Oil and Gas News Briefs Compiled by Larry Persily March 31, 2016

Price cuts help boost China's switch from coal to natural gas

(Bloomberg; March 28) - China's natural gas demand has been boosted by price cuts aimed at switching users from coal to the cleaner-burning fuel, according to one of the country's biggest gas distributors. ENN Energy has seen its gas sales rise more than 15 percent in January and February as lower prices encouraged customers to switch, Vice Chairman Cheung Yip Sang said in an interview in Hong Kong. ENN expects full-year sales to rise 15 percent, following last year's 11.5 percent jump to 400 billion cubic feet.

"The movement really picked up a lot of momentum," Cheung said. "The higher burning efficiency of gas and government pressure for better emission standards will help convert more industrial users from coal to gas." ENN supplies 12 million households, plus commercial customers. Chinese President Xi Jinping's government lowered gas prices twice last year to stimulate demand and shift consumption from coal, which comprises 64 percent of the country's energy mix. Gas holds just a 6 percent share.

China's gas demand grew 3.3 percent in 2015, while coal consumption dropped 3.7 percent, declining for a second year, according to the National Bureau of Statistics. Coal use will slip further this year amid tepid demand from industrial users, according to the China Coal Industry Association. However, the gains by natural gas may be limited, Cheung cautioned, as it is unlikely China will lower prices further because the rate reductions are already cutting into the earnings of state-owned producers/importers.

Lower prices help spur jump in India's LNG imports

(Natural Gas Asia; March 29) - India's LNG imports during February witnessed a sharp jump amid lower prices for the fuel. According to the oil ministry's Petroleum Planning and Analysis Cell, LNG imports during the month totaled 63 billion cubic feet of natural gas, 62.6 percent higher than a year ago. During the current fiscal that started April 1, 2015, through February 2016, imports of LNG are up 13.1 percent over last year.

Global spot-market prices have seen a sharp drop during the past year. India's main LNG importer has also successfully renegotiated its long-term contract with RasGas. Qatar will now charge a much lower price for the LNG it supplies to India — in the range of \$6 to \$7 per million Btu, down from \$12-\$13. The new price regime took effect Jan 1.

India consumed 112 bcf of natural gas in February, up almost 25 percent from a year ago. Most of that gas was produced domestically, though India's gas production this

year is down 3.6 percent against last year, while demand is up, requiring a substantial boost in LNG imports to meet demand.

LNG developers should work locally to build market demand

(Reuters' columnist; March 29) - The falling dominoes of canceled liquefied natural gas projects show that the industry needs to re-think how it operates. Up until now, LNG has largely been about costly projects undertaken by the majors on the basis that the billions of dollars being invested is guaranteed to make a good return because of long-term sales contracts to utilities. But the scrapping of Woodside Petroleum's Browse floating LNG project off the Australian coast goes a long way to confirm that the model that has so far underpinned the development of the industry is no longer viable.

Much of the problem is the lack of customers keen to sign up to long-term, oil-linked contracts. Asian buyers now hold the whip hand in LNG pricing, given the rapid growth in new supply from Australia and the U.S. The problem is that all these new projects have altered the supply-and-demand balance to the point where it's hard to see the market being able to absorb all the available LNG, even if prices stay low. It's not only the new supply that has driven prices lower, demand has been softer than expected.

LNG companies have to find ways to establish a sustainable market that will create and maintain demand for their product. This means investing in regasification terminals in developing nations, along with pipelines and storage. It may also mean building gasfired power plants, transmission grids and even partnering with local companies at the retail level to install gas-powered heating systems in buildings and residences. It's about creating sufficient demand to justify building expensive liquefaction projects.

FERC issues draft EIS for LNG export project in Texas

(Natural Gas Daily; March 28) – Federal Energy Regulatory Commission staff has issued a favorable draft environmental impact statement for the Golden Pass LNG export project in Texas. The project would build three liquefaction trains and export facilities at the existing but underused Golden Pass liquefied natural gas import terminal. The project would cause some environmental harms, but these could be reduced to acceptable levels with proposed mitigation measures, FERC staff said.

