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Federal environmental review delayed for LNG project in B.C.

(Reuters; March 19) - A major liquefied natural gas export project ran into another delay March 19 when the Canadian Environmental Assessment Agency was granted an extra three months to finish its impact study. The Malaysian state-owned oil giant Petronas and its partners have been waiting nearly three years for a permit to build the Pacific NorthWest LNG project near Prince Rupert in northern British Columbia. Environment Minister Catherine McKenna approved the agency's request for the extra three months.

Once the agency has filed its report, the federal Cabinet will decide whether to approve the project. There is no time limit on the Cabinet. The plan to build Canada's first LNG export facility has faced challenges from the start, including controversy over its site, which aboriginal and environmental groups said would destroy salmon habitat. It is also the first major project to have its environmental assessment completed under new rules that include the impact of upstream gas production on the project's total emissions.

The agency, which had been due to deliver its report by March 22, said it needed more data from the project: "The agency has requested additional information from the proponent in order to determine whether the project is likely to cause significant adverse environmental effects." The agency released a draft review last month that found the project would likely have "significant adverse environmental effects" on greenhouse-gas emissions and harbor porpoises, but not on salmon. The review started in April 2013.

First Nation sets out terms for acceptance of LNG project

(Globe and Mail; Canada; March 18) - The Lax Kw'alaam Band, which threatened to block the proposed Pacific NorthWest LNG project, now says it is willing to support the development — so long as the Canadian government establishes a committee that includes the First Nations community and enforces environmental standards. The Lax Kw'alaam position could remove a key roadblock to what would be British Columbia's first liquefied natural gas export project, given that the band had previously filed a legal challenge claiming ownership of Lelu Island, where the terminal would be constructed.

In a letter to federal Environment Minister Catherine McKenna, Lax Kw'alaam Mayor John Helin said the community had held further discussions on the project, which they voted to oppose last year, and is now willing to change its stance. "While we understand the potential for social and economic opportunities that LNG development and this

project may bring to our members, Lax Kw'alaams must ensure that sufficient environmental conditions and safeguards will be in place," Helin wrote in the letter.

If the government does not meet the band's conditions by May 13, "we will retract our support," the mayor said. The Lax community would enjoy huge financial benefits if the project goes ahead. The band said last year it would receive an initial payment of \$28 million and annual payments starting at \$13 million and rising to \$50 million in 40 years. Still, many in the community fear that it will destroy traditional fishing and aquaculture harvesting. The project near Prince Rupert, B.C., is led by Malaysia's state-owned Petronas, which is waiting for federal approval before making its investment decision.

Canada approves small LNG project north of Vancouver

(Energetic City.com; Fort St. John, BC; March 18) - Canada's Environment Minister on March 18 approved a small liquefied natural gas export plant proposed by Woodfibre LNG for 30 miles north of Vancouver after a federal review determined the project was "not likely to cause significant adverse environmental effects." Environment Minister Catherine McKenna imposed numerous conditions on the project, including restrictions on construction in or near fish habitat and additional consultation with aboriginal groups.

The plant would liquefy natural gas delivered by pipeline from northeastern B.C. gas fields and load the output aboard tankers for delivery to overseas buyers The project is proposed for the former Woodfibre pulp mill site, about 5 miles southwest of Squamish on traditional territory of the Squamish First Nation. The project, backed by Indonesian billionaire Sukanto Tanoto, has not yet made a final investment decision. The \$1.8 billion project would have capacity to make 2.1 million metric tons of LNG per year.

The federal decision follows provincial approval in 2015, and concludes the project's environmental assessment review. "The real work is just beginning for our project team," said Byng Giraud, Woodfibre's vice president of corporate affairs. "We have to take all the conditions from the environmental reviews and ensure they are incorporated in the detailed design work and planning for construction and operation of the Woodfibre LNG project." At peak output, the plant would fill two or three tankers a month.

Critics unhappy with federal approval of LNG project near Vancouver

(Globe and Mail; March 20) - The company behind a liquefied natural gas export project near Squamish, B.C., north of Vancouver, said federal environmental approval is a "milestone" that will bolster its prospects. But the ruling by Environment Minister Catherine McKenna left some critics dismayed, wondering what can be done to block the plant — suggesting the decision is contrary to Canada's position on climate change.

