# Oil and Gas News Briefs Compiled by Larry Persily February 27, 2017

#### Japan's most expensive LNG imports in January came from U.S.

(Reuters; Feb. 24) - Japan in January paid nearly twice as much for liquefied natural gas derived from U.S. shale gas as it did for its cheapest imports, official trade data showed Feb. 24. Shale gas from the United States had been touted as a panacea to Japan's energy crisis after the Fukushima nuclear disaster nearly six years ago. The first U.S. LNG arrived in Japan last month to much fanfare, but the revelation of its higher cost would seem to undermine the initial euphoria.

Japan, the world's biggest importer of LNG, received 211,237 tonnes of U.S. LNG at an average cost of \$645 a ton, according to a breakdown of customs-cleared imports from the Ministry of Finance (about \$13.45 per million Btu). By contrast, the lowest it paid was \$337 a ton for 64,246 tonnes of LNG from Angola. The country paid an average of \$386 a ton for all 8.3 million tonnes of LNG it imported last month. The 428,626 tonnes of LNG imported from Brunei, at \$416 per ton, was the second highest-priced supply. Australia was Japan's biggest supplier in January, sending 2.01 million tonnes at \$384.

The prices are for landed cargoes, including shipping, and based on Japan's official exchange rate for the month. The U.S. supplies came from Cheniere Energy's Sabine Pass, La., terminal, the first of several export facilities being built to capitalize on the surge of shale gas. The delivered price in Japan is the sum of the market price of U.S. gas, the cost of gas consumed at the liquefaction plant, a contracted fee to Cheniere for liquefaction services, and shipping. "For diversification, it is important to have various price benchmarks, so we will continue to have a certain share of LNG that is linked to U.S. price benchmarks," said a spokesman for Jera, Japan's largest LNG buyer.

# **China sets record for monthly LNG imports**

(Reuters; Feb. 23) - China's soaring demand for liquefied natural gas is sparking producer hopes that a supply overhang causing a slump in prices will end sooner than initially anticipated. China's imports of LNG in January rose 39.7 percent from a year earlier to 3.44 million tonnes, data from the General Administration of Customs showed. It was the second-highest monthly level, behind a record 3.73 million set in December.

The steep growth rate in 2016 has propelled China past South Korea to become the world's second-biggest LNG importer, after Japan. The LNG industry is banking on China's growing demand to end a global oversupply triggered by a wave of new

production — especially in Australia and the United States. The glut has driven Asian spot LNG prices down by almost 70 percent since their 2014 peak.

China's growing demand consumption that supply and demand in the LNG market could come into balance by 2021-2022, about a year earlier than previously expected, Peter Coleman, CEO of Australian oil and gas major Woodside Petroleum, told analysts at a briefing on Feb. 22. Beyond China, producers hope that rising demand in South and Southeast Asia will also help soak up the wave of new production. Indonesia and Pakistan look to be strong growth markets, Steve Hill, Shell's executive vice president of gas and energy marketing and trading, told reporters at a briefing in Singapore.

#### LNG could cover half of Pakistan's gas demand by 2022

(Platts; Feb. 23) - With domestic production faltering and pipeline import projects still uncertain, Pakistan's dependence on liquefied natural gas imports is unlikely to fade away, especially since global oversupply and low LNG prices are set to continue helping the country resolve its decade-long energy crisis. LNG imports are projected to jump over the next five years, with most bullish estimates pointing to a demand of 30 million tonnes per year, or 4 billion cubic feet per day of gas equivalent, by 2022, half of the Pakistan's gas demand for that year, according to industry and government estimates.

In the longer term, LNG demand will slow from double-digit growth through 2019 to less than 7 percent after 2022, according to government estimates, as LNG affordability becomes less certain and pipeline imports add supply competition. But LNG imports will keep rising. "LNG was initially seen as a short-term solution, but it looks like Pakistan would keep importing 3 bcf to 4 bcf per day or more in the long term, given rising domestic demand and difficulties in starting exploration activities in the more unstable areas," said Zeeshan Afzal, head of research with Karachi-based Insight Securities.

Importer Pakistan LNG estimates the gap between supply and demand in Pakistan's gas sector at 2 bcf per day under current infrastructure and policy constraints, inhibiting the free flow of gas to residential, industrial and commercial customers. Pakistan, which relies on gas for about half of its energy needs, has been encouraging companies to hasten oil and gas exploration and speed up the pace of discoveries in a bid to alleviate its energy shortage and reduce imports. But with no large additions to existing gas fields to date, production has been stagnant and is expected to fall by about 5 percent a year.

## Partners allocate \$3.75 billion to develop offshore-Israel gas field

(Bloomberg; Feb. 23) - The companies that own the rights to Leviathan, Israel's largest natural gas reservoir, have approved a plan to allocate \$3.75 billion to develop the offshore field. The partners, led by Israel's Delek Group and Houston-based Noble

Energy, have agreed on a final investment decision that lays out how the partners plan to spend the funds to develop Leviathan over the next three years, according to a Tel Aviv Stock Exchange filing Feb. 23. The field is estimated at over 16 trillion cubic feet.

