# Oil and Gas News Briefs Compiled by Larry Persily January 29, 2018

## Novatek plans late-2019 decision on second Arctic LNG plant

(The Independent Barents Observer; Norway; Jan. 23) - Russian natural gas producer Novatek sent a Norwegian to present its projects at this year's annual Arctic Frontiers conference in Tromso, Norway, Jan. 21-26. Bjørn Gundersen, a former project manager for Arctic solutions at a Norwegian engineering company, is now deputy director for Novatek's LNG projects. Novatek last month shipped the first cargo from its \$27 billion Yamal LNG project in the Russian Arctic — its first liquefied natural gas venture.

Next in line for Novatek is the Arctic LNG 2 project that will be developed in Gydan, just east of the Yamal Peninsula. Novatek has sufficient gas resources in the area for an additional three or four LNG projects, Gundersen said in Tromsø. "These projects are making us go global," he said. Both the Arctic LNG 2 project and other future developments will lean heavily on Novatek's new fabrication plant in Murmansk, where the company is putting together a facility to construct LNG production platforms.

The Kola Yard will be instrumental in building so-called gravity-based structures, which can be towed to the shallow Arctic waters, anchored and used as production platforms. As much as 3 million tons of rocks and soils have already been removed from the site in Murmansk, Gundersen said. Novatek's partners in the construction yard include France's Technip and FMC Technologies, Germany's Linde, and Italy's Saipem. Novatek expects to make a final investment decision on Arctic LNG 2 by the end of 2019, with start-up in 2023. Maximum capacity would be 18.3 million tonnes per year.

## Potential partners line up for Qatar's low-cost LNG expansion

(Bloomberg; Jan. 24) - Qatar managed to keep its liquefied natural gas exports flowing last year even under a Saudi-led political embargo, passing the first test in its plans to expand LNG production. Now the world's biggest LNG exporter gets to pick who its partners will be. Qatar ended 2017 with LNG exports slightly above its 77 million tonnes annual capacity, according to data compiled by Bloomberg. It bodes well for state-run Qatar Petroleum's plan to increase output to 100 million tonnes in five to seven years.

The embargo didn't lead to a "disruption of supply, so that will be reassuring for buyers who are concerned about political risks," said Richard Mallinson, an analyst at Energy Aspects in London. India's Petronet LNG and France's Total have publicly expressed interest in buying stakes in Qatar's expansion. The project is moving "full steam

ahead," Qatar Petroleum CEO Saad Sherida Al-Kaabi said earlier this month. All the companies in the world that want to expand in LNG "are knocking on QP's door," he said.

Companies in China, Russia, the U.S. and Europe approached Qatar Petroleum in recent months to participate in the expansion, according to a source. Winners in the expansion will get a slice of what will be the lowest-cost LNG project. New supplies are especially attractive to buyers in Asia, where demand is rising. The 23 million tonnes a year of new Qatari LNG production could cost about \$27.6 billion, according to Sanford C. Bernstein. That's a bargain compared with the \$88 billion that Chevron spent to build the Gorgon and Wheatstone LNG Australia projects with 24 million tonnes capacity.

## China looks to Arctic for shipping, resource development

(Reuters; Jan. 25) - China on Jan. 26 outlined its ambitions to extend President Xi Jinping's signature Belt and Road Initiative to the Arctic by developing shipping lanes opened up by global warming. Releasing its first official Arctic policy white paper, China said it would encourage enterprises to build infrastructure and conduct commercial trial voyages, paving the way for Arctic shipping routes that would form a "Polar Silk Road".

China, despite being a non-Arctic state, is increasingly active in the region and became an observer member of the Arctic Council in 2013. Among its interests in the region is its ownership stake in Russia's Yamal liquefied natural gas project that started up last month and is expected to supply China with 4 million tonnes of LNG a year, according to the state-run China Daily. Shipping the LNG through the Arctic's Northern Sea Route to China would shave almost 20 days off the traditional route through the Suez Canal.

China's increasing prominence in the region has prompted concerns from Arctic states over its long-term objectives, including possible military deployment. "Some people may have misgivings over our participation in development of the Arctic, worried we may have other intentions, or that we may plunder resources or damage the environment," Vice-Foreign Minister Kong Xuanyou said. "I believe these kinds of concerns are absolutely unnecessary." The white paper said China also eyes development of oil, gas, mineral resources, and other non-fossil energies, fishing, and tourism in the region.

