

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **Korea Gas may take stake in Russia's second Arctic LNG project**

(Platts; June 22) - Russia and South Korea agreed June 22 to expand energy cooperation between the two countries — including possibly pipeline gas deliveries through North Korea — while Korea Gas signed a deal that could see it take an equity stake and sign up for supplies from Novatek's planned \$25.5 billion Arctic LNG-2 project. The Russian producer is targeting 2019 for a final investment decision on its second LNG terminal. The \$27 billion Yamal LNG plant started operations in December.

According to the memorandum of understanding Novatek CEO Leonid Mikhelson and KOGAS CEO Seung-II Cheong signed in Moscow, the parties agreed to explore opportunities for KOGAS to participate in Arctic LNG-2. The project is planned for three liquefaction trains, with a capacity of 19.8 million tonnes per year. France's Total has already signed a binding agreement to take at least a 10 percent stake in Arctic LNG-2, with Novatek aiming to attract foreign partners for at least 40 percent of the project.

And earlier this month, Russian gas giant Gazprom said it had resumed talks with South Korea on a potential gas pipeline from Russia's Far East through North Korea in light of the improving political situation in the region. A preliminary agreement to supply about 1 billion cubic feet per day of gas for 30 years to South Korea between KOGAS and Gazprom was signed in 2008 but subsequently shelved because of political risk.

#### **Escalation of trade dispute could threaten U.S. LNG investment**

(Financial Times; London; June 20) - Beijing's decision not to impose additional tariffs on U.S. liquefied natural gas shows the critical role the fuel plays in the government's plans to curb the country's reliance on dirtier-burning coal. China's demand for LNG is soaring, and its imports of gas from the U.S. have been rising fast: from zero in 2015 to 17 billion cubic feet in 2016 to 103 bcf last year. By deciding not to restrict U.S. LNG, China has let its energy policy override its trade policy, for the time being at least.

That's an encouraging sign for companies hoping to attract investors for U.S. projects. After three years without a single LNG plant getting the go-ahead, several companies are approaching final investment decisions. But the escalating trade dispute between the U.S. and China casts a shadow over those plans. Meanwhile, other countries, including Russia, Qatar, and Mozambique, are competing with increased supplies.

Until now the problem for companies hoping to launch U.S. LNG export projects has been that they could not satisfy their customers and their financiers simultaneously. To have confidence to provide project financing for a multibillion-dollar plant, lenders have wanted to see 20-year contracts that guarantee revenues. But customers were reluctant to tie themselves down with such long-term commitments, though attitudes are shifting.

The biggest threat now is the U.S.-China trade fight. "If you're thinking about investing in new U.S. LNG export capacity, and you see the potential for an escalating trade conflict to possibly lead to tariffs on U.S. LNG ... you might think twice and consider investing elsewhere instead," said Jason Bordoff, of Columbia University's energy policy center.

### **U.S. hosts World Gas Conference for first time in 30 years this week**

(Reuters; June 25) - The world's biggest oil and gas players are gathering for a summit in Washington D.C. this week that will be overshadowed by the specter of shifting trade patterns due to a trade dispute between the United States and China. The uncertainty comes at a historic moment for the United States, which has become the world's biggest natural gas producer, one of the top crude oil producers, and a growing exporter of both. It will host the triennial World Gas Conference for the first time in 30 years.

"The timing is unfortunate," said Charlie Riedl, executive director of the Center for LNG, noting the U.S.-China trade scuffle has ramped up uncertainty just as the next wave of U.S. liquefied natural gas producers are trying to finalize offtake deals needed to start construction. While LNG imports have so far been spared, the industry is concerned that it could be next on the tariff list if China's talks with Washington sour. "I don't know that it prevents deals from happening, but I think it gives buyers pause," Riedl said.

The conference will draw executives from global energy giants, along with senior officials from the U.S. State Department's energy bureau, and ministers from energy-producing and consuming nations. Globally, there has been a dearth of major go-ahead decisions on LNG projects since 2015, as sagging prices and worries over a looming glut left buyers hesitant. But the glut has not materialized, and global demand has taken off, fanning fears of an LNG shortage instead. "The needle is moving significantly, both on the supply and demand side," said Eric Fell, an analyst with Genscape.

