Oil and Gas News Briefs Compiled by Larry Persily July 27, 2015

B.C. legislature approves 25-year fiscal terms for LNG projects

(Financial Post; Canada; July 23) - The British Columbia legislature late evening July 21 passed the Liquefied Natural Gas Project Agreements Act, removing one of the final conditions to construction of the first LNG plant in the province. The bill means that the Pacific NorthWest LNG project can now count on a 25-year fiscal deal that protects it from targeted tax increases. The other conditions are outside the province's control: Federal environmental review, First Nations and the global LNG market.

Malaysia's Petronas-led group wants to build a multibillion-dollar LNG plant and export terminal on Lelu Island, near Prince Rupert, B.C. Premier Christy Clark recalled the legislature for an extraordinary summer session to pass the law. After a week of debate, the bill passed with 43-27. The opposition New Democrats Party wanted the province to drive a harder bargain, and the Green Party member said the LNG industry "cannot coexist" with B.C.'s greenhouse gas reduction targets.

B.C. Finance Minister de Jong said proponents wanted long-term assurance over fiscal terms. The agreement provides four areas of protection: LNG income tax, natural gas development tax credit, carbon tax, and key features of greenhouse gas regulations. Proponents "wanted to know ... they and their industry wouldn't be singled out for discriminatory tax policy and in a couple of very specific areas, we provided in the agreement a mechanism to ensure that that wouldn't happen," de Jong said. The agreement will be a template for other LNG projects planned for the B.C. coast.

Brookings study sees difficult future for U.S. LNG exports

(Houston Chronicle; July 14) - Most of the proposed U.S. liquefied natural gas export projects won't get built amid stiffening global competition that will flood the market as demand begins to slow, a new study finds. Five U.S. projects under construction will cross the finish line, but beyond that construction appears "increasingly unlikely" for the remaining proposals, according to the latest study unveiled July 14 by a task force of gas experts assembled by the Brookings Institution, a Washington D.C. think-tank.

"We believe it will be increasingly difficult to finance new LNG projects, due to high upfront costs in combination with a substantial number of uncertainties which influence supply and demand," the report said. Developers have been rolling out proposals on the assumptions that U.S. gas prices will remain at record low levels while LNG prices in Asia and Europe remain high, offering North American exporters attractive margins.

U.S. gas prices are expected to rise slowly, which could undercut the competitive advantage of U.S. LNG exports unless developers figure out cheaper ways to liquefy and transport the gas. Gas also faces stiffer competition from other competing fuel sources, such as cheap coal and renewables, and that makes it increasingly difficult for North American LNG exports to turn a profit, the report found. And collapsing crude prices has given a fresh advantage to rival oil-linked LNG projects in other countries.

Canadian gas producers count on LNG exports to replace U.S. sales

(Globe and Mail; Canada; July 16) – Canada's natural gas industry is counting on energy exports to Asia to lift producers out of a slump. Exports of liquefied natural gas to energy-thirsty customers in Asia are crucial because the United States has been sharply reducing its reliance on Canada for gas supplies, the Canadian Association of Petroleum Producers said July 15.

The amount of natural gas that Canada exports to the United States has fallen almost 30 percent since 2007. "No recovery is anticipated due to the emergence of large volumes of U.S. natural gas production from unconventional supply sources," the association said in its 50-page report. "To realize its full resource potential, Canadian producers will require access to new markets such as those that can be reached through the export of LNG."

There are 19 B.C. LNG proposals in a range of preliminary to advanced stages, though no terminals are under construction. Even assuming a relatively modest launch of LNG exports, Canadian gas production would climb to 17 billion cubic feet a day by 2030 from the current 14.5 bcf, the association said. By contrast, if LNG isn't exported, Canadian gas output is predicted to decline 10 percent over the next decade and then flatten out to 13 bcf a day for 2025-2030, the industry group cautioned.