The decision allows the partners to "launch the largest energy project in the history of Israel, that will also serve as one of the region's energy anchors," said Yossi Abu, CEO of Delek Drilling. The field could produce billions of dollars in domestic and export sales, including a \$10 billion deal the partners signed last fall with Natural Electric Power Co. of Jordan. Field start-up is set for 2019 for the Israeli market and regional sales. The partners are also negotiating to sell gas to Turkey or to Shell's LNG plant in Egypt.

The investment decision covers the first stage of Leviathan's development, allowing for a maximum annual production of about 1.2 billion cubic feet of gas per day. Later, the partners plan to extract an additional 900 million cubic feet per day, earmarking it for export. Most of the \$3.75 billion has been raised, after Delek agreed to a \$1.75 billion loan this week from banks led by JPMorgan Chase and HSBC Holdings. Noble will finance its share through proceeds from its other assets in the Mediterranean, including the smaller offshore-Israel reservoir, Tamar, and also is seeking additional resources.

#### Qatar's Ras Laffan 'the gas capital of the world'

(Agence France Presse; Feb. 24) - Perched on a northern tip of Qatar, about an hour's drive from the gleaming capital Doha, stands the secretive city of Ras Laffan. Behind its closely guarded gates, Ras Laffan is home to 30,000 people. It is also one of the most significant industrial sites on the planet. "Welcome to the gas capital of the world," says our guide as he ushers a small group of journalists into Ras Laffan on a rare government-invited press tour of the site.

Ras Laffan is Qatar's port for the production and export of liquefied natural gas. The gas comes from the huge North Field, 50 miles north of Ras Laffan, a 2,300-square-mile site in Persian Gulf waters, almost half the size of Qatar itself. The first LNG shipment sailed to Japan in 1997 and Qatar now produces up to 77 million tonnes of LNG a year — almost 30 percent of global demand. Its gas reserves are so vast that it could maintain production at current rates for 137 more years.

Its partners include U.S.-based ExxonMobil and ConocoPhillips; France's Total; U.K.-Dutch-based Shell; Japan's Marubeni, Mitsui and Itochu; and Korea RasGas. Qatar's unimaginable wealth has been forged from its gas. In 1997, its exports were valued at about \$5 billion. In 2014, it was \$125 billion. Gross domestic product was about \$11 billion in 1997 and \$165 billion in 2015. Security is tight at Ras Laffan. Rarely is anyone let in, and no ship's crew is allowed out when their boats are being loaded with LNG.

#### Texas company wants to add LNG capacity in Jacksonville, Fla.

(Florida Times-Union; Feb. 17) - A company planning a liquefied natural gas terminal in North Jacksonville, Fla., is asking the federal government for approval to start construction. Texas-based Eagle LNG Partners' terminal along the St. Johns River would be bigger than the company planned a couple of years ago, able to liquefy up to 132 million cubic feet of gas per day and store 12 million gallons of LNG.

Construction could start early next year and finish in 2019 if the Federal Energy Regulatory Commission clears the company to start work, Eagle LNG CEO Dick Brown said. The company has asked for a decision by December. The project, estimated at more than \$300 million, would be separate from an LNG production and storage facility the company is already building on Jacksonville's Westside.

The smaller Westside facility will target domestic markets, including fueling Crowley Maritime's LNG-powered ships, while the larger North Jacksonville site is meant to reach customers in the Caribbean and Latin America, Eagle LNG spokeswoman Blaire Lancaster said. The 12-million-gallon LNG storage tank, 50 percent bigger than Eagle LNG planned in 2015, would hold the equivalent of a billion cubic feet of gas.

## U.S. natural gas export volume catching up with Canada

(Natural Gas Intelligence Daily; Feb 24) - U.S. natural gas merchants are catching up to the traditional Canadian champions of international trade in North American production, according to the latest trade scorecard compiled by the U.S. Department of Energy. U.S. gas exports hit 1.666 trillion cubic feet in the first nine months of 2016, almost 75 percent of the Canadian total of 2.263 tcf, the department reported.

The agency's 2016 third-quarter report confirms the trend of U.S. exports emerging as the hot growth item in North American gas trade with since the onset of the "shale gale" of rising production with horizontal drilling and hydraulic fracturing. Back when the technology was just beginning to spread, Canada dominated the continental market with 2008 full-year exports of 3.8 tcf — four times U.S. cross-border sales of just under 1 tcf.

With three months of trade data remaining to be compiled and reported for 2016, the first three quarters of U.S. exports were up by 6 percent from the same period in 2015. In addition to pipeline deliveries into Canada and Mexico, U.S. gas merchants broke into overseas tanker exports of liquefied natural gas: More than 100 billion cubic feet of gas as LNG were exported in the first three-quarters of 2016 as Cheniere Energy's facility in Sabine Pass, La., opened for business.

