Oil and Gas News Briefs
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July 1, 2019

Consultant forecasts $103 billion in LNG decisions this year

(LNG Global; June 27) - Rystad Energy forecasts investment decisions in liquefied natural gas projects in 2019 will reach nearly $103 billion, the largest investment year for the industry to date. Africa will be taking the lead in the next phase of global LNG mega-projects, according to Oslo-based Rystad Energy. Mozambique's Area 1 and Area 4 projects will make Africa the dominant LNG investment destination in 2019 with nearly one-third of total greenfield investment, the global energy consultancy said.

"Last week's final investment decision by Anadarko for its Area 1 LNG project marks the beginning of a new phase for not only Mozambique and the African continent but for the industry as a whole," said Pranav Joshi, an analyst at Rystad. The ExxonMobil-led Mozambique Area 4 gas project is expected to make final investment decision by the end of this year. The two developments would total more than $30 billion.

Other investment decisions this year have included the $10 billion Qatar/ExxonMobil Golden Pass LNG project in Texas and the $5 billion Calcasieu Pass venture in Louisiana. Rystad said it expects approvals this year or next for Novatek's Arctic LNG-2 in Russia ($25 billion), expansion of Qatar's liquefaction capacity ($35 billion), expansion in Papua New Guinea ($11 billion), another U.S. Gulf Coast greenfield project ($14 billion), and Goldboro LNG in Nova Scotia ($9 billion). The breakeven prices at the projects range from $5.30 to $8 per million Btu, Rystad calculated.

Japanese companies take 10% stake in Arctic LNG-2

(S&P Global Platts; June 29) - Japan's Mitsui and state-owned Japan Oil, Gas and Metals National Corp. agreed to take a combined 10 percent stake in Novatek's Arctic LNG-2 project, the Russian gas producer said June 29. "Participation in the project also provides for the long-term LNG offtake of approximately 2 million tonnes per year by the Japanese partners," Novatek said. The company did not disclose other terms, but Russian President Vladimir Putin said the investment would be around $3 billion.

The agreement appears to finalize Novatek's search for partners in the project. Novatek already has reached binding agreements with two Chinese companies — a China National Petroleum Corp. subsidiary and China National Offshore Oil Corp. — for each to buy a 10 percent stake in the project. France's Total also bought a 10 percent stake earlier this year. Arctic LNG-2, a neighbor to Novatek's first gas project, the Yamal LNG plant, is estimated at as much as $25 billion.

Novatek has said previously it planned to retain a 60 percent stake in the project, while selling the remaining interest to foreign partners to share financial risks and secure markets for its future LNG. It is planning to make a final investment decision on the project in the third quarter. Plans for Arctic LNG-2 include three trains with capacity of 6.6 million tonnes each. Novatek plans to commission the first train in 2023, the second train in 2024, and the third in 2025 before reaching full capacity in 2026.

Louisiana LNG developer raises $675 million more from investors

(LNG Global; June 28) - Venture Global LNG announced June 28 it has raised $675 million of additional capital from unnamed institutional investors. The capital will be used primarily for further development of the company's proposed LNG export project in Plaquemines Parish, Louisiana. In May, Venture Global said Stonepeak Infrastructure had signed on to provide a $1.3 billion equity investment in Venture Global's Calcasieu Pass LNG export facility in Cameron Parish, Louisiana. Venture Global has now raised total capital of over $2.8 billion to support the development of its two export facilities.

Construction has started at Calcasieu Pass, which Venture Global expects to enter service in 2022, reaching 10 million tonnes annual output at full operations. The terminal has 20-year sales-and-purchase agreements with several customers, including Shell and BP. Venture Global said it will use mid-scale, modular, factory-fabricated liquefaction trains. Kiewit has the contract to design, engineer, construct and commission the Calcasieu Pass facility.

The Plaquemines terminal, at 20 million tonnes annual capacity, took a step toward receiving federal approval May 3 after the Federal Energy Regulatory Commission concluded that construction and operation would result in some environmental impacts, but they could be reduced to less-than-significant levels with mitigation. Venture Global plans to make a final investment decision in late 2019. Plaquemines LNG will use the same mid-scale, modular, factory-fabricated liquefaction units as Calcasieu Pass.

