# Oil and Gas News Briefs Compiled by Larry Persily February 5, 2018

#### Novatek proclaims its second Arctic LNG plant will be low cost

(Interfax Global Energy; Jan. 25) – Novatek expects gas liquefaction costs at its proposed second Arctic LNG plant will be less than \$2 per million Btu, Denis Khramov, deputy chairman of the Russian company's management board, told a conference in the Russia House at this week's World Economic Forum in Davos, Switzerland. "Our engineering solutions [will lead to] very low production costs," Khramov said. The company plans to build the liquefaction plant off-site and tow it to its permanent home.

Novatek last month started shipments from its first LNG project, located on the Yamal Peninsula in Russia's Far North. The company and its French and Chinese partners in Yamal LNG have not publicly disclosed the cost of production and liquefaction at the facility. Novatek is planning to build its second liquefaction and export facility just to the east, in an area rich with natural gas resources. If it could achieve a \$2 liquefaction cost, Novatek's proposed Arctic LNG 2 would be a low-cost supplier, though shipping costs from the remote facility would cancel out some of the competitive cost advantage.

# South Korea looks to increase LNG imports from Russia

(Interfax Global Energy; Jan. 25) - South Korea plans to increase its liquefied natural gas imports from Russia, according to the Ministry for the Development of the Russian Far East. The ministry cited Song Young-gil, chairman of South Korea's Presidential Committee on Northern Economic Cooperation. South Korea in 2016 bought about 6 percent of its LNG from Russia, which had only one export plant in operation in 2016 — Sakhalin 2, in the Far East. Russia's Yamal project in the Arctic started up last month.

"We have agreed to develop cooperation not only in the field of aquaculture but also in other products and services, in particular Korea plans to increase LNG supplies from Russia," Song said during a video conference with Russian Minister for the Far East Development Alexander Galushka. Qatar, Australia, Indonesia, Malaysia, and Oman were all bigger LNG suppliers to South Korea in 2016 than Russia.

# Shell CEO dismisses concerns of LNG supply glut

(Platts; Feb. 1) - Shell CEO Ben van Beurden said Feb. 1 there is no evidence of a global LNG supply "glut," dismissing concerns that the LNG market is headed for a

period of oversupply. Shell stood out early last year as one of the only LNG market participants to assert that there was a balanced supply/demand picture in global LNG, with many others saying the market was already oversupplied — with and even worse imbalance to come as new supply projects come online.

However, LNG prices rose to three-year highs in the winter on strong buying from Asia, and China in particular, with the Asian spot price surging past \$11 per million Btu. "The LNG glut — conspicuously absent isn't it?" van Beurden told reporters at a press conference in London following the company's earnings release. "There is not going to be a glut, the market can absorb new supply," van Beurden said.

"The glut has not played out just as we said would be the case. In fact, we see a rather tight LNG market." He said it was understandable why commentators may have forecast a glut because "supply additions are more visible than demand growth." Shell's view was echoed by industry players during the European Gas Conference this week in Vienna. Patrick Dugas, the head of LNG trading at Total, said all new supplies were being absorbed by the market. "This famous glut just didn't materialize," Dugas said, adding that the market may reach the early 2020s without ever entering an oversupply.

#### Maryland shore LNG plant expects to ship first cargo in March

(Oil & Gas Refining & Petrochemicals; Feb. 1) - Dominion Energy said its \$4 billion liquefied natural gas plant on Chesapeake Bay in Lusby, Md., has started production. The plant is undergoing commissioning, cooling down its storage tanks, and is expected to ship its first cargo in early March. The liquefaction facility has the capacity to process up to 750 million cubic feet of feed gas a day into 5.25 million tonnes of LNG a year.

Construction of the single liquefaction train started in October 2014 to add export capabilities to the underused 1970s LNG import terminal. GAIL (India) and a joint-venture between Japan's Sumitomo and Tokyo Gas are under 20-year contracts to take the plant's full production capacity.

# Bangladesh awaits LNG imports to displace oil in power generation

(Platts; Jan. 30) - Bangladesh is planning to cut its fuel oil and gasoil consumption as liquefied natural gas appears set to displace oil in the power-generation sector. The country of more than 165 million people expects its first imported LNG cargo to be delivered in April, with S&P Global Platts Analytics forecasting LNG imports to reach 10.7 million tonnes per year by 2023. The government plans to gradually shut old oil-fired power plants as more gas becomes available to reduce the country's power bill.