### **China develops its own fracking equipment in search for gas**

(Reuters; June 20) - On a flattened mountaintop south of Chongqing in southwest China, a fleet of fracking trucks pumps chemicals and sand into a 5,000-foot horizontal

well deep under the ground. The equipment was designed and built by China's state-owned energy major Sinopec, the result of a decades-long government drive to develop low-cost domestic technology to tap the country's vast shale gas resources buried in the mountainous terrain. It is the latest key technology that China has learned to master.

Except for a handful of higher-end tools, Sinopec and a crop of independents make everything from trucks and pumps to drilling fluid and proppants — treated sand or man-made ceramics used to “prop” open a fracture to allow gas to escape. The government-backed push, motivated in part by cost cutting amid the oil price slump of 2014, has seen international fracking services firms scale back their operations in China. Meanwhile, Chinese firms are starting to export equipment including pressure pumps, even to the home of the shale boom in the United States.

“China has over the years developed its unique practice that employs home-manufactured compact drilling equipment to suit the terrains, and improved greatly on drilling efficiency,” said Lynn Lin, of consultancy Wood Mackenzie. State giants Sinopec and PetroChina pumped 320 billion cubic feet of shale gas in 2017, up from scratch a decade ago and equivalent to about 6 percent of the country's gas output. China is expected to nearly double output to 600 bcf by 2020, according to Wood Mackenzie.

## **Sempra hires Bechtel for proposed Gulf Coast LNG project**

(San Diego Union Tribune; June 22) - Sempra Energy's plans to build a large liquefied natural gas facility on the Texas Gulf Coast took a major step toward becoming a reality June 22 when the company's LNG and midstream division selected Bechtel as the project's contractor. The largest construction company in the country, Bechtel will prepare, negotiate and finalize a lump-sum engineering, procurement, construction and commissioning contract for the facility planned for near Port Arthur, Texas.

Financial terms of the deal were not disclosed. The project is proposed for two liquefaction trains, with a total capacity of about 11 million tonnes per year of LNG. Developing the Port Arthur terminal is contingent upon obtaining commitments from customers, completing the required commercial agreements and securing the necessary permits and approvals, as well as “other factors associated with the investment,” Sempra Energy said in a news release.

The San Diego-based energy giant is nearing completion of its first LNG export facility. The Cameron LNG project in Hackberry, Louisiana, is expected to begin operations next year. The \$10 billion facility includes partners in Japan and France.

## **Thick sea ice clogs up shipping for Yamal LNG**

(Reuters; June 21) - Thick sea ice is impeding Arctic shipments of liquefied natural gas from Russia's 7-month-old export plant in Yamal, Russia's state-run nuclear-powered icebreaker company Rosatomflot said. Unseasonably severe ice conditions are also clogging marine routes to Asia through the Northern Sea Route, extending the spring-navigation work season of Rosatomflot's icebreakers, the company said.

The Novatek-operated LNG terminal's fleet of ice-breaking tankers plans to deliver gas to Northeast Asia along the Northern Sea Route in the summertime when ice sheets thin out. In the winter, the tankers take a westward route to Europe, where cargoes will be reloaded onto waiting tankers for the longer voyage to Asia. However, ice has formed on the sea channel in Russia's Ob Bay — site of the Yamal LNG plant — which has "paralyzed the independent movement of ships," Rosatomflot said.

The company said it will extend deployment of its nuclear-powered icebreakers in Ob Bay for at least the first 10 days of July and go about dislodging ships stuck in the ice. In addition, tugboats will escort tankers from port. Shipping data shows the Boris Vilkitsky loaded LNG at Yamal on June 14 but remains in the area. The Christoph de Margerie LNG carrier has remained stationed north of Yamal for almost a week.

## **Japan will have to boost Btu content of lower-value U.S. LNG**

(Nikkei Asian Review; June 22) - U.S. liquefied natural gas has reached the shores of Japan, promising to diversify the nation's energy supply and cutting down its trade surplus with the U.S. But the gas is coming with some unexpected costs due to combustion differences with imports from other regions. In May, Tokyo Gas became the first company to import shale-based LNG from the U.S. under a long-term contract. Other gas and power companies plan to follow suit.

In the future, about 10 percent of Japan's LNG supply is expected to come from the U.S., where shale gas has a couple of advantages over Middle Eastern and Australian alternatives. First is that its price is determined by U.S. gas demand and not linked to oil prices, shielding it from volatility in that market. And there are no destination restrictions that prevent buyers from reselling it elsewhere. But the problem is that U.S. LNG has a lower heating value when burned than LNG coming out of such sources as Australia.

