

Oil and Gas News Briefs

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LNG contractors warn developers not to underestimate costs

(S&P Global Platts; Sept. 20) - Global contractors bidding on the second wave of U.S. LNG export terminals had a simple message for developers: "You get what you pay for." As Gastech wrapped up in Barcelona, executives from Bechtel, Fluor, KBR, McDermott International, and Spain's Tecnicas Reunidas provided a sense of realism about costs. "Enthusiasm is not a strategy," Fluor CEO David Seaton said during a Sept. 20 panel. "That's a lot of what we see with the new customers who are more the developer type. All they are doing is looking at their spreadsheet rather than the real cost of building."

The message comes amid delays at several of the first-wave export terminals under construction along the Gulf and Atlantic coasts, including at Freeport LNG's facility in Texas, Sempra's Cameron LNG site in Louisiana and Kinder Morgan's Elba Island project in Georgia. With more than a dozen terminals proposed as part of the second wave of U.S. projects targeting the 2020s, there is pressure to sign engineering, procurement, and construction deals for the lowest possible cost.

Cameron's experience is an example of what can happen when insufficient attention is paid up front to properly bidding for the realistic cost of construction, said McDermott CEO David Dickson, whose company inherited its contractor role on the project when it acquired CB&I earlier this year. It had to take a write-down because of extra costs related to construction. "A lot of it went wrong at the time of the estimation," he said.

Juan Llado Arburua, CEO of Tecnicas Reunidas, which has agreed to an engineering contract for Venture Global's proposed Calcasieu Pass LNG terminal in Louisiana, said builders don't want to be left holding the bag and are pushing back against developers. "We are trained to run risks, but we are not trained to be insurance companies," he said.

Gas industry should not ignore threats to its future

(Reuters columnist; Sept. 20) – Natural gas is no longer merely a transition fuel between the past of dirty coal and crude oil and the future of renewables, said a procession of senior energy company executives at the Gastech conference in Barcelona. But while the gas industry has plenty to be buoyant about, including rapid and sustained Chinese demand for liquefied natural gas and the U.S. shale gas revolution, it runs the risk of getting ahead of itself if it ignores the threats it faces.

Booming U.S. production and China's push to use more gas and less coal are among the reasons why many expect the global LNG market to rise from about 300 million tonnes a year currently to at least 450 million by 2025, possibly even higher. But for this to happen, almost everything has to work in LNG's favor and the risks must remain only possibilities. LNG faces several challenges in Asia, which is expected to take the bulk of planned new output. For countries that aren't concerned with limiting carbon emissions, LNG is still more expensive than coal. For countries that do care about emissions, LNG will struggle to remain competitive with renewables backed up by battery storage.

For developers of multibillion-dollar LNG projects the question should be whether they can compete with what renewables plus battery storage are likely to cost in the future, not what they cost now. The high-cost of LNG projects is likely to make companies and financiers cautious about committing vast sums money to what may become stranded assets. And the gas industry may be underestimating the rise of environmental activism. For much of the past decade, the activists have focused on forcing coal out of the power mix, but that is changing into calling for an end to the burning of all fossil fuels.

[More U.S. LNG capacity starting to come online](#)

(Reuters; Sept. 20) - New U.S. liquefied natural gas terminals with enough capacity to double U.S. exports have either begun commissioning their facilities or are waiting the OK from federal regulators. Although long planned, the actual commissioning of plants has been a moving target in the past. The process not only kicks off a new era for the global industry as the U.S. turns into a major exporter, it also opens the taps for large volumes to hit the spot market before long-term commercial contracts are triggered.

The activity at five terminals dotted mainly on the Gulf Coast means some production will start ahead of schedule with two or three plants producing their first cargoes this year, one as early as November. Analysts now estimate anywhere between 1 million and 2.5 million tonnes of LNG will hit the spot market in the first quarter of next year, a significant amount in an industry still dominated by rigid multi-year supply contracts. That could mean as many as three dozen fully laden cargoes looking for buyers.

Based on regulatory filings and analysts, the first LNG is expected in December from Kinder Morgan's Elba Island terminal in Georgia and Cheniere Energy's Sabine Pass Train 5 in Louisiana, and in the second quarter 2019 from Sempra's Cameron terminal in Louisiana and Freeport LNG in Texas. Additionally, the first cargo from Cheniere's terminal in Corpus Christi, Texas, is expected as early as November. Those liquefaction trains at full capacity will be capable of producing 19 million tonnes of LNG per year.

