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

First LNG export cargo leaves Cove Point terminal in Maryland

(Reuters; March 2) - The first cargo of liquefied natural gas from Dominion Energy's Cove Point export terminal in Maryland sailed early March 2, according to analysts and Reuters shipping data. Dominion officials were not immediately available for comment. Dominion spent about \$4 billion to add liquefaction and export facilities at Cove Point, an underused 1970s' LNG import terminal on Chesapeake Bay. Shell has signed up to take Cove Point's initial cargoes; the first cargo's destination has not been disclosed.

Cove Point is the second big LNG export terminal in the Lower 48 states after Cheniere Energy's Sabine Pass terminal in Louisiana, which exported its first cargo in February 2016. After decades of importing massive amounts of gas, the United States became an exporter of the fuel in 2017 for the first time in 60 years due to record U.S. gas production from shale fields. With four more terminals under construction, the U.S. is expected to become the world's third-biggest LNG exporter by capacity in 2018.

U.S. LNG export capacity is expected to rise to 10.1 billion cubic feet of gas per day by the end of 2020 from 3.8 bcf today. Cove Point is designed to liquefy about 750 million cubic feet of gas per day. Another vessel, the Methane Spirit, is also headed for Cove Point, according to Reuters shipping data. Dominion sold the plant's capacity — after the initial start-up cargoes — for 20 years to a subsidiary of GAIL (India) and to a joint venture of Japanese trading company Sumitomo and Tokyo Gas.

Cheniere's Texas LNG facility could start up this year

(Reuters; March 1) - Cheniere Energy's Corpus Christi export terminal in Texas could start producing its first liquefied natural gas this year, a company executive said March 1. Construction of two liquefaction trains, at 4.5 million tonnes per year annual capacity each, is more than 80 percent complete, said Douglas Wharton, a director of Cheniere Marketing, speaking at an LNG industry conference in Singapore.

"We will hopefully start producing first LNG by this year and have made significant progress on Train 3 which ... we are hoping to take a final investment decision on soon," Wharton said. The first phase of the project, with two liquefaction trains, storage tanks and marine berths, is expected to cost \$10 billion. The third train is estimated at \$2.5 billion. Cheniere has signed up a Chinese buyer for much of the third train's capacity. The Corpus Christi plant is Cheniere's second on the Gulf Coast. Its LNG export facility in Sabine Pass, La., started up two years ago, and is the largest of several gas liquefaction and export terminals under construction in the United States.

Anadarko expects to reach final deals this year for Mozambique LNG

(Reuters; Feb. 28) - Anadarko Petroleum expects to conclude several sales-andpurchase agreements by year-end for liquefied natural gas from its proposed plant in Mozambique, a company official said March 1. Texas-based Anadarko is developing the first onshore LNG plant in the African nation, initially consisting of two LNG trains with a total capacity of 12.88 million tonnes per year.

"We have multiple ongoing negotiations with a variety of buyers ... everyone from Chinese to Indians to Japanese," said Andrew Seck, vice president of Anadarko's LNG marketing and shipping division. In all, Anadarko has agreed commercial terms including volume and price for 5.1 million tonnes per year of LNG off-take deals from Mozambique, closing in on its target of 7.5 million tonnes needed to trigger its final investment decision on the project, Seck said at an LNG conference in Singapore.

Deals so far include Anadarko's first binding agreement with Electricite de France, as well as an earlier deal with Thailand's state-run PTT that is still undergoing government approvals. There is also a preliminary deal with Japanese utility Tohoku Electric.

Oil and gas industry criticizes Trump's plan for tariffs on steel imports

(Reuters; March 1) - The U.S. oil and gas industry has slammed President Donald Trump's plan to impose tariffs on imported steel, saying the move would kill energy jobs by raising costs for big infrastructure projects. Officials at the nation's top energy industry trade groups issued statements urging Trump to reconsider the idea, and a source familiar with ExxonMobil's investment plans said the tariff could lead the company to curtail an expansion of one of the country's biggest oil refineries.

Trump said March 1 he would impose tariffs of 25 percent on steel imports and 10 percent on imported aluminum next week, in a move intended to protect U.S. industry. But critics said it would fail to boost jobs and risked stoking a trade war with China. The U.S. energy industry relies on imported steel for drilling equipment, pipelines, production modules for liquefied natural gas terminals and refineries.