In the U.S., liquefied petroleum gases with high heating values like butane and propane are removed when processing natural gas, leaving a lower heating value gas stream. Although low heating values will not affect import costs — since gas is traded by heat content — Japanese companies will be faced with added costs since they must blend low-calorie LNG with higher LPG to meet the Btu standards for much of Japan's distribution grid. Companies will need to invest in facilities that can blend the two fuels.

## **European Commission investigates Qatari LNG contracts**

(Reuters; June 21) - The European Commission is investigating the bloc's biggest liquefied natural gas supplier, Qatar Petroleum, over potentially restrictive 20-year supply agreements inhibiting development of a single gas market, Europe's latest challenge to a major gas supplier. The bloc, having just wrapped up a seven-year market-abuse probe into Russian giant Gazprom, said it seeks to determine if Qatar's supply deals with European utilities barred them from diverting cargoes in the region.

So-called destination clauses are a fixture of long-term deals that tie buyers to receiving shipments at a specific port, thereby preventing cargo diversions that could undercut the original seller in the market. Qatar is the world's No. 1 LNG producer. Its geographical location between Europe and Asia also allows it to swing supply to the most lucrative market, which causes periodic supply shortages particularly in northwest Europe.

The world's biggest LNG importer, Japan, has led the backlash against destination restrictions in LNG deals, a throwback to a time when producers held the upper hand, after its Fair Trade Commission last year banned the practice in any new deals. The probe into Qatar's LNG deals follows extensive consultation between the European Commission and Japan's Ministry of Economy, Trade and Industry in recent months exploring the impact of such curbs on gas market development and price transparency.

## **Insurgency could be issue for gas development plans in Mozambique**

(Financial Times; London; June 20) - The vast gas reserves found off Mozambique's shores were meant to herald a new era of peace and prosperity for one of Africa's poorest nations. But a spate of beheadings and torched villages blamed on a shadowy insurgency has exposed the gulf between Mozambique's gas ambitions and the reality for many in the isolated and poor north. At least 39 people have been killed since the start of May by a mysterious group apparently seeking to impose a militant form of Islam in Cabo Delgado, not far from one of the world's biggest untapped offshore gas fields.

Mozambican armed forces have launched a crackdown, but the group has evaded capture. Work sites have not been targeted and analysts say the violence is for now unlikely to disrupt the more than \$30 billion in planned investments, mostly offshore, by companies including Anadarko, Eni, and ExxonMobil. The Anadarko-led liquefied natural gas project is expected to reach a final investment decision in January, a Mozambique regulatory official told Platts this week, with production possibly starting in 2023.

The insurgency seems rooted in a local stand-off over several years between an eccentric religious sect and authorities, said Eric Morier-Genoud, a lecturer at Queen's University Belfast who has studied the group. The group has found fertile territory in what is one of Mozambique's most isolated regions. The gas investment build-up has

so far created few jobs onshore, but it has sharpened young people's resentment with their lot, said Joseph Hanlon, an expert on Mozambique at the Open University in London.

### **Pipeline construction equipment damaged in Papua New Guinea**

(Reuters; June 22) - ExxonMobil PNG confirmed June 22 that some heavy equipment had been damaged at its Angore gas pipeline construction project in Papua New Guinea amid ongoing tension in the Highlands Region of the South Pacific nation. Papua New Guinea's government declared a state of emergency in the Southern Highlands province a week ago and sent troops into the region after rioters went on a rampage protesting a failed court challenge to a provincial governor's election.

Pictures on PNG's EMTV Online showed burnt-out heavy machinery and a fire burning in a shipping container at the site in Angore. The impact of the damage on the project's work schedule was being assessed, the Exxon spokeswoman said. The work is in support of the PNG LNG project, which was shut down for nearly two months after a deadly earthquake at the end of February. Papua New Guinea's deputy prime minister, Charles Abel, has called for a meeting with political leaders to discuss the problems.

Abel said the government is working to release royalties from PNG's liquefied natural gas project to land owners, but court disputes were holding up the release of funds. The Highlands Region has long been the scene of unrest and protests, especially among landowners who have yet to receive payment from the government for their share of royalties on the \$19 billion PNG LNG project, which shipped its first gas four years ago.