In 2014, Golden Pass Products, a joint venture of ExxonMobil (30 percent) and Qatar Petroleum (70 percent), asked FERC for authority to construct and operate export facilities at the site in Sabine Pass, TX. Public comments on the draft EIS, issued March 25, are due May 16. FERC plans to issue a final impact statement July 29. The project is estimated at \$10 billion, with capacity to make 15 million metric tons of LNG per year.

In addition to FERC approval, Golden Pass requires Department of Energy authority for LNG exports to nations that lack a free-trade treaty with the United States (such as China, Japan and India). Energy Department approval is pending completion of the FERC-led environmental review. It is unclear when ExxonMobil and Qatar Petroleum would make a final investment decision.

Floating LNG projects suffer setbacks

(Sydney Morning Herald; March 28) - Questions are being asked whether floating LNG technology will live up to its hype after last week's decision by Woodside Petroleum's Browse gas venture to freeze work was followed by the axing of a floating design for the Abadi gas field in Indonesia. The decisions are seen as major setbacks for the new technology that was expected to revolutionize the industry by allowing development of remote offshore gas fields at a lower cost and with less environmental impact.

While Australia's Woodside still wants to use floating LNG to develop Browse off the far northwest coast, the venture has dropped a deal to use Shell's floating LNG technology. At Abadi, a venture led by Japan's Inpex also involves Shell. But Indonesia President Joko Widodo declared last week the project should be built onshore to maximize jobs and other benefits. Shell's own 1,600-foot-long Prelude floating liquefaction and storage facility now looks likely to be the only FLNG project around Australia for several years.

Floating LNG was supposed to be "the killer app" that enabled stranded gas fields to compete even amid lower oil prices and against U.S. exports, Bernstein Research analyst Neil Beveridge said. "The decision not to move forward with FLNG suggests the costs are not yet low enough and efficiencies not yet high enough to compete with conventional LNG developments other than in niche settings," Beveridge said.

Israel's Supreme Court blocks 'stability clause' in gas field deal

(Wall Street Journal; March 27) - Israel's Supreme Court on March 27 ruled against a landmark deal to develop and export the country's offshore natural gas reserves, a major setback for Prime Minister Benjamin Netanyahu. The judges called the deal unconstitutional, citing a clause that gave energy companies pricing and regulatory stability for 10 years regardless of potential shifts in the government.

The main stakeholders in the fields, U.S.-based Noble Energy and Israeli partner Delek Group, argued that the "stability clause" was required for them to make the investments necessary to develop the fields. The deal will be suspended for one year, the court said. Netanyahu's government will be required to amend it during that period and potentially put the details to a vote in the Israeli parliament.

The companies have already been through several rounds of regulatory and legislative hurdles that have significantly delayed development. Israel's offshore fields hold more than 32 trillion cubic feet of gas, more than the nation needs and prompting the companies to look toward the export market. The deal hasn't been popular domestically. Thousands of Israelis took to the streets over the past year in protest, complaining it would profit big business and send too much gas outside Israel, risking energy security.

B.C. consumers pay high costs for underutilized gas pipeline

(Terrace Standard; Terrace, BC; March 29) – Pacific Northern Gas, the utility for northwestern British Columbia, has a load problem: Its pipes have a lot of unused capacity, which makes for high rates. PNG's regulated delivery rates are more than three times what customers pay elsewhere in the province. The utility's delivery rates began climbing when it lost large-scale industrial customers more than a decade ago, leaving residences and smaller businesses to shoulder more of the cost.

There had been hopes that rates would drop if a small liquefied natural gas export plant proposed for Kitimat went ahead. Douglas Channel LNG, involving PNG's owner, AltaGas of Calgary, would have taken up that surplus space in the region's gas pipeline, reducing the high rates charged PNG's existing customers. But any hopes of that project proceeding ended earlier this year when AltaGas and its partners shelved the project, saying they could not find customers for the LNG.

Jim Wright, who will be 86 years old next week, said his latest two-month bill shows he was charged \$41.28 for gas and \$204.81 in delivery charges. That works out, in total, to about \$15 per 1,000 cubic feet of gas. "I just can't believe the government is letting this happen," Wright said. PNG's rates are regulated by the B.C. Utilities Commission. In addition to the delivery charge, there is a base administrative charge, a sales tax, a carbon tax and other provincial tax, bringing Wright's two-month bill to \$327.68.