An Association of Oil Pipe Lines' study last year said a 25 percent increase in pipeline costs could increase the budget for a typical project by \$76 million. TransCanada's proposed Keystone XL expansion would cost at least \$300 million more. The Interstate Natural Gas Association of America said the tariff could pose a problem because the

type of pipe and steel used to make thick-walled interstate pipelines are hard to source domestically. A source familiar with Exxon's deliberations about a possible expansion of the Beaumont, Texas, refinery said a boost in steel prices could affect the company's decision. The proposed expansion would make it the nation's largest refinery.

U.S. manufacturers group warns against more LNG export approvals

(Reuters; March 1) - A U.S. manufacturing trade group on March 1 urged the Department of Energy not to approve any more liquefied natural gas export applications, citing concerns that the country was consuming and exporting the fuel at a faster clip than it was finding new resources. After decades of importing large amounts of gas from Canada and limited LNG imports, the U.S. in 2017 became a net exporter for the first time in 60 years due to growing LNG exports and pipeline sales to Mexico.

The United States is expected to become the world's third-biggest LNG exporter by capacity in 2018. At the start of 2016, before Cheniere Energy's Sabine Pass, La., LNG export terminal entered service in February of that year, the U.S was not exporting any liquefied gas. Sabine Pass is still the only LNG export facility operating in the country, but by the end of the year at least two more terminals will be online, with three more under construction.

The agency's approval of too much export volume cannot possibly be in the "public interest," the Industrial Energy Consumers of America said. The nation's LNG export capacity is expected to rise to 9.4 billion cubic feet per day by the end of 2019 and 10.1 bcf a day by the end of 2020 as facilities under construction enter service. Total U.S. marketed gas production in 2017 averaged about 79 bcf a day.

China's first privately owned LNG import terminal to open this year

(Reuters; March 1) - Chinese gas distributor ENN will have the initial phase of the country's first privately owned liquefied natural gas import terminal ready by the middle of this year, a company official said March 1. Construction of the 3-million-tonnes-peryear Zhoushan terminal in China's eastern Zhejiang region is more than 90 percent complete, with commissioning expected in the middle of 2018, said Ma Shenyuan, vice president of ENN Energy Holdings.

The company is also considering expanding the terminal by adding 15 million tonnes of additional capacity in two phases, he said at an LNG conference in Singapore. With China's LNG demand expected to grow by more than 10 percent per year on average over the next three years, Ma expects the country's LNG imports to easily hit 50 million tonnes by 2020 from last year's 38 million tonnes. "New LNG contracts are needed to meet demand," he said.

China last year overtook South Korea to become the world's second-biggest importer of LNG behind Japan, driven by a government gasification program that switched millions of households to using natural gas rather than coal for household heating. ENN has signed LNG sales-and-purchase agreements with Chevron and Australia's Origin Energy. It also has an agreement with Total to buy 1.5 million tonnes a year of LNG.

Exxon says Papua New Guinea LNG plant will be down 8 weeks

(Reuters; March 5) - ExxonMobil said March that it would take about eight weeks to restore production at its Papua New Guinea liquefied natural gas project, following a powerful earthquake that hit the country's energy-rich interior a week ago. The 7.5 magnitude quake on Feb. 26 triggered landslides and flattened buildings, killing at least 31 people. The South Pacific nation has declared a state of emergency.

Exxon said 300 non-essential personnel had been evacuated and work at the gas conditioning plant in the highlands had turned to restoring the camp and associated facilities. "There has been some damage to various pieces of equipment and foundation supports that will need to be inspected and repaired," it said. "Initial visual inspections of the major processing equipment indicate that they may not have been significantly impacted," the company added.

Exxon is the operator and largest shareholder of the project that includes a 435-mile gas pipeline that connects reserves in the jungle Southern Highlands to a coastal liquefaction plant. Oil Search and Santos are also project partners. Uncertainty around production from PNG has drained liquidity from Asia's spot LNG markets with buyers and sellers taking a wait-and-see approach before committing to trade, a source said. The \$19 billion LNG project, which started up ion 2014, is considered one of the world's best-performing LNG plants, producing about 20 percent over its nameplate capacity.