U.S. LNG to Europe is close to not covering costs

(Reuters; June 28) - Natural gas prices at the Dutch trading hub hit 10-year lows this week, reflecting high European inventories swelled by liquefied natural gas imports and testing levels at which companies that committed to buy U.S. LNG would start making serious losses. Customers of Cheniere Energy, which dominates U.S. production with export terminals in Louisiana and Texas, have been feeling the pain from their long-term commitments for months due to a fixed pricing formula for the cargoes.

Cheniere sells its LNG at 115 percent of U.S. gas futures plus a liquefaction fee of between $3 and $3.50 per million Btu with a few buyers paying less. At today's prices, Cheniere LNG costs around $5.61 per million Btu, which includes the liquefaction fee, compared to $3.19 paid for gas at the Dutch hub, a benchmark for European prices. Yet U.S. LNG is still being sold to Europe, which received between 30 and 50 percent of all U.S. supplies between January and May this year, Refinitiv Eikon shipping data shows.

Traders say the liquefaction fee is a sunk cost for offtakers because it needs to be paid even if they cancel purchases, a risk known when they signed the contracts. The problem comes as the variable costs of feed gas at the liquefaction plant, shipping, and regasification in Europe exceed what the offtaker can get for the gas in Europe. The low prices in Europe have barely covered those costs since early June. Shell is the largest Cheniere offtaker with a commitment of 5.5 million tonnes per year, paying $723 million annually in liquefaction fees, according to Cheniere's filings with U.S. regulators.

Nova Scotia LNG developer in line for German loan guarantee

(Financial Post; Canada; June 28) – With its C$190 million acquisition of Shell Canada's Alberta gas assets, Pieridae Energy, which has been accumulating natural gas assets, has now secured the conventional gas supply needed for its proposed Goldsboro LNG plant in Nova Scotia. Its plan is to export to Europe — mainly Germany, where it has a contract in place with the Düsseldorf-based gas utility Uniper SE.

Alfred Sorenson, CEO of Pieridae, said the next steps for the company are to get a fixed price for a lump-sum construction contract, which is "well on its way," and to finalize long-term financing for the $10 billion development. "So, depending on the timing, it'll either be the very end of this year or the very beginning of 2020 that we'll be ready for a final investment decision," Sorenson told the Financial Post.

The Shell assets will allow Pieridae to access up to US$1.5 billion in credit support from the German government under a loan guarantee program. Ian Archer, associate director of North American natural gas at consultancy IHS Markit, sees several reasons for the Germans to team up with Pieridae, including, "It helps the Germans get off of Russian gas." One of the stipulations of the government loan guarantee is that the LNG shipped to Germany has to be "non-frack gas," Archer said, one of the reasons Pieridae bought Shell's gas assets — which do not require hydraulic fracturing to produce.

LNG plant near Vancouver lands BP as first customer

(Reuters; June 26) – The Woodfibre LNG terminal planned for north of Vancouver said it has signed up a unit of BP as its first customer, a crucial step toward developing the export facility. Woodfibre said June 26 that BP Gas Marketing Ltd. agreed to buy 0.75 million tonnes per year of LNG for 15 years starting in 2023, when the project on the

British Columbia coast is expected to come onstream. The facility's capacity is planned for 2.1 million tonnes per year.

Dozens of companies are planning LNG export terminals in North America to capitalize on gas made accessible from shale drilling technology. Signing up committed, long-term buyers is vital for financing and building such projects. The Shell-led C$40 billion LNG Canada project, under construction in Kitimat, B.C., is the only one in Canada to have reached the construction stage so far.

Woodfibre LNG is a subsidiary of Pacific Oil & Gas, of the Singaporean conglomerate RGE. Pacific Oil & Gas operates two LNG import terminals in China, as well as other upstream and midstream oil and gas assets. The LNG export terminal is proposed for the site of a former pulp mill, about 30 miles north of Vancouver, with a deepwater port. In May, the company said it anticipated making a construction decision sometime this year with LNG production to start in 2023. Woodfibre estimates the project's capital costs will range from C$1.4 billion to C$1.8 billion.

Opponents, supporters are back testifying on Oregon LNG project

(Oregon Public Broadcasting; June 26) - A sense of deja vu permeated a hearing June 26 in Medford, Oregon, where opponents and supporters of the Jordan Cove liquefied natural gas project gave testimony to federal regulators. Many community members who showed up early had been through this before. A previous incarnation of the LNG project was denied by federal regulators a couple of years ago. Supporters should know before year-end whether their latest push to get the project approved will be successful.