## B.C. premier plays down threats of government break-up over LNG

(Vancouver Sun; Jan. 26) – British Columbia Premier John Horgan played down political threats by Green Party Leader Andrew Weaver over what Weaver calls LNG "cheerleading" and insisted Jan. 26 that fighting carbon emissions remains a priority for his government. Earlier this week, Weaver reiterated in a tweet his threat to topple the

government if Horgan continued to promote the liquefied natural gas industry while on a trade mission to Asia. The Greens adamantly oppose an LNG industry in the province.

Horgan, during a conference call from South Korea during the trade mission, said he and Weaver have discussed the threat and will do so again upon his return to British Columbia. "There are lots of people with lots of ideas on climate action and the impact of our plans as Minister (of Environment and Climate Change Strategy George) Heyman is developing them, and I'm confident that we can walk through this and get to the point that I want to get to, and that's reducing our emissions."

Horgan said he has remained consistent on climate change, and he also has a "larger responsibility" as premier to find opportunities for economic development and job creation. "I'm under no illusion," Horgan said. "Mr. Weaver's very passionate about this and, as you know, he can take it 140 characters at a time and more so," he said, referring to Weaver's use of Twitter to comment on LNG. The Greens joined last summer with Horgan's New Democratic Party to form a coalition government.

## Canada still hopes for LNG projects, but high costs are a concern

(Calgary Herald columnist; Jan. 25) - Canada's hopes to build a liquefied natural gas industry were floored last year with the demise of the proposed Pacific NorthWest and Aurora LNG projects — setbacks for a sector still trying to get off the ground. Despite 18 proposals to build LNG plants on Canada's West Coast, not one has been built. Now, 2018 is shaping up to be a pivotal year for the future of Canadian LNG and for gas producers hoping to find new export markets for the country's surging output.

A rebound in global LNG prices and stronger demand in Asia have observers predicting the window for new investments could open sooner than expected, sometime early next decade. But to capture the next wave of demand, the projects will need to make final investment decisions in the next 12 to 24 months, because it takes at least four years to build these major multibillion-dollar developments.

"If (final investment decisions) are not issued this year, we are not going to see any projects operating in the 2021-2022 time frame," said Dinara Millington, vice president of research at the Canadian Energy Research Institute. So there is no lack of effort now to firm up various proposals still on the books. With demand for natural gas growing around the world, international markets look to exhaust existing supply options as early as 2020-2021, analyst Martin King of GMP FirstEnergy said recently.

Geoffrey Cann, a partner with Monitor Deloitte who specializes in the LNG industry, agrees there is an opportunity, but said Canada's costs are a lot higher than expanding existing plants in Australia or converting U.S. import terminals for LNG exports. "We need to reduce costs by 20 to 30 percent to make these projects competitive," said Ian Archer, associate director of North American natural gas for IHS Markit in Calgary.

## Second LNG cargo from Russia may be heading to Boston Harbor

(Bloomberg; Jan. 26) - A second tanker carrying Russian natural gas may be on its way to the United States, following in the footsteps of an LNG carrier now sitting near Boston Harbor. The Gaselys tanker, which has been sitting for two days in the waters outside of Boston, carries a cargo of liquefied natural gas pumped out of a storage tank in the U.K., including gas originally produced in Siberia. The Gaselys is due to unload at the U.S. terminal owned by French energy company Engie, which also owns the LNG.

Engie is now poised to pick up a second Russian LNG cargo from a terminal in northern France that may land in Massachusetts on Feb. 15, according to Kpler, a cargo-tracking company. The tanker Provalys was sailing to France's Dunkirk terminal to pick up LNG on Jan. 26 and unload a small amount in Belgium before heading across the Atlantic, Kpler said. The overseas LNG is coming at a time when New England is paying a hefty premium for gas supplies as limited pipeline capacity constrains the flow of cheap shale gas from other parts of the United States in the peak demand season.

Both cargoes of Russian gas are from the Yamal LNG project, which started up last month. Engie bought the first cargo on the spot market "due to the high natural gas demand during the recent record cold snap," a spokeswoman said Jan. 24. "Boston needs it because there are constraints on pipeline capacity from the Gulf Coast to the Northeast and no one has been able to build pipelines from the shale plays," said Jason Feer, head of business intelligence at ship-broker Poten & Partners in Houston.

## LNG carrier with Russian gas had to wait for Coast Guard inspections

(Bloomberg; Jan. 26) - The tanker carrying Russian natural gas that has been sitting outside of Boston Harbor for days will probably land over the weekend, according to the U.S. Coast Guard. The Gaselys carries liquefied natural gas from a U.K. storage terminal, much of which probably originated at the Yamal LNG plant in Russia. The ship, poised to dock at the Everett LNG import terminal, will be the first shipment to a U.S. terminal from anywhere other than Trinidad and Tobago in about three years.