Bangladesh imports a lot of fuel oil and gasoil to run its power plants, mostly from Asia and the Middle East. The country's energy regulator has ordered the Bangladesh Power Development Board to permanently shut four gasoil-fired power plants with a combined capacity of about 140 megawatts by June. Electricity generation costs at these power plants, which were commissioned 30 years ago, have soared to approximately Taka 40 (\$0.50) per kilowatt hour — and double that at other gasoil-fired plants.

Several other fuel oil-fired and gasoil-fired power plants will also be shut after LNG imports begin in April, Development Board Chairman Khaled Mahmood said last week. Rising LNG imports will help bridge the gap between domestic gas production of about 2.7 billion cubic feet per day vs. domestic demand of 3.3 bcf a day. According to a study by Copenhagen-based Ramboll, Bangladesh's gas reserves of about 12 trillion cubic feet are likely to be depleted by 2038, if no new exploration and discovery occurs.

# Winter pushes Japan's January LNG imports to highest in 5 years

(Reuters; Feb. 1) - Japanese imports of liquefied natural gas hit their highest in at least five years in January, with shipments expected to continue at a brisk pace this month as freezing weather keeps its grip on the world's top buyer of the fuel. Japan's imports of LNG rose to nearly 8.7 million tonnes last month, up 8 percent from December and the largest volume since at least January 2013, according to ship tracking data on Thomson Reuters Eikon that stretches back five years.

That upturn is piling further pressure on the region's spot markets for the commodity, which marked three-year highs last month as China rushed to snap up cargoes for its drive to use gas to heat millions of homes and power thousands of factories. "A recent cold snap contributed to LNG demand for power (in Japan) as well as in city gas sector," said Boseok Jin, a research analyst at IHS Markit. Unusually frigid conditions swept parts of Japan in January with snow blanketing Tokyo at one point in the month.

"We were all caught by surprise with the cold weather, and (LNG) inventory is very low now," said a source with a Japanese utility, declining to be named as he was not authorized to speak with media. Four months of maintenance at a nuclear reactor run by Kyushu Electric could also be boosting demand for LNG, the source said. But Japan's demand for LNG could fade as the weather improves with spring in March and as some nuclear reactors are due to restart around the same time, said IHS Markit's Jin.

# Croatia moves closer to its first LNG import terminal

(Reuters; Feb. 1) - Croatia will pass a special law to speed up construction of a liquefied natural gas import terminal in the northern Adriatic Sea, Prime Minister Andrej Plenkovic

said Feb. 1. Croatia produces more than half of the almost 90 billion cubic feet of gas it consumes each year. Once the terminal is built, it hopes to import LNG to supplement its own needs as well as central and eastern European countries.

"We want to better position Croatia on the European energy map and diversify energy sources," Plenkovic told a cabinet session. The European Union has decided to put the floating LNG terminal on its list of projects of common interest since it wants to diversify sources of supply and reduce its members' dependence on Russian gas. The EU will invest about \$125 million in the project, about a quarter of the cost. Croatia plans to make a final investment decision this year with start-up in early 2020.

However, some local environmental groups and regional authorities have opposed the proposal, saying the terminal represents a threat to the ecological balance in the sea. The facility would start with an annual capacity of 90 billion cubic feet of gas a year.

#### Coal imports rose last year in Japan, China, South Korea

(Reuters; Feb. 1) - Far from entering the death throes predicted by some analysts and environmentalists, thermal coal miners are enjoying their best returns in years as strong Asian demand and tight supplies send prices soaring. Chinese thermal coal futures hit a record of 687 yuan (\$108.49) per tonne this week, up five-fold from their 2016 lows. Coal prices from Australia's Newcastle terminal, meanwhile, have roughly doubled since 2016 lows to over \$100 per tonne, not far off 2011-2012 levels.

While the spotlight has been on oil and natural gas, specialist thermal coal miners are enjoying an even better run, suggesting investors think that this much-reviled fossil fuel has life in it still. The rise in coal prices has taken many by surprise. "The urbanization and electrification of Asia will continue to drive demand for these commodities, and we see supply struggling to meet that demand because of depletion and lack of investment in new capacity," said Brian Beem, a director at mining investor AMCI Group.

