# Oil and Gas News Briefs Compiled by Larry Persily March 6, 2017

#### China pushes hard for household conversions to gas or electric

(Reuters; March 3) - China has set itself a staggering task to cure its smothering pollution: Switch coal-fired boilers and heating systems in 1.2 million households in 28 of its smoggiest northern cities to run on gas or electricity by October. Beijing's latest crackdown on pollution, outlined in a policy document Feb. 17 and seen by Reuters this week, dangles a potentially game-changing carrot for the saturated global gas market.

The conversions would significantly boost China's gas demand. That offers the prospect of higher prices in a seller's market amid surging liquefied natural gas production worldwide. But there's an expensive catch. Such expansion is all but impossible without investing in doubling underground gas storage capacity, building thousands of miles of pipeline to carry the gas to eastern cities, and installing pump stations — all of which is supposed to be complete within seven months.

"The magnitude of this policy is unprecedented," said Guo Zihua, head of a rural development department at Beijing city hall. "We are under tremendous pressure to reach the target," said Guo, speaking during a tour March 2 of Beijing's outskirts designed to highlight the scale of the task. The radical plan comes as China ramps up its war on pollution by attempting to wean the nation off coal, its favorite fuel but one that chokes the north during the cold winter months. Most power plants run on coal. The speed suggests the government is determined to tackle the problem — at any cost.

# Gazprom continues to see big market opportunity in China

(Bloomberg; March 2) - Gazprom deputy head Alexander Medvedev is taking solace in old sayings by the founding father of the People's Republic of China as the natural gas giant pushes ahead with a plan to become China's biggest supplier. "Do you know this Chinese saying, 'Hard work for three years, happiness for 10,000'?" Medvedev said in an interview, referencing a loose translation of a Mao Zedong slogan.

The Russian gas exporter sees a chance this year for a new supply deal, which would be the first since a debut contract in 2014 before talks between the nations stalled. Gazprom's plan to deliver as much as 10 billion cubic feet of gas per day to China "still remains our target," Medvedev said in a March 2 interview in Hong Kong. Producers from Russia to Australia have been betting on huge sales to the world's biggest energy user as it seeks to shift from coal to cleaner-burning gas to reduce pollution.

But talks on new deals have slowed as China is reshaping its gas market, aiming to reduce its dependence on imports. Russia in 2014 signed a \$400 billion deal to export gas from East Siberia. The new pipeline is due to open in 2019, at the earliest. Gazprom had planned to follow that deal with more pipelines — but it hasn't happened. "Gazprom needs to be more realistic on gas pricing negotiations ahead" to win more sales to China, said Gordon Kwan, head of Asia oil and gas research at Nomura Holdings in Hong Kong. While China is putting more emphasis on cleaner fuels, he said, "the challenge is difficult because coal is still very cheap."

#### India swaps costly U.S. LNG for cheaper supply

(Reuters; March 3) - State-run gas company GAIL (India) has signed a time-swap deal with Swiss trader Gunvor to sell some of its contracted U.S. liquefied natural gas, sources said, as the Indian firm tries to ease the burden of its costly foreign LNG supplies. It is the first swap agreement by GAIL, which is trying to juggle its portfolio to cut costs for price-sensitive Indian customers after a sharp fall in Asian spot-market prices made its U.S. contract supplies unattractive.

Under the agreement, Gunvor will supply 15 cargoes totaling about 800,000 tonnes of LNG to GAIL on India's West Cost between April and December this year at oil-linked prices, two sources said. In return, GAIL will sell 10 cargoes totaling about 600,000 tonnes next year from its contract with Cheniere Energy's Sabine Pass, La., LNG export terminal. Under the deal, GAIL will pay at about a 12 percent slope to Brent crude, pricing the Gunvor LNG at \$6.50 to \$7 per million Btu, the sources said, competitive with Asian spot prices and much cheaper than the cost of shipping the LNG to India.

