

# Oil and Gas News Briefs

## Compiled by Larry Persily

### September 23, 2019

#### **Indian LNG importer will put \$7.5 billion into Louisiana project**

(Bloomberg; Sept. 21) – Houston-based Tellurian said it signed a \$7.5 billion agreement for India's Petronet LNG to buy into its proposed liquefied natural gas export terminal in Louisiana, in what could potentially be one of the largest foreign investments in the U.S. to ship shale gas abroad. Petronet will spend \$2.5 billion for an 18 percent equity stake in the \$28 billion Driftwood LNG terminal — the largest outside holding so far in the project — and negotiate purchase of 5 million tonnes of LNG per year. The remainder of the investment, \$5 billion, will come from debt, Tellurian CEO Meg Gentle said Sept. 21.

The companies plan to complete the accord by March 31, by which time Tellurian hopes to sign up enough partners to proceed with the project. The surge of new supply from America's trove of shale gas has made the fuel accessible for emerging markets such as India, the sixth-largest buyer of U.S. LNG. The deal, signed in Houston in the presence of Indian Prime Minister Narendra Modi, underscores a record year for the global LNG industry with tens of billions of dollars of projects given the green light.

"People should not be surprised this came," said Tellurian co-founder Charif Souki, who also founded America's largest LNG exporter Cheniere Energy. "We have too much gas that we don't know what to do with and India needs greater gas," Souki said. Tellurian expects to finalize the last 4 million tonnes needed for Driftwood's first phase with one or two partners in the coming months, Gentle said. Petronet's share represents about \$2 billion in annual sales for the life of the Lake Charles, Louisiana, project, she said.

#### **U.S. LNG projects online, in construction or waiting for FID total 13**

(Houston Chronicle; Sept. 20) – There already are four liquefied natural gas export terminals in operation in the U.S. with three under construction and six more holding permits while waiting on sales contracts before making final investment decisions. Applications for eight more projects remain under review by federal regulators, and four more proposed projects have started the pre-filing process with the Federal Energy Regulatory Commission.

In the past several years, most U.S. project developers focused their marketing efforts on selling to China, but President Trump's trade war prompted the Asian superpower to slap a tariff on U.S. gas. Alex Munton, principal LNG analyst at Wood Mackenzie

Americas, said the tariffs have complicated inking deals with China, but U.S. producers have been able to find buyers in Europe and elsewhere in Asia. “The majority of deals that we have seen last year and this year have not been with Chinese buyers,” Munton said. “That shows there are lots of other customers out there ... but the market is finite.”

## **Sempra, Total each have big ambitions for North American LNG**

(S&P Global Platts; Sept. 19) - San Diego-based Sempra and France's Total, partners at Cameron LNG in Louisiana, each have big ambitions in North American LNG, pinning their goals on low-cost feed gas options in the U.S. and growing consumption in Asia, Europe, the Middle East, and Latin America. "You need to be integrated on the LNG chain, and you need to be global," Total's Senior Vice President of Gas Laurent Vivier said during a briefing with reporters at the Gastech conference in Houston on Sept. 19.

Cameron LNG started up in May with seven cargoes shipped since then. The \$10 billion project is a joint venture of Sempra, Total, Japan's Mitsui, and a company jointly owned by Japan's Mitsubishi and NYK. Beyond Cameron, Sempra has proposed to build LNG export facilities in Port Arthur, Texas, and at the Energia Costa Azul receiving terminal in Baja California, Mexico. It reached a preliminary deal with Saudi Aramco in May for the state-run oil company to take a 25 percent stake in the Port Arthur project.

Sempra has reached preliminary agreements with offtakers that, if finalized, would cover all of the capacity for the first phase of the export project in Mexico. The heads of agreement are with Total, Mitsui, and Tokyo Gas. Sempra expects to make a final investment decision on that project first, probably by the end of the year, followed by Port Arthur around the middle of 2020, said Justin Bird, president of Sempra's LNG unit.

Total, meanwhile, wants to be the biggest portfolio player in the LNG market in North America. It is a foundation customer at Cheniere Energy's Sabine Pass terminal in Louisiana. It also has offtake commitments at Freeport LNG in Texas, and earlier this year it took an equity investment in Tellurian's proposed Driftwood project in Louisiana.

