# Oil and Gas News Briefs Compiled by Larry Persily July 27, 2017

### Petronas and Asia partners cancel LNG project in British Columbia

(Canadian Press; July 25) - Malaysian national energy giant Petronas and its partners scrapped the Pacific NorthWest LNG megaproject July 25, ending hopes for what would have been one of Canada's largest private infrastructure investments. The decision to cancel the development boiled down to economics — a world market awash in liquefied natural gas, which has driven down prices, making Pacific NorthWest LNG no longer financially viable, said Anuar Taib, CEO of the oil and gas division at Petronas.

"Unfortunately for us, we don't believe we have that mix of where the sweet spot can be hit," Taib said. While Pacific NorthWest LNG, the most advanced of multiple proposals for Canada's West Coast, successfully worked its way through regulatory channels over the past several years, numerous other LNG export projects have come online around the world. The project would have totaled \$36 billion, including a 560-mile pipeline from gas fields near the B.C./Alberta border to an LNG terminal on Lelu Island in front of Prince Rupert, B.C., as well as development costs for the gas fields.

"The extremely challenging environment brought about by the prolonged depressed prices and shifts in the energy industry have led us to this decision," Taib said. The partners were Petronas, Japan Petroleum Export Corp., Petroleum Brunei, Indian Oil Corp. and Sinopec-China Huadian. The partners are still committed to developing their 800,000 acres of Montney Shale gas assets in northeastern B.C., which they had bought in part to supply LNG exports but now will sell into the North American market. The consortium said its work has identified 15,000 locations for horizontal drilling and hydraulic fracturing to tap 52 trillion cubic feet of economically viable gas reserves.

## B.C. says its conditions for LNG are a 'road map, not roadblock'

(Globe and Mail; Canada; July 25) - British Columbia's new government says it will continue to encourage the liquefied natural gas industry to commit to the province despite the decision by Malaysian energy giant Petronas to cancel its LNG project on the B.C. coast. The company's decision prompted jubilation from environmentalists, and accusations from the former minister responsible for the issue that the government's lack of enthusiasm for the industry cost the province dearly in potential jobs.

The chief of the Kitselas First Nation, Joe Bevan, a project supporter, said the news is a serious economic blow. "We probably will never see an opportunity like this again," he

said. B.C. Energy Minister Michelle Mungall said the province is conditionally interested in seeing the LNG sector move ahead. The conditions, she said, of a fair profit for the province, a meaningful role for First Nations, and managing environmental impacts are "a road map and not a roadblock." Other LNG projects are still possible, she said.

In a conference call July 25, Anuar Taib, CEO of the Petronas oil and gas production division, said the recent change in government in British Columbia did not factor into the decision to pull the plug on the project. Instead, he said global LNG market conditions turned unfavorable since the company first proposed plans for the major export plant.

#### Industry worries canceled LNG project will deter other investment

(Bloomberg; July 25) – The decision by Malaysia's Petronas and its partners to back out of a giant gas-export project on Canada's Pacific Coast is the latest hit to the country's energy sector and to Prime Minister Justin Trudeau's plan of balancing energy exports and climate action. It follows a string of exits from Canada as global producers focus on lower-cost areas. So far this year, ConocoPhillips and Shell have sold over \$20 billion in oil sands assets to local producers Cenovus Energy and Canadian Natural Resources.

"It's another negative data point for doing business in Canada," said Swanzy Quarshie, of Sentry Investments in Toronto. "The biggest concern is the perception that investors are not seeking Canada as an investment opportunity, and what does that do to other investment opportunities?" Canadian energy projects face tightening regulations, yearslong approval processes, environmental opposition and legal uncertainty, particularly around the rights of indigenous people.

Trudeau is trying to balance expanding energy exports while cutting Canada's greenhouse-gas emissions. Natural gas is generally less controversial than oil, but still faces similar hurdles. The LNG project was bogged down by regulatory, interprovincial, environmental and indigenous issues that add up to discourage development, said Murray Mullen, CEO of an oil field services and trucking company in Okotoks, Alberta. "When you combine all of those together and you can't get consensus, then nothing happens," Mullen said. "I just worry that Canadians are missing the boat."