GAIL is saddled with long-term contracts to take expensive U.S. gas after embarking on a buying spree between 2011 and 2013 when LNG was scarce and prices kept rising. LNG booked by GAIL under its long-term deal with Cheniere will cost 115 percent of Henry Hub prices plus a fixed cost of \$3 for liquefaction. At current prices, that's about \$8.50 delivered to India, which explains GAIL's interest in lower-cost LNG from Gunvor. "GAIL is in talks with more players to sell LNG from its U.S. portfolio," sources said.

# Pakistan thinks long-term LNG deal with Eni may be too expensive

(The Express Tribune; Pakistan; March 5) - Italian energy giant Eni may lose a liquefied natural gas supply contract with Pakistan worth billions of dollars after a government consultant told Pakistani officials the price may be too high. The country's importer, Pakistan LNG, earlier this year reported it received a price quote for a five-year LNG supply from global trader Gunvor, pegged at 11.61 percent of the price of a barrel of oil. Eni was the apparent winner of a separate deal for a 15-year supply at 12.29 percent.

Pakistan started LNG imports in 2015 and has been busily signing up for more supply to meet growing demand for gas. A senior government official told The Express Tribune that Pakistan LNG Co. had hired an international consultant to evaluate the prices offered by Gunvor and Eni. The consultant suggested that Gunvor's price was in line with market trends but that Eni's bid was too high. Pakistan LNG awarded the short-term contract to Gunvor but stopped short of approving Eni's offer.

"The government will consider the price offered by Eni if it comes up with a discount. However, if the Italian company fails to offer some concession, it may lose the contract," the official said. At \$55 oil, the LNG from Gunvor would be priced at about \$6.40 per million Btu, while the Eni gas would cost Pakistan about \$6.75. The Pakistan government official cautioned, however, that the country might not get lower prices with new bids for the 15-year deal. While a global oversupply of the fuel has created a spot market with lower prices for short-term deals, the 12.29 percent price is lower than many long-term, oil-linked LNG contracts on the market.

### LNG developers could cooperate on marine terminal site in B.C.

(Globe and Mail; Canada; March 2) - A liquefied natural gas consortium is exploring ways to build docking facilities off Ridley Island next to Prince Rupert, B.C., requiring the cooperation of a rival LNG export project developer. Pacific NorthWest LNG, led by Malaysia's state-owned Petronas, is considering footing the bill to construct the marine terminal in exchange for gaining access to Shell Canada's development rights on Ridley Island and nearby waters. Both Pacific NorthWest and Shell Canada have been working for several years to develop separate LNG export terminals in the coastal B.C. city.

Pacific NorthWest LNG's original plans called for its marine terminal on Lelu Island, in an area of sensitive habitat for juvenile salmon. Keeping its liquefaction plant and LNG storage tanks on Lelu Island, but moving the marine terminal to neighboring Ridley Island, would avoid the salmon habitat area. B.C. Deputy Premier Rich Coleman, who is also Minister of Natural Gas Development, said there is merit to the switch.

The Petronas-led group is a competitor to Shell's export proposal, called Prince Rupert LNG, but Coleman said there would be cost savings for both if they were to cooperate on shared access to the infrastructure required for LNG carriers to dock. Pacific NorthWest LNG has all of its environmental permits for the Lelu Island site, and would have to obtain approval for the new site on Ridley Island. In addition, shaky economics, court challenges and infighting among hereditary chiefs have complicated the investment for Petronas and its partners. Shell has placed its LNG project on hold.

Exxon will focus on shale oil in 2017, not megaprojects

(EnergyWire; March 2) - U.S. shale oil will dominate ExxonMobil's activity in 2017 as global megaprojects take a back seat, the company's new CEO told investors March 1. The two great exceptions to this are Exxon's projects in Guyana, just east of Venezuela, and Papua New Guinea, just north of Australia. Exxon discovered a rich resource base offshore Guyana, one that can be developed economically, and it is looking to expand capacity for LNG exports from its Papua New Guinea plant that opened in 2014.