## **Total has sights on becoming largest exporter of U.S. LNG**

(Houston Chronicle; Sept. 20) - French energy major Total is aggressively moving to scale up its liquefied natural gas operations to reach most every corner of the global market — with U.S. Gulf Coast exports a central part of that strategy. Executives visiting Houston on Sept. 19 said Total's “ambition” is to become the No. 1 exporter of U.S. LNG by the end of 2020. The company already holds offtake capacity at Cameron LNG in Louisiana, Freeport LNG in Texas, and Tellurian's proposed terminal in Louisiana.

Total claims 10 percent of the world's LNG market share, second to Shell. Although LNG terminal operator and exporter Cheniere Energy holds the top spot for U.S. LNG exports, Total is looking to pass Cheniere. The company said its export capacity from the U.S. could be more than 10 million tonnes by the end of 2020 and wants to grow it to 15 million tonnes by 2025 with expansions at existing facilities where it holds a stake.

Elsewhere in the world, Total is paying \$8.8 billion for Anadarko Petroleum's Africa assets, including the massive Mozambique LNG project that has started construction. Geopolitical and economic uncertainty tends to dissuade others from taking the same investment risks in developing nations as Total, but executives dismissed the concerns. They said Total has expertise in operating in unstable, sometimes dangerous markets. "We are in Venezuela. We are in Argentina. We have this expertise compared to other players," said Laurent Vivier, Total's senior vice president of gas. "This is something we are used to doing." Total also is a major investor in both of Russia's Arctic LNG projects.

### **Louisiana LNG hopeful now says decision might not come until 2020**

(S&P Global Platts; Sept. 19) - It could be 2020 before Australia's LNG Ltd. builds enough commercial support for its proposed Magnolia LNG export terminal in Louisiana to reach a final investment decision, a top executive said. CEO Greg Vesey cited the ongoing trade war between the U.S. and China as one of the factors that could move the decision back. "Could it happen this year? Yes," Vesey said in a Sept. 18 interview at the Gastech conference in Houston. "If I'm a betting man, it's probably going to spill over into next year, because I just don't think things will get settled that quickly."

The CEO and his team believe Magnolia received a much-needed boost when it struck a deal to supply 2 million tonnes of LNG per year to support a gas-to-power project in Vietnam. That 20-year supply agreement would cover about a third of the capacity that the project needs to contract before taking a final investment decision, according to LNG Ltd. The companies did not disclose terms of the deal.

Magnolia has struggled to reach FID, despite having an engineering, procurement, and construction contract, all its regulatory permits, and an offering price for its LNG production capacity that is a bargain compared to many peers. A previous supply deal with another counterparty lapsed. LNG Ltd. had previously planned to commercial sanction of Magnolia in 2018, but it pushed back its target.

### **Wood Mackenzie says Argentina new source of LNG supply to Asia**

(LNG Industry; Sept. 19) - Rising gas production in Argentina, coupled with competitive global transportation costs, is expected to position the country as an emerging source of

liquefied natural gas supply to Asia during peak demand periods, according to research from Wood Mackenzie discussed at the Gastech conference in Houston. Global LNG demand is showing increasing seasonality, and peak potential production in Argentina during the summer months coincides with strong winter demand from utilities in Asia.

This seasonal dynamic could attract Asian buyers and present a strong economic case for Argentinian LNG, the report said. In addition, Argentine gas has lower shipping costs to reach Asia than U.S. Gulf Coast facilities, avoiding Panama Canal crossings and presenting a cheaper alternative to U.S. gas. Supported by the massive Vaca Muerta shale play, Argentina's production in the Neuquen Basin will ramp up over the next few years with ongoing LNG production expected to begin in 2024, Wood Mackenzie said.

Based on new research, the global energy consulting firm anticipates that Argentina's LNG production volumes could reach 6 million tonnes per year in 2024, growing to 10 million tonnes by 2030. Associated gas from Vaca Muerta, along with other projects, all with breakevens below US\$3 per million Btu, will enter into full development in the upcoming years, Wood Mackenzie said. Adding in liquefaction and transportation costs, the consultancy estimates breakevens for Argentina LNG of US\$8 offloaded in Japan.