# Other LNG hopefuls in British Columbia look toward next decade

(Vancouver Sun; July 25) – The B.C. government, under then-Premier Christy Clark, launched a strategy to create a new liquefied natural gas export industry in 2012 to take advantage of growing demand in energy-hungry Asia. Since then, 20 projects have been proposed — but none are being built. Now that Pacific NorthWest LNG, led by

Malaysia's Petronas, has been cancelled, there are three leading projects that have allimportant regulatory approval from the B.C. and Canadian governments.

LNG Canada in Kitimat is an up-to-\$40 billion project led by Shell. The company is redoing its bidding process for contractors that would oversee engineering, procurement and construction management. It's an effort to reduce costs, and part of an exercise meant to put the company in a better position to make an investment decision to coincide with the expected increase in LNG prices in the middle of the next decade.

Kitimat LNG, a \$3.5 billion project, is a joint venture between Chevron and Australia-based Woodside. Kitimat LNG is re-evaluating its original project design, also to drive down costs. Similar to LNG Canada, the project is trying to position itself for an investment decision that would coincide with increased global demand next decade.

The \$1.6 billion Woodfibre LNG project near Squamish, owned by Indonesian billionaire Sukanto Tanoto, has made an investment decision to build, but no construction date has been set. The company is having two firms examine its engineering design to reduce costs of the project. There's no definitive timeline on that exercise.

### Columnist says B.C. government to blame for LNG defeat

(The Financial Post columnist; Canada; July 25) - British Columbia's recently installed New Democratic Party/Green Party coalition government was in damage control after the most ambitious of the province's proposed liquefied natural gas projects was canceled July 25. What should have been a new industry, building middle-class jobs from exports of Western Canada's world-class Montney shale gas to reduce carbon pollution in Asia, has unraveled due in large part to government mishandling — plus fears it would have accelerated under the new, anti-development provincial government.

Malaysia's Petronas and its partners in Pacific NorthWest LNG blamed poor global market conditions for the decision. But an LNG export industry is thriving in the United States under the same global market conditions, while British Columbia has yet to see the construction of a single project out of 20 or so proposed since 2011. Dennis McConaghy, a former senior executive at pipeline company TransCanada, called the decision "a tragedy for Canada ... a real condemnation of this country and the utterly unproductive entities in it that simply make any development virtually impossible."

The provincial government had jacked up its demands, including higher carbon taxes, a "fair" return for resources (read a bigger provincial take), partnerships with First Nations (read fatter benefits agreements), and protection for "our air, land and water including living up to our climate change commitments," as outlined by Premier John Horgan. "Sitting on trillions of cubic feet of gas reserves in northeast B.C., the B.C. government dilly-dallied ... by the time (it) got around to a royalty/tax structure ... it was too late," said former Newfoundland Premier Brian Peckford, who now lives on Vancouver Island.

### Residents in B.C. gas region bemoan loss of LNG project

(CBC News; Canada; July 25) - In September 2016, Kristi Leer was celebrating the federal government's approval of the Pacific NorthWest LNG project, which would ship natural gas from near her home in Fort Nelson, B.C., to an export facility on Lelu Island, off the province's North Coast. "I had goosebumps. I'm so happy," Leer said at the time. Approval gave people in her hard-hit resource community "something to live for."

Ten months later, that optimism has all but died with news the project will not proceed. "I'm a little bit scared, honestly," Leer said. "I'm scared for my community." Born and raised in the community of less than 5,000 people, Leer's fortunes took off in the early 2010s during an oil and gas boom in the region. Now, she's had to move to Fort St. John, population almost 20,000, in order to earn a steady paycheck, sharing a two-bedroom apartment with her two children and, in a first in her adult life, her parents.

"We couldn't survive in Fort Nelson," Leer said. While Statistics Canada recorded nearly 500 people leaving the community between 2011 and 2016, Mayor Bill Streeper estimates roughly 1,000 have left in the past year alone. "Fort Nelson right now is just about a solid ghost town," he said. "We have no industry whatsoever." While Streeper has hopes for reviving the local forestry industry, the news from Pacific NorthWest confirmed something he has feared for a while. "LNG has pretty well died."

### Japanese partner in failed LNG project will look elsewhere for supply

(Platts; July 26) - Japan Petroleum Exploration Co., or JAPEX, would consider buying liquefied natural gas through spot or mid- to long-term contracts after the proposed Pacific NorthWest LNG project, in which JAPEX had a 10 percent stake, fell through, a spokeswoman said July 26. JAPEX was supposed to have received about 1 million tonnes per year of LNG from the project in Prince Rupert, B.C., for use at its planned gas-fired power plant and to market to domestic gas users. JAPEX said it took a \$US82 million write-down on its investment in the canceled LNG project.

