# Oil and Gas News Briefs Compiled by Larry Persily October 4, 2018

## LNG Canada construction will start immediately

(Wall Street Journal; Oct. 2) - A group led by Shell is pressing ahead with a major Canadian liquefied natural gas project after years of delay, the company said Oct. 2, raising competition for LNG developments in the U.S. under pressure from new Chinese tariffs. The project in Kitimat, B.C., is the biggest LNG development to gain investment approval in years and the first for Canada. The project first was announced in 2012, but weak prices twice pushed back an investment decision that had been expected in 2016. Shell said the project is likely to generate an internal rate of return of about 13 percent.

Shell said construction of the C\$40 billion LNG Canada project would start immediately, with production expected to begin before the mid-2020s. The first-phase capacity will be 13 million tonnes of LNG per year, with the potential to double the output. Several other large gas export projects are currently vying for approval in Qatar, Russia, Mozambique, and the U.S. However, in September China imposed a 10 percent tariff on LNG imports from the U.S. in retaliation for levies imposed by the Trump administration.

China is the biggest source of new global LNG demand and is expected to be a voracious consumer in the coming years as the country moves away from the smog of coal-fired power. "Right now this is not very good for American LNG projects working hard to take final investment," said Morten Frisch, a U.K.-based gas-industry consultant. The U.S. is exporting growing volumes of LNG from terminals in Louisiana and Maryland, with four more under construction and a dozen others awaiting regulatory approval. Analysts say only a few are likely to get the go-ahead before the end of 2019, and if Chinese buyers fall away those projects could become more difficult to finance.

## Shell's LNG Canada could be the start of next wave of approvals

(Reuters; Oct. 2) - The launch of a massive liquefied natural gas export project in British Columbia has fired the starting gun on a wave of new ventures around the world that are needed to avoid a supply crunch in the 2020s. The decision by Shell and its four Asian partners to build their LNG Canada project comes hot on the heels of Qatar's commitment last week to expand its LNG output by more than 40 percent by the 2020s.

Despite a slump in LNG prices 2015-2017, many had long worried there would be a supply gap in the 2020s due to fast-rising demand and a lack of new projects to boost supply. Several that had been touted for years, such as Shell's LNG Canada venture,

were put on the backburner. "If you look at the demand curve and the supply coming on stream, there are simply not enough projects being sanctioned or under development to meet demand by 2023-24," said Shell's chief financial officer Jessica Uhl.

Shell's vote of confidence in the market gives credence that projects with a combined capacity of 175 million tonnes per year will be approved by the end of 2019, with most expected to be online by 2024. Meanwhile, U.S. export terminals with total capacity of 51 million tonnes are under construction and set for completion by the end of 2021.

"There needs to be 200 million tonnes annual LNG capacity authorized by 2025 to meet future demand — this is a colossal boom, a 42 percent expansion on the entire capacity installed since 1962," Sanford C. Bernstein & Co. analysts said in a research note. "Ultimately, this is the start of a major LNG investment wave," the analysts said.

## LNG Canada partners each will sell their share of production

(Bloomberg; Oct. 1) - The developers of a C\$40 billion (US\$31 billion) project to export Canadian natural gas are taking on a bold strategy: build now and worry about buyers later. After a decade of planning and negotiations, Shell and its four partners have given approval to build the gas liquefaction and export terminal in Kitimat, British Columbia. The LNG will be divided up among the partners, each free to sell it however and to whomever they please, said Andy Calitz, CEO of the joint venture LNG Canada.

That this gas-export project achieved the key milestone known as final investment decision without committing all or most of its output to 15- or 20-year supply contracts is a major departure. From Australia to Africa, LNG developments typically have been underpinned by long-term sales contracts to minimize financial risk on multibillion-dollar investments that can take half a decade or longer to construct.

"What you are essentially seeing is speculative development, of using a model that has not been traditionally the model for developing big LNG projects in the past," said Jason Feer, head of business intelligence at Poten & Partners. "Most LNG projects that went to FID had pre-sold a significant percentage of their output via long-term contracts." Shell holds the biggest stake at 40 percent, with Malaysian oil and gas giant Petronas at 25 percent. Mitsubishi and PetroChina each own 15 percent; Korea Gas has 5 percent.

