

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **Japan faces challenges to meet nuclear power target**

(Natural Gas Daily; Jan. 3) - Japan's target for the return of nuclear power to provide more than one-fifth of its electricity supply in 2030 faces challenges, including mounting public opposition, aging reactors and limited storage space for spent fuel. This means fossil fuels are likely to make up a larger proportion of the country's power mix in 2030 than the Ministry of Economy, Trade and Industry expects.

The share of natural gas in Japan's power mix is projected to fall from about 45 percent currently to 27 percent in 2030, according to the ministry. While it is clear that demand for gas by Japan's power sector will decline over the coming years as the country's overall power demand falls and the share of nuclear and renewables in the mix grows, nuclear will struggle to meet its projected 20 to 22 percent share — and a mixture of LNG and coal will likely plug the gap at a higher percentage than the ministry expects.

Nuclear provided less than 1 percent of Japan's power in 2015 and will struggle to supply 20 percent in 2030 because of the age of many Japanese reactors. About half of the 25 nuclear reactors that have applied for permission to restart from the Japanese Nuclear Regulation Authority will be more than 40 years old in 2030. If the government grants more license extensions, nuclear could meet its targeted power demand, but extending the life of reactors is not without its problems of public opposition and dwindling storage space for spent nuclear fuel.

#### **Expansions look better than mega-projects, says Australia LNG exec**

(The West Australian; Jan. 2) - One of Woodside Petroleum's most senior executives says the era of the LNG mega-project is over, and the Australian oil and gas company will need to look for other opportunities. Reinhardt Matisons, Woodside's executive vice president for marketing, trading and shipping, said he believes companies would struggle to justify big LNG greenfield projects over the next few years.

He said Woodside aims to keep its existing LNG trains full and develop new markets for the fuel. The oversupply in the market, coupled with uncertainties such as deregulation and the role of nuclear energy in Japan, has made some buyers reluctant to commit to long-term contracts, Matisons said. But such deals are needed in order to finance new projects "otherwise we'll go back into this boom-bust type cycle," he said. "There are buyers that are still buying on a long-term basis," but they will be harder to come by.

Matisons said that to meet even bearish forecasts for LNG global demand growth of 4 percent to 5 percent a year, an additional 20 million tonnes of LNG capacity would be needed every year. “That’s a mega-project every year, and we’re not seeing that at the moment.” Expansions of existing production facilities make more economic sense in the current climate, he said. Woodside holds stakes in two LNG projects in Australia. “The market will rebalance, and we want to be able to take advantage of that,” Matisons said.

## **Heavy-lift carrier delivers modules to Russia’s Arctic LNG project**

(Journal of Commerce; Jan. 3) – Heavy-lift carrier ZPMC Red Box Energy Services said a voyage by one of its specialized ships to Russia’s Yamal liquefied natural gas plant marks the first midwinter delivery of large construction modules via the Northern Sea Route. The Audax was scheduled to arrive this week in Sabetta in the Russia Arctic with three modules for the Yamal LNG facility. Each of the modules weighs about 6,000 tonnes and measures about 130 by 130 feet by 100 feet high.

What makes this shipment unusual is the route and timing — in the dead of winter. The modules are being delivered to help keep construction of the \$27 billion Yamal project on schedule for opening late this year. Most of the project’s production and processing modules are being fabricated in East Asia. The ones being delivered this week were made in Qingdao, China.

The plant will have three liquefaction trains capable of producing 5.5 million metric tons of LNG each. The first train is schedule for start-up late this year, with the other two to follow. The Audax is one of Redbox’s two ice-class module carriers. With capacities of 28,500 deadweight tons, it can operate year-round above the Arctic Circle and can sail through ice 5 feet thick at a speed of 4 knots. The Yamal plant’s majority owner is Russia’s Novatek, with 50.1 percent. France's Total and China National Petroleum Corp. each have a 20 percent stake. China's Silk Road Fund owns 9.9 percent.