"It is expected to be in the port over the weekend," said Luke Pinneo, chief petty officer at the U.S. Coast Guard in Boston. The delay in bringing the ship into the harbor "is not unusual," Pinneo said. Inspections can take as long as three days, depending on the timeline for getting a Coast Guard boat with a boarding team to the vessel and the specific safety concerns being addressed, he said. Guiding an LNG tanker in is a multiagency effort with federally mandated protocols, Pinneo said.

The Coast Guard has the final authority as to when the ship will dock at Everett. Gaselys loaded its cargo at the Isle of Grain terminal near London, where another tanker had recently unloaded the Russian LNG. French energy giant Engie bought the cargo on the spot market in early January. Engie owns the Everett import terminal. (*The ship docked at the terminal on Sunday, Jan. 28.*)

# Gazprom talks about boosting LNG supplies to Korea Gas

(Kallanish Energy; Jan. 26) - Russian natural gas giant Gazprom is discussing the possibility of increasing liquefied natural gas supplies to one of its main customers of the Far East Sakhalin II project, Korea Gas. In a meeting in Moscow on Jan. 25, Gazprom CEO Alexey Miller and his counterpart at KOGAS, Seung-II Cheong, addressed the status of their LNG supply deals from the 8-year-old Sakhalin Island plant, as well as potential for increasing exports.

The discussions also included prospects for further collaboration between the companies, but no details were disclosed. Under a long-term contract, KOGAS purchases some 1.5 million tonnes of LNG per year from Sakhalin II. The plant can produce more than 10 million tonnes a year, with sales almost exclusively to Asia-Pacific customers, mainly Japan, South Korea, Taiwan, and China. It is operated by Gazprom (50 percent share plus one share), in partnership with Shell (27.5 percent minus one share), Mitsui (12.5 percent), and Mitsubishi's Diamond Gas (10 percent).

# Asia LNG spot prices start slipping as supplies catch up with demand

(Reuters; Jan. 26) - Asian spot LNG prices slid this week on improving production and uncertain demand for cargoes in March amid indications that Chinese importers have largely covered their first-quarter needs. Asian spot prices for March delivery fell 10 cents to \$10.40 per million Btu. Chevron's Wheatstone project in Australia potentially had surplus supply to offer, as well as one or two other exporters.

The apparent retreat of Chinese demand put further pressure on prices. "I expect spot prices to drop to \$7.50 soon as Chinese slow down their buying," a trader said. Spot-market prices in Asia had been around \$11.50 at their peak. But winter is not over, and plunging temperatures in South Korea could spark additional demand for spot LNG buys as heating needs spike at a time when 11 of Korea's nuclear reactors are offline.

# Appalachian Basin now produces 27% of U.S. natural gas

(Oil Voice; Jan. 26) - Significant growth in natural gas production over the past decade — primarily from the Marcellus and Utica shales in the Appalachian Basin — have dramatically increased output in Ohio, Pennsylvania, and West Virginia. Production in the three states increased from a combined 1.4 billion cubic feet per day in 2008 to nearly 24 bcf a day in 2017, with their combined share of total U.S. production reaching 27 percent, up from just 2 percent in 2008, based on data through October 2017.

Before 2011, gas production in the three states was lower than demand, and interstate pipelines moved gas into the area primarily from production areas in the Gulf Coast. In recent years, however, increased supply has been able to meet demand within the states and in neighboring states. Existing pipelines have been modified to transport gas out of, instead of into, Appalachia, and several new pipelines have been announced to link Appalachian supply to downstream markets.

Overall, Appalachian production has displaced Gulf Coast supply, freeing gas there for export by pipelines to Mexico and as liquefied natural gas. The petrochemical industry is another growing consumer in the region. Marcellus and Utica gas is rich in liquids, including ethane, making the region attractive for chemical manufacturers. Ethylene crackers, for example, convert hydrocarbon feedstocks such as ethane to the building blocks for plastics. Three new ethylene crackers have been proposed for the region.

## U.S. Northeast imports propane from Algeria, Norway, Sweden

(Bloomberg; Jan. 22) - If only there were some place closer than Algeria for the U.S. East Coast to source one of its heating fuels. The sole Northeast propane import terminal in Newington, N.H., can't bring in gassy heating fuels fast enough. Ships have hauled in propane supplies from Algeria and Norway, with a third Swedish cargo on the way after freezing weather menaced New England earlier this month.