Newspaper reports delay in second Russian gas pipeline to China

(RT Network; July 22) - The contract between Russia and China for gas via the proposed western-route pipeline known as Power of Siberia-2 is delayed indefinitely, Russian-language business newspaper Vedomosti reported, citing Russian officials who said China is reviewing its energy needs due to its economic slowdown. China's demand growth for gas is slowing, while access to LNG imports is growing due to low oil prices, Sberbank CIB analyst Valery Nesterov told Vedomosti July 22.

While gas consumption in China grew by 12 to 13 percent in 2013, the growth fell to 8.5 percent last year. In the first six months of 2015, growth stood at only 2 percent,

according to Nesterov, which means that Gazprom won't be able to get a high price for gas delivered through the proposed western-route pipeline into China.

Russia's Power of Siberia-2 route, previously known as the Altay route, is expected to supply up to 1 trillion cubic feet of gas per year to China. That would be in addition to the eastern route called the Power of Siberia pipeline, which would deliver more than 1 tcf a year to China. The pipeline, the world's largest, is scheduled to begin delivering gas to China in late 2018, and become fully operationally in 2019.

Japan paid average \$8.65 for LNG imports in June; lowest since 2009

(Reuters; July 23) – Japan's combined average long-term contract and spot-market price for liquefied natural gas imports in June fell to the lowest since September 2009. LNG import prices averaged \$8.65 per million Btu in June, down from \$8.84 in the previous month and marking a seventh straight month of declines, Reuters calculations based on preliminary trade data from the Finance Ministry showed July 23.

Japan, which buys about one-third of all global LNG shipments, spent a record 7.85 trillion yen (\$63.28 billion) on almost 4.3 trillion cubic feet of natural gas as LNG in 2014, after the nuclear plant meltdown at Fukushima in 2011 led to the shutdown of all the country's nuclear reactors. Japan's LNG imports last month were 6.63 million tons (almost 320 billion cubic feet of gas as LNG), down 2.8 percent from a year earlier and the third monthly year-on-year decline, the data showed.

Because most LNG imports to Japan are bought on long-term contracts linked to oil, the slump in crude is being reflected in a cheaper price for LNG.

First nuclear restart could cut Japan's LNG imports 40 bcf a year

(Reuters; July 23) - The scheduled restart next month of Japan's first nuclear reactor in nearly two years would save around 850,000 metric tons of liquefied natural gas per year (about 40 billion cubic feet of natural gas), according to Reuters calculations based on data from the country's industry ministry. Kyushu Electric Power is set to restart one of its Sendai reactors in southwestern Japan in August, pending a final sign-off by the country's nuclear regulator.

It would be the first restart of a reactor in Japan since the Fukushima meltdowns of 2011 led to the eventual closure of all of the nation's reactors in September 2013 for checks and costly safety upgrades. The shutdown of an energy source that supplied about a third of Japan's power forced utilities to burn record amounts of fossil fuels. Fukushima turned the Japanese public against atomic power even as electricity became more expensive to cover the higher costs of imported oil and LNG.

Kyushu Electric aims to restart the Sendai No. 1 reactor in mid-August and the No. 2 reactor in mid-October, each having a capacity of 890 megawatts. With both reactors operating, Kyushu says it will save about 15 billion yen (\$120 million) in fuel costs per month, mainly from using less oil and LNG. Any restart is likely to be unpopular, with opinion polls showing a consistent majority opposing restarts.

Bipartisan Senate bill would speed up LNG export decisions

(Platts; July 22) - Key U.S. senators have reached a deal on a broad package of energy sector reforms that if enacted would speed decision-making on liquefied natural gas exports, focus the intent of the nation's Strategic Petroleum Reserve and require reviews of how federal rules impact electric system reliability. The bipartisan legislative package follows a number of Senate hearings in recent months and lawmakers' consideration of more than 100 bills offered for inclusion in the package.

The bill unveiled July 22 is also the result of negotiations between the two leaders of the Senate Energy and Natural Resources Committee — Chairwoman Lisa Murkowski of Alaska and Ranking Democrat Maria Cantwell of Washington — and their staffs. Markup of the bill is scheduled to begin the week of July 27.

