Oil and Gas News Briefs Compiled by Larry Persily February 8, 2016

Shell postpones decision on B.C. LNG project to end of year

(Globe and Mail; Canada; Feb. 4) - British Columbia's plan to become a major exporter of liquefied natural gas is facing mounting setbacks as energy companies grapple with weak prices and regulatory uncertainty. Shell disclosed Feb. 4 that its LNG Canada joint venture in Kitimat, B.C., is being delayed by about nine months, saying the partners are now aiming to make a final investment decision at the end of 2016 instead of the first quarter. Weak oil and gas prices are casting doubt on all 20 LNG proposals in B.C.

The Pacific NorthWest LNG project near Prince Rupert is at risk of delay, too, analysts said. That project, led by Malaysia's state-owned Petronas, has been undergoing a federal environmental review since 2013. While the Shell-led venture has secured its environmental approvals, Pacific NorthWest and the much smaller Woodfibre LNG near Vancouver are waiting approval from the Canadian Environmental Assessment Agency. Those two proposals must deal with new federal rules on greenhouse-gas emissions. "Paralysis by analysis," FirstEnergy Capital managing director Robert Fitzmartyn said.

As oil and gas companies watch their cash flow evaporate, that in turn is forcing them to scale back capital spending and decide whether to pursue, postpone or cancel projects. AltaCorp Capital analyst Dirk Lever said low LNG prices, a looming supply glut globally and opposition from some First Nations leaders are among the reasons it appears that Pacific NorthWest LNG "is now more likely to be postponed."

Anadarko needs 'legal and contractual framework' in Mozambique

(Bloomberg; Feb. 4) - Mozambique and Anadarko are racing to tap gas from one of the biggest discoveries in decades as a global glut looms. After making its initial discovery six years ago in the Rovuma basin off Mozambique's northern coast, Anadarko has yet to make a final investment decision on a \$15 billion liquefied natural gas project. That decision may come this year as competition from U.S. and Iranian supplies intensifies in export markets, said state-owned partner Empresa Nacional de Hidrocarbonetos.

Although Anadarko has joined oil majors in curbing investment as crude slumps, the company said it hopes to finish negotiations with the Mozambique government this year. "Unless we speed the process, we could lose the opportunity," Omar Mitha, chairman of ENH, said in an interview. The company is discussing with the government that it's time "to get ready with all the contracts, the legal framework, the resettlement process," he said. The discoveries have the potential to transform one of the world's poorest nations.

Anadarko needs to finalize legal issues, including ownership of the planned export jetty, and complete LNG offtake agreements before taking a final investment decision, said John Peffer, the company's manager in Mozambique. "The key is to finish the legal and contractual framework as quickly as possible, as this is a critical element in providing project certainty and securing long-term economic value." Anadarko, which owns 26.5 percent of the project, and its partners also need to get approval for resettling about 500 people at the project site. Displaced fishermen also will be eligible for compensation.

China's LNG imports slipped 1%, but huge capacity to take more

(Australian Broadcasting Corp.; Feb. 5) - Chinese imports of liquefied natural gas have fallen for the first time since the trade began 10 years ago. The U.S. Energy Information Administration reported LNG sales to China declined 1.1 percent in 2015. That's bad news for Australia's fledgling coal-seam gas exporters that spent more than \$75 billion building terminals in Queensland. It should come as no surprise that China's appetite for LNG appears to have plateaued — at least for now — given the cooling of the economy.

The long-term picture for exporters is far from rosy, with China's National Development and Reform Commission downgrading its forecast for future gas demand — at the same time as global supply is set to surge. Despite the 2015 setback, the EIA report found Chinese LNG imports have grown steadily in the past 10 years, from about 100 million cubic feet of gas per day to more than 2.6 billion cubic feet per day. China is the thirdlargest LNG importer globally, behind Japan and South Korea.

China currently has 13 LNG terminals with a combined capacity to handle twice as much gas as now comes into the country, with several more under construction that would boost total import capacity to more than 9 bcf a day. Many of these projects have now been delayed or mothballed, however, due to the lack of demand.

Indian LNG buyer will try to renegotiate price terms with ExxonMobil

(CNBC TV; Feb. 4) - Amidst changing liquefied natural gas market dynamics, Petronet LNG will try renegotiating India's costliest supply contract with ExxonMobil's Gorgon LNG project in Australia. CNBC-TV18 has learned that Petronet will make its case for renegotiation with Exxon now that the importer has successfully renegotiated its supply contract with Qatar's RasGas, reaching a deal on a lower price while agreeing to take more gas in future years.