The U.S. overtook Qatar as the world's No. 1 propane exporter in 2014 after horizontal drilling revolutionized shale liquids production. But all that propane from U.S. Gulf Coast terminals has a problem reaching consumers on the East Coast. The nearly 100-year-old Jones Act, which bars foreign-flagged vessels from moving commodities between U.S. ports, means it's easier to find tankers to take U.S. propane to Europe and Africa than to the U.S. East Coast. These days, whatever extra the East Coast needs usually comes from Canadian suppliers — with Africa and Europe pitching in this winter.

## Carnival orders its eighth LNG-powered cruise ship

(Travel Pulse; Jan. 26) - Carnival Corp. announced Jan. 25 it signed a shipbuilding contract for a second next-generation cruise ship for its P&O Cruises brand. The vessel will be constructed by German shipbuilder Meyer Werft, scheduled for delivery in 2022. It will be one of the first cruise ships to be powered by liquefied natural gas, both while in port and at sea, and will be the largest cruise ship built specifically for the British market at 180,000 gross tons and able to accommodate about 5,200 guests.

It will be among 19 new ships scheduled for delivery between 2018 and 2022. Carnival now has agreements in place with shipbuilders Meyer Werft and Meyer Turku to build eight LNG-powered cruise ships across four of its 10 global cruise brands with delivery dates between 2018 and 2022. In addition to the two P&O Cruises U.K. vessels, AIDA Cruises will receive two ships in 2018 and 2021, Costa Cruises will receive two in 2019 and 2021, and Carnival Cruise Line will receive two in 2020 and 2022.

## India looks for markets for its 'bottom-of-the-barrel' petcoke

(Bloomberg; Jan. 22) - Scraping the bottom of the oil barrel for cheap fuel may be turning into a multibillion-dollar headache for India's largest crude refiner. The South Asian nation's battle against pollution has left Indian Oil Corp. searching for alternative markets to sell its petroleum coke, the cheapest and dirtiest among oil products. New limits were adopted on its use in India, including bans and increased taxes, after refiners in the fastest-growing oil consumer built plants to process the low-value fuel.

"Petcoke will be a big challenge in 2018," Indian Oil Finance Director Arun Kumar Sharma said. "We have to prepare ourselves for an alternative plan." Indian refiners aren't alone in their struggle to deal with environmental regulations sweeping the region. With tighter emissions controls from China to Indonesia, oil processors across Asia are being rocked by constantly changing rules on what they can produce and market as governments strive to clean up the air in some of the world's most polluted cities.

Petcoke took off after the Indian government began limiting coal use to reduce carbon emissions. Consumption of the oil residue has quadrupled since 2011 as cement plants, power generators, and small manufacturing industries see it as a low-cost alternative to coal. Last year, India was the world's biggest petcoke market, and Indian Oil built the world's largest delayed-coker. The state-run refiner has similar units across seven of its nine refineries and is investing \$480 million to add another.

## Canadian railway wants oil shippers to sign long-term contracts

(The Canadian Press; Jan. 26) - Crude-by-rail shippers are being asked to sign multiyear, take-or-pay contracts that guarantee minimum volumes before Canadian Pacific Railway will assign locomotives and crews to help move a backlog of oil sands crude out of Western Canada. The railway wants its customers to have significant "skin in the game" before it commits to the costs involved in boosting its oil-shipping capacity, chief financial officer Nadeem Velani told a CIBC World Markets conference webcast Jan. 26.

"What we're looking for, short-term, is to build in some commitments with customers to either commit a certain level of volumes or have a take-or-pay arrangement where they would pay damages if they didn't meet those volumes," Velani said. While reporting CP Rail's fourth-quarter results last week, CEO Keith Creel said it would only reluctantly add crude-by-rail volumes, fearing the business will end suddenly when new pipelines come online as early as 2020 because pipeline transport is generally less expensive.

Velani said CP Rail's oil shipments have "effectively doubled" from one year ago and conceded they could be higher if CP assigned more resources, adding it takes time and money to hire and train staff and reactivate locomotives from storage. Alex Pourbaix, CEO of Alberta oil producer Cenovus Energy, said he is confident Canadian railroads will get on board over the next few months. "I think there is ample margin ... for rail to get an enhanced return and for the producers to get a much-enhanced netback." Prices for Western Canadian Select crude have trailed the benchmark U.S. oil price by \$10 to \$30 a barrel, in part because of limited pipeline capacity out of Western Canada.