A provision would speed decision-making on LNG exports by requiring the Energy Department to approve or deny applications to export LNG to non-free-trade agreement countries within 45 days of final environmental review action at the Federal Energy Regulatory Commission (or Maritime Administration for offshore terminals). The bill also provides for expedited review of legal challenges to LNG facilities, and would change the Natural Gas Act to require public disclosure of where LNG cargoes are going.

Gas overtakes coal as nation's top electric power generating fuel

(The Associated Press; July 13) - Natural gas overtook coal as the top source of U.S. electric power generation for the first time ever earlier this spring, a milestone that has been in the making for years as the price of gas slides and new regulations make coal more risky for power generators.

About 31 percent of the nation's electric power generation in April came from gas, and 30 percent from coal, according to a recently released report from the research company SNL Energy, which used data from the U.S. Energy Department. Nuclear power came in third at 20 percent. A drilling boom that started in 2008 has boosted U.S. gas production by 30 percent and made the United States the world's biggest producer of oil and gas.

Hydraulic fracturing has allowed energy companies to tap huge volumes of gas trapped deep underground in shale formations. That has driven the price of gas sharply lower to levels about a third of what they were just 10 years ago. At the same time, power companies have been installing more gas-fired turbines and retiring some older coal-fired facilities. The burning of natural gas produces carbon dioxide and nitrogen oxides, but far less than coal.

Federal review of Petronas B.C. LNG project likely to extend into fall

(Globe and Mail; Canada; July 19) - A federal environmental review of a proposed B.C. liquefied natural gas project will likely stretch into the fall, months after the provincial legislature's expected ratification this week of a comprehensive measure to encourage LNG export projects. The Canadian Environmental Assessment Agency is focusing its attention on a suspension bridge and trestle proposed by Pacific NorthWest LNG, a project led by Malaysia's state-owned Petronas for near Prince Rupert, B.C.

Don't expect the federal Environment Minister to render any ruling on the controversial Pacific NorthWest LNG file before October's elections, said Matthew Keen, an energy regulatory lawyer at Bull Housser in Vancouver. Pacific NorthWest LNG envisages constructing a mile-long suspension bridge to carry a pipeline over the northwest flank of Flora Bank, an area that contains eelgrass beds used by juvenile salmon. The bridge would connect with a trestle-supported jetty at a loading terminal for LNG tankers.

In May, members of the Lax Kw'alaams First Nation declined to give their consent to the project. A study commissioned by the 3,600-member Lax Kw'alaams band warns that the trestle would disrupt a complex system that effectively holds Flora Bank in place, putting juvenile salmon at risk in the Skeena River estuary. The federal environmental assessment agency has been reviewing the project since April 2013. Industry observers say final approval by CEAA appears destined to come after the federal election Oct. 19.

First Nation continues opposition to pipeline for Kitimat LNG project

(The Citizen; Prince George, BC; July 24) - Proponents of a pipeline that would carry natural gas from a station north of Prince George, B.C., to an LNG plant in Kitimat are treading carefully as a First Nation community opposed to the project is again making its presence felt. The Pacific Trail Pipeline has won the support of 16 First Nations, but the Unist'ot'en, a clan within the Wet'suet'en hereditary chief system, remains opposed and is setting up checkpoints where the route goes through their territory.

The action comes just as Chevron has begun pre-construction work along a 33-mile portion of the pipeline's 300-mile route. Chevron is the lead in the LNG project, which still lacks a final investment decision by the partners. "We have made it clear to the

police and industry that we are not blockading the road," the Unist'ot'en said in an online posting. "We are establishing checkpoints on the boundaries of Unist'ot'en territories. People and companies who gain our consent are allowed to enter.

"The clan maintains the project will impose a toll on the environment within its territory. At the same time we are considering the impacts of the communities where Chevron wants to frack, and the coastal communities who will bear the burden of impact from giant LNG tankers traversing treacherous waterways," the Unist'ot'en said in its posting. "We will protect our critical infrastructure of water, salmon, berries and medicines from destruction by industries that pollute."