"We rather think that this has given us more choices," said the spokeswoman, adding that the company could take advantage of low global LNG prices. JAPEX currently buys about 400,000 metric tons per year from Malaysia LNG under a 20-year contract to 2022. The company is building the Soma LNG import terminal in Fukushima prefecture, its first LNG terminal, which is scheduled to start operations in March 2018. Next to the terminal will be a new 1.18-gigawatt gas-fired power plant, expected to start up in 2020.

JAPEX has signed with Mitsui & Co., Osaka Gas, Hokkaido Electric and Mitsubishi Gas Chemical to operate the power plant, and the five companies would procure their necessary LNG independently according to the amount of electricity they plan to generate. Under the alliance, JAPEX will own 33 percent of the power plant business,

while Mitsui's stake will be 29 percent, Osaka Gas at 20 percent, and Mitsubishi Chemical and Hokkaido Electric will have a 9 percent stake each.

#### **Economic factors drive Canadian gas to U.S. Gulf Coast for export**

(Business in Vancouver; July 25) - Prospects for a Canadian West Coast LNG industry appear to be growing dimmer by the day, and if British Columbia gas ends up being sent to foreign markets it might not be from the West Coast but from the Gulf Coast, through the Cheniere Energy plant in Sabine Pass, La., or others under construction.

The Montney, which straddles B.C. and Alberta, is considered by some to be the most prolific and lowest-cost shale oil and gas play in North America. Some producers invested there in the hope of seeing new markets in Asia open up via West Coast LNG plants. And while the gas is inexpensive to produce, it would be costly to move through new, multibillion-dollar pipelines to the West Coast, whereas there is an extensive pipeline network in North America that would allow the gas to flow to the Gulf Coast.

Despite the country's vast gas reserves, Canada's National Energy Board last week said Canadian LNG projects face major hurdles of high capital costs, eroded margins from low global LNG prices and competition from the U.S. and other rivals. "The U.S., they're able to convert those brownfield projects — those regasification projects — to LNG export projects, so that has given them a fair bit of an advantage, whereas Canadian projects are all greenfield projects," said NEB market analyst Colette Craig.

"We're stuck with the same problem we have with oil – we can't get our product to an international market," said Pat Ward, CEO of Canadian gas producer Painted Pony.

## China's LNG imports up 38 percent for first six months of 2017

(China Daily; July 25) - China significantly ramped up imports of liquefied natural gas in the first half of the year, as part of broader efforts to clean up its coal-dominated energy mix. LNG delivered into the country totaled 15.89 million metric tons January through June, a 38.3 percent increase year-on-year, according to data released by the General Administration of Customs on July 23. The growth rate was much higher than the 21.2 percent year-on-year increase for the same period last year.

"China is unlikely to sign long-term LNG contracts with the U.S. soon, but it is already importing American gas from the spot market," said Wang Lu, an Asia-Pacific oil and gas analyst at Bloomberg Intelligence. "Still, the U.S. is already China's fifth-largest LNG supplier this year, accounting for 3.3 percent of imports in the first five months of 2017," Wang said. The country imported 400,000 tons of U.S. LNG in the first five months, in contrast to zero imports a year ago.

The country's appetite for gas continues to rise as the government looks to more of the clean fuel to help replace dirtier coal as a main source of energy. Coal consumption accounted for 59.8 percent of China's overall energy use in the first six months of 2017. China plans to increase its percentage of gas in primary energy consumption to as much as 10 percent in 2020 from 5.9 percent in 2015. In addition to boosting imports, measures have been taken to encourage more production of domestic shale gas.

### Sinopec will invest in pipeline to move gas inland from LNG storage

(Reuters; July 25) – China Petrochemical Corp. (Sinopec) will invest 34.4 billion yuan (\$5.1 billion) in a natural gas pipeline project, it said July 25. The Erdos-Anping-Cangzhou pipeline project is designed to connect major liquefied natural gas storage capacity on the East Coast with the nearby Xiongan New Area, China's new economic zone near Beijing, with annual transmission capacity of about 1 trillion cubic feet of gas.