### **Critics say Guyana doesn't get enough from Exxon-led oil project**

(Wall Street Journal; June 22) - An ExxonMobil-led consortium said last week it has begun drilling after recently discovering at least 3.2 billion barrels of light crude in Guyanese waters. That makes this poor backwater country of 800,000 people a top global energy frontier. "Each Guyanese is going to be a U.S.-dollar millionaire, or worth that, in a few years," Natural Resources Minister Raphael Trotman said, referring to a national wealth fund the country is developing. Not everyone is convinced of a bonanza.

Many Guyanese say Exxon's deal disproportionately benefits the company and its minority partners — Hess Corp. and China National Offshore Oil Corp. — while leaving little for this South American country of miners and farmers with their horse-drawn carts. Others worry about corruption and Guyana's ability to responsibly handle an oil deposit worth nearly 50 times the nation's gross domestic product.

Exxon said Guyana will receive an estimated \$1.6 billion in royalties and revenue in the first five years after start-up in 2020 and a projected \$7 billion during the field's life. Exxon is permitted to use as much as 75 percent of oil proceeds to recoup exploration and production costs once commercial flows begin. Guyana gets a 2 percent royalty plus 50 percent of the remaining proceeds. That's on par with the world average for "frontier exploration," said IHS Markit analyst Carlos Bellorin. But the companies' local taxes are paid from Guyana's share of profits, cutting into the country's take.

"Exxon took advantage of our weak bargaining position and our inexperience, and they were able to extract everything they wanted," said Anand Goolsarran, the country's former auditor general. "We will suffer from that contract for the next 75 years," said Christopher Ram, a prominent Guyanese attorney and vociferous critic of the oil deal.

### **Tanzania parliament wants to know why gas exploration is down**

(AllAfrica.com; June 19) – The Tanzania parliament's budget committee wants the government to conduct a thorough analysis of the reasons behind the fall in natural gas exploration activities in the eastern Africa country. The request comes amid reports that some investors are contemplating selling their stakes in the sector.

Committee Chair Hawa Ghasia said reports that ExxonMobil was contemplating selling its stake in Tanzania's natural gas sector was especially bad news for hopes of a multibillion-dollar gas field development and liquefied natural gas plant in the country. "We advise the government to conduct a thorough analysis on what is behind the drop in natural gas exploration activities in the country. This is so that we can work out what should be done as a matter of urgency to rectify the situation," Ghasia said.

Earlier this month, ExxonMobil announced it was seeking buyers for its stake in an undeveloped gas field off Tanzania's coast so that it could focus on development of an even bigger project in neighboring Mozambique. ExxonMobil holds a 35 percent stake in Tanzania's deep-sea Block 2 field, with an estimated 23 trillion cubic feet of gas out of Tanzania's proven reserves of 57 tcf. Last year, Exxon bought a 25 percent stake in Mozambique's offshore Area 4 development from Eni. Area 4 holds an estimated 85 tcf.

### **Lower demand, more renewables help fill Australia's gas supply gap**

(Bloomberg; June 22) - Australia no longer faces a looming gas shortage, thanks to government pressure on liquefied natural gas exporters to divert gas into the domestic market and reduced demand forecast for gas-fired power, said the latest estimates from the nation's energy market operator. "No supply gaps are forecast before 2030 under expected market conditions," the Australian Energy Market Operator said June 22.

The outlook is starkly different from a year ago, when dire warnings from the market operator about potential gas shortfalls in eastern Australia starting in 2018 prompted the government to threaten to curb LNG exports. The nation's three east coast LNG plants, operated by Shell, ConocoPhillips, and Santos, averted those curbs by promising to plug the deficit. Their moves, combined with the start-up of a new gas pipeline from the Northern Territory to Queensland, and growth in wind- and solar-generated power diminishing the need for gas-fired power, have eliminated the feared shortage.

In addition, more than 4,000 megawatts of wind and solar power are due to start up in the next two years, which should ease demand for gas-fired power except when renewable generation is low. The loosening up of gas supplies, however, is of little comfort to industrial energy users, which report they are hit hard by high prices and see no relief in sight, according to a June 22 report in the Australian Financial Review.

### **Bloomberg forecasts gas transitioning to use as 'peaker' fuel**

(Bloomberg; June 21) - Bloomberg New Energy Finance's annual energy forecast says wind and solar power are getting cheaper and we will all be using more of them — a lot more, and relatively soon. Still, even under the projection of a far greener energy sector, natural gas is expected to have a meaningful role, particularly as flexible power-generation capacity. The intermittency of solar and wind power requires more sophisticated management of power flow, as well as storage and backup options.