## **Chevron restarts LNG production from first train at Gorgon**

(Reuters; Jan. 4) - Chevron said Jan. 4 it has resumed production of liquefied natural gas at one of its two units at the \$54 billion Gorgon project, located off Western Australia, after an outage of slightly more than a month. "Gorgon LNG Train 1 operation resumed earlier this week," said a Chevron spokesman. "Production was halted in late November 2016 to assess and address some performance variations," the statement said, without disclosing details of the "variations."

Output at the plant's second production line was unaffected during the period, the spokesman said. The Gorgon project had continued to produce and load cargoes, he said. The massive Gorgon project has been plagued by a string of operational issues

since it started up in March 2016. Construction continues on the project's third liquefaction train. Despite continued production from the second train, the supply disruption at Train 1 required replacement cargoes to fulfil customer commitments, according to traders familiar with the matter.

### **Trinidad will boost gas output but still expects supply shortage**

(Argus Media; Jan. 3) - Major LNG producer Trinidad and Tobago will lift natural gas production by about 1.4 billion cubic feet per day — a third of current production — by the end of 2017, but it will not end a three-year gas supply shortage. Four separate offshore projects will deliver the additional gas by the end of 2017 and "will help significantly to ease the curtailments we have been suffering," an energy ministry official said. "But we expect a continued decline from existing projects."

The country's natural gas production reached 3.335 bcf per day in January-October 2016, 13 percent less than a year earlier, according to energy ministry data. The gas deficit has suppressed LNG output, which was down 15.8 percent in January-October compared to 2015. The curtailments also affected production of petrochemicals, particularly ammonia and methanol, of which the country is a major producer. The country has exported LNG since 1999, now with four liquefaction trains.

The ministry expects the country's biggest gas producer, BP, to deliver 590 million cubic feet per day by the middle of 2017 from the offshore Juniper project. BP is also installing a gas compression facility that will increase production from offshore low-pressure wells by about 200 million cubic feet per day. In addition, BHP Billiton will lift production from the Greater Angostura field by 100 million cubic feet per day, while U.S. independent EOG Resources will produce 275 million cubic feet per day from the Sercan field.

### **Most of the U.S. LNG exported in December headed to Asia**

(Bloomberg; Jan. 3) - Asia's finally becoming a prime destination for U.S. shale gas cargoes. Nine of the 12 tankers that left Cheniere Energy's Sabine Pass terminal in Louisiana since the beginning of December are headed for Asian countries, shipping data compiled by Bloomberg show.

That's a big shift for the Sabine Pass terminal and U.S. LNG market, which has been dominated by cargoes to Latin America since exports began in February. Asia is emerging as a bigger buyer as winter's chill stokes demand for the heating and power-plant fuel, fulfilling analysts' predictions that the region would eventually become a major importer of U.S. supply.

Asia is “probably the most economic destination to ship to right now,” Het Shah, an analyst at Bloomberg New Energy Finance in New York, said Jan. 3. More than half of the 42.9 million tons a year of U.S. LNG export capacity over the next three years is contracted by Asian buyers, a July analysis by Bloomberg New Energy Finance showed. Spot LNG prices in northeast Asia have jumped 79 percent since July, according to Energy Intelligence’s World Gas Intelligence report.

## **Pipeline gas, LNG suppliers will compete for European demand**

(Platts; Jan. 4) - Europe is set to retain numerous gas supply options throughout 2017 as traditional pipeline suppliers continue their market-share offensive and LNG imports rally from their unexpected lows in 2016. With European demand — especially in the power sector — likely to continue its recovery from the past two years, focus will again be placed on declining domestic gas production and the need for increased imports.

European Union gas demand is expected to have increased by some 6 percent in 2016 to almost 16 trillion cubic feet, according to industry group Eurogas, following a rise of about 4 percent in 2015. And demand could rise further in 2017, according to Platts Analytics, driven by the arrival of more LNG. Gas demand for power generation in the U.K. rose 50 percent in 2016, while Italian gas-for-power demand jumped 12 percent, according to data from Platts Analytics. Demand in France also rose sharply toward the end of 2016 as some of the French nuclear fleet was taken offline for safety checks.