CEO Darren Woods said Exxon plans to focus on short-cycle projects, directing some \$5.5 billion toward investments in advanced horizontal drilling in the U.S. Permian Basin and Bakken Shale. Ongoing long-cycle projects are in development, and that work will continue, but Exxon is poised to center in on tight and shale oil rather than sanction new megaprojects. Executives said they're looking for projects that can make money at \$40 per barrel. The company sees prices continuing to be volatile for the foreseeable future.

By drilling long laterals on its contiguous drilling acreage, Exxon believes it can net massive quantities of liquids and associated gas in the Permian. "Through a series of acquisitions in the Permian, we have substantially enhanced our position," Woods said. "We currently hold more than 1.8 million net acres with more than 140,000 net oil equivalent barrels per day of current production." Exxon thinks it can expand oil-equivalent hydrocarbons production from just the Permian and Bakken to about 750,000 barrels a day by 2025, about 75 percent of that volume in liquids.

### Eni close to selling stake in Mozambique gas field; Exxon is favored

(Financial Times; London; March 1) - Eni said March 1 it was "within weeks" of sealing a multibillion-dollar deal to sell a stake in its Mozambique gas find, with ExxonMobil the favorite to make the deal. The Italian company has been seeking a partner to help bring Mozambique's vast offshore gas resources to market, and ExxonMobil is seen as the most likely candidate because it also holds exploration licenses in the African country.

Eni CEO Claudio Descalzi said the transaction was "very close," but declined to identity of the buyer. Bankers and industry figures said it would be a surprise if it was not Exxon. Eni wants a partner with strong financial and technical capacity to help develop gas fields in its block off the coast of Mozambique and the onshore infrastructure needed to liquefy and export the gas. The area holds an estimated 85 trillion cubic feet of gas.

Mozambique's location beside the Indian Ocean is well placed to serve Asia's growing LNG market, but there are political, economic and practical hurdles to development in one of the world's poorest nations. Eni's sale of a slice of its stake in the mega-field is expected to be followed later this year by the final go-ahead for its Coral South project — a floating LNG production facility targeting a smaller gas field in the area. BP last year agreed to a 20-year deal with Eni to buy the entire output from Coral South. Eni holds a 50 percent stake in Area 4, with the other half held by China National Petroleum Corp., Korea Gas, Portugal's Galp Energia and Mozambique's national oil company.

#### Weak market prompts New Brunswick to cut LNG facility tax bill

(CBC News; March 1) - The New Brunswick government has slashed the assessed value of the Canaport LNG property in Saint John by nearly 70 percent for 2017, the first year that partner Irving Oil is scheduled to pay full taxes to the city for the import terminal. The new assessment of \$98 million is down from last year's \$299.5 million. The reduction saves Irving Oil about \$5.5 million in property taxes it would have owed the city under last year's valuation, which would have generated a tax bill of \$8 million.

Instead, the company will owe the city \$2.6 million this year. Canaport LNG, which opened in 2009, had been under a 10-year deal that froze taxes at \$500,000 a year. The province terminated the deal last year at the request of the city, which prompted the province to reassess its valuation of the property. Saint John Deputy Mayor Shirley McAlary — a key player in the city's push to kill the tax break — said the city will have to wait to see if Irving Oil appeals the new assessment to try and have it lowered further.

McAlary wonders if Canaport's longstanding struggle to sell gas into the United States, which has a surplus of the fuel, played a role in the drop in value. A New Brunswick official said the province's old assessment had grown stale and the facility faces difficult financial circumstances. "The depreciation of the property is due to external forces caused by a decline in commodity price and an oversupply in the gas industry. This has affected both the competitiveness and market value of the Saint John facility." Canaport LNG is partnership between Irving Oil and Spanish oil and gas company Repsol.

# **Expanded LNG plant near Vancouver set for summer start-up**

(Delta Optimist; Delta, BC; March 3) - The \$400 million expansion at the FortisBC Tilbury liquefied natural gas production and storage facility across the river from Vancouver, B.C., is in the stretch drive. "The hydro test is completed on the tank and we're about 85 percent complete on the project, overall, on construction. Over the next number of months we'll be doing more commissioning and testing of various units before we start testing the full plant," said Doug Stout, vice president of development.