## Canadian gas producers eager to supply LNG export market

(The Canadian Press; Sept. 28) – The go-ahead for Shell's C\$40 billion LNG Canada project could eventually encourage others to follow suit, creating demand to soak up Western Canada's glut of natural gas, producers said. The projects would provide a market for producers discouraged from increasing output by low prices linked to fierce

U.S. competition and Canadian pipeline capacity shortfalls, said Steve Laut, executive vice chairman of Canada's largest gas producer, Canadian Natural Resources.

"If you get one plant through, there will be a second and third plant that will follow much easier, and that makes a difference," he said after participating in a panel discussion at the Global Business Forum in Banff, Alberta. Laut said Canadian Natural produces as much as 1.6 billion cubic feet per day in Western Canada but has shut down wells with output of 100 million cubic feet per day because of low prices. He said the company will invest only to maintain production until new markets and access lead to higher prices.

The first phase of the two-phase LNG Canada project in Kitimat, B.C., is expected to take five years to build, and is expected to provide for the export of 1.8 bcf of gas per day. Western Canada will have no trouble supplying gas to the LNG industry, said panel participant Mike Rose, CEO of gas producer Tourmaline Oil. He touted the growth potential of two major gas pools near the Alberta-B.C. border: the Montney, which produces about 4 bcf per day, and the Deep Basin, with about 3 bcf per day. Their combined reserves in the ground are estimated at almost 800 trillion cubic feet, he said.

## LNG project could boost prices for Western Canadian producers

(Bloomberg; Oct. 2) - An export terminal on Canada's west coast may eventually rescue one of the cheapest markets for natural gas in North America — so cheap that sometimes the fuel price falls below zero. Shell and its four partners have agreed to invest in the C\$40 billion LNG Canada project in Kitimat, B.C. The decision to build the export terminal provides a much-needed outlet for Western Canadian gas that has been battered by competition from U.S. drillers and pipeline bottlenecks.

Abundant shale supply from Texas to Pennsylvania has sharply reduced the need for U.S. gas imports from Canada. While the years-long construction time for the Shell project means there won't be an immediate impact on Canadian gas prices, the market will likely see a boost in the early to mid-2020s as fuel is piped to the coast and sent overseas as liquefied natural gas, said Dulles Wang, an analyst at Wood Mackenzie.

"Having access to the booming international market is definitely a positive message for Western Canadian producers," he said. But the impact "may not translate into changes for at least the next five years." Even as LNG Canada advances, prices at AECO, Alberta's gas pricing hub, will still depend heavily on how much gas the U.S. takes by pipe from its northern neighbor. "We're still dealing with an oversupply issue in Western Canada at AECO, and we still see lots of competition from the U.S.," Wang said. AECO ended Sept. 28 almost \$1 below U.S. benchmark gas prices.

#### Gas-producing region in British Columbia welcomes LNG news

(CBC News; Canada; Oct. 2) - Alan Yu was elated Oct. 2 as he learned of the decision to move forward with construction of a C\$40 billion liquefied natural gas project on the British Columbia coast and a gas pipeline and processing plant in his region of northeastern B.C. to feed the LNG terminal. Though much of the news focused on the province's northwest, where the LNG terminal will be built in Kitimat, it's also significant for communities in the province's northeast where the gas will be produced, creating new opportunities for people like Yu, who lives in Fort St. John.

Yu moved from the Philippines to British Columbia in 2014, training to work in the natural gas industry before heading north to Fort St. John. He was employed in the field for nine months before the economy took a downturn and he was laid off. Since then he's been a vocal advocate for LNG, organizing grassroots rallies and traveling to Ottawa to press the federal government to support jobs in northeastern B.C.

"We have one more thing [to be thankful for] this Thanksgiving," Yu said. He was not alone in viewing the announcement as a source of opportunity in a region long characterized by boom-and-bust economics. Dawson Creek Mayor Dale Bumstead said the investment decision gives gas companies operating in northeastern B.C. the ability to plan long-term, knowing they have stable access to overseas markets. "That creates long-term stability for our communities," he said.