At the heart of the strong performance is the fact that, despite the rise of LNG and renewables, thermal coal consumption has barely dropped across Asia. In Japan, a top coal and LNG consumer, imports of thermal coal rose 4.3 percent last year to a record 114.5 million tonnes. LNG purchases rose 0.4 percent to 83.6 million tonnes. South Korea's coal imports rose by more than 10 percent in 2017. China's 2017 coal imports were at their highest level since 2014, at 270.9 million tonnes.

# Sierra Club drops legal fight against LNG export terminals

(Kallanish Energy; Feb. 2) - The Sierra Club has quietly dropped its fight against Cheniere Energy's Sabine Pass LNG export terminal in Louisiana. The U.S. Court of

Appeals for the D.C. Circuit on Jan. 30 granted the Sierra Club's motion to drop its legal fight against the U.S. Department of Energy, according to Law360. The decision appears to end legal fights against the department over its LNG export decisions.

The Sierra Club has lost several lawsuits in federal courts against LNG facilities in Louisiana, Maryland, and Texas. Its main argument was that the Department of Energy, which governs U.S. natural gas exports, failed to consider the environmental impacts of additional shale drilling to produce the gas that would be delivered to the liquefaction plants. The group's argument was that the department should consider the full-cycle environmental impacts, not just those of the LNG facility itself.

The D.C. Circuit Court of Appeals ruled against the Sierra Club last Nov. 1 in an appeal over LNG export terminals in Sabine Pass; Corpus Christi, Texas; and Cove Point, Md.

#### Gas production, earthquakes present dilemma for Dutch citizens

(The Associated Press; Jan. 28) - When Nienke Bastiaans bought a 17th-century house in a rural Dutch village, there was just one person who warned about earthquakes due to gas extraction. "Nobody listened to him," she said. Now, 20 years later, thousands of homes in the northeastern Groningen province face reinforcement or even demolition because of hundreds of small tremors caused by decades of gas production. It's forcing the Dutch government to confront the prospect of a future without locally produced gas and lucrative gas tax revenue years earlier than previously expected.

A shallow 3.4-magnitude earthquake on Jan. 8 jolted the region and rekindled calls for the government to end gas production. Thousands marched in Groningen on Jan. 19 to protest gas extraction. The quakes occur because gas production lowers the pressure in a layer of porous sandstone about 1.9 miles below the Earth's surface. This causes layers in the sandstone to be squashed together. If this happens along natural fault lines in the rock, it can cause tension and lead to sudden shifts.

But the government can't just order a shutdown of the gas production machinery that dots the flat landscape. Some 90 percent of Dutch homes use the gas, and the government has long-term contracts to sell gas to neighboring countries. The Groningen field is one of the world's largest, starting at 100 trillion cubic feet of reserves, and it has been incredibly lucrative: In fiscal 2016, it earned just over \$3.7 billion for the Dutch government. But faced with growing unrest in, the government has cut the amount of gas extracted. And after the Jan. 8 quake, further production cutbacks are possible.

#### U.S. oil production highest in more than four decades

(Bloomberg; Jan. 31) - U.S. oil production has surged above 10 million barrels a day for the first time in more than four decades, another marker of a profound shift in global crude markets. The milestone comes weeks after the International Energy Agency said the U.S. is poised for "explosive" growth in oil output that would push it past Saudi Arabia and Russia this year. New drilling and production techniques have opened up billions of barrels of recoverable U.S. oil in shale rock formations in the past 10 years.

The OPEC-led agreement to curb global oil supply is finally showing signs of working, with prices emerging from a three-year downturn. After falling near \$26 a barrel in 2016, the global benchmark oil price climbed above \$70 a barrel in January. Yet, increasing output from the U.S. may threaten rising prices. "These U.S. production numbers are starting to take the wind out of the sails of the crude oil market," said Joseph Bozoyan, a portfolio manager at Manulife Asset Management in Boston.

The Permian Basin of Texas and New Mexico, the engine for shale production and acquisitions, is expected to comprise almost 30 percent of U.S. output this year. ExxonMobil is spending billions to triple its output by 2025 from the Permian, where its costs are as low as \$15 a barrel. In addition, output from the Gulf of Mexico surged and North Dakota, where most of the Bakken shale lies, pumped the most since August 2015. U.S. production is forecast to average 10.3 million barrels a day this year and 10.9 million in 2019, the EIA said Jan. 9 in its monthly Short-Term Energy Outlook.