Pipeline expansions will deliver Marcellus gas to Southeast U.S.

(Bloomberg; July 21) - A glut of cheap natural gas trapped in the U.S. Northeast will be heading south by the end of the year, reducing price differences between the regions. Pipeline expansions by Williams, Kinder Morgan and Spectra Energy will carry gas from the Marcellus shale to southern states as early as the fourth quarter. That will drop the regional premium paid for gas in the Southeast to as little as 30 cents per million Btu from more than a dollar higher than the Northeast, industry analysts said July 20.

New pipelines are closing the divide between the winners and losers of America's shale revolution as long-awaited supplies move to southern states and other regions. Without a Marcellus of its own, the Southeast, including Florida, where gas demand is booming, has missed out on the cheap fuel that has come with increased production.

"These projects will definitely reduce the spread between the Northeast and other regions," Tony Franjie, senior natural gas analyst for Genscape in Sugar Land, Texas, said July 20. "Everyone but those near the shale plays has kind of missed out on the boom. It's just crazy what's happened in the Northeast." The difference between the two Northeast and Southeast has averaged \$1.48 this year and will shrink to about 30 cents as new pipelines come online over the next three years, Franjie said.

N.J. county blocks survey of gas pipeline route

(State Impact; July 22) – New Jersey's Mercer County is joining the list of landowners trying to block PennEast Pipeline from surveying property — part of a county park — in order to build a highly contentious gas pipeline. The county, which has opposed the project since last year, told PennEast July 21 that the company would no longer have access to the park in Titusville for surveying property. The county cited soil borings on Baldpate Mountain, which it has deemed as potentially environmentally harmful.

The notification follows an announcement by the New Jersey Department of Environmental Protection earlier this month, advising the company not to apply for permits needed for the project, since private landowners refused to give it access to survey their properties. Thirty-two miles of the \$1 billion proposed pipeline would run through four communities in New Jersey. The rest of the 110-mile pipeline crosses land in Pennsylvania. It would bring Marcellus Shale gas to the Eastern Seaboard.

In New Jersey, much of the proposed route would run through preserved open space, farmland and wetlands, as well as cross numerous waterways. Unless the project receives federal approval, the county will no longer permit any soil borings on Baldpate Mountain, the highest point offering spectacular views of the Delaware River. PennEast said it was disappointed by the county's decision to rescind survey permission.

One-year-old oil pipeline spills 31,000 barrels in Alberta

(Edmonton Journal; July 23) - Alberta's energy minister said the Nexen pipeline spill discovered last week near Fort McMurray is "unacceptable." Energy Minister Marg McCuaig-Boyd, Environment Minister Shannon Phillips and First Nation representatives toured the site of the spill July 24, about 22 miles southeast of oil sands center Fort McMurray. An estimated 31,000 barrels of bitumen emulsion poured out of the double-layered steel pipeline, touted for its novel technology to prevent such incidents.

The buried pipeline had not been inspected since it was installed in 2014. Kirk Bailey, with the Alberta Energy Regulator, an independent watchdog investigating the spill, said July 24 the pipeline had been deemed low risk because of the "newness of the pipeline and the leak detection system that had been installed seemed to be effective." However, that built-in leak detection system failed to alert the company about the spill, which was discovered July 15 by a contractor walking along the pipeline's route.

"It's no surprise that we found it quite troubling that there was a lag with respect to how long it took" to find the leak," Phillips said. "But that forms part of the investigation." That's exactly what the work of the Alberta Energy Regulator is focused on, she said. Bailey said the potential outcome of the investigation could be anything from administrative penalties to enforcement action to criminal charges.