Other permits must still be secured for the project, which the company hopes will be operational by about 2020. Among the minister's conditions for approval, the project must minimize greenhouse-gas emissions by using hydroelectricity instead of gas to power the liquefaction units. Patricia Heintzman, mayor of the District of Squamish, said March 20 she was "not pleased" with federal government approval. In a vote last year, she said, her council decided that it could not support the project as it stood at that time.

Eoin Finn, of the My Sea to Sky organization, said he is concerned about the approval but there are few options for stopping the plant. "This makes it a very uphill battle." He said the best way to block the project may be the "dismal" economics around LNG due to declining markets — though pinning opposition on that leaves critics "helpless." In addition to considering protests, detractors are contemplating legal action, Finn said.

Canada defines 'upstream emissions' for oil and gas project reviews

(Ottawa Citizen; March 18) - The Canadian government has officially put a definition on "upstream emissions" that are now being factored into all environmental reviews for major oil and gas projects. The Department of Environment and Climate Change quietly released its proposal March 18 for what should fall under the classification in environmental assessments of large energy projects — explaining that the extraction, processing, handling and transport of petroleum could all be factored into the equation.

"Upstream' includes all industrial activities from the point of resource extraction to the project under review," the government said in a notice of the proposed regulations. "The specific processes included as upstream activities will vary by resource and project type, but in general they include extraction, processing, handling and transportation." Environment Minister Catherine McKenna and Natural Resources Minister Jim Carr announced in late January the federal government would overhaul how it examines major energy projects, in order to put more focus on greenhouse-gas emissions.

But what exactly would fall under that definition has been the subject of controversy. The government's proposed methodology says the assessment will consist of two parts. The first will be a quantitative estimation of greenhouse-gas emissions released as a result of upstream production associated with the project, "including those associated with the production of steam or hydrogen used by upstream facilities." The second will be a discussion of the project's potential impact on Canadian and global emissions.

LNG project decision a test of Canada's climate-change policy

(Globe and Mail; Canada; March 17) – Canada's government faces the first big test of its high-ambition climate pledge as it decides whether to approve the Pacific NorthWest LNG project — which would rank as one of the nation's largest single sources of

greenhouse-gas emissions. Environmentalists are urging Ottawa to reject the liquefied natural gas project — led by Malaysia's state-owned Petronas — on the grounds that it is inconsistent with Prime Minister Justin Trudeau's promise of climate leadership.

B.C. Premier Christy Clark is a strong proponent of building an LNG export industry to boost the provincial economy and revive the struggling gas sector in northeastern British Columbia. Her government and the project's proponents say natural gas from Canada could displace coal and diesel in Asia's electricity system, and therefore help address the global climate challenge. Pacific NorthWest is just one of several proposed LNG projects on the B.C. coast awaiting final investment decisions.

In a draft review released last month, the Canadian Environmental Assessment Agency said the proposed plant in Prince Rupert, B.C., would be the third-largest GHG emitter in Canada's oil and gas industry. The Pacific NorthWest decision is "highly important," said Matt Horne of the Pembina Institute in B.C. "If they were to approve it as proposed, it would really undermine the credibility of those [federal] claims and ambitions." The final environmental assessment report is due next week and a decision will soon follow.

LNG exporters will need to adapt to Japan's changing gas market

(Sydney Morning Herald; March 18) - Australia's LNG exporters may need to make big changes to the way they sell gas into Japan as that country's market liberalizes and new types of buyers enter the sector, said a senior representative of Osaka Gas, Japan's second-biggest gas supplier. Shigeki Hirano, chairman of the utility's Australian operation, said LNG producers should consider entering Japan's proposed wholesale market after it opens up to allow third-party access to import terminals and pipelines.

To meet the demands of the more diversified and flexible market, LNG producers may also need to consider reforming the way they set prices under long-term sales contracts, linking prices to other energy benchmarks aside from crude oil, he said at a conference in Sydney. "In a liberalized energy market, gas will need to be priced ... against others fuels," Hirano said.