Sources said the Indian government will support Petronet in its renegotiation with Exxon. In 2009, Petronet and ExxonMobil signed a 20-year LNG deal for supply from Gorgon, which is due to start shipments in a few weeks. Exxon holds a 25 percent stake

in the Australia project. Petronet agreed in 2009 to pay Exxon 14.5 percent of the price of a barrel of crude for each 1 million Btu of LNG delivered. With a global oversupply of LNG, however, buyers are looking to renegotiate better terms.

United Arab Emirates plans second LNG import terminal

(Reuters; Feb. 5) - State-owned Abu Dhabi National Oil Co. plans to start up a new liquefied natural gas floating import terminal in the second half of this year, three LNG industry sources said. The floating receiving terminal is being supplied by U.S. gas shipping company Excelerate Energy, the sources said. One of the sources said the terminal's import capacity will be about 1 million metric tons per year, almost 50 billion cubic feet of natural gas. Abu Dhabi is the capital of the United Arab Emirates.

The United Arab Emirates already imports LNG via a floating terminal supplied by Excelerate Energy off the coast of Dubai, about 50 miles northeast of Abu Dhabi. Last year, Jordan started receiving imported LNG at its floating storage and regasification terminal, as several Middle East nations look to gas for power generation instead of oil.

FERC releases draft review of LNG export plant at Savannah, GA.

(Savannah Morning News; GA; Feb. 6) - Federal regulators say a \$2 billion project to expand the 38-year-old Elba Island LNG import facility to add liquefaction and export capabilities will not have significant effects on the environment if appropriate mitigation is applied. Opponents of the project near Savannah, Ga., are not so sure, pointing out that the expanded facility would increase its greenhouse-gas emissions seven-fold and add about 200 trucks per month of refrigerants and natural gas liquids to area roads.

The Federal Energy Regulatory Commission released its environmental assessment of the Elba Liquefaction project Feb. 5, and will accept comments on the environmental assessment until March 7. The project developer is Kinder Morgan, North America's largest oil and gas pipeline operator. The LNG export plant would be capable of handling up to 500 million cubic feet of natural gas a day. In addition to FERC approval, Kinder Morgan also is waiting for full export authority from the Department of Energy.

The project would include a more than mile-long and up to 11-foot-tall storm-surge wall built of sheet metal and soil to protect the facility from a major hurricane. Construction would require 375,000 cubic yards of fill and driving about 10,000 pilings up to 90 feet down into the island on the Savannah River about five miles from downtown Savannah. The Sierra Club Coastal Group is gearing up to request a more comprehensive environmental impact statement after finding FERC's assessment disappointing.

Discovery to first LNG will have taken 17 years for Japan's INPEX

(Offshore Engineer; Feb. 1) - In 2000, Japanese exploration and production company INPEX Corp. discovered a giant gas and condensate field in the Browse Basin, about 125 miles offshore Western Australia. The discovery was the start of what has become a \$34 billion liquefied natural gas development known as Ichthys LNG. Operated by INPEX, the partners are France's Total and Taiwan's CPC Corp., plus Tokyo Gas, Osaka Gas, Kansai Electric Power, Chubu Electric Power and Toho Gas.

INPEX announced its final investment decision for Ichthys LNG in 2012. Construction is underway, and first production is scheduled for third-quarter 2017. Ichthys is designed to produce up to 8.9 million metric tons per year of LNG and 1.6 million tons per year of liquefied petroleum gas, along with up to 100,000 barrels per day of condensate at peak production. Gas from the field will be piped to onshore facilities near Darwin for processing, via a 550-mile pipeline, and shipped as LNG to Japan and other markets.

Condensate extracted from the field will be stored and shipped directly from a floating production, storage and offloading facility permanently moored at the field. "INPEX is the first-ever Japanese operator leading a large-scale LNG development," a company spokesman said. The Ichthys field holds estimated reserves of 12 trillion cubic feet of gas and 500 million barrels of condensate.

Kitimat, B.C., pins its economic hopes on LNG projects

(Oil Week; Canada; Feb. 2) - Once a pulp and paper and aluminum town, Kitimat, on British Columbia's northern coast, is now at the epicenter of two converging energy realities: the apparent death of bitumen (oil sands) exports as the proposed terminus of the stalled Northern Gateway pipeline, and the opportunity afforded by as-yet unsanctioned liquefied natural gas export projects. "Kitimat was built by industry," said Mayor Phil Germuth. But "if the community comes out against a project, that says a lot."