Storage generally means batteries, and the Bloomberg report foresees growth there, with capacity forecast to rise by a factor of more than 160 times by 2050. But the limitations of lithium-ion batteries — particularly in meeting peak demand for long periods or providing storage over long periods of time — means Bloomberg foresees gas-fired power plants continuing to provide backup. What changes, however, is the type of gas-power plant required.

Rather than the more efficient (and expensive) combined-cycle gas turbines that dominate the market now, simpler (and cheaper) "peaker" plants — which turn on only to meet high demand — will be more suited to competing with renewables and storage for those relatively infrequent periods where they can provide the last kilowatt-hour required. Hence, the mix of new gas plants being built could shift significantly.

### **New hub approach cuts costs for U.S. Gulf oil production**

(Bloomberg Businessweek; June 21) - Chevron's huge Jack/St. Malo platform, a floating steel structure the size of three football fields about 200 miles off the Louisiana coast, is fed by giant underwater pipelines that carry crude from three oil fields about 15 miles away in different directions, like tentacles of an octopus. Unlike old-style platforms that

suck oil from a field directly below, this web-like arrangement lets the Jack/St. Malo pump more than 3,000 gallons of crude a minute from the trio of fields.

The three-for-one hub is part of a wave of innovation by oil majors including Chevron, BP and Shell that's allowing deep-water production in the Gulf to bounce back from disasters both environmental (BP's Deepwater Horizon spill in 2010) and financial (the oil price crash of 2014). The combination of new technology and smarter design will end much of the overspending that's made large troves of subsea oil barely profitable to produce, industry executives say. New projects are targeting costs of about \$35 to \$40 a barrel, which would compete with the lowest-cost shale assets.

BP, the Gulf's biggest operator, wants to do more exploration around its existing platforms and pipe oil back to them, rather than build expensive floating hubs. This approach is possible because the range of the so-called tiebacks — the pipes that carry the crude from the drill site to the platform — has increased markedly in the past few years due to new subsea pump technology. Chevron expects it will soon be able to use tiebacks as long as 60 miles. Tiebacks can save about \$12 a barrel compared with the cost of building a new platform, according to researcher Wood Mackenzie.

## **[Russia draws closer with Saudis, possibly leading to new OPEC+](#)**

(Bloomberg; June 22) - When the group overseeing the so-called OPEC+ deal met last night, proceedings were dominated by two nations: Saudi Arabia and Russia. It was probably a snapshot of the oil market's future. Beyond the drama of this week's diplomatic efforts to agree to an increase in oil production, the more significant longer-term development may be moves to make Russia's role in managing global supply permanent, bringing together the world's two largest oil exporters.

Russia isn't a member of OPEC but for the past two years has led a group of countries outside the group lending support to the cartel, creating a coalition of 24 producers dubbed OPEC+. The president of OPEC, Suhail Al Mazrouei, said June 22 a charter for the enlarged group had been circulated with a view to an agreement by the end of 2018. It would mark a seismic shift in oil's world order and would create a rival to OPEC.

It's possible the new body would have a different structure to OPEC's principle of one member, one vote. Larger producers such as Saudi Arabia and Russia might be given more weight in the new body, sources said. Saudi Arabia and Russia together pump about 21 million barrels a day — one fifth of global supply. Without Saudi Arabia, the rest of OPEC produces 20 million barrels.

## **Cheniere's \$1 billion gas line to serve Gulf Coast passes EIS test**

(Reuters; June 21) - Cheniere Energy's proposed \$1.025 billion Midship natural gas pipeline in Oklahoma got a positive final environmental impact statement June 21 from the Federal Energy Regulatory Commission. Cheniere wants to construct and operate about 234 miles of new pipeline, three compressor stations, a booster station and other facilities in Oklahoma. With the final EIS, the project can go to the full regulatory commission for a decision. Cheniere said it is targeting project completion in 2019.

The Midship project is designed to deliver 1.44 billion cubic feet per day of gas from the STACK and SCOOP plays in the Anadarko basin in Oklahoma to existing pipelines for transport to Gulf Coast and southeast markets, where demand for the fuel for domestic use and liquefied natural gas export is growing. The EIS said the project would result in "some adverse environmental impacts," however, "these would be reduced to less-than-significant levels" with adoption of steps recommended by the company and FERC.