In operation since 1971, the Tilbury facility can liquefy almost 5 million cubic feet of natural gas per day and has a storage capacity of 100 times that amount as LNG. The expanded facility will be able to liquefy an additional 32 million cubic feet of gas per day and almost triple the storage capacity. The additional capacity will help meet growing LNG demands from the transportation sector, remote communities and industry in B.C., the company said. Stout said the target is to have the expansion operating by summer.

A separate company, WesPac, is proposing to construct and operate a jetty adjacent to the Tilbury plant for serving the marine sector. The WesPac proposal still has to go through provincial and federal environmental assessments.

#### **Environmental group asks bank not to help finance LNG projects**

(The Guardian; March 2) – An environmental group has called on a French bank not to help finance a liquefied natural gas export terminal in Texas. A report released March 1 urges BNP Paribas and its U.S. subsidiary, Bank of the West, not to finance LNG terminals, in particular one proposed at the Port of Brownsville. "It's a destructive fossil fuel infrastructure project in the Gulf Coast in one of the relatively untouched parts," said Jason Opeña Disterhoft of the San Francisco-based Rainforest Action Network.

"That area is the beach of Texas. People come from all over the state and other nearby states to our beach because we are the last unindustrialized piece of coast along the Texas coastline," said LNG terminal opponent Rebekah Hinojosa. Developers have proposed three different LNG terminals in the Rio Grande valley, close to the city and Port of Brownsville and close to the spring break destination of South Padre Island, one of Texas's most popular beach resort areas.

In the wake of the 2015 Paris agreement to address climate change, BNP Paribas said it was committed to responsible investment, such as financing renewable energy rather than coal mining. France banned hydraulic fracturing for oil and gas in 2011 for environmental reasons. A spokeswoman for BNP's U.S. operation declined to comment.

# BP buys facilities that make natural gas from organic waste

(Waste Management World; March 2) - BP will acquire the upstream portion of Clean Energy Fuels Corp.'s renewable natural gas business. In the deal, BP will acquire Clean Energy's biomethane production facilities in Canton, Mich., and North Shelby, Tenn., as well as Clean Energy's share of two facilities under construction in Oklahoma City, and Atlanta. Operation of the production facilities will continue to be subcontracted to Clean Energy, which also operates 500 natural gas fueling stations in 43 states.

Renewable natural gas, or biomethane, is produced entirely from organic waste. It's marketed as a fuel for natural gas vehicle fleets, including heavy-duty trucks, offering lower greenhouse-gas emissions than gasoline or diesel. BP will pay \$155 million for Clean Energy's biomethane production facilities, its share of the new facilities and its existing third-party supply contracts for renewable gas. "Demand for renewable natural gas is growing quickly and BP is pleased to expand our supply capability in this area," said Alan Haywood, CEO of BP's supply and trading business.

### New \$1.5 billion petrochemical plant opens in Texas

(EnergyWire; March 3) - New ethylene manufacturing capacity entering service this week is a sign of big things to come for gas and gas liquids demand along the Gulf of Mexico coast. Occidental Chemical and partner Mexichem launched their new ethylene cracker operation at Ingleside, Texas, near the port city of Corpus Christi. The facility will convert hydrocarbons into 1.2 billion pounds of ethylene per year. The chemicals will be used to produce polyvinyl chloride pipe common in plumbing and other uses.

Construction of the plant started in 2014. The chemical-makers said the deal wouldn't have been possible were it not for the shale gas revolution in the United States. "This is a significant milestone for both OxyChem and Mexichem, enabling us to capitalize on the advantages that shale gas development presents for the chemical industry," said Robert Peterson, president of OxyChem. The 50-50 joint venture, Ingleside Ethylene, represents a \$1.5 billion investment.

Though demand for oil is seen as slowing, the oil and gas industry sees strong demand growth for plastics and petrochemicals. Demand in developing countries is growing, and the discovery of massive stores of U.S. shale gas has encouraged billions of dollars of investment in new petrochemical and plastics manufacturing along the Gulf Coast. Chevron Phillips Chemical is spending \$6 billion to expand its manufacturing capacity at Cedar Bayou, near the Houston Ship Channel, and at Old Ocean, near Freeport, Texas.

