Oil and Gas News Briefs Compiled by Larry Persily April 19, 2018

Construction deliveries start for Russia's second Arctic LNG plant

(Independent Barents Observer; Norway; April 17) - The cargo ships Arctica-1 and Arctica-2 have delivered the first components to Russia's second major liquefied natural gas project in the remote north, Arctic LNG-2. The vessels sailed from Arkhangelsk and last week and arrived at the northern tip of the Gydan Peninsula where the goods were offloaded, the Northern River Shipping Company reported in a Facebook post. The ships had to make it through ice more than 3 feet thick ice.

A total of four shiploads will be delivered to the site this year, said shipping company general director Sergey Lavonen. "This kind of delivery in wintertime to this site has never before been conducted," he said. The shipments will include pipes, construction machines, insulation materials, road construction, and drilling equipment. The equipment and material are needed for development of the Salmanovskoye field, the gas deposit that will serve as the main resource base for the Arctic LNG-2 export terminal.

The field is believed to hold more than 9 trillion cubic feet of gas and almost 100 million barrels of condensate, said Novatek, the lead developer. Arctic LNG-2 is to start up in 2023 and reach production of 18 million tonnes of LNG per year. Included in the project is development of the Kola Yard, a construction yard in Murmansk where the Arctic LNG-2 production units will be built and then towed to the site. Novatek is also the operator of Russia's first Arctic LNG plant, Yamal, which started up in December.

U.S. LNG hopeful wants to avoid debt on \$12 billion project

(Bloomberg; April 15) - After amassing billions in debt, Charif Souki was fired in 2015 by the liquefied natural gas company he founded, Cheniere Energy. Now heading a new developer, his latest idea is to mostly avoid debt. The company he chairs, Tellurian, is seeking investors to pay a total of \$12 billion up front to fund the proposed Driftwood LNG export terminal in Louisiana. In return, they get a stake in the project and the ability to buy fuel at cost moving forward with no mark-up based on a changing marketplace.

Included in the pitch is a plan to control supply by buying gas fields and pipelines. While that part isn't unique, the total package is, driven by a man whose ideas were once called "harebrained" by billionaire Carl Icahn. Will his latest plan work? Souki's success in launching the first U.S. gas exporter could tip the scales. Equity partners in

the project's first phase will get a board seat, according to Tellurian. Total has invested \$207 million, Bechtel put in \$50 million and General Electric invested \$25 million.

Tellurian has raised \$100 million in public equity. But the market is skeptical: Tellurian's value has fallen by half to about \$2 billion since February 2017, when it went public. The most likely reason: It's a gamble. "This cleverly removes banks from the whole formula; then it becomes the buyer's problem," said Jason Feer, head of business intelligence at Poten & Partners in Houston. Feer couldn't think of any company that's "financed or done a major project that was structured like this. It's a pretty radical departure." Tellurian plans to spend \$2 billion to buy up gas reserves to feed the LNG terminal, starting at Louisiana's Haynesville shale. It expects spending a little more on pipelines.

Sempra may downsize proposed Pacific Coast LNG export project

(Natural Gas Intelligence; April 16) - Sempra Energy Mexico subsidiary Infraestructura Energetica Nova (IEnova) is in the process of possibly scaling back plans for a liquefied natural gas export facility at the Energia Costa Azul LNG import terminal on Mexico's Baja Peninsula. A smaller facility, able to make 2.5 million tonnes of LNG a year, could be ready by 2023, while a larger plant at 11 million to 12 million tonnes per year would not be ready until 2025-2028, Sempra LNG executive Octavio Simoes said April 13.

Simoes said the company is "not ready to announce anything definitive" at this time. He said both the small- and large-scale options are still on the table. Sempra executives have been talking for at least four years about adding exports to the underutilized LNG import facility on the Pacific Coast in Baja California near Ensenada. The 10-year-old regasification facility is capable of handling 1 billion cubic feet of gas deliveries per day, but it has never operated at that peak level.

Units of Shell and Russia's Gazprom own half of the import capacity at the terminal. The last deliveries to Shell or Gazprom were reportedly in mid-2016. Sempra's 50 percent capacity is contracted between its LNG trading unit and IEnova. Deliveries have averaged about three cargoes a year, said Simoes, president of Sempra LNG & Midstream. Sempra and partners already have a liquefaction and export facility under construction at an existing LNG import terminal at Cameron, La.