Australia says union members can vote on strike at Gorgon LNG

(Australian Financial Review; July 20) - Chevron's \$54 billion (U.S.) Gorgon liquefied natural gas project being built off Western Australia is facing a fresh threat of industrial action after unions won official approval to poll workers on a potential strike just months before exports from the venture are finally due to begin. The latest development risks

further delays in the start of production at the troubled project beyond its second-half 2015 target, which has already slid by more than a year from the original schedule.

The Fair Work Commission on July 17 ruled that the Construction, Forestry, Mining & Energy Union and the Australian Manufacturing Workers' Union could hold a protected ballot of employees of CB&I, the U.S. engineering company carrying out a contract on mechanical, electrical and instrumentation work at the LNG plant under construction on Barrow Island.

In the past month CB&I workers have several times rejected a proposed replacement enterprise agreement. A hard-line group of construction workers had been pushing for the work roster at the remote Gorgon site to be switched to a 20-10 cycle, consisting of 20 days of work followed by 10 days off. That compares with an existing work cycle of 28 days on and nine days off. The shorter cycle would further increase costs at the Gorgon project, which is already substantially over budget.

BG Group starts up second LNG unit at new Australia plant

(Sydney Morning Herald; July 13) - BG Group has begun production at the second LNG unit at its Queensland, Australia, export project, marking another milestone in the \$20.4 billion (U.S.) coal-seam gas project and putting it on track for full production mid-2016. The start-up of the second train at BG's Queensland Curtis project will be followed later this year by the start of production from the first trains of two other Australia projects: Santos's Gladstone LNG venture and Origin Energy's Australia Pacific venture.

While the start-up marks a major step forward for Queensland's new gas export industry, the new wave of LNG supply is set to hit the Asian market in a period of low prices because of slower than expected growth in demand and weak crude oil prices. As a result, revenues from the plant are set to be lower in the initial phase than might have been expected 12 months ago when prices were much higher.

Once the Queensland Curtis LNG venture reaches full capacity, 10 LNG tankers a month will be loading at BG's project, exporting about 8 million metric tons a year. Since production from the first LNG train started in late December, 27 cargoes have been shipped. Much of the LNG from the first train is being shipped to BG's biggest customer for the project, Chinese oil major CNOOC. However CNOOC doesn't have a stake in the second train, which will supplement BG's global portfolio of LNG supplies.

Pipeline company buys out Shell's stake in LNG project in Georgia

(UPI; July 16) – Natural gas pipeline leader Kinder Morgan announced it has bought the entire stake in a proposed liquefied natural gas export terminal in Savannah, Ga., for

\$630 million from Shell. Though Kinder Morgan will own 100 percent of the project, Shell will take 100 percent of the liquefaction capacity of the terminal for 20 years (2.5 million tons a year, or about 120 billion cubic feet of natural gas).

Shell owns 51 percent of the project, which it will sell to Kinder Morgan, which already holds a 49 percent interest. The project has federal export approval, but only for free-trade nations. It is still waiting for Energy Department approval for the much wider market of nations that lack a free-trade treaty with the United States.

Shell expects oil to recover to \$90 a barrel by 2020

(Reuters; July 16) – Shell expects oil prices to recover gradually over the next five years, with progress slowed by persistent global oversupply and receding Chinese demand growth. The energy giant is betting on crude rising to \$90 a barrel by 2020, a key assumption in its move to buy rival BG Group for \$70 billion to help transform it into a leading player in the deep-water oil production and liquefied natural gas markets.

"We are not banking on an oil price recovery overnight. It will take several years, but we do believe fundamentals will return," Andy Brown, Shell's upstream international director, who oversees the company's oil and gas production outside North America, told Reuters in an interview. A rise in global supplies, mainly due to a sharp increase in output from U.S. shale, has weighed on oil prices.

In the nearer term, Shell expects Brent crude oil to show only a modest recovery from today's \$58 a barrel, with 2016 prices to average \$67 a barrel and \$75 a barrel in 2017. Oil companies rarely reveal the price forecasts that underpin their future strategies. The chief executive of Shell's rival BP, Bob Dudley, said recently he expected oil prices to remain low for "a couple of years most certainly."