"Some operators may wish to procure gas that is indexed to coal, others to wholesale electricity prices at power exchanges, or even to domestic gas prices in producing countries like the U.S. or Australia," he said. Such changes would represent a major shake-up in the world's biggest market for LNG. The Japanese retail electricity market is to be fully open to competition as of April, while full liberalization of the gas market and the unbundling of LNG-receiving terminals and pipelines is planned down the track.

Angola says LNG plant will reopen in June after 2-year repair closure

(Hellenic Shipping News; March 18) – Angola's only LNG plant — plagued by operating and mechanical troubles since it opened two years ago — is due to return to production in June, Angola Oil Minister Botelho de Vasconcelos said in Beijing on March 15. The minister was in Beijing at the invitation of the Chinese People's Association for Friendship with Foreign Countries.

The \$10 billion single-train liquefied natural gas plant, with capacity to produce 5.2 million metric tons per year, opened in June 2013, about 18 months behind schedule. It experienced multiple operating problems before a gas pipeline rupture shut down the plant in April 2014 for extended repairs. The plant operator has not disclosed the cost of repairs. Partners in Angola LNG are Chevron, 36.4 percent; Angola's state oil company, Sonangol, 22.8 percent; and BP, Italy's Eni and France's Total at 13.6 percent each.

Future gas demand in Canada will depend on oil sands, LNG projects

(Platts; March 14) - The Western Canadian Sedimentary Basin's natural gas output, which hit a record 16 billion cubic feet per day this winter, will decrease over the short term and plateau at 14 bcf a day by 2020, an analyst said March 14. Gas exports from the area have been on the decline the past few years due to increasing output from U.S. Northeast shale plays that have pushed back Canadian gas from its traditional market.

However, there will still be a demand for Western Canadian gas from oil sands producers in Alberta, Dulles Wang, a principal analyst for North America gas with Wood Mackenzie, said at the CERI 2016 Oil & Gas Symposium. By 2020, about 700,000 barrels per day of new oil sands production capacity is projected to be added in Western Canada that could potentially need 1.5 bcf a day of gas, said Peter Howard, president emeritus of the Canadian Energy Research Institute.

Nearly 80 percent of Alberta's oil sands producers will be utilizing steam-assisted gravity drainage technology to produce bitumen, resulting in higher demand for natural gas vs. the scoop-shovel mining process, Howard said. Demand for gas would also grow if final investment decisions are taken for any of the LNG export projects proposed in British Columbia, Dulles said. In addition, demand for gas will likely grow, driven by Alberta government's decision to phase out its coal-fired power plants by 2030.

Wood Mackenzie analyst sees growth in Canadian gas to U.S.

(Business in Vancouver; March 15) - Natural gas production in Western Canada will resume growth in 2021 or 2022 with or without LNG exports from the West Coast, said Dulles Wang, Wood Mackenzie's principal analyst for Americas gas research. Wang's view differs from the more conventional outlook that Western Canadian gas output will fall without LNG exports. Affordable pipeline transportation to U.S. markets, a widening

gap between Canadian gas prices and U.S. prices, coupled with growth in U.S. demand and U.S. LNG exports will combine to restart Western Canadian growth, Wang said.

Wood Mackenzie expects the Petronas-led Pacific NorthWest LNG project, proposed for Lelu Island near Prince Rupert, B.C., to proceed and come online in 2022, Wang told a Canadian Energy Research Institute conference March 14. "But even without Petronas' project, we still think the Western Canadian Sedimentary Basin production will grow because you still have a lot of low-cost gas in the Montney," Wang said.

Wood Mackenzie expects Canadian production, which has been declining, to stabilize next year and remain flat till 2021 or 2022, when it expects growth to resume. Wang cited the low cost of gas in northeastern B.C., the "manageable" cost of pipelines to the U.S. Midwest and expected growth in U.S. demand. Also, if U.S. policy leads to more coal-fired power plant retirements in the Midwest, that could add to gas demand.

Canada's gas storage inventory hits record for this time of year

(Financial Post; Canada; March 17) – Natural gas in storage in Canada is at its highest level on record for this time of year. Energy investment bank FirstEnergy Capital said the oversupply is "widening by the day," signaling lower prices ahead. It's a worrying trend, because cold weather is now behind the market, leaving less demand. "The very mild weather of late has resulted in overall Canadian gas storage levels having risen in the past week to a record high for this time of year," said Martin King, of FirstEnergy.