Partners may develop offshore Australia field to feed LNG plant

(Reuters; April 18) - The long-delayed Browse gas project off Western Australia has gained key support with partners in the North West Shelf liquefied natural gas plant aiming to agree on a tariff by late June to handle Browse gas, Woodside Petroleum CEO Peter Coleman said April 18. Browse is seen as a key source of growth for

Woodside but has been stuck on the drawing board for years as plans for onshore and floating LNG developments estimated at \$30 billion to \$45 billion were scrapped.

The plan now is to develop the gas field (15 trillion cubic feet) to feed the North West Shelf plant, Australia's biggest LNG plant, when its current gas source runs dry in the 2020s. The first of five liquefaction trains at the plant started up almost 30 years ago. "We've picked up momentum over the last couple of months ... and some of it is now a realization, in particular on behalf of the North West Shelf partners, that Browse needs to be the anchor tenant for the North West Shelf over the next 25 years," Coleman said.

The North West Shelf joint-venture partners "are very much aligned now" on completing tariff talks "by the end of the second quarter," Coleman said. Woodside's partners are BP, BHP Billiton, Chevron, Shell, and Japan's Mitsubishi and Mitsui. Once the tariff is set, Woodside and its Browse partners — most of which overlap with stakeholders in the North West Shelf — will be in a stronger position to move ahead with planning to develop the field. An investment decision could come earlier than the target of 2021.

First LNG train at Wheatstone exceeds nameplate capacity

(The West Australian; April 17) - The first production train of the Wheatstone LNG project has exceeded its nameplate capacity within months of beginning shipments, shareholder Woodside Petroleum said. Woodside on April 17 said the second train of the \$US34 billion Australia project operated by Chevron was expected to begin operating by the end of June. Each of the two liquefaction trains is rated at almost 4.5 million tonnes of LNG per year. The first train started production in October 2017.

Chevron is operator at Wheatstone with 64.14 percent of the project. Other partners include Kuwait Foreign Petroleum Exploration Co. at 13.4 percent, Woodside at 13 percent, Kyushu Electric at 1.46 percent, and PE Wheatstone, partially owned by Japanese utility joint-venture JERA Co., 8 percent. The gas fields that feed Wheatstone are held by Chevron, 80.17 percent; PE Wheatstone, 10 percent; the Kuwaiti company, 8 percent; and Kyushu Electric, 1.83 percent.

Panama Canal has its first three-LNG-tanker day

(Bloomberg; April 18) - Three liquefied natural gas carriers sailed through the Panama Canal on the same day this week, marking a first for the newly expanded waterway and highlighting the booming global gas trade. All three ships — Gaslog Hong Kong, Gaslog Gibraltar, and Clean Ocean — entered the canal on a staggered basis from the Pacific side April 17 and had completed their crossings by early April 18, according to vessel tracking data compiled by Bloomberg.

The crossings underscore how the LNG trade has surged worldwide as new export facilities from the U.S. to Australia rumble to life and buyers in Asia boost their demand for the fuel. Since the canal completed a \$5 billion expansion almost two years ago, traders and terminal developers have been closely watching the authority's ability to accommodate the jump in tanker traffic. The expanded canal had started with a one-LNG-tanker-per-day allocation but has been working to accommodate growing trade.

Dominion Energy's Cove Point, Md., LNG terminal — the second to send U.S. shale gas overseas — started commercial service this week, roughly two years after Cheniere Energy opened up its terminal in Sabine Pass, La. Thus far, Sabine Pass has shipped more than 300 cargoes to 26 countries.

China's shale gas output grows, but still short of Beijing's goal

(Reuters; April 16) - China's shale gas production will likely reach 600 billion cubic feet in 2020, nearly double the 2017 level, as local companies make big progress with drilling technology and cost cutting, consultancy Wood Mackenzie said April 16. Nearly 700 new wells will come onstream between 2018 and 2020 at three key projects — Sinopec's Fuling, and PetroChina's Changning-Weiyuan and Zhaotong — all located in the country's southwest, at a total cost of \$5.5 billion, Wood Mackenzie estimated.

The forecast of output in 2020 falls short of Beijing's goal of 1 trillion cubic feet, which was slashed by more than half from the government's initial target set in 2012. That means the world's No. 3 gas user will need to keep its imports of liquefied natural gas at elevated levels. Wood Mackenzie has separately forecast China's LNG imports will increase by a quarter to nearly 49 million tonnes this year from record highs in 2017.