Germuth was the key initiator of the April 2014 plebiscite that "surveyed residents on their feelings toward Enbridge's Northern Gateway project." Almost 60 percent of voters came out against the Alberta-to-B.C. pipeline project. Oil sands bitumen was not welcome, despite Kitimat's economic downturn. Owing largely to Methanex shuttering its methanol plant in 2006 and Eurocan closing its pulp paper mill in 2010, the population decreased by about 20 percent from 2001 to 2010.

But it's LNG that makes the mayor's eyes light up. With its deep-sea, ice-free port, Kitimat sits between B.C.'s northeastern shale gas and Asian customers. Gas export projects could be the white knight to lift the economy. Germuth lists the possibilities: LNG Canada, led by Shell; Kitimat LNG, led by Chevron and Australia's Woodside Petroleum; the much smaller, barge-mounted Douglas Channel LNG project led by a Calgary company and international partners; plus new gas lines that would be needed.

Gazprom tells investors it isn't worried about U.S. LNG competition

(Wall Street Journal; Feb. 4) - Russia's state-controlled gas giant Gazprom doesn't plan a "price war" against U.S. exports of liquefied natural gas to its profitable European market, a company official said Feb. 4. U.S. LNG sellers will find it hard to compete in Europe with Russian gas under current market conditions, Gazprom's deputy chairman Alexander Medvedev said at an investor meeting in London. U.S. gas must be liquefied, shipped and turned back into gas, costing more than Russia's pipeline gas deliveries.

"There is no need for us to launch any price war," Medvedev said. "We are very relaxed about U.S. LNG, though very attentive." However, he added that if U.S. LNG prices did fall, Gazprom would seek to cut its own costs. European governments have been hoping that U.S. LNG exports, due to start this year, would help the region diversify its energy supplies away from Russia. Relations between Russia and the European Union have soured amid the crisis in Ukraine and western sanctions.

Gazprom has long been the single biggest gas supplier into Europe. Last year, Russian gas amounted to almost 31 percent of European gas consumption, up from 30.2 percent in the previous year. Gazprom has stated that it intends to keep that market share steady for the foreseeable future. "The European market is and shall remain the main market for our exports," Medvedev said. Europe accounts for the bulk of Gazprom's profits, helping to offset the lower revenues the company earns in Russia.

Singapore Exchange expects to start online LNG trading next year

(Wall Street Journal; Feb. 4) - The Singapore Exchange expects liquefied natural gas to begin trading on screen by next year, according to a report released on its website. At the moment, LNG does not attract enough sales volume to be traded through internet exchanges — unlike other commodities, such as pipeline gas and crude oil. LNG trades tend to be done in a more traditional fashion, resembling the oil market in the 1980s, through the phone or in person.

The Singapore Exchange is trying to create more liquidity in the market by launching the Singapore SGX LNG Index Group, better known as the Singapore SLInG. The Singapore SLInG is designed to be an LNG index created from submitted prices by LNG market players. The index is designed to eventually create a more liquid swaps market. In the past, attempts to launch an LNG futures market have largely failed because of the lack of market liquidity — not enough trading to build a market.

But there are signs that this is changing. Global LNG buyers are less inclined to be locked into long-term supply contracts. Instead, they are choosing not to reinstate their supply deals and instead to purchase spot volumes as an alternative. This is partly because spot prices are so low at the moment. Because of global oversupply, it is easy to secure volumes if needed.

Pennsylvania adopts new drilling standards, including water quality

(Pittsburgh Post-Gazette; Feb. 3) - Pennsylvania's environmental rule-making body approved major revisions to strengthen the state's oil and gas regulations Feb. 3 as critics called elements of the package illegal or unnecessary. The state Department of Environmental Protection, which drafted the rules over five years, defended them throughout the meeting. The Environmental Quality Board voted 15-4 to adopt the rules as proposed by the department.

"This is certainly a big milestone for work that is long overdue," department Secretary John Quigley said after the vote. He called the rules package, which lays out separate standards for the state's shale gas and traditional shallow oil and gas drilling industries, "a set of reasonable, balanced and incremental improvements." Pennsylvania's oil and gas industry has boomed in recent years, particularly with drilling and hydraulic fracturing of wells in the Marcellus shale gas formation.

The updates to the rules are wide-ranging, with a particular focus on adding protections for public resources that might be disrupted by drilling, ensuring that new wells don't intersect with abandoned ones, setting stricter standards for waste handling and cleanup, and requiring that damaged drinking water supplies are restored to a safe quality or better. Critics said the department disregarded concerns from its industry-led advisory committees.

Hearing starts this week on fracking application in U.K.