## **LNG exports could benefit from growing Permian Basin oil production**

(S&P Global Platts; Sept. 20) - Permian Basin oil producers could become the driving force behind the next wave of U.S. liquefied natural gas supply. That was the wisdom of a panel of chief executives at Gastech, the annual global conference held this week in Houston. Investments in infrastructure and new drilling techniques have seen Permian oil output double since 2017 to over 4.3 million barrels per day this year, according to S&P Global Platts Analytics. Permian gas production is expected to average 15 billion cubic feet a day in September, doubling the past two years, according to federal data.

But along with oil and liquids, producers have been inundated with natural gas, the price of which actually turned negative earlier this year as production overwhelmed the basin's transport capacity. The promise of new pipelines, which will about bring 6 billion cubic feet a day of new capacity to the Texas interstate market by the early 2020s, has offered little comfort for some producers. "These producers need to move this gas. It's a byproduct of oil production," said Matt Schatzman, CEO of LNG hopeful Next Decade.

"The Permian Basin is going to change the global LNG landscape," Schatzman said. "Every incremental hydrocarbon produced [there] from this day forward — whether it's oil, liquids, or gas — needs to be exported." That supply glut could transform the U.S. LNG export trade as Permian producers become increasingly willing to accept any price for gas that, ultimately, is intended only to enable oil- and liquids-production growth.

## **Enbridge takes 10.5% stake in proposed Texas LNG project**

(Houston Chronicle; Sept. 20) - Canada's largest pipeline operator Enbridge has bought a minority ownership stake in the proposed Annova liquefied natural gas export terminal at the Port of Brownsville, Texas. The Annova LNG project proposed by Chicago-based Exelon is still waiting on approval from federal regulators. Recent filings with the U.S. Energy Department show that Enbridge acquired a 10.5 percent ownership stake.

Financial terms were not disclosed. The ownership deal comes less than a year after Enbridge completed work on the Valley Crossing Pipeline, a \$1.5 billion project to move gas from the Agua Dulce hub near Corpus Christi to the Port of Brownsville and then south of the border to Mexico.

Under the ownership deal, Exelon will remain as the project developer and operator of the proposed export terminal. Annova LNG was launched in 2013 and is based in Houston. The company wants to build an export terminal with 6 million tonnes annual capacity. Annova is owned by a consortium of four companies: Exelon owns 80.55 percent, with Enbridge at 10.5 percent. Engineering and construction firm Kiewit and energy technology firm Black & Veatch each own 4.475 percent.

## **FERC's Republican majority makes it easier to push through votes**

(S&P Global Platts; Sept. 19) - Federal Energy Regulatory Commission Chairman Neil Chatterjee used his strengthened Republican majority Sept. 19 to advance two stalled gas projects and a small LNG facility. FERC voted 2-1 to approve Tallgrass Energy's Cheyenne Connector and Cheyenne Hub Enhancement projects, which would provide 600 million cubic feet per day of outlet capacity for Denver-Julesburg production into the Cheyenne Hub and access onto Rockies Express Pipeline for delivery to the Midwest.

The commission also voted 2-1 to approve Eagle LNG Partners' liquefaction plant in Jacksonville, Florida, with a capacity of about 1 million tonnes per year of LNG. While the commission approved five major LNG projects earlier this year, action on a number of other gas projects appeared to slow amid a 2-2 split over climate considerations. The departure from FERC of Democrat Cheryl LaFleur at the end of August left FERC with two Republicans and only one Democrat, clearing the path for more approvals.

In the votes Sept. 19, Commissioner Richard Glick continued his pattern of dissenting over the lack of greenhouse gas considerations in FERC orders. At FERC's open meeting, Glick aired new concerns that the commission was beginning to "systematically scrub" mentions of climate change from its orders, even so far as to now exclude language encouraging developers to participate in voluntary greenhouse gas emission-reduction programs. Commissioner Bernard McNamee countered that mitigation of GHG gas emissions is "far beyond" FERC's authorities and expertise.

## **FERC approves small-scale LNG terminal in Florida**

(LNG Global; Sept. 20) - The Federal Energy Regulatory Commission on Sept. 19 authorized Eagle LNG to construct and operate an LNG terminal on the St. Johns River in Jacksonville, Florida. The plant would have three small-scale production units, each capable of liquefying approximately 44 million cubic feet per day of gas for a total of about 1 million tonnes of LNG per year. The project includes a storage tank capable of holding about a week's worth of LNG production, docks for small- and medium-sized LNG carriers and fuel bunkering barges, and a loading facility for LNG tanker trucks.