China produced about 320 bcf of shale gas last year or 6 percent of its total gas output. "China is eager to materialize its shale gas potential to fuel its massive gasification initiative and support rising demand growth," said Wood Mackenzie's Tingyun Yang. Despite estimates that China is home to the world's largest recoverable shale gas resource, its shale tends to be deeper, more fractured and located in densely populated mountainous terrains, leading to higher costs and complications in drilling. However, state firms have managed to reduce well costs significantly — by 40 percent for exploration wells versus 2010 and 25 percent for commercial wells versus 2014.

Sinopec starts commercial operations at new LNG import terminal

(Platts; April 18) - China Petroleum and Chemical Corp. (Sinopec) on April 17 said its newly built Tianjin liquefied natural gas import facility has started commercial operations. The facility comprises an LNG receiving terminal, pipelines, docks, and associated facilities. It has an annual transfer capacity of 3 million tonnes of LNG,

which equates to an average of almost 400 million cubic feet of natural gas per day for the China market, the company said.

The Tianjin LNG terminal, which is connected to Sinopec's Shandong gas pipeline, the Ordos-Anping-Cangzhou gas pipeline as well as the company's gas storage facilities in northern China, supplies gas to the Beijing-Tianjin-Hebei-Shandong regions through its pipeline networks, Sinopec said.

Construction on the LNG terminal began in September 2014. Sinopec's Tianjin LNG terminal is expected to ease the tightness in gas supply in the northern regions, market sources said. China has launched a policy to encourage the use of gas for heating instead of burning coal to combat air pollution. The push boosted gas demand this past winter and caused a period of gas supply shortages in the northern regions.

Calgary company applies for permit to build Nova Scotia LNG project

(CBC News; April 14) - Calgary-based Pieridae Energy has taken another step toward developing a multibillion-dollar liquefied natural gas plant in Guysborough County, Nova Scotia. The Nova Scotia Utilities and Review Board reported April 13 it had received an application from the company to build a natural gas liquefaction plant, marine terminal, storage facility, and power plant at Goldboro.

In its application, Pieridae said the export plant would produce 10 million tonnes of LNG per year. The plant would be adjacent to the Maritimes and Northeast Pipeline, where gas from Nova Scotia's offshore fields makes landfall. Pieridae also wants to bring in cheap shale gas from across North America for export, primarily to Europe.

Pieridae is one of two companies promoting an LNG export terminal in Nova Scotia. The other proposal is for Bear Head, at the Strait of Canso. But Pieridae's project is further along. Earlier this year it hired investment bank Morgan Stanley to help raise \$10 billion in equity and project financing. In its application, Pieridae appears ready to commit. "Pieridae is poised to take its final investment decision this year and, as such, wishes to apply for its permit to construct," the application said.

Eni plans to invest billions to boost Algeria's gas production

(Reuters; April 17) - Eni plans "billions" of investments in Algeria over the next three years, the company's CEO said April 17, as the Italian energy firm said it had agreed to extend its partnership with Algerian state firm Sonatrach. "We need to invest more because Algeria still has a lot of gas," Eni CEO Claudio Descalzi told an energy conference in the Algerian city of Oran, adding that Eni was eyeing offshore areas.

Last year, Eni invested \$600 million in Algeria and imported almost 400 billion cubic feet of gas from the North African country, Descalzi said. The Italian government, which controls Eni, is keen to turn Italy into a Southern European gas hub capable of moving supplies from Algeria and Libya and future flows from Azerbaijan into Europe. Italy's gas imports have tipped away from Algeria toward Russia in recent years as Algerian production has stagnated. Algeria exports gas by pipeline to Europe and through a liquefied natural gas export terminal.

Sonatrach has struggled to attract foreign investment, a position that CEO Abdelmoumen Ould Kadour is trying to reverse. One delayed Algerian gas field was brought online last year with three more expected to start producing this year, lifting annual gas output of 3.3 trillion cubic feet by almost 10 percent.