Like crude, natural gas has seen the market flooded with excess supply because of the development of horizontal drilling technology and hydraulically fractured shale. And while oil prices have spiked this month, mainly due to signs that oversupply in the market is easing, there are no signs that the same is on the horizon for natural gas. More than 620 billion cubic feet of produced gas was in storage in Canada in January.

The situation is bleak. "Future outlets for Canadian natural gas supply appear to be shrinking yet again," King said, referring to a U.S. government rejection of an application for a Canadian-company-led LNG export plant in Oregon that could have helped move Canadian (and U.S.) gas to overseas buyers. King notes that there are signs that some production in Western Canada is easing, with gas-directed drilling rigs beginning to hit multi-decade lows. That could help tighten supply in the coming months and help prices.

Report says 167 tcf of marketable gas reserves in B.C.'s Liard Basin

(The Canadian Press; March 16) - As British Columbia struggles to launch a proposed liquefied natural gas industry, a new report suggests the challenges have nothing to do with a lack of supply. A National Energy Board report released by the province March

16 said natural gas resources in northeastern B.C. are trillions of cubic feet higher than initial estimates. The study focused on the Liard Basin, a huge region of northeastern B.C., the Yukon Territory and Northwest Territories.

The report said 848 trillion cubic feet of gas lies under B.C.'s portion of the basin, four times higher than a previous estimate — though only 167 tcf is considered marketable. The Northwest and Yukon territories possess more modest reserves. A release from the B.C. Ministry of Natural Gas Development said the new numbers push the province's total gas potential above 3,400 tcf. Production of just 20 percent of the total would sustain future development and LNG exports in B.C. for 160 years, the ministry said.

Canadian court will hear appeal against gas pipeline project

(Alaska Highway News; Fort St. John, BC; March 15) – Canada's Federal Court of Appeal has agreed to hear an appeal from a Smithers, B.C., resident of a National Energy Board decision on TransCanada's Prince Rupert Gas Transmission Project. TransCanada is to design, build, own and operate the roughly 560-mile gas pipeline from near Hudson's Hope in northeastern B.C. to the proposed Pacific NorthWest LNG facility on Lelu Island near Prince Rupert.

The NEB had rejected a request from Mike Sawyer that the board assert federal jurisdiction over the project rather than allow the province to regulate the pipeline. Sawyer argued that the proposed pipeline and TransCanada's existing pipeline network that crosses the Alberta-B.C. border constitute a single federal undertaking. Sawyer is backed by West Coast Environmental Law, a Vancouver-based advocacy group.

The Prince Rupert Gas Transmission Project argued its purpose is entirely provincial in nature — to transport gas from a point of connection in British Columbia to the LNG terminal — and not within NEB jurisdiction. The company also argued that Sawyer's application would have the effect of obstructing the construction, causing a delay. The board sided with the pipeline developer, and the court will now consider the case.

Texas environmentalists support FERC denial of Oregon LNG

(San Antonio Business Journal; March 17) - Texas environmentalists say the federal government's rejection of a proposed liquefied natural gas export terminal in Oregon is bad news for similar projects in the Lone Star State. The Federal Energy Regulatory Commission on March 11 denied applications for construction of the Jordan Cove LNG terminal in Coos Bay, Ore., and its accompanying pipeline. FERC said the project did not have any sales contracts and that the public benefits of the pipeline did not outweigh its potential for adverse impacts on landowners and communities.

Texas environmentalists said global market conditions and the FERC denial now cast doubt on proposals by Texas LNG, Annova LNG and Rio Grande LNG to build a pipeline from the Eagle Ford Shale to feed export terminals in the Port of Brownsville. Jim Chapman with the Lower Rio Grande Valley Sierra Club said his group opposes the Port of Brownsville projects and is pleased that FERC is "taking a hard look" at LNG export terminal applications rather than just "rubber-stamping" projects.