That much gas would save the equivalent of 60 million tonnes of coal and cut greenhouse-gas emissions, the company said. China has launched a campaign to reduce air pollution in 28 major northern cities, including Beijing and Tianjin. When launched in 2019, the first stage of the pipeline will power Xiongan with imported LNG from Tianjin and China's largest underground gas storage in central province Henan.

### New laws add to uncertainty for Tanzania LNG investment

(Platts; July 25) - While Mozambique makes progress on its liquefied natural gas developments, Tanzania's gas ambitions received a blow in early July when the government decided to force all existing upstream investors to renegotiate the terms of their contracts and concessions. The Natural Wealth and Resources and the Natural Wealth and Resources Contracts bills were passed by the Tanzanian parliament, affecting all parts of the oil, gas and mining sectors.

The government has already clashed with gold producer Acacia Mining, after it alleged that the company was exporting far more gold than it was declaring. The Tanzania Chamber of Minerals and Energy has complained about the short notice and lack of consultation regarding the recent legislation. Tanzania sits on 57 trillion cubic feet of largely undeveloped gas reserves, according to official data, and LNG exports are the centerpiece of the country's gas development plans.

A consortium of ExxonMobil, Statoil, Ophir and Shell is working with the state-owned Tanzania Petroleum Development Corp. to build an LNG plant in Tanzania, and while they may not welcome the new legislation they may be in no hurry to commit to invest either. There is a large amount of LNG capacity under construction around the world

and more is planned. Developers are concerned that LNG prices will remain low, until demand catches up with supply, making any final investment decision tricky.

### Australia starts formal review to determine LNG export limits in 2018

(Platts; July 25) - The Australian government July 24 began the formal process to determine whether 2018 will be a "gas shortfall year" and whether the country's liquefied natural gas exports will be restricted as a result. Under the Australian Domestic Gas Security Mechanism, announced in June, the government can, starting Jan. 1, force exporters to limit LNG cargoes or find new sources of gas to prevent a local shortage.

A decision is due between Sept. 1 and Nov. 1, according to the Department of Industry, Innovation and Science. If export controls are invoked for 2018, each LNG exporter will be granted either unlimited or restricted volume permission. Unlimited volume would typically be granted to projects that are net contributors of gas to the domestic market, and unable to deliver more gas at a reasonable price to the domestic market. As the name suggests, it would allow the project to export an unlimited amount of LNG.

Restrictions would be imposed on LNG projects connected to local markets experiencing a shortfall, and will dictate a maximum volume of exports. As a first step, the government will consult competition watchdog Australian Energy Market Operator, major gas producers and end users. Exporters have already come under pressure to restrict export volumes in the face of tight domestic supplies and high prices.

## Australia's gas industry continues to fight LNG export controls

(The Guardian; July 24) – Australia's natural gas industry has ramped up its attack on government restrictions to liquefied natural gas exports, warning it could put \$50 billion in new investment at risk. The government July 24 edged closer to implementing export restrictions when federal Resources Minister Matt Canavan gave notice to LNG producers that he would use the newly introduced Australian Domestic Gas Security Mechanism to assess whether there will be a shortfall in domestic gas supply in 2018.

If 2018 is deemed a "shortfall year," the government will have a green light to intervene in Australia's LNG export market to prevent a domestic shortage. It can do that by either restricting exports or compelling LNG exporters to find new gas sources. Australia exports about two-thirds of its gas production. The export restrictions would seek to redirect supply toward the domestic market to prevent electricity shortages next year.

Canavan described government intervention as a "last resort." The Australian Petroleum Production and Exploration Association said limiting exports was a short-

term measure that would not address long-term supply problems. The association's CEO, Malcolm Roberts, said export controls are a "sovereign risk issue for Australia" that threaten \$50 billion in new investment needed to maintain gas supplies. "The only sustainable solution to the challenges facing the East Coast gas market is more gas supply."

### W. Va. senators want Trump to support loan program for gas storage

(Bloomberg; July 25) - Having lost tens of thousands of coal mining jobs to the rise in natural gas, several states have decided if you can't beat them, join them. A bipartisan group of lawmakers hopes to persuade President Donald Trump to spare a loan program he wants to kill and use it to help a \$10 billion gas storage project in the hard-hit Appalachian region of the Eastern U.S. where coal once dominated. Proponents say it would help spur new chemical, refining, and other manufacturing industries.