#### Alberta says LNG project approval suggests 'double standard'

(CBC News; Canada; Oct. 2) - An Alberta cabinet minister is suggesting there are double standards at play because British Columbia's liquefied natural gas project is going ahead while the Trans Mountain oil line project is mired in additional consultation. Construction on the oil pipeline expansion from Edmonton to Burnaby, B.C., was stopped in August after the Federal Court of Canada ruled the National Energy Board didn't properly examine how an increase in tanker traffic would affect coastal waters.

Economic Development and Trade Minister Deron Bilous said Oct. 2 that the LNG project will have a bigger impact. "It's going to result in about 177 percent increase in tanker traffic compared to TMX (Trans Mountain expansion), which will result in a 14 percent increase," Bilous told reporters at the Alberta Legislature. "We can't have a country built on double standards. We need the federal government to move, and move quickly, to ensure that both of these projects move forward."

B.C. Premier John Horgan has opposed the oil line expansion, to the ire of Alberta Premier Rachel Notley. The Trans Mountain expansion would almost triple an existing pipeline from Edmonton to the West Coast. The Federal Court of Appeal also quashed the project's approval because there wasn't enough consultation with Indigenous people. The NEB will spend another 22 weeks doing additional consultation on the marine issues. A timeline for Indigenous consultation has not yet been released.

# Small LNG project in B.C. signs non-binding deal with Chinese buyer

(Vancouver Courier; Oct. 1) - Woodfibre LNG has reached a preliminary agreement with the largest LNG importer in China. Project developer Pacific Oil & Gas announced that its subsidiary, Woodfibre LNG Export, on Sept. 29 signed a heads of agreement with a wholly owned subsidiary of China National Offshore Oil Corp. for the potential purchase of 750,000 tonnes of liquefied natural gas for 13 years starting in 2023. As with other offtake agreements for the C\$1.6 billion, 2.1-million-tonnes-per-year project just north of Vancouver, the deal will be finalized closer to plant start-up, Woodfibre said.

A heads of agreement is a non-binding document that sets out the key terms of a proposed agreement between parties. The plant will be built at the site of a former pulp mill in Squamish, B.C. The developer, Pacific Oil & Gas, is part of a Singapore-based group of companies. CNOOC Gas & Power Group imported more than 20 million tonnes of LNG in 2017, according to Woodfibre LNG.

Local environmental group My Sea to Sky was quick to dismiss the announcement. "This is the third non-binding agreement that Woodfibre LNG has announced, and neither of the two previous agreements have proceeded to a final contract to purchase LNG from Woodfibre LNG," the group said. "Building new fossil fuel infrastructure is not compatible with achieving B.C.'s goals to reduce our greenhouse gas emissions. Claims that B.C. LNG will help to solve China's air pollution are also unsubstantiated."

## U.S. set record for natural gas exports in July

(LNG Global; Sept. 30) - Total combined U.S. natural gas exports — pipeline and liquefied natural gas — for July set a one-month record at 302.99 billion cubic feet, according to the U.S. Energy Information Administration. LNG exports were 98.24 bcf of that total, also a record. Of pipeline exports, 147.19 bcf went to Mexico and the remainder to Canada. For the first seven months of the year, U.S. gas exports have totaled almost 2 trillion cubic feet, about 10 percent over last year's record volume.

The United States became a net gas exporter on an annual basis in 2017 for the first time in almost 60 years. Exports have increased primarily with the addition of LNG export terminals in Louisiana and Maryland, with four more projects under construction and expected to start loading cargoes late this year and in 2019.

According to the federal agency's Short-Term Energy Outlook, gas exports are expected to continue rising through the end of 2018 with additional LNG capacity and as new pipelines in Mexico are placed into service.

#### Russia expects to set record for gas exports

(Reuters; Oct. 3) – Russia is setting records in gas pipeline exports despite U.S. pressure on Europe to reduce imports and at the same time as the country aims to become the world's leading liquefied gas exporter in the next decade with technology it is developing at home. Russian government officials and executives told an industry conference Oct. 3 that they expect Russia export a record amount of gas this year, potentially exceeding 7 trillion cubic feet and beating last year's all-time high of 6.85 tcf.