The LNG is intended for Caribbean markets, domestic marine use, and LNG bunkering, according to the company's filings with FERC. Eagle LNG is a wholly owned subsidiary of Ferus Natural Gas Fuels, headquartered in Calgary. The project represents "\$500 million of infrastructure investment," according to Eagle LNG's website.

## **State extends permit review for LNG project in Oregon**

(KVAL TV; Eugene, OR; Sept. 18) - The permitting process for the Jordan Cove LNG project has been extended into late January. At the request of the company, the Oregon Department of State Lands will hold off on its decision on a removal-fill permit until Jan. 31. A decision had been scheduled for Sept. 20. The state lands agency is reviewing more than 50,000 comments that came in during the public review period. The office said the developer will submit responses to questions and unresolved issues.

"Some of them are small technical things having to do with dimensions of the project, clarification questions," said Bill Ryan, deputy director of operations for the Department of State Lands. "But others are pretty significant like land-use compatibility from local government, whether the mitigation plans are adequate and offset and compensate for the unavoidable impacts of the project." The developer, Calgary-based Pembina, agreed to submit responses by Oct. 20 for its \$10 billion proposed development.

"This allows what we believe to be ample time for the state agencies to be able to consider all that information before making their decision," said Paul Vogel, spokesperson for Jordan Cove. Vogel said the developer has hit a "pause" button on the project's engineering and technical work until the permits are in. Pembina proposes to build a liquefied natural gas terminal in Coos Bay, Oregon, and a 229-mile pipeline across the southern part of the state to deliver feed gas to the LNG facility.

## **Japanese LNG buyer gets suppliers to drop destination restriction**

(Reuters; Sept. 20) – JERA, the world's biggest buyer of liquefied natural gas as a joint venture of Japanese utilities, has renegotiated some of its contracts with suppliers to



drop clauses that restrict where the cargoes can be sold, giving JERA more flexibility, an executive said. Japan's Fair Trade Commission in 2017 ruled that such restrictions, which prevent reselling of contracted LNG cargoes, breach competition rules. Since the ruling, Japanese LNG importers have signed new contracts without the clauses, but it is rare that a buyer has confirmed it was able to drop the clauses from existing contracts.

"We have been asking sellers to scrap the destination clauses from the current contracts and some of them have accepted our request," Sunao Nakamura, JERA's managing executive officer, told Reuters on Sept. 19. Buyers have gained the upper hand as growth in new supplies, mainly from Australia and the U.S., has exceeded demand. "Since the supply-demand balance has relaxed compared with five to six years ago, buyers have better chances to get what they want," Nakamura said.

Though Japanese buyers get LNG mostly through long-term contracts, JERA has increased its spot purchases and short-term contracts that cover less than four years. "With growing uncertainty of energy demand in Japan due to unexpected weather patterns and increasing use of renewable energy, we can't make commitment without flexibility," Nakamura said of the ability to resell cargoes it may not need. In addition, an inexorable decline in LNG spot-market prices this year has pushed Japanese utilities to be more aggressive in price reviews built into their long-term contracts tied to oil prices.

## **Vietnam will start construction of LNG import terminal**

(S&P Global Platts; Sept. 19) - State-run PetroVietnam Gas and its partners plan to start construction of one of the country's first liquefied natural gas import terminals at Thi Vai in southern Vietnam in late October, an official with parent company PetroVietnam said Sept. 19. The terminal is one of at least two import facilities under development that would make Vietnam the newest LNG importing country in Southeast Asia.

Gas distribution company PetroVietnam is in process of reviewing remaining design issues of the terminal with consultants and contractors before construction can begin, the official said. The Thi Vai terminal is expected to be operational in the third quarter of 2022, the official said on the sidelines of the Vietnam LNG-to-Power Summit 2019 in Hanoi. It will have a capacity of 1 million tonnes per year in its first phase in 2022, which will be raised to 3 million tonnes by 2023 in the second phase of development.

National oil company PetroVietnam supplies gas to meet 30 percent of Vietnam's electricity demand and 70 percent of its fertilizer needs. Vietnam held 24.7 trillion cubic feet of proved gas reserves at the end of 2016, up from 6.8 tcf in 2011, of which half was located in the northern deepwater areas of the Song Hong basin, according to the U.S. Energy Information Administration. The country currently does not import any gas despite growing demand for power generation in southern Vietnam.