The Appalachian Storage Hub, estimated to cost as much as \$10 billion, could encompass underground caverns in Pennsylvania, Ohio or West Virginia, although the final site has yet to be selected. It would have the capacity to hold as much as 100 million barrels of ethane, methane and other products produced in conjunction with natural gas. It would also include a 3,000-mile pipeline network to link up the storage sites with petrochemical plants.

A group of lawmakers led by Democrat Sen. Joe Manchin and Republican Sen. Shelley Moore Capito sent Trump a letter last week, asking that he set up a blue-ribbon commission to back the construction effort. The two West Virginia senators also introduced legislation that would allow the Appalachian Storage Hub to qualify for Energy Department loan guarantees. Trump has proposed killing that program, and a spending bill the House of Representatives is debating this week would do just that.

### Houston company commits to \$2.4 billion petrochemical expansion

(Houston Chronicle; July 21) - The Houston petrochemical company LyondellBasell said it will proceed with its most expensive project ever, a \$2.4 billion plant near the Houston Ship Channel that would become the largest factory of its kind in the world. The project, which will create 160 permanent jobs, represents a continuation of the petrochemical boom along the U.S. Gulf Coast fueled by cheap and ample natural gas liquids and supported by access to foreign markets through expanding export terminals.

The American Chemistry Council, a trade group, estimated the Texas Gulf Coast accounts for about \$70 billion of the \$185 billion in petrochemical plants completed since 2010 or planned through 2023. The Houston area boasts one of the world's greatest concentrations of petrochemical plants, fed by the shale-drilling boom that has

produced large amounts of natural gas liquids — primarily ethane — that provide the feedstock for most modern chemicals, including plastics.

ExxonMobil, Chevron Phillips Chemical and Dow Chemical are building expansions near Houston. The LyondellBasell plant will make propylene oxide, which is used to make bedding, carpeting, coatings, building materials and adhesives, and the byproduct tertiary butyl alcohol, which is refined into an additive that makes fuels burn cleaner. The plant will have the biggest production capacity in the world for these chemicals. Construction is slated to begin next year, with completion scheduled for 2021.

#### EIA expects U.S. crude production to break 48-year record in 2018

(EnergyWire; July 26) – U.S. oil production will hit a record high in 2018, government energy analysts project. The U.S. Energy Information Administration on July 25 issued its latest outlook on oil production as volumes continue to rise from renewed strength in shale drilling. Despite a temporary drop in output last year stemming from the fall of oil prices from mid-2014, output is expected to average 9.3 million barrels a day this year.

Next year, however, will be a banner year for the U.S. oil and gas industry, the agency predicts. Output for 2018 is likely to average 9.9 million barrels per day, outstripping the record 9.6 million barrels per day the industry pumped on average in 1970. Oil output is anticipated to continue rising beyond 2018. The Permian Basin will lead supply growth, the EIA predicts, followed by offshore projects in federal waters of the Gulf of Mexico.

As new Gulf projects come online, such as Chevron's Big Foot, offshore oil production will likely expand by 300,000 barrels per day from now until the end of 2018, analysts report in the latest Short-Term Energy Outlook. EIA's report underscores the rising dominance of the Permian Basin, the oil patch in western Texas and southeastern New Mexico that has been producing for more than 100 years. The expansion of horizontal drilling and hydraulic fracturing there will see output from the many stacked plays there expanding by more than 500,000 barrels a day out to the end of 2018, the outlook said.

# Pennsylvania shuts down construction of gas liquids pipeline

(EnergyWire; July 26) - Pennsylvania officials shut down construction on Energy Transfer Partners' Mariner East 2 pipeline project across the state July 25, after environmental groups complained that the company's sloppy construction was contaminating water. Judge Bernard Labuskes of the state's Environmental Hearing Board ordered Energy Transfer's Sunoco pipeline subsidiary to stop directional drilling at 55 locations. The order will remain in place until a hearing scheduled for Aug. 7.

Sunoco said it has "expended every effort" to prevent accidents. The Mariner East 2 is a pair of pipelines, 20 and 16 inches in diameter, designed to carry natural gas liquids from the Marcellus Shale in Ohio and Pennsylvania to marine terminals in Philadelphia.

The Clean Air Council, Delaware Riverkeeper Network and Mountain Watershed Association complained to the state last week that the company had 61 spills between April and June at pipeline construction sites across Pennsylvania. The spills damaged private water wells, a wetland, lakes and creeks. The state has issued four notices of violations and executed a consent order against Sunoco for the construction problems, separate from the hearing board's shutdown order.