Russia's record-setting exports come despite repeated calls by the United States on Europe to diversify its gas imports away from the Kremlin's pipeline monopoly Gazprom, which Washington says is using energy as a tool of intimidation. Gazprom controls 35 percent of the gas market in Europe, larger than any other supplier, and aims to increase its share to 40 percent due to declining European gas production and the lower cost of extracting gas in Russia.

Russian energy minister Alexander Novak told the conference that Russia could double gas exports by 2030 to meet soaring demand. That would require Gazprom to build new pipelines to China and Europe, while he also said Russia's LNG exports could reach 80 million to 115 million tonnes a year — far above the current commitment of 26 million. That would put Russia on a par with Qatar, the world's largest LNG producer, which plans to expand its capacity to 110 million tonnes by 2024 from 77 million tonnes now.

#### Cheniere will report terms on fewer LNG cargoes

(Argus Media; Sept. 28) - A recent amendment to Cheniere Energy's long-term contract with its liquefied natural gas marketing subsidiary could make it more difficult to track U.S. spot-market transactions using government data. In August Cheniere removed a limitation on its marketing subsidiary, allowing that all of Cheniere's LNG production in excess of long-term deals to third-parties can be provided to its subsidiary for resale without disclosing those secondary transaction terms to the U.S. Energy Department.

The Department of Energy requires public disclosure of some details of LNG exports, including whether they are sold under one-time spot transactions, short-term contracts of up to two years or long-term contracts. But that data is only for transactions between the LNG producers and contractual offtakers — it often does not reflect how offtakers

resell U.S. LNG globally. Long-term customers often resell their Sabine Pass cargoes under spot or short-term deals, and the Energy Department does not see those prices.

The U.S. is expected to become a leading supplier of spot and short-term LNG in an increasingly liquid global market, but the vast majority of the country's LNG exports to date have been classified by the Energy Department under long-term contracts. Cheniere has reported 82 spot deals out of the 449 cargoes exported out of its Sabine Pass terminal in Louisiana since it came online in February 2016 through July 2018.

## Growing gas production allows Egypt to stop LNG imports

(Reuters; Sept. 29) - Egypt will stop importing liquefied natural gas after its final shipments arrived last week, Petroleum Minister Tarek El Molla said Sept. 29. Earlier this year, El Molla said Egypt would stop importing LNG as it speeds up production at recently discovered gas fields. An LNG exporter for about a decade before supply shortages turned it into an importer, Egypt now aims to be a regional hub for the trade of LNG after a string of major discoveries in recent years, including the giant Zohr offshore gas field which holds an estimated 30 trillion cubic feet of gas.

The country's gas production this month reached 6.6 billion cubic feet per day, up 70 percent from a low of 3.9 bcf per day in 2016. Production has been growing steadily since the Zohr field began operating in December. EL Molla said in January the country would save \$250 million per month by no longer importing LNG. Egypt and its LNG terminal operators are starting to make plans to resume exports.

# LNG project offshore Australia ships first cargo of condensate

(The West Australian; Oct. 1) - Inpex has hit another milestone in its US\$40 billion Ichthys LNG project, sending out the first shipment of condensate from its floating platform offshore Australia. The Japanese energy company Sept. 30 said the cargo left from the floating production, storage, and offloading facility — the Ichthys Venturer — in the Browse Basin, about 136 miles off the coast.

"This shipment of condensate is destined for the Asian market and signifies an important step forward as we begin to generate revenue from a project we expect will operate for 40 years," Inpex Australia President Seiya Ito said. Inpex said shipments of liquefied natural gas and liquefied petroleum gas from the project's processing plant near Darwin were expected to follow this year. At full capacity, Ichthys will be able to produce 8.9 million tonnes of LNG per year and 100,000 barrels of condensate per day.

Produced gas is gathered within a central processing facility, the Ichthys Explorer, and separated into gases and liquids. The gas is piped 550 miles to Darwin for liquefaction and the liquids to the nearby Venturer for storage and shipment.

#### Conoco sells its stake in East Timor gas development

(Reuters; Oct. 1) - East Timor's \$350 million purchase of ConocoPhillips' stake in the Greater Sunrise gas field has eliminated one hurdle to its long-delayed development, but analysts say any go-ahead may be at least a decade away. ConocoPhillips said Oct. 1 it had sold its 30 percent stake in the project to East Timor, allowing the tiny nation halfway between Indonesia and Australia to push for development of the field, discovered in 1974 but held up as it straddles the maritime border with Australia.