LNG Canada says its decision unaffected by trade tensions

(Bloomberg; Sept. 21) – The debacle over nationalization of an oil sands pipeline through British Columbia and trade tensions with the United States won't affect the final investment decision on Shell's C\$40 billion (US\$31 billion) liquefied natural gas project, according to the head of the venture. Shell-led LNG Canada proposes to export as much as 26 million tonnes per year from a plant in Kitimat, B.C., to Asia, making it potentially the nation's largest-ever infrastructure project.

Shell and partners Mitsubishi, Malaysia's Petronas, PetroChina, and Korea Gas are set to decide whether to go ahead by the end of this year. "The overall conditions for LNG Canada to go ahead in 2018 are quite good," said Andy Calitz, CEO of the project. "That is, and feels, so very different to 2016 when the project was delayed." The final decision was put off twice that year. Since then, he said, the project has become more competitive, reducing by 6 percent the price at which its gas can be delivered to Asia. Meanwhile, LNG demand is booming, particularly from China and other Asian nations.

In contrast, most of the 15 U.S. projects nearing final investment decisions probably will not go ahead because there's a "scarcity of offtakers," Bloomberg New Energy Finance said earlier this month. Still risks remain for LNG Canada, which wants an exemption from Canadian duties on the steel modules to be made in China for the project. The Federal Court of Appeal is expected to issue a decision by the end of the month.

CNOOC holds first auction of third-party access to LNG terminal

(Reuters; Sept. 20) – China National Offshore Oil Corp. has sold access at its Yuedong liquefied natural gas import terminal to state-owned Zhenhua Oil and private logistics firm Longkou Shengtong Energy, its first such auction as the country pushes to liberalize its vast oil and gas market. In the auction on the Shanghai Petroleum and Gas Exchange, Zhenhua Oil and Longkou agreed to pay CNOOC Gas and Power Group about \$1.10 per million Btu of imported LNG for access to the terminal, Zhenhua Oil, a subsidiary of Chinese defense conglomerate Norinco, said in a statement.

The deal covers about 3.5 billion cubic feet of gas as LNG. The sale marks the latest move by China to liberalize gas prices, open up access to oil and gas infrastructure and shore up gas supplies as winter approaches. Other state-owned companies such as PetroChina have leased terminals to third-party users before in private deals. The auction from CNOOC, however, gave third-party players equal opportunity to bid for access. Zhenhua Oil said it is looking to meet rising gas demand as it expands into LNG trading. The company will pick up its cargo from the terminal with trucks, Zhenhua said.

Environmentalists warn LNG project will surpass B.C.'s climate target

(The Globe and Mail; Canada; Sept. 21) - Environmentalists are warning that it will be impossible for British Columbia to reach its climate targets if a Shell-led liquefied natural gas project forges ahead. The provincial government has suggested that other industries would need to sharply reduce their greenhouse-gas emissions should the LNG Canada project in Kitimat go ahead.

Last week B.C. Premier John Horgan said it will take sacrifices from other sectors to secure LNG projects in the province and still decrease the province's carbon footprint. "We will have a hard enough time meeting our existing targets without the addition of LNG Canada," Hannah Askew, executive director of Sierra Club BC, said in a letter this week to Horgan. "B.C. is not yet even close to meeting the weak target set by the previous government, reducing emissions by 33 percent by 2020, compared to 2007."

Clean-energy think tank Pembina Institute also warns that British Columbia will not be able to meet its commitments to reduce emissions. But LNG Canada said the global picture needs to be taken into account — not just the numbers in British Columbia — because exporting LNG to Asia will help curb pollution abroad, where much of the gas would replace coal.

Gas explorer expects to start fracking U.K. wells in a few weeks

(S&P Global Platts; Sept. 19) – U.K. shale gas explorer Cuadrilla said Sept. 19 it was set to start fracking in Northwest England after receiving all necessary approvals from the government. "We are currently completing works on the site in readiness to start hydraulically fracturing both wells in the next few weeks," CEO Francis Egan said. It's estimated that the Bowland site could hold tens of trillions of cubic feet of gas.