LNG expansion could help cash-strapped Papua New Guinea

(Nikkei Asian Review; March 1) - Strong growth in gas demand from China is set to trigger a new round of major investment in cash-strapped Papua New Guinea. ExxonMobil and Total along with Australia-listed Oil Search are expected to finalize plans next year for more than \$9 billion in investment to expand liquefied natural gas export capacity in the resource-rich South Pacific nation. The companies are looking to expand the Exxon-operated \$19 billion Papua New Guinea LNG plant.

PNG is the fourth-largest LNG exporter in the Asia-Pacific region, and exploration is heating up. There are between 65 and 70 active exploration permits in the country, and at least as many active applications. Explorers are not just tapping the Papuan Basin in the jungles of the Highlands, either. The Western and Gulf provinces are receiving

more attention, as are shallow and deep-water acreage in the Gulf of Papua. ExxonMobil and Total have both rushed to snap up deep-water acreage.

For Papua New Guinea, more LNG exports would give a much-needed boost to government coffers. The country overspent for several years prior to 2014 on the assumption that the LNG export plant would provide large revenues. But global oil prices, to which LNG sales are indexed, collapsed in 2014, the same year the plant started up. The country's debt at the end of 2018 is estimated to reach 25.8 billion kina (\$7.8 billion), or 32.2 percent of gross domestic product, according to government data.

Proposed Nova Scotia LNG project hires financial advisers

(The Chronicle Herald; Halifax, Nova Scotia; Feb. 28) - Pieridae Energy of Calgary has engaged a couple of high-profile financial advisers to help it raise as much as US\$10 billion in equity and project financing so it can build its proposed Goldboro LNG project in Guysborough County, Nova Scotia. In a news release Feb. 27, Pieridae indicated it has hired Morgan Stanley and SG Americas Securities.

Founded in 2011, Pieridae Energy wants to build an integrated LNG business, from the exploration and production of gas across Canada to the development and operation of the LNG terminal, the company said in its release. Goldboro is one of two LNG export projects proposed on Canada's East Coast. Neither has sufficient financing, gas supplies or LNG sales contracts lined up for a final investment decision. The Goldboro project is proposed at 10 million tonnes of LNG per year.

U.K. factories may need to curtail operations to conserve natural gas

(The Telegraph; U.K.; March 1) - British factories are preparing to shutter some of their operations to help the nation avoid a gas supply crisis, as freezing temperatures sweep the country. For the first time in almost a decade, gas supplies will not be enough to meet demand unless energy-intensive industries agree to use less gas in return for hefty compensation payments levied on consumer bills, said National Grid, the electrical and gas utility for millions of customers.

The looming gas supply crisis has sent energy markets soaring, raising fears that bills may be hiked to meet the rising costs and that smaller suppliers may buckle under the pressure. It has also reignited calls from the U.K.'s largest energy users for an urgent government review of the country's gas supplies. National Grid hopes that by paying factories to cut their gas consumption, households will not be hit by a combination of freezing weather and multiple supply outages.

The operator admitted that without issuing a "gas deficit alert," supplies would fall short of demand by about 14 percent. Supplies have been pushed to the brink by an outage at a key liquefied natural gas import terminal. The South Hook LNG outage follows a string of similar mishaps at pipelines bringing in gas from Norway and the Netherlands, as well as technical trouble at a key gas processing plant in the North Sea. It is the first time since 2010 that National Grid has warned that the country could run out of gas.

U.K.'s fracking industry sees opportunity to make their pitch

(Bloomberg; March 2) - Britain's natural gas fracking industry is using the cold snap that has gripped large swathes of Europe this week and laid bare weaknesses in the U.K.'s energy supply to make its pitch. Britain's gas market has been stretched to its limits as the coldest spell since 2010 tests the nation's energy network. U.K. pipeline manager National Grid even urged industry to curb its gas usage while the cold weather persists.

As gas prices surged to record levels, industry groups and fracking-hopeful Ineos Group have called for Britain to produce more gas at home rather than rely on imports. "The U.K. is worryingly dependent on imports and this is forecast to increase to 80 percent by 2035," said Ken Cronin, chief executive officer of industry body U.K. Onshore Oil and Gas. "The need to ensure we have our own homegrown source of gas rather than pursuing this continued over-reliance on imports has today become very evident."