Japanese buyer will sell surplus LNG from Cove Point terminal

(Platts; April 16) - Japan's Sumitomo Corp. will sell cargoes it takes from the Cove Point LNG terminal on the Maryland shore if the extra volume — reserved as a buffer — is not needed, a company executive said April 16. ST Cove Point, a joint venture between Japan's Sumitomo and Tokyo Gas, has a 20-year agreement to take 2.3 million tonnes of LNG per year. ST Cove Point will export 1.4 million tonnes per year to Tokyo Gas and 0.8 million to Kansai Electric, leaving 100,000 million a year in unsold volume.

"This extra volume of 100,000 is regarded as a buffer for Tokyo Gas and Kansai Electric to cope with seasonal fluctuations. But when this buffer is not needed, we will sell into the spot market," said Hirofumi Nakamura, head of Sumitomo's LNG business development and natural gas and LNG business department.

The \$4 billion Cove Point liquefaction plant and export terminal shipped its first commercial cargo April 16. It's expected to load its first cargo for Tokyo Gas sometime in late April with delivery to take about a month, said Yoshihisa Yamada, general manager for gas resources management at Tokyo Gas. U.S. LNG will account for about 10 percent of the utility's LNG portfolio, Yamada said.

Trudeau says Canada will 'reassert' its authority to approve pipeline

(The Canadian Press; April 15) – Canadian Prime Minister Justin Trudeau said he has instructed his finance minister to enter negotiations with Kinder Morgan to "remove the uncertainty" hanging over the Trans Mountain oil pipeline expansion project. Trudeau also said federal legislation is coming that will "reassert and reinforce" the fact that the government is well within its jurisdiction to approve the project and ensure it proceeds. The government approved the project in 2016, only to see it stalled in British Columbia.

He offered few details at a news conference April 15 after a meeting with B.C. Premier John Horgan, who is blocking the C\$7.4 billion project, and Alberta Premier Rachel Notley, who desperately wants it to go ahead. "We are responding to this situation. We are demonstrating not just that we are exerting and understanding the responsibilities that come with the federal government but demonstrating as well what we have long held ... that the environment and the economy must go together," Trudeau said.

Horgan said nothing was discussed at the meeting that would end his opposition to the project. Notley said she is confident the federal commitments will see the expansion go ahead, tripling the pipeline capacity from Alberta's oil fields to a coastal export terminal. Horgan's opposition — rooted in part on the fact that his tenuous government depends on support of the Green Party, which staunchly opposes the project — is the main reason Kinder Morgan put a stop to non-essential spending on the project a week ago.

First Nation protest organizer vows to continue fight against oil line

(Calgary Herald; April 16) - Will George has six words for Canadian Prime Minister Justin Trudeau: "This pipeline will not be built." George was responding to Trudeau's announcement after he met with provincial leaders April 15 that the federal government will pursue legislation and financial measures to ensure that Kinder Morgan's Trans Mountain oil pipeline expansion from Alberta to the British Columbia coast will be built.

Trudeau's rhetoric will only "ramp up" the protests, which have garnered widespread support in British Columbia, said George, a member of the Tsleil-Waututh nation and organizer of the indigenous-led encampment near the Kinder Morgan work site outside Vancouver. George said his role at the protest site is spiritual and cultural, not political, but he couldn't help but notice there were no indigenous leaders at the April 15 meeting between Trudeau, B.C. Premier John Horgan and Alberta Premier Rachel Notley.

At the protest site in Burnaby, B.C., on April 15, Hank Bee, a Mamalilikala member of the Kwakwaka'wakw nation, beat a rhythm on a deer-hide drum. "These ceremonies are not just for display or to show we're still here," he said. "We are here. We are going to fight for our traditional land and territories." Trudeau after the summit said the fight over the pipeline could cost jobs in Canada's oil patch. George isn't fazed. "We're thankful to the people of Canada who support us. We will continue our actions."

Proposal would allow Alberta to restrict oil and gas flow to B.C.

(The Canadian Press; April 16) - The Alberta government has introduced legislation that would give the energy minister the power to restrict the flow of oil, gasoline, and natural gas leaving the province. If passed, Marg McCuaig-Boyd would be able to direct truckers, pipelines, and rail operators on how much product could be shipped and when.

Violators would face fines of up to \$1 million a day for individuals and \$10 million a day for corporations. The proposal appears tied to an oil pipeline fight with British Columbia.