(Bloomberg; Feb. 4) - A pause on fracking in northwest England that cooled expansion of the practice in the rest of the country may end after a five-week inquiry scheduled to start Feb. 9. The trial-like public hearing will review applications by oil and gas company Cuadrilla Resources to drill as many as eight exploratory wells in the Bowland Shale formation underneath Lancashire County. Its work in the area was halted in 2011 after hydraulic fracturing to unlock oil and gas from underground rock caused two tremors.

About 40 witnesses are scheduled to speak about the company's plan, which seeks to create a new source of gas supply in the U.K. as domestic production declines. The applications were previously rejected over concerns about noise and traffic disruption, and opposition groups have voiced broader concerns about the safety of fracking.

"What will really signal a step-change in U.K. shale is successful exploration wells," Francis Egan, chief executive officer of Cuadrilla, said in an interview in London.

After taking testimony, an inspector will issue a recommendation to Greg Clark, the U.K.'s Secretary of State for Communities and Local Government. He intervened in the approval process in November by saying a government decision on the application would supersede a local decision. Prime Minister David Cameron said in 2014 the country would go "all out for shale" as flows from the North Sea dwindle to half their levels 10 years ago — those fields now supply less than half of the U.K.'s needs.

Alberta's unemployment rate climbs to 7.4%, highest since 1996

(Bloomberg; Feb. 5) - Canada's unemployment rate posted a surprise increase last month on weakness in manufacturing and as unemployment in oil-hub Alberta reached the highest since 1996. The unemployment rate climbed to 7.2 percent from 7.1 percent, Statistics Canada said Feb. 5. The labor market has lost momentum over the past year as oil prices around \$30 a barrel trigger layoffs from Alberta to Newfoundland.

Most economists say the recovery from the commodities slump will take several years to unfold. Alberta's unemployment rate rose to the highest since February 1996 at 7.4 percent, taking it above the national rate for the first time since December 1988. Prime Minister Justin Trudeau this week offered special stabilization funding and accelerated federal public works spending in Canada's top oil-producing province, moves that opposition parties said aren't enough to help laid-off workers.

Break-even oil price varies widely across Texas

(Bloomberg; Feb. 4) - Texas has a message for \$30 crude doomsayers: Bring it on. A handful of shale patches in the state, which would be the world's sixth-largest oil producer if it were a country, are profitable with crude below \$30 a barrel, according to an analysis by Bloomberg Intelligence. In the Eagle Ford's DeWitt County, which produced more than 100,000 barrels a day in November, the average well can be profitable with U.S. benchmark crude at \$22.52 — \$4 below the lowest level this year.

Drive 200 miles southwest to Dimmit County, and drillers need \$58 oil. The wide range of break-evens, a term for the price at which a well goes from profitable to unprofitable, illustrates one reason why U.S. shale production has been more resilient than expected, filling storage tanks to levels not seen in 85 years. "It may be harder to kill many U.S. E&Ps than analysts originally thought," Bloomberg analyst William Foiles said.

Since prices started falling in June 2014, U.S. shale drillers have dodged death by cutting costs, experimenting with new techniques and technology and boosting output to

keep their wells competitive. It hasn't been pretty: two out of every three drilling rigs in the U.S. have been idled, scores of roughnecks laid off, and multiple companies have gone bankrupt. The impact on production, however, has been small. U.S. output last week was 9.2 million barrels, down 5 percent from last year's peak.

China's oil production to fall in 2016; first drop in seven years

(Bloomberg; Feb. 4) - Cheap crude is a double-edged sword for one of the world's biggest markets. China's output in 2016 will decline between 3 percent and 5 percent from last year's record 4.3 million barrels a day, according to analysts from Nomura Holdings and Sanford C. Bernstein & Co. That would be the first decline in seven years and the biggest drop in records going back to 1990. The country is the world's fifth-largest producer and the biggest consumer after the U.S.

Oil prices have plunged since Saudi Arabia led a 2014 decision by the Organization of Petroleum Exporting Countries not to cut output amid a global glut, looking to drive out higher-cost producers. "We expect significant cuts in (China's) upstream production as the companies cut output at loss-making fields," said Neil Beveridge, a Hong Kongbased analyst at Sanford C. Bernstein. "Chinese explorers need to take more radical action to cut operating costs and increase efficiency."

But sliding domestic production complicates efforts to keep pace with growing fuel consumption without increasing China's reliance on imports. Overseas supplies meet almost two-thirds of the country's demand, according to China National Petroleum Corp. While some Mideast suppliers can operate with oil at \$25 a barrel, the break-even cost for China National Offshore Oil Corp. is closer to \$41, said Nomura Holdings analyst Gordon Kwan, who predicts China's domestic production will fall by 5 percent this year.