Once a major producer, the U.K. increasingly relies on imports during winter months as output from the North Sea falls. Ineos, which is seeking to develop its shale resources, said there is an "urgent need for increased domestic supplies of gas." But hydraulic fracturing of shale gas wells is controversial. Cuadrilla Resources drilled and fracked the first shale well near Blackpool in 2011 and caused two tremors. The practice was then banned for a year nationwide before a government study said it could be done safely. Companies have sought permission to drill, but plans have been subject to legal delays.

Russia ramps up gas deliveries for Europe's cold spell

(Bloomberg; March 2) - Russia is sending more natural gas to Europe than ever before as a blast of Arctic air has lifted demand for heat and electricity, underlining the region's dependence on its eastern neighbor. The freeze severely tested Europe's energy network over the past week. Spot gas prices tripled to a record, drawing in more Russian supplies by pipeline.

With a dissipating capacity to store gas and few tankers of liquefied natural gas arriving this season, Europe and particularly the U.K. are increasingly reliant on Russia to feed its energy needs. Moscow-based Gazprom, the continent's dominant supplier for

decades, used the opportunity to crow about its essential role. "Only Gazprom is capable of increasing gas supplies to European customers to maximum levels at a breakneck speed," said Gazprom CEO Alexey Miller.

Daily shipments from state-controlled Gazprom skyrocketed to a record in February, according to the company's data. Europe's consumption jumped to highest level in at least five years during the week through Feb. 24, and this week's cold snap drove demand higher still, according to estimates from London-based Marex Spectron Group.

Tacoma newspaper tells Seattle to stay out of LNG plant fight

(The News Tribune editorial; Tacoma, WA; March 1) - More than six years have passed since the cargo shipping company Totem Ocean Trailer Express proposed to convert its ships to burn liquefied natural gas, which led to an area company going ahead with its plans to build a gas liquefaction, storage, and fueling facility on the Tacoma Tideflats in Puget Sound. Since then, countless public meetings, hearings, studies, protests, lawsuits, and threats of lawsuits over the \$310 million LNG project have taken place.

But it wasn't until this week that the Seattle City Council decided to weigh in on the project, claiming climate change knows no jurisdiction. Why Seattle is choosing now to voice concern may have as much to do with politics and paternalism as it does concern over the environment. At the request of the Puyallup Tribe, the Seattle City Council passed a unanimous resolution calling on the Puget Sound Clean Air Agency to have "meaningful consultation with the tribe on Puget Sound Energy's liquefied gas plant."

Our editorial board has made it no secret that we favor the plant. LNG is a known commodity and cleaner-burning fuel that will help wean cargo shippers off dirty diesel fuel. In a perfect world, the expansion of fossil-fuel infrastructure would cease immediately. But right now, and for the foreseeable future, fossil fuels power almost all modes of transportation. Converting diesel-electric cargo ships to LNG propulsion has economic and environmental advantages we can't ignore. As for Seattle's "deep concerns," we recommend they focus them inside their own borders.

British Columbia proposes tougher spill regulations

(Calgary Herald; Feb. 28) - Pipeline operators and railways would be required to start assessing and cleaning up an oil spill within two hours if it is near a populated area or four hours anywhere else, under regulations proposed by the B.C. government Feb. 28. Environment Minister George Heyman released his ministry's intention paper on the beefed-up spill regulations that he and Premier John Horgan promised would "defend B.C.'s interests" amid the prospect of increased oil shipments across the province.

The province is now seeking public input on the measures, which are seen as an additional barrier to Kinder Morgan's \$7.4 billion Trans Mountain oil pipeline expansion from Alberta's oil sands to a marine terminal on the B.C. coast. Kinder Morgan president Ian Anderson said the province's proposals fall into federal jurisdiction and, as far as the company's project is concerned, were already considered in the federal review and approval. He said the company will "review and contest as necessary any effort to add regulatory impediments to this federally approved project."

The 41-page intention paper starts with response times and whether it is appropriate to set specific timelines for assessing and responding to spills, with suggestions that pipeline operators and railways should be able to start assessing an incident within two to four hours, depending whether it is close to a populated area. The proposed regulations also cover geographic response plans, asking whether operators should write enhanced response plans for sensitive areas such as salmon streams or fresh water sources. The public has 60 days to provide input via an online questionnaire.