"It's been a long road. We've been involved in this for 14 years, and 14 years is too long to put any landowner with the threat of eminent domain on our property," Deb Evans, a landowner along the pipeline route in Klamath County, said at a rally against the project before the hearing. Calgary-based Pembina is seeking permission from the Federal Energy Regulatory Commission to build a 230-mile gas pipeline across Oregon and a liquefaction and export terminal on the coast at Coos Bay.

Jordan Cove has pitched the $10 billion project as "one of the largest-ever private investments in southern Oregon." The company estimates the project would generate about $110 million in annual tax revenues for the state and local governments. But if built, the project would be Oregon's largest emitter of heat-trapping gasses, like carbon dioxide, which many scientists believe are causing longer wildfire seasons, drought and ocean acidification in the Pacific Northwest. Even if the project wins the go-ahead from FERC, it still needs enough customers and financing to make it commercially viable.

Utah officials testify in support of LNG project in Oregon

(The Salt Lake Tribune; Utah; June 27) - A $10 billion liquefied natural gas project under development in Oregon could open up Asian markets for Utah's natural gas, long plagued by low prices because of a persistent domestic glut and the difficulty of shipping the product overseas. Federal regulators are now reviewing the environmental impacts of the Jordan Cove LNG project at Coos Bay, Oregon.

"We have natural gas that is stranded and not used, so it is being flared or vented to no benefit," Uintah County Commissioner Bart Haslem told the Federal Energy Regulatory Commission at a hearing June 26 in Medford, Oregon. "We could be shipping this gas to other countries to replace other, dirtier sources of energy and receive the benefits to our economies and environment."

Uintah, Utah's largest gas-producing county, was joined by officials from neighboring Duchesne County as well as gas-producing counties in Wyoming and Colorado to speak in favor of the project proposed by the Canadian energy firm Pembina Pipeline. Utah gas could move through existing pipelines to connect with the new line Pembina plans to build to reach Coos Bay. "The root of the issue for Utah, Colorado, and Wyoming is the ability of their gas production to access markets from the West Coast," said Jordan Clark, of the Utah Governor's Office of Energy.

Results start to flow from large Argentine shale play

(OilPrice.com; June 26) - After years of drilling and development and billions of U.S. dollars of investment, Argentina's vast shale play Vaca Muerta has finally seen the tangible results with the first exports of light crude oil and liquefied natural gas from the resource-rich formation. In addition to Argentina's oil and gas group YPF, international oil and gas majors including ExxonMobil, Chevron, Shell, and Total hold acreage in Vaca Muerta and have recently announced plans to proceed with major development projects in the most promising shale oil and gas basin outside the United States.

Higher costs, regulatory uncertainty, and insufficient infrastructure have so far hampered a U.S.-style shale revolution in Argentina. The first oil and gas exports in recent weeks, however, signal that the years of development and the billions of dollars may finally start to pay off and make Argentina a net oil and gas exporter again. Big Oil's continued commitment to Vaca Muerta is also a sign that the huge potential of Argentina's prime shale play can be tapped and turned into sizable production volumes.

Vaca Muerta, Spanish for "dead cow," has been one of the few bright spots in shale gas production outside the U.S., but it hasn't come even close to replicating the U.S. shale revolution. Now developers are turning their attention to exporting gas and tapping more oil in the Vaca Muerta formation. Earlier this month, YPF exported its first-ever LNG cargo with gas extracted from the Vaca Muerta. It's the first step in YPF's gas exports to the world, said Marcos Browne, executive vice president of gas and energy at YPF.

LNG market prices don't chase headlines like oil traders

(Reuters columnist; June 27) - The subdued reaction of global liquefied natural gas prices to the latest tensions around the Persian Gulf not only stands in contrast to the excitable crude oil market, but perhaps offers a more reasonable assessment of the risks. While spot prices for LNG did move somewhat higher in the wake of the attacks on two oil tankers in the nearby Gulf of Oman on June 13, the reaction wasn't as pronounced as the spike in the global oil benchmark, Brent.

In some ways this could be viewed as surprising, as LNG is more exposed to the threat of closure of the Strait of Hormuz, the narrow sea lane that links the Persian and Oman gulfs. About 26 percent of all LNG transited the Strait of Hormuz in 2018, the vast majority from Qatar. For crude oil, the figure is less than 20 percent of global demand. A possible explanation for LNG's more relaxed reaction is that Qatar sells very little of its output on the spot market, meaning that traders saw little threat to immediate supplies.