## **China's growing gas demand gives it more pricing power, report says**

(Energy Post; Sept. 18) - In just two years, China has become the world's top gas importer and likely soon will become the largest liquefied natural gas importer. As such, China has reshaped the market, said a report, "China's Quest for Gas Supply Security: The Global Implications," by Paris-based IFRI Centre for Energy & Climate, authored by Sylvie Cornot-Gandolphe. "China alone explained 63 percent of the net global LNG demand growth in 2018 and now accounts for 17 percent of global LNG imports."

"Over the past two years, fears of an LNG supply glut have largely been replaced by warnings that the lack of investments in new LNG capacity would lead to a supply shortage in the mid-2020s unless more LNG production project commitments are made soon," the report said. China's imports can be expected to continue to grow strongly, more than doubling between 2018 and 2030. China also leads in global and Asian spot LNG purchases, and has become a driver of the evolution of Asian spot LNG prices.

Currently, China's LNG imports peak in winter but the seasonality of China's imports is evolving with a second peak in summer. This peak is expected to increase in the future with new storage capacity that will need to be refilled before winter, the report said. That expansion will help stabilize seasonal demand and price fluctuations in China. In turn, this will impact the seasonality of global LNG trade. As China becomes the largest LNG market, the country is expected to have more pricing power, Cornot-Gandolphe said.

## **Exxon will deliver LNG in Pakistan's first private-sector deal**

(The Nation; Pakistan; Sept. 19) - ExxonMobil and Pakistani energy company Universal Gas Distribution Co. have signed a liquefied natural gas supply deal, with the first cargo arriving next month. The deal covers four cargoes a year and is the first time a private company has imported the fuel into the country. Pakistan has been importing LNG since 2015, but the buyers have been state-owned companies.

Universal Gas CEO Ghiyas Abdullah Paracha said the private import of LNG will not only help bridge the country's gas supply gap but will also reduce prices at compressed natural gas fueling stations.

## **Pakistan selects developers to help triple LNG imports**

(Reuters; Sept. 20) - Pakistan has selected groups that include ExxonMobil and Shell to build five liquefied natural gas terminals as it aims to triple its imports and ease its gas shortages. The terminals could be in operation within two to three years, Omar Ayub Khan, Pakistan's minister of power and petroleum, said Sept. 20. Pakistan is



chronically short of gas for power production and to supply manufacturers such as fertilizer makers, hobbling the economy. "It will make a significant dent in the gas shortage," Khan said.

The groups selected are Taber Energy, a unit of Japan's Mitsubishi; Exxon and U.K.-based Energas; commodity trader Trafigura Group and Pakistan GasPort; Shell and Pakistan multinational Engro Corp.; and Gunvor Group and Pakistani company Fatima. It was not clear if the companies had made final investment decisions to proceed. The five must submit plan details to the ministry of ports and shipping by Nov. 5 for approval, but the cabinet has already approved them, Khan said.

Pakistan's two existing LNG import terminals currently have 1.2 billion cubic feet per day of capacity, and a third expected to come online next year will add 600 million cubic feet per day. The cost of building the new terminals and finding buyers for the gas will be up to the groups, which will pay Pakistan a royalty based on import volumes, Khan said. Pakistan's contribution will be funding construction of a \$2 billion north-south pipeline to distribute the gas, and also to build gas storage facilities, he said.

## **LNG export terminal in Texas offers online 'storefront' to sell cargoes**

(Kallanish Energy; Sept. 18) - Freeport LNG and Redwood Markets are launching a virtual "private storefront" for selling liquefied natural gas cargoes inside the Redwood Marketplace. The marketplace is an online commodity trading platform that enables global buyers and sellers of LNG to negotiate and confirm commercial terms while offering price discovery, the companies said in a joint statement Sept. 16.

The storefront enables Freeport LNG, as the host, to negotiate and match transactions with potential LNG offtakers in a variety of online trading formats with multiple options for transparency, the companies said. The Freeport storefront will launch in November.

The first liquefaction train at \$14 billion Freeport LNG in Texas is expected to be fully operational later this month. The Quintana Island plant will have the capacity to produce up to 15 million tonnes per year when all three trains are online by mid-2020. Planning for a fourth train is underway. Freeport was built in 2008 as an import facility. Its owners six years later started construction to add liquefaction and exports to the terminal.