World oil and gas leaders meet this week in Houston

(Wall Street Journal; March 2) - A rapidly shifting energy landscape being reshaped by new technologies and a revival of U.S. fossil fuel production will dominate the agenda as the world's leading energy executives, government ministers and financiers gather in Houston. Thousands of energy leaders, including the heads of Shell, BP and Saudi Arabian Oil Co., will meet starting March 5 for CERAWeek, the annual conference put on by IHS Markit that has become a bellwether for the health of the energy industry.

They will be joined by many of the world's top energy policy makers, notably OPEC Secretary General Mohammad Barkindo and several Trump administration officials, Energy Secretary Rick Perry and Interior Secretary Ryan Zinke. Leaders of many other energy-related industries are also set to speak, including the CEOs of General Motors and Siemens. This year's gathering takes place amid a continuing recovery for oil prices, which passed \$70 a barrel earlier this year for the first time since 2014.

But concerns linger whether the oil market is truly overcoming a glut as U.S. production continues to surge with shale drilling. For the second year running, OPEC's Barkindo and U.S. shale producers are set to meet privately as they seek to learn about one another. If the U.S. surges past Saudi Arabia to become the world's second-biggest oil producer behind Russia, as some forecasters predict, it could signal a fundamental change in a global pecking order that has been a basis for energy policy for decades.

Canada's First Nations look to take stakes in oil and gas projects

(Reuters; March 1) - Canada's First Nations are boosting investments and leveraging their clout with regulators to gain stakes in oil and gas projects as they seek greater returns on energy produced or transported across their territory. Aboriginal groups in Canada have traditionally played a more passive role in the energy industry, collecting royalties from oil and gas output. That model is changing as indigenous groups buy oil wells and negotiate ownership stakes in proposed pipelines and storage projects.

"We get a piece of the action," said Joe Dion, chief executive of First Nations-owned Frog Lake Energy Resources, which produces 2,000 barrels of oil a day and is looking to buy more producing properties outside of its territory — plus stakes in tank farms and pipelines. First Nations play a pivotal role because governments and companies have a legal duty to consult with them on projects affecting their territories. The law gives bands "pretty close to an effective veto," said Ken Coates of the University of Saskatchewan.

Some aboriginal groups have used that leverage to stop or delay oil projects, as when Enbridge's proposed Northern Gateway pipeline was rejected by Prime Minister Justin Trudeau in 2016 after bands raised environmental concerns. Other groups, however, are increasingly using the same power to negotiate ownership stakes in projects. A bigger financial role for First Nations could help unlock oil and gas reserves that might otherwise stay in the ground because of objections. "The revenue-sharing piece is here now," said Dion, of Alberta's Frog Lake First Nation. "That is where we have to go."

Europe's heavy-duty trucks could be a big market for LNG

(Platts; Feb. 27) - When Gasunie and its partners last year announced plans for a new liquefied natural gas import terminal in Germany, many industry players were skeptical that northwestern Europe needed another facility given the chronic under-utilization of the region's existing LNG receiving facilities. But a new market is opening up for LNG across Europe that could give the fuel a boost in demand in the coming years, namely as a low-emission fuel to power Europe's growing fleet of heavy-duty trucks.

With diesel in the dog house over its environmental credentials and electrification seemingly better suited to cars and lighter-duty trucks, heavy-duty truck manufacturers and users are increasingly looking at LNG as a strong contender for market growth. Current demand is difficult to quantify, but S&P Global Platts estimates annual European Union consumption at the equivalent of just one large tanker of LNG. That is based on an estimate that Europe currently has about 2,000 LNG-fueled trucks.

That's a very small market. China, for example, has 300,000 trucks running on LNG. So just how big can this market in Europe get? Natural Gas Vehicles Association Europe estimates 400,000 trucks could run on LNG by 2030 in Europe, a number that

seems optimistic. But if it happened, 400,000 trucks would require almost 2 billion cubic feet of gas per day. "We see significant upside potential," said Keith Martin, chief operating officer at Germany's Uniper, a diversified energy company.