Low oil prices cut into companies' ability to replace reserves

(Wall Street Journal; March 27) - The world's biggest oil companies are draining their reserves faster than they are replacing them — a symptom of how the deep oil-price decline is reshaping the industry's priorities. In 2015, the seven biggest publicly traded Western energy companies replaced just 75 percent of the oil and gas they pumped, on average, according to a Wall Street Journal analysis of company data. It was the biggest combined drop in inventory that companies have reported in at least a decade.

For ExxonMobil, 2015 marked the first time in more than two decades it didn't fully replace production with new reserves. It reported replacing 67 percent of 2015 output. In the past, shrinking reserves could send investors and executives into a panic over a

company's future. These days, with ultralow oil prices, "it becomes less important" to replenish stockpiles, said Luca Bertelli, chief exploration officer at Italian producer Eni.

Eni has shifted spending from high-risk, high-reward projects in favor of squeezing more out of producing fields, Bertelli said. Producers are responding to low prices by pulling back on new exploration in favor of maximizing profits. The risk is that cutting back on new projects now, when prices are low, could lead to shortages and price spikes in the future. Historically, energy companies spent heavily in the present to find resources for the future. But the oil glut has forced companies to cut spending wherever they can.

Because of accounting rules, there is another drain on proved reserves: low prices. The U.S. Securities and Exchange Commission defines proved reserves as oil and gas that can be produced at a profit. Some reserves are too expensive to extract profitably at today's prices, and that has forced some companies to remove barrels from their books.

Low prices push banks to scrutinize oil company financing

(Wall Street Journal; March 29) - Just a few years ago, when oil sold for about \$100 a barrel, London banks were lining up to give international oil explorers access to billions of dollars to finance new drilling and projects. But as oil prices stay mired in a funk, the money is drying up. Senior executives from companies such as U.K.-based Tullow Oil and Cairn Energy have been meeting with their bankers for a biannual review of the loans that allow them to keep drilling and building out projects.

For many European companies, it has been a nail-biting experience, as banks worry about the growing pile of debt taken on by oil companies with little or no profits. Several companies said they expect their ability to tap credit lines to be diminished after the reviews. Some lenders have brought in teams that specialize in corporate restructuring to scrutinize companies' balance sheets, spending and assets. The scrutiny comes as oil-company debt emerges as an issue across the world with prices near \$40 a barrel.

Globally, the net debt of publicly listed oil and gas companies has nearly tripled over the past decade to \$549 billion in 2015, excluding state-owned oil companies, according to Wood Mackenzie. If a bank decides a company has already borrowed more than it can afford, the reviews could trigger repayment, more cost cuts or even a fire sale of assets to raise cash. Oil companies are facing similar biannual reviews in the U.S., where many small and midsize companies borrowed heavily to expand during the shale boom.

Airship buyer sees potential customers in remote oil fields

(Bloomberg; March 30) - Lockheed Martin has won an order for up to 12 airships worth \$480 million as lower crude prices spur cost-conscious oil and gas companies to

consider aircraft able to carry workers and cargo to remote locations without the need for investing in runways and roads. Deliveries to U.K.-based Straightline Aviation will begin in 2018 and span about two years. The company said it is talking with potential users including Alaska oil field operators that have struggled with costly ice roads.

Lockheed Martin's LMH-1 airship is designed to carry 20 metric tons of freight and 19 passengers, plus crew. It is about 300 feet long, filled with helium, and has a cargo bay that measures 10 feet by 10 feet by 60 feet. The craft can land without the traditional mooring mast, cutting the cost of ground infrastructure, and burns less fuel than conventional aircraft, according to the company.

The airships of Lockheed Martin and chief competitor Hybrid Air Vehicles are a legacy of an abandoned Pentagon project to develop a military blimp to undertake surveillance work in Afghanistan. "Building huge infrastructure might have been acceptable when oil was at \$90 a barrel, but nowadays they need to make economies like the rest of the planet," Straightline CEO Mike Kendrick said. The heavy-lift helicopters that handle most air cargo trips to remote locations cost seven times as much per ton mile, he said.