# U.S. natural gas prices off to a weak start, down 29% for the year

(Bloomberg; Feb. 23) - U.S. natural gas prices are off to the worst start for a year since 2006, and the rout may not be over yet. Eight of 12 traders and analysts surveyed by Bloomberg see futures sliding further after dropping 29 percent so far this year. Record warmth from the Midwest to the East Coast has decimated gas demand for heating, leaving inventories above normal for the time of year and sending prices plummeting to an eight-month low.

While an uptick in gas exports to Mexico and overseas buyers have provided a boost, the supply glut will expand as spring approaches, pressuring the market lower. "Winter is over," said Jason Schenker, president of Prestige Economics in Austin, Texas. "That doesn't stop the pain train the natural gas bears are driving. You could see the lowest prices of the year in this period." Gas futures prices dipped to \$2.522 per million Btu on the New York Mercantile Exchange on Feb. 22, the lowest since last June.

## Pennsylvania landowners fight gas producers over royalty deductions

(EnergyWire; Feb. 21) - At the height of the Marcellus Shale gas boom, Pennsylvania landowners were getting bonuses of \$4,000 an acre or more for drilling rights to their property. The new industry promised even bigger long-term payments. Then came the bust, and a twist. Landowners said they didn't get their fair share of the money from production. Instead, they got notices saying they owed gas producers for the cost of transporting and processing the gas pulled from beneath the ground. In some cases, they were told they owed the companies tens of thousands of dollars.

Landowners and elected officials are trying for the third time in four years to persuade the state Legislature to pass a measure to resolve some of the conflicts. They are up against big-money opposition and a state that's grown more conservative in the past two elections. But they're hopeful they can convince lawmakers with a concerted public relations campaign. The Pennsylvania Supreme Court ruled in 2010 that it was permissible to deduct post-production costs, despite a state law. In addition to pushing legislation, landowners are continuing to challenge the gas industry in federal court.

House Bill 557 would require companies to comply with an existing state law that requires oil and gas producers to pay landowners a royalty equal to one-eighth the value of oil and gas produced on a particular property. Landowners have said that gas companies frequently get around the one-eighth royalty requirement by deducting post-production costs — transportation, processing and other expenses — from the landowners' share. It's a common practice that's led to lawsuits across the country.

# Coal continues to lose ground in power generation

(ClimateWire; Feb. 21) - The coal-fired Bailly Generating Station in northwest Indiana has been operating since 1962, and closure of the 604-megawatt plant was announced a week before Donald Trump won election. While Trump and his congressional allies pursue a rollback of environmental regulations, coal plants continue to close at a rapid clip across the country. In the next four years, utilities have plans to close 40 coal units, federal figures show. Six closures have been announced since Trump's victory.

Vectren Corp., a utility based in Evansville, Ind., said in December that it expects to close two coal plants by 2024. Dayton Power and Light announced in January that it will close two massive coal plants in Ohio next year. And in Arizona, utilities voted last week to shut down the Navajo Generating Station in 2019. The plant played the vital role of powering the canals that deliver water from the Colorado River to Phoenix and Tucson.

The closures underline the challenges facing President Trump, who ran on a promise of revitalizing the coal industry. Utilities, beset by stagnant power demand and presented with cheaper options like natural gas and wind, have shown little appetite for returning to the fuel that long powered the U.S. economy. "Unless those fundamentals change in some deep and fundamental way, I don't see how you get anything other than rapid elimination of coal plants," said William Hogan, an energy policy professor at Harvard.

#### Bleak economics for \$7 billion clean-coal plant in Mississippi

(Wall Street Journal; Feb. 22) - Southern Co. said it has nearly completed a first-of-its-kind "clean-coal" power plant, though a new analysis suggests it might not make sense to burn coal in it. After taking nearly seven years and \$7.1 billion to build, the Kemper County, Miss., facility, which can burn coal and capture much of the carbon-dioxide output, should be fully operational by the middle of next month, the company said.

But a required economic analysis of the project — the most expensive fossil-fuel power plant ever built in the U.S. — found that lower natural gas prices and higher-than-expected operating costs "negatively impact the economic viability" of the facility. The company analysis, disclosed this week, concludes that only if natural gas prices are high would the economics of the clean-coal plant compare favorably to a gas-burning plant. The Kemper facility was initially forecast to cost \$3 billion in 2010.

The company declined to specify the gas price assumptions it used in its scenario for the plant's viability, but told investors Feb. 22 that the scenario included a price above \$5 per million Btu in 2020 and trending up. That's about double this month's gas prices. The U.S. Energy Information Administration forecast doesn't anticipate prices to top \$5 until 2030. If Southern had built a gas power plant of comparable size, it would have cost about \$700 million, according to widely used construction cost estimates. Southern faces a lawsuit over the plant and a Securities and Exchange Commission investigation.