### Drilling slowdown has reduced earthquake risk in Oklahoma, Texas

(EnergyWire; March 2) - Federal officials say the risk from man-made earthquakes in Oklahoma and Texas has diminished as companies have slowed oil field wastewater disposal. But scientists at the U.S. Geological Survey stressed there is still a significant chance for oil field activity to trigger a damaging quake in the next year. The hazard in parts of Oklahoma is still "hundreds of times higher" than before the surge in disposal, said Mark Petersen, chief of the USGS National Seismic Hazard Mapping Project.

USGS on March 1 released its second annual hazard map forecasting the danger of damaging quakes caused by man-made activity. The forecast showed a slight decrease in Oklahoma, although some portions are still considered to have a 10 to 12 percent risk of a damaging quake. The likelihood of a quake in central Oklahoma remains similar to that of natural earthquakes in high-hazard areas of California, the USGS said. Officials noted the hazard level is higher than what current building codes take into account.

Researchers said reduced wastewater injection is a result of both regulatory measures undertaken by state officials and an oil production slump caused by low prices. In Oklahoma, the number of magnitude 3 and larger earthquakes declined 31 percent last

year to 623. But the state also had its largest earthquake ever in September. Before 2009, the state averaged about two such quakes a year. Scientists and public officials say the widely felt swarms of earthquakes are linked to deep wastewater injection.

#### Efficiencies reduce the need for as many oil and gas workers

(The Canadian Press; March 1) - Tens of thousands of Canadian oil and gas workers laid off during the downturn have been waiting for the patch to get back on its feet, but many of the jobs could be gone for good. A rapid change in technology is playing out across the industry, after plummeting crude prices that began in 2015 forced companies to cut jobs and other costs wherever they could over the past two years.

Now, with oil holding steady above US\$50 a barrel since December after having bottomed out to about \$26 in early 2016, energy analysts say the growth of automation and other labor-saving efficiencies could hold back many jobs from returning with the economic recovery. Take shale drilling, where just a few years ago you could find 30 rig hands operating diesel pumps, using headsets to synchronize the throttle and pressure needed to break apart the rock formations and free the trapped crude.

Today, that job can be done by two people in a control van, monitoring the automated, electrified systems, said Mark Salkeld, head of the Petroleum Services Association of Canada. "Now on a drill rig you've got a driller sitting in a cyber chair, with dual joysticks, touch screens, everything instrumented. He can control the whole rig, he can see it all." Companies are looking for ways to improve production and lower costs, said Warren Gieck, a production optimization leader at GE's innovation center in Calgary.

# LNG could have a big future in Canada's Yukon Territory

(CBC News; Canada; March 2) - Yukon Territory businesses are saying they like the idea of using liquefied natural gas to power mines and other industries in the future. Trucked LNG is in its infancy in the remote Canadian territory, however. Currently, its only use is to fuel Yukon Energy's two back-up generators at Whitehorse. But that would change — in a big way — if Western Copper and Gold gets the green light on its massive Casino mine project, which is in the fourth year of its environmental review.

The company estimates it will need an estimated 75 to 77 megawatts of power to operate the mine, 250 miles northwest of Whitehorse. That would be more power than is currently used in all of the Yukon. The company has signed an agreement with natural gas distributor Ferus to supply energy for the mine. The agreement would see a "virtual pipeline" of 12 oversized tanker trucks of LNG arriving at the mine site each day.

Cameron Brown, vice president of engineering with Western Copper and Gold, told the audience at this week's "LNG 101" session in Whitehorse, that after initially considering coal as a power source, the company elected to go with LNG for its cost-effectiveness and lower emissions. Peter Turner, president of the Yukon Chamber of Commerce, said there are many off-shoot opportunities for Yukon businesses, including converting trucking fleets to LNG instead of diesel or gasoline.