"The bill sends a clear message: We will use every tool at our disposal to defend Albertans (and) to defend our resources," Premier Rachel Notley said April 16 before introducing the proposal in the legislature. The oil-producing interior province is locked in a battle with British Columbia, which opposes the C\$7.4 billion oil pipeline expansion to a coastal export terminal, citing environmental concerns. Alberta's provincial government has already talked of limiting oil shipments to British Columbia in retaliation.

The pipeline expansion to the West Coast has been approved by the federal government, but British Columbia is fighting it in court. Notley said the proposed legislation is not about Alberta punishing its neighbor for the project delay, but she said Alberta is "very committed to putting pressure on B.C. to come around and focus on what this pipeline actually means." B.C. Environment Minister George Heyman said his province will carefully examine the legislation.

B.C. Green Party leader continues fight against LNG

(The Star; Vancouver; April 16) – British Columbia Green Party Leader Andrew Weaver supports the government in its battle against Kinder Morgan's Trans Mountain oil pipeline expansion but when it comes to liquefied natural gas, he said they "can't have their cake and eat it too." Though the provincial government opposes the oil line expansion from Alberta to a coastal export terminal over worries of environmental impacts and oil spills, it supports development of LNG export terminals on the coast.

"There's an incompatibility in having a plan to reduce greenhouse-gas emissions and building capacity to increase greenhouse-gas emissions. You can't have it both ways," Weaver said of natural gas production and liquefaction plants. Last month, B.C. Premier John Horgan announced tax breaks as an incentive to entice proposed multibillion-dollar LNG projects to commit to the province.

Environment Minister George Heyman last week said his "government has always maintained we would welcome potential LNG development only if fits within our four conditions, which include our climate goals and our legislated greenhouse-gas reduction targets." Weaver, however, countered that is "just not possible."

Australia considers 1,500-mile, US\$3.9 billion gas pipeline

(Bloomberg; April 12) - Billionaire Andrew Forrest is studying a proposed 1,500-mile transcontinental gas pipeline as part of his iron ore company's strategy to diversify and to boost Australia's power supply network. Fortescue Metals Group confirmed it is

looking at a line that would link the gas-rich state of Western Australia with fuel-strapped East Coast power markets where the bulk of the population lives. The project could cost as much as A\$5 billion (US\$3.9 billion), according to one industry estimate.

"We think we can connect up the biggest gas resources in the world with one of the biggest markets with a pipeline — and to me that makes absolute sense," said Forrest, chairman and founder of the world's fourth-largest iron ore exporter. Australia, one of the world's biggest liquefied natural gas and coal exporters, has come under pressure to ensure sufficient gas supplies for its East Coast electricity grid amid concerns for the country's energy security following plant closures and surging LNG exports.

"As a large gas user and infrastructure developer and operator, Fortescue has undertaken high-level conceptual studies of a transcontinental pipeline," CEO Elizabeth Gaines said April 12. The company has supported the federal government's prefeasibility study, she said. The study was due to be completed in March, and the energy minister will provide an update once the report is made public, a spokesperson said. The gas pipeline was first proposed in the 1970s by then-Energy Minister Rex Connor.

Strong demand pushes up prices for oil-and-gas steel pipe

(Nikkei Asian Review; April 16) - Asian demand for steel pipes used in oil and natural gas production is recovering as rising energy prices prompt new drilling projects in India and Southeast Asia. Major steelmakers are increasing the prices of oil-well pipes with Japan's Nippon Steel & Sumitomo Metal planning a 10 percent hike. Oil prices have increased 80 percent from early 2016 on the back of output cuts by OPEC and other oil producers and are now being pushed up further by rising tensions in the Middle East.

Kenji Hanada, head of Nippon Steel's tubular goods marketing division, said demand for oil-well pipes is particularly strong in the United States, India, Malaysia, and Indonesia. The company is bidding to supply pipes for a drilling project in India's Krishna Godavari Basin, where large natural gas deposits are being exploited. Oil-well pipe prices are also increasing in China, as local blast-furnace operators have cut down manufacturing in response to government policy calling for a decrease in steel production capacity.

This reduced capacity is pushing up prices for steel billets, from which the pipes are manufactured. Nippon Steel expects a 40 percent increase in Asian orders compared to the preceding six months, and it plans to raise prices 10 percent. Rivals Tenaris, headquartered in Luxemburg, and Vallourec of France have also announced plans to hike prices on par with their Japanese counterpart. A source at a Japanese trader said prices of oil-well pipes will continue to rise as long as demand remains strong.