The border issue was settled earlier this year and East Timor wants to develop the gas by sending it to a liquefied natural gas plant on its south coast, while the partners favor sending the gas to an existing plant in Darwin in north Australia. "Although we don't think a Timor-based option is the most economic development, we respect their preference ... and we've agreed to make the sale," a ConocoPhillips official said.

The Greater Sunrise partners, led by Australia's Woodside along with ConocoPhillips, Shell, and Osaka Gas, have long argued the Timor option would be unprofitable. An independent report to the United Nations said the Timor government and Timor LNG owners would reap a total of \$15.2 billion if the LNG is built in Timor. But the country would reap \$25 billion from the more cost-effective Darwin option, the report said. Nevertheless, the Timor government wants the gas to come to its shores as a way to diversify its economy, one of the world's poorest. The Sunrise and Troubadour gas fields, together known as Greater Sunrise, hold around 5.1 trillion cubic feet of gas.

## **Booming Permian production surpasses ability to move the oil**

(Reuters; Oct. 2) - The West Texas drillers that drove the shale revolution have overwhelmed the region's infrastructure with oil production — driving up costs, depressing regional oil prices and slowing the pace of growth. Competition for limited resources is making it harder for shale producers to turn a profit and encouraging some to invest elsewhere. Texas is home to the Permian Basin, the largest U.S. oil field and the center of the country's shale industry. In the past three years, production from the Permian has risen a whopping 1.5 million barrels per day to 3.43 million.

All that oil means pipelines from the shale patch are full, so producers are paying more to transport oil on trucks and rail cars. Shortages of labor, water, and even the fuel used in fracking are driving up costs. At the same time, Permian producers are getting

less for their oil, which in August traded as much as \$17 a barrel below the U.S. crude benchmark. Sellers have to offer the discount to compensate for higher transport costs.

"We're our own worst enemy," said Ross Craft, CEO of Approach Resources, a small West Texas producer. "We can drill, bring these wells on so quickly that we basically outpace the market. It is going to take a little bit of time" for infrastructure to catch up, he said. Approach Resources is leaving some wells uncompleted — the firm drills the wells but does not fracture the rock to produce the oil. Other shale producers are also leaving the oil in the ground and waiting for higher prices to make the drilling more profitable.

The number of uncompleted wells in the Permian jumped by 80 percent to 3,630 in August compared with a year earlier, according to U.S. Energy Department data. Permian output will be 3.9 million barrels per day next year, Wood Mackenzie estimates, but could have been 4.1 million if more pipeline space were available.

#### Shortage of pipeline capacity a 'tragedy' for Canadian oil producers

(Bloomberg; Oct. 2) - Cenovus Energy CEO Alex Pourbaix was in his office in Calgary in late August when he checked his phone and noticed his company's shares were plunging for no apparent reason. That's when he learned that a federal appeals court in Ottawa had overturned the government's approval of an expansion of the Trans Mountain oil pipeline, potentially stalling for another year a key project that would help energy companies in Western Canada ship oil to new customers in Asia.

For Cenovus, one of Alberta's top oil sands producers, the ruling threatened to prolong a pipeline shortage that has weighed on prices for Canadian crude and kept producers dependent on U.S. refineries. It's the latest in a string of failed or delayed pipelines that has stymied Canada's oil patch. "It's a great tragedy that in this environment where the commodity demand continues to grow unabated, Canada is missing out," Pourbaix said.

The industry has waged a years-long battle to add new transport capacity without much success. Strangled by the pipeline shortage, the price of Canadian crude has climbed less than 5 percent in the past two years, compared with 57 percent for the U.S. benchmark. The current \$39-a-barrel discount to the U.S. price is near the widest it's been in about five years. The differential also reflects the fact that Canada's heavy grade of crude is costlier to process into gasoline and other refined products.

In the meantime, Cenovus is shipping more via costlier rail and even cutting its output when the price discount gets too wide. "I refuse to believe that Canada as a country will not be able to get its act together and ultimately get these pipelines built," Pourbaix said.