa to import LNG. Tema LNG, backed by Africa-focused private-equity firm Helios Investment, signed deals with China Harbour Engineering Co. to build onshore facilities and Jiangnan Shipyard for a floating storage and regasification unit, the Ghanaian government said Sept. 10.

The gas is expected to be sourced from Russian oil giant Rosneft, which has a 12-year deal to supply 1.7 million tonnes a year of LNG through Ghana National Petroleum Corp. Ghana has been trying to get an LNG import project off the ground for years, with

two leading floating terminal operators, Golar and Hoegh, earmarking their giant vessels for the country's eastern Tema port only to withdraw due to delays over contract terms.

According to the government, the floating import, storage and regasification vessel will be ready in 18 months, which would mean first LNG imports potentially in March 2020.

U.S. appears to have regained title of world's largest oil producer

(The Associated Press; Sept. 12) - The United States may have reclaimed the title of the world's biggest oil producer sooner than expected. The Energy Information Administration said Sept. 12 that America "likely surpassed" Russia in June and August after jumping over Saudi Arabia earlier this year. The agency says that conclusion is based on preliminary estimates. If those estimates are right, it would mark the first time since 1973 that the U.S. has led the world in output, according to government figures.

U.S. production jumped in recent years because of techniques including hydraulic fracturing to crack rock formations deep below ground, releasing more oil and natural gas. Fracking is driving a drilling boom in the Permian Basin under Texas and New Mexico. The practice is controversial, however. Opponents say that fracking results in toxic contamination of groundwater and increases the number of earthquakes in places like Oklahoma and Texas.

The U.S. energy agency estimated that the United States produced an average of 10.9 million barrels a day in August, compared with about 10.8 million barrels a day by Russia and 10.4 million from Saudi Arabia. It said the U.S. passed Saudi Arabia in February for the first time in more than two decades, and this summer it topped Russia for the first time since 1999. The agency expects the U.S. will continue to top Russia and Saudi Arabia for the rest of this year and through 2019. U.S. production has soared since 2011, led by output from the Permian Basin, North Dakota, and the Gulf of Mexico.

U.S. gas production forecast at record high this year 81 bcf a day

(Reuters; Sept. 11) - U.S. dry natural gas production should rise to an all-time high of 80.96 billion cubic feet per day in 2018 from 73.55 bcf in 2017, according to the Energy Information Administration's Short-Term Energy Outlook on Sept. 11. The latest output projection for 2018 is slightly down from the EIA's 81.10 bcf forecast in August but would still easily top the annual record high of 74.15 bcf per day in 2015.

EIA also projected U.S. gas consumption would rise to an all-time high of 79.81 bcf per day in 2018 from 74.20 bcf in 2017. In electric generation, the EIA forecast that gas would remain the primary U.S. power plant fuel in 2018 and 2019 after it took that title

from coal for the first time in 2016. EIA projected gas would hold a 34 percent share of the power generation market in 2018 and 35 percent in 2019, up from 32 percent in 2017. Coal's share of generation was forecast to slide to 28 percent in 2018 and 27 percent in 2019 from 30 percent in 2017.

U.S. exports of oil, refined products continue growing

(Tulsa World; Sept. 9) - Since the ban on exporting U.S. crude was lifted in December 2015, volumes have surged for deliveries overseas. In June, the U.S. shipped a record 2.2 million barrels of crude per day. Total exports last year, including refinery output, averaged 3.3 million barrels per day. Fueled by the boom in the Permian Basin and increased production from refineries in the mid-Continent, pipelines into the Houston area and additional storage and docking facilities are under construction or going online.

“Our industry is exporting a tremendous amount of crude now, and the projections out of the Permian are continuing to increase,” said Bruce Heine, spokesman for Tulsa-based Magellan Midstream Partners. “The next big challenge will be getting physical export facilities online and getting the product into storage facilities that have water-borne access and the capability of loading vessels.”

The increase in refined product exports is being led by refiners in the Mid-Continent and the Gulf that can run at high rates because increased domestic production and favorable economics. As they expand their refineries and surpass local needs, they are looking for new markets. “That extra volume will find its way down to the Gulf Coast,” Heine said. “Anything connected to a pipe that can reach the Gulf has the capability of being exported,” said Carlin Conner, CEO of marine terminal operator SemGroup.

Canadians notice U.S. is finding it hard to build new pipelines

(CBC News; Canada; Sept. 9) - While some Canadians may think they're the only ones tying themselves in knots over the future of energy projects, that's not the case. The same fight over pipelines is playing out in parts of the U.S. "There is a worrisome trend of pipeline construction projects getting more difficult to proceed in many jurisdictions in the U.S.," said analyst Samir Kayande, of Calgary-based RS Energy Group. Worrisome for industry but galvanizing for environmentalists and U.S. pipeline opponents who believe they're gaining traction at the grassroots level and in the legal system.

From New York to Minnesota to Nebraska, industry, government, and environmentalists are colliding over the future of energy — even as much of the U.S. sector booms, with oil production jumping by millions of barrels a day in the past few years. Pockets of the country are posing enough opposition that this summer it spurred members of the U.S. gas pipeline industry to call for federal regulatory help. "It's definitely not getting easier

to build a new pipeline," Stan Chapman, president of U.S. gas pipelines at TransCanada, told Reuters during June's World Gas Conference in Washington, D.C.

Pipelines are being contested in ways that are challenging the American regulatory system, said Christopher Sands, a Johns Hopkins University professor who follows energy policy in Canada and the U.S. The local review process — designed to be accessible to non-professional intervenors — is now permeated with sophisticated lobbyists that are bogging down an ill-suited system, Sands said. There's growing concern that process no longer works, he said.

Study finds local residents resent 'fly-in, fly-out' oil sands workers

(Edmonton Journal; Sept. 5) – A University of Alberta study on the commuter workforce in the oil sands concludes that the “fly-in, fly-out” practice hurts the long-term sustainability of Fort McMurray, confirming the arguments that residents and local politicians have been making for years. The study found the transient workforce had little interaction with the local community and concluded this was the root of many of the social and economic grievances against them.

Researchers also found residents resented the workers, arguing they strain infrastructure and services, such as retail and health care, while not paying local taxes and spending most of their discretionary income in their home community. “This temporary workforce is not optimal and creates some tensions, but it is necessary,” Leith Deacon, assistant professor in the university’s urban planning program, said Sept. 4. The report, based on interviews with 25 Fort McMurray residents, studied how the community views the mobile workers, commonly referred to as “FIFO” for fly in, fly out.

The study is part of a broader project that has been studying how transient workers impact communities dependent on resource development. While only 25 people were interviewed for this paper, Deacon said he has interviewed 45 to 50 as a part of the broader ongoing project, and about 180 people have been interviewed in resource communities in Newfoundland, Alberta, British Columbia, and the Northwest Territories.