If the LNG market was genuinely worried about the strait being blocked, the spot price would surely be considerably higher to reflect the risk premium associated with the potential loss of a quarter of global supplies. The paper-traded market for LNG is also considerably smaller than that for crude oil and is used predominantly by professionals already deeply engaged in LNG. This means that it is less subject to the influence of speculators and "hot money" investors who chase news headlines for short-term gains.

Michigan sues to shut down Canadian oil line

(Reuters; June 27) - The state of Michigan has filed a lawsuit asking that an Enbridge oil pipeline under the Straits of Mackinac in the Great Lakes be decommissioned. The Line 5 oil pipeline ships 540,000 barrels per day of light crude oil and propane and is a critical part of Enbridge's Mainline network for delivering Canadian output to the U.S. The underwater portion of Line 5 has long been a bone of contention between Enbridge and the state of Michigan, which says a leak from the twin 66-year-old pipelines would cause catastrophic environmental damage to the Great Lakes.

Michigan Attorney General Dana Nessel asked the court to find that continued operation of the pipeline system under a 1953 easement violates the public trust doctrine. The suit said the line violates the Michigan Environmental Protection Act because it is likely to pollute the water and hurt other natural resources. The line runs under the straits that connect Lake Michigan and Lake Huron, then across Michigan to deliver crude to refineries including Marathon's Detroit refinery and Suncor Energy's facility in Ontario.

Nessel also filed a motion to dismiss an Enbridge lawsuit from earlier this month, that sought to enforce an agreement made with the previous Michigan governor. That deal would have allowed Enbridge to build a tunnel to house the twin underwater lines and continue operating Line 5. The company said the tunnel would protect the pipe from any damage. There have been no known oil spills from the straits' portion of Line 5. There was a near miss in 2018 when an anchor struck the line damaging but not rupturing it.

Biggest refinery on U.S. East Coast will close down

(Bloomberg; June 26) – The biggest refinery on the U.S. East Coast will shut down after a massive explosion and fire crippled operations at a site that has helped fuel the region for 153 years. The Philadelphia Energy Solutions complex on the banks of the Schuylkill and Delaware rivers in Pennsylvania started as a small operation in 1866. After a series of financial problems, it emerged from bankruptcy last August but then two fires in June shut down key gasoline-making units just as the summer driving season gears up.

"The recent fire at the refinery complex has made it impossible for us to continue operations," CEO Mark Smith said. Philadelphia's mayor said the refinery will close within the next month. The complex produces 335,000 barrels a day, meeting about 3 percent of gasoline demand in a densely populated region. The refinery was hit by fires on June 10 and June 21. The most recent, affecting an alkylation unit used to make high-octane gasoline, was triggered by an explosion that could be seen miles away and was picked up by weather satellites. The earlier blaze was at a fluid catalytic cracker.

The refinery is the biggest of five in the Northeast. Its loss will likely increase the region's dependence on gasoline supplies from Canada, Europe, and the Gulf Coast, potentially boosting prices for drivers. Despite the oil shale riches in Texas and North Dakota, East Coast refiners aren't on the receiving end of pipelines. So, the only way they can get hold of U.S. crude is by train or U.S. tankers, which are more expensive. Philadelphia-area refineries still import crude from West Africa and the North Sea.

Small-scale LNG production possible at the well site

(Midland Reporter-Telegram, Texas; June 27) - Stranded gas that has challenged producers to find a use for it other than flaring may soon have a market. And it won't require construction of pipelines or processing plants. Since May, Philadelphia-based EDGE LNG has been liquefying natural gas at a well site in the Marcellus Shale, delivering 30,000 gallons of LNG — about 2.6 million cubic feet of natural gas — to a customer more than 300 miles away.

"This is not something that needs to be proven, it's not something that's dependent on the stars aligning and the economics working. This is proven technology," said CEO Mark Casaday. The only change to LNG production is the scale, he said. His company deploys transportable liquefaction equipment from Galileo Global Technologies to the wellhead as Cryobox LNG production units that fit on 40-foot tractor trailers. It can be set up, safety-checked, connected to the wellhead and ready to make LNG in 10 days.

The Marcellus operations have been successful, and Casaday said he expects production volumes to expand fivefold in the next four months. But he also has his sights set on the Permian Basin in West Texas and New Mexico. “My goal is to tackle the Permian Basin and flared gas based on limited takeaway capacity or wells far from processing plants," Casaday said. Producers in the Permian flare hundreds of millions of cubic feet of gas a day, lacking pipelines to move the fuel to market.