While LNG is expected to stage a European recovery in 2017, in part fed by new supply from the United States and a global glut of the fuel, the traditional pipeline suppliers to Europe — Russia, Norway and Algeria — will continue their fight to retain, or even grow, market share. In 2016, Russia smashed its record for deliveries to Europe and Turkey with exports hitting an all-time high of an estimated 6.354 tcf. Norway, meanwhile, was expected to have exported close to its record high from 2015 of 4.06 tcf, and Algeria saw its exports to Italy rise threefold to some 635 billion cubic feet.

## **Bangladesh looking toward first LNG imports in 2020**

(Prothom Alo English; Bangladesh; Jan. 2) - India’s largest LNG importer Petronet has signed an agreement to set up a \$950 million liquefied natural gas import terminal in neighboring Bangladesh, reports The Hindustan Times. Petronet reportedly signed a memorandum of understanding with Petrobangla, the state-owned oil and gas company of Bangladesh, to set up a terminal to receive and regasify up to 7.5 million tonnes of LNG per year. If built, it would be the first imported LNG for Bangladesh.

“We intend to start marine survey work this month and are targeting 2020 for completion of the project,” said Petronet LNG CEO and managing director Prabhat Singh, who

signed the memorandum on Dec. 30. Bangladesh, population 163 million, consumed about 1 trillion cubic feet of natural gas last year, equal to its domestic production.

### **FERC issues draft EIS for \$5 billion Atlantic Coast gas line**

(EnergyWire; Jan. 3) - The Atlantic Coast gas pipeline project received a favorable draft environmental impact statement from the Federal Energy Regulatory Commission on Dec. 30, putting the plan one step closer to construction. FERC's draft report said the \$5.1 billion, 550-mile pipeline, led by Virginia-based Dominion Energy, would cause "some adverse and significant environmental impacts," but the effects "would be reduced to less-than significant levels" by inspection and monitoring programs.

Atlantic Coast would carry natural gas from the Marcellus Shale in West Virginia to North Carolina, crossing through several states and national forests. Project opponents say there is not enough demand to justify the pipeline and that the project would damage local economies. "This pipeline would add insult to injury in West Virginia, where we are already dealing with water and health impacts due to fracking," said April Pierson-Keating of the Mountain Lakes Preservation Alliance.

Dominion Energy said the FERC report "confirms that the project can be built in an environmentally responsible way that protects the public safety and natural resources of our region," said Leslie Hartz, vice president of pipeline construction for the company. FERC is accepting public comments on the draft environmental report before issuing a final report and then moving to the next step of commission consideration of authorization to build and operate the pipeline.

### **Analysts look to winter weather to determine U.S. natural gas prices**

(Bloomberg; Jan. 3) - Natural gas prices may have faltered in the first trading day of the year, slipping to \$3.327 per million Btu for February delivery, but some analysts are still bullish for 2017. With demand for the power-plant fuel surpassing coal for the first time in the U.S. and pipeline and liquefied natural gas exports growing, a years-long gas glut from shale formations has finally been erased. Now, all gas needs is a cold winter.

Traders are watching closely to see how the commodity, which recorded its biggest rally in 11 years after stockpiles fell below their five-year average, holds up as winter plays out. Tim Evans, an analyst at Citi Futures in New York, said he believes the stockpile deficit could grow as winter stretches into February. "Demand is up and supply is down," he said. Prices could be poised to jump again if the weather turns colder, said Jim Ritterbusch, president of Ritterbusch & Associates.

“It pays to watch the details of what we’ve got going on the supply side, on the export levels to Mexico and the exports of LNG,” Evans said. In 2016, gas deliveries to Mexico swelled by 31 percent from January through October year-over-year, to a record 1.1 trillion cubic feet. “Forget about Mexico paying for a border wall,” said Stephen Schork, an energy consultant in Pennsylvania. “They’re building pipeline infrastructure to import more U.S. gas.” Meanwhile, more cargoes from Cheniere Energy’s Sabine Pass LNG terminal in Louisiana have gone to South America, the Middle East and Asia.

## **Gulf Coast labor shortage drives up energy project