"Rio Grande LNG is boasting about its non-binding contracts, and Annova and Texas LNG exude confidence that they will be able to sell their LNG overseas, but that's clearly not enough for FERC approval, especially since we can show how damaging these projects would be," Chapman said. In a previous interview with the San Antonio Business Journal, Annova spokesman Bill Harris said the company intends to file its FERC application next year and begin a review process expected to last 18-24 months.

EIA forecasts gas-fueled power generation will pass coal in 2016

(U.S. Energy Information Administration; March 16) - For decades, coal has been the dominant energy source for generating electricity in the U.S. The Energy Information Administration's Short-Term Energy Outlook is now forecasting that 2016 will be the first year that gas-fired generation exceeds coal generation in the U.S. on an annual basis. Gas first surpassed coal on a monthly basis in April 2015, and the shares for coal and gas were nearly identical in 2015, each providing about a third of electricity generation.

The mix of fuels used for electricity generation has evolved over time. The recent decline in the share of coal, and the concurrent rise in the share of gas, was mainly a market-driven response to lower gas prices, the agency said. Between 2000 and 2008, coal was significantly less expensive than gas, and coal supplied about half of total U.S. generation. However, beginning in 2009, the price gap narrowed as large amounts of shale gas changed the balance between supply and demand in U.S. gas markets.

In the agency's forecast, gas provides 33 percent of generation in 2016 while coal's share falls to 32 percent. Looking forward, the agency said, environmental regulations may play a larger role in conjunction with market forces. Owners of some coal plants will face decisions to either retire units or reduce their utilization rate to comply with requirements to reduce carbon dioxide emissions, the EIA said.

'Missing' barrels of oil in world market may be a statistical error

(Wall Street Journal; March 17) - There is mystery at the heart of the oversupplied global oil market: missing barrels of crude. Last year, there were 800,000 barrels of oil a day unaccounted for by the International Energy Agency, the energy monitor that puts

together data on crude supply and demand. Where these barrels ended up, or if they even existed, is key to an oil market that remains under pressure from the glut in crude.

Some analysts say the barrels may be in China. Others say the barrels were created by flawed accounting and they don't actually exist. If they don't exist, then the oversupply that has driven crude prices to decade lows could be much smaller than estimated and prices could rebound faster. Whatever the answer, the discrepancy underscores how oil prices flip around based on uncertain data. Barrels have gone missing before, but last year the tally of unaccounted-for oil grew to its highest level in 17 years.

Here's how a barrel of oil goes "missing." The IEA estimated last year that on average the world produced 1.9 million barrels a day more than there was demand for. Of that, 770,000 barrels went into onshore storage, while roughly 300,000 barrels were in transit on the seas or via pipelines — leaving 800,000 barrels unaccounted for. Most analysts think statistical limitations create errors into the data. Oil data is "an imperfect science," said Rob Haworth, senior investment strategist at U.S. Bank Wealth Management.

Producers and traders get into the business of exporting U.S. oil

(Bloomberg; March 18) - Three months since the U.S. lifted a 40-year ban on oil exports, American crude is flowing to virtually every corner of the market and reshaping the world's energy map. Overseas sales, which started Dec. 31, have been picking up speed. Oil companies including ExxonMobil and China Petroleum and Chemical Corp. have joined traders such as Vitol Group and Trafigura in exporting U.S. crude.

The "growing volumes of exports" from the U.S. are now "spooking the markets," Amrita Sen, chief oil analyst at consultants Energy Aspects in London, said in a note. With American stockpiles at unprecedented levels, oil tankers laden with U.S. crude have docked in, or are heading to, countries including France, Germany, the Netherlands, Israel, China and Panama. Oil traders said other destinations are likely, just as supplies in Europe and the Mediterranean region are also increasing.

Still, the U.S. is likely to remain a small exporter compared with OPEC giants Saudi Arabia, Iran and Iraq and non-OPEC Mexico and Russia. Ian Taylor, CEO of Vitol, the company behind the first U.S. export, believes it will remain a "very marginal business." Yet, sales are growing. Enterprise Products Partners, one of the biggest operators of oil ports in the U.S., said it expected to handle crude and condensate exports of about 165,000 barrels a day during the first quarter. Exxon in early March became the first U.S. major to export crude, sending a tanker from Texas to a refinery it owns in Italy.