# Oil industry frustrated as B.C. and Alberta fight over pipeline project

(Calgary Herald columnist; Feb. 2) - Bob Cochlan has been in the energy industry since 1968 and has seen many booms, busts, and battles. Like many in Canada's oil patch, he is frustrated with the gridlock around getting pipelines built and the country's inability to get the best price for its resources. "I am just fed up with the inertia of this country and the indifference," said the veteran Calgary natural gas liquids consultant.

The conflict this week escalated between Alberta and British Columbia over the issue of the Trans Mountain oil sands pipeline expansion. After B.C. proposed regulations to restrict the amount of Alberta's bitumen heading to its coast, Alberta said Feb. 1 it will suspend talks with its neighbor over expanding transmission lines that would help B.C. Hydro send more electricity into Alberta. But electricity is a sideline to the bigger tussle.

Western Canadian oil output is expected to grow by more than 350,000 barrels a day, and Alberta needs new pipelines to reach market. In part because of insufficient pipeline capacity, the price differential between U.S. oil and Western Canadian Select heavy crude has grown to as much as \$30 a barrel, costing companies and the Alberta treasury millions in lost revenue in recent days. But the B.C. government opposes the \$7.4 billion Trans Mountain expansion to boost deliveries to a coastal export terminal.

"At the end of the day, it's frustrating because they wouldn't last a week without oil and gas in B.C.," said Mark Salkeld, CEO of the Petroleum Services Association of Canada. "That's just not fair." This isn't about fairness, however. It's about politics. As politicians squabble over the issue, those in the energy sector are growing increasingly frustrated.

#### Oil industry returns to big offshore projects, but with lower costs

(Wall Street Journal; Jan. 31) - Big oil companies are returning to ambitious offshore projects that languished during the slump in crude prices, but they're working on tighter budgets as investors urge them to rein in spending. About 30 major new projects are expected to launch in 2018, more than double the average approved in the global oil industry for 2014 through 2016, according to U.K.-based energy consultants Wood Mackenzie. They are likely to include multibillion-dollar developments off the coasts of the United States, Brazil, and Nigeria, as well as newer oil frontiers like Guyana.

The trend marks a turnaround for the industry, which spent three years delaying major investments after the steepest price crash in decades. Yet it isn't expected to mark a return to the megaprojects that characterized the years of \$100 oil. New projects must be able to compete with U.S. shale, whose costs dropped faster than elsewhere in the industry and which have lured many companies with the promise of swift returns.

In a sign of the attraction of high-quality shale acreage, ExxonMobil said Jan. 29 it plans to spend \$50 billion to expand its U.S. business over the next five years. France's Total and its partners are moving ahead on a 150,000-barrel-a-day project off the coast of Brazil this year — but only after determining they could develop it at a cost of less than \$20 a barrel. In Norway, Statoil said it would move ahead with the long-delayed Johan Castberg offshore project after cutting the break-even oil price to under \$35 a barrel. Companies have redesigned projects using a simpler, cheaper model that favors a boiler-plate approach using standardized equipment.

# Half of city buses worldwide will be electric in 7 years, report says

(Bloomberg; Feb. 1) - Nearly half of the municipal buses on the road worldwide will be electric within seven years, with China expected to dominate the global market as it aims to cut urban pollution and support domestic manufacturers. The total number of electric buses in service worldwide is forecast to more than triple, from 386,000 last year to about 1.2 million in 2025, equal to about 47 percent of the worldwide city bus fleet, according to a report from Bloomberg New Energy Finance.

"China will lead this market, due to strong domestic support and aggressive city-level targets," wrote Aleksandra O'Donovan, an analyst and author of the study. By 2025,

the report said, China will account for 99 percent of the world's battery-powered buses. Electric buses remain more expensive up front than those fueled by compressed natural gas or diesel, but Bloomberg found that battery-powered buses can already offer a lower total cost of ownership when fuel and maintenance expenses are considered.

Projected declines in battery prices will make the upfront costs of some electric models competitive with a diesel version by 2026, according to the study. Public buses are a key part of the urban transit infrastructure, and the fact that they serve routine, fixed routes makes them ideal for electrification. Cities across the globe increasingly see electric buses as a way to reduce local air pollution, and municipalities such as Paris and Amsterdam have set goals to switch to zero-emission buses in the coming years.