Cuadrilla previously said it intended to begin fracking in the third quarter of 2018, following the completion of two horizontally drilled wells in April and July. Once hydraulic fracturing of those first two wells has taken place, the company will run an initial flow test of the gas produced from the wells for approximately six months. Opposition from fracking opponents led to lengthy government review, delaying the start of fracking operations. As a condition of its permit, Cuadrilla must monitor methane emissions into the atmosphere and publish results of the monitoring.

North Dakota will study storing gas until it can get it to market

(The Associated Press; Sept. 18) - A research project approved by North Dakota regulators will explore the possibility of temporarily storing excess natural gas in underground rock formations. Companies operating in the Bakken oil patch are

struggling to meet state targets to reduce the wasteful flaring of excess gas that is a byproduct of crude oil production. The North Dakota Industrial Commission approved a \$140,000 grant to study the potential of injecting unprocessed gas underground.

The gas would be retrieved in two to five years, when the state has more infrastructure to process and move the gas. With a report due at the end of year, the grant from the state's Oil and Gas Research Program will fund an evaluation at the University of North Dakota's Energy and Environmental Research Center. Researchers will examine the feasibility of injecting gas into the Broom Creek Formation, a porous rock layer the research center also has been studying as a potential target for carbon dioxide storage.

Depleted oil and gas reservoirs also will be studied as potential gas storage options. "We'll get to work on it immediately," said John Harju, the research center's vice president for strategic partnerships. "There's a lot to do here in a really short period of time." North Dakota gas production hit a record 2.4 billion cubic feet per day in July. Oil patch operators flared 436 million cubic feet per day that month, also an all-time high, as the industry missed the state's gas capture target for the third consecutive month.

Court issues stay on state permit for gas pipeline project

(S&P Global Platts; Sept. 19) - The \$3.5 billion Mountain Valley Pipeline encountered another snag Sept. 18 when a West Virginia county court temporarily stayed a state stream preservation permit required for the project's crossing of the Greenbrier River. The roughly 300-mile pipeline would move up to 2 billion cubic feet a day of West Virginia gas production to markets by connecting to Transcontinental Gas Pipe Line's Zone 5 near the Virginia-North Carolina border.

West Virginia's Natural Streams Preservation Act was enacted to protect the free-flowing characteristics of specific streams, and the state Department of Environmental Protection and the Environmental Quality Board concluded that the pipeline would not materially affect the free-flowing characteristics of the river. The Greenbrier River Watershed Association, Indian Creek Watershed Association, and several property owners lost an administrative appeal to the state and went to court.

The court-ordered stay of the state permit is in effect until Oct. 23, when the next hearing is scheduled. Opponents requested the stay after one of the property owners observed work beginning on his land, prompting concerns that the pipeline developer would rush to complete the crossing before the appeal was heard, said an attorney representing the petitioners. The project is scheduled for completion in late 2019.

Developer signs deal for hull design of Vancouver Island floating LNG

(The Canadian Press; Sept. 19) - The developer of a floating liquefied natural gas export facility proposed for Vancouver Island, British Columbia, said it has a deal with a Korean shipbuilder for design of two large hulls. Steelhead LNG and partner Huu-ay-aht First Nations said the agreement was signed at the Gastech conference in Barcelona with Hyundai Heavy Industries to engineer and design the equipment for the project.

The LNG export project, with floating production and storage units and capacity of 12 million tonnes per year, is proposed for Sarita Bay, just offshore land owned by the Huu-ay-aht First Nation, with a final investment decision scheduled for 2020 and the first phase to be operational in 2024. Three companies have been invited to bid to engineer and construct the project's topsides, marine facilities, and pre-treatment and onshore gas plant facilities. The design work is expected to start next year. In addition to that project work, an undersea pipeline would be needed to deliver gas to Vancouver Island.

The hulls are expected to cost about US\$500 million to build. Each would be 1,115 feet long and 197 feet wide and feature enough tanks for LNG storage to fill two full-size LNG carriers. The Huu-ay-aht First Nation, a community of 750 based near Port Alberni, will have an equity stake in the project and, as co-manager, the Huu-ay-aht will have a seat on the oversight board and an opportunity to compete for contracts related to the project. Sarita Bay is on the west side of the island, about 90 air miles from Vancouver.

First Nation says it was not consulted on Nova Scotia LNG project

(CBC News; Canada; Sept. 21) - A proposed liquefied natural gas plant in Guysborough County, Nova Scotia, has hit a snag. Earlier this year, Pieridae Energy said it was nearly ready to make a final investment decision on the multibillion-dollar LNG export facility. But the Nova Scotia Utility and Review Board, which is considering the company's application, recently called a hearing for Oct. 15 to consider whether the Crown fulfilled its duty to consult with a Mi'kmaq First Nations.

Earlier this year, the Sipekne'katik First Nation told the utility board it had not been consulted as required under federal law. Sipekne'katik Chief Michael Sack said the Crown and company may have talked to the Kwilmu'kw Maw-klusuaqn negotiating office, also known as the Mi'kmaq Rights Initiative. However, he said, that organization doesn't represent Sipekne'katik.

In its filing, the company said it has tried twice to engage the Sipekne'katik, but has been rebuffed or ignored. In addition, it said, it is "inconceivable" that the treaty rights of a First Nation 150 miles away could be impacted by the project. The Sipekne'katik band office is located north of Halifax. Goldboro is east of there. Chief Sack, however, said

in a filing that the entire province is traditional Mi'kmaq territory. The Sipekne'katik First Nation quit working with the Mi'kmaq negotiating office in 2013.

LNG carrier charter rates jump to \$95,000 a day; highest since 2012

(Reuters; Sept. 21) - The price of shipping liquefied natural gas spiked in September and is likely to remain high next year, buoyed by rising production from new plants and concerns that demand for LNG carriers will outpace supply. The rate for vessels shipping LNG from the Atlantic Basin to Asia has jumped to \$90,000 to \$95,000 a day this week from \$75,000 a day at the end of August, brokers and traders said.

Rates, which broadly hovered around \$30,000 to \$40,000 a day from 2015 to 2017, have risen due to longer distances covered to transport LNG from new terminals in the United States and Arctic Russia, surging demand in China and a limited number of ships. Rates have hit “the highest levels since the last bull market of 2012,” said Jonathan Chappell, analyst with Evercore ISI. Shipping firms see little sign of them slipping soon, predicting high rates for 2019 or longer.

Delivering LNG from the Russian Arctic and the U.S. Gulf Coast to Asia covers more miles, requiring more carriers to deliver the same volume as other suppliers such as Australia. Wood Mackenzie estimates it takes 1.9 ships to carry 1 million tonnes per annum of LNG from the U.S. Gulf to Japan compared to 0.7 ships from Australia. “If you’re at \$85,000 now (day rates), you could easily see \$115,000 to \$120,000 in the winter,” said Jefferies energy shipping analyst Randy Giveans.

KBR, ConocoPhillips will develop modularized mid-scale LNG design

(Corporate press release; Sept. 17) - KBR, a global engineering and construction company, announced Sept. 17 it is pursuing joint development with ConocoPhillips LNG Licensing to provide low-cost and expedited mid-scale liquefaction projects. The firms will jointly develop a standardized LNG train “seeking an off-the-shelf solution to reduce costs and shorten schedules,” Houston-based KBR said in a statement.

KBR and ConocoPhillips have agreed to complete a front-end engineering and design package for a mid-scale capacity LNG train (1.5 million to 3 million tonnes per year) suitable for a wide range of feed gas and ambient temperature conditions. The integrated design approach, utilizing ConocoPhillips' proprietary liquefaction technology and designed for modularized construction, is expected to be available for new LNG projects starting in 2019, the statement said.

The corporate statement said KBR has delivered approximately one third of the world's current LNG production capacity, while ConocoPhillips' liquefaction process is used in plants producing about 23 percent of the world's LNG supply.

Shell will supply LNG to Chinese-owned power plant in Panama

(Reuters; Sept. 20) - Shell has won a long-term contract to provide liquefied natural gas to a Chinese company's 441-megawatt power plant under construction in Colon, Panama, advisers on the deal said. The \$900 million power project, being built by Sinolam LNG affiliate Sinolam Smarter Energy LNG Power Co., expects to begin taking gas deliveries in 2020, the advisers told Reuters on Sept. 19.

Terms of the 15-year deal, which will meet all the gas needs of the LNG-fueled power plant, were not disclosed. The facility will require about 400,000 tonnes per year of LNG. That is about 50 million cubic feet of gas per day. Sinolam LNG, a subsidiary of private Chinese investment firm Shanghai Gorgeous, also is building an LNG receiving facility in Colon that will utilize a floating storage berth.

Chevron tries 'factory model' to better manage shale drilling

(Wall Street Journal; Sept. 20) - Fracking is entering a new expansion phase in Fox Creek, Alberta — one that heavily favors the world's energy giants. Chevron is laying the groundwork there for what it calls a "factory model" for shale drilling — master planning an entire region of small shale wells by locking up labor, building infrastructure and securing sand and other needed materials, all at once.

Shale drilling, once the province of small, scrappy operators, has run into growing pains in places such as the Permian Basin in Texas and New Mexico, as producers struggle with pipeline bottlenecks and rising labor and material costs. Big oil companies seeking to re-create the shale boom in countries such as Canada and Argentina are trying to avoid these problems by managing shale sites to prevent logistical difficulties and streamline operations, similar to the way they run traditional oil megaprojects.

As Chevron seeks to expand shale output around the world, it is taking lessons from Texas oil fields and from a model it pioneered in Southeast Asia in the 1990s. In the Gulf of Thailand, Chevron drilled thousands of wells to access isolated pockets of oil and gas. Over time it learned the value of standardizing equipment and processes. In Fox Creek, Chevron is putting what it has learned into practice, including the use of underground sensors linked via fiber-optic cables to analyze fracking jobs. It uses the information to make adjustments and stimulate release of more trapped oil and gas.

It is also making changes for local conditions. At a remote well site in Alberta, Chevron built a facility that functions like a grain elevator and can store 1,800 tons of sand to use in fracking. It allows Chevron to continue drilling and avoid having to wait for deliveries from dozens of trucks a day. That is especially important after spring, when winter frost melts and road restrictions stemming from the thaw's effects can limit accessibility.

Mexico eyes its shale gas to break reliance on U.S. supplies

(Reuters; Sept. 20) - Mexico should speed up development of its natural gas reserves, including potentially massive shale deposits, to curb a growing "supply risk" fed by excessive dependence on U.S. supplies, the country's industry regulator proposed Sept. 20. While Mexico has long been a major oil and gas producer, an extended output slump forced it last year to turn to foreign supplies for 84 percent of its total natural gas demand, almost all of which came from the United States.

"We need to diversify (sources of natural gas) because we are very concentrated," said Juan Carlos Zepeda, president of the National Hydrocarbons Commission, Mexico's oil and gas regulator. He said Mexico's shale gas resources, estimated at more than 141 trillion cubic feet, should be developed. Mexico's incoming president, however, has said he will not permit hydraulic fracking, the widely used technique to unlock oil and gas from dense shale rock that critics say harms underground water supplies.

"We will no longer use that method to extract petroleum," President-elect Andres Manuel Lopez Obrador told reporters just weeks after winning a landslide election on July 1. Set to become Mexico's first leftist leader in decades in December, Lopez Obrador has said he will focus on strengthening state-owned Petróleos Mexicanos, known as Pemex. So far this year, Pemex has produced an average of 4.83 billion cubic feet per day of gas, down by nearly a third compared to peak production in 2009.

National Energy Board has 22 weeks to reconsider oil sands pipeline

(The Canadian Press; Sept. 21) – Canadian Natural Resources Minister Amarjeet Sohi said he is not assuming the National Energy Board will again recommend the Trans Mountain oil sands pipeline expansion go forward as it reconsiders the environmental impact of increased oil tanker traffic off the coast of British Columbia. The government is giving the board 22 weeks to conduct a full impact assessment on the higher number of tankers in Burrard Inlet — from five a month to about 35 — that the pipeline will bring.

The board decision is due to the cabinet by the end of February and, if it recommends approval, what additional conditions must be met. The NEB approved the project in spring 2016, but the Federal Court of Appeal in August overturned that approval, ruling

it was given without a proper review of the impact on marine shipping and, in particular, whether it poses additional risks to the endangered southern resident killer whales.

Sohi said Sept. 21 the court decision to tear up federal approval of the pipeline was “disappointing, but by no means insurmountable.” Alberta Premier Rachel Notley said she is skeptical there won’t be further legal challenges. A new round of Indigenous consultations also will occur, Sohi said. The court also cited inadequate consultation with Indigenous communities as one reason for its decision. The pipeline was owned by Kinder Morgan until August, when the federal government bought it for C\$4.5 billion, hoping federal ownership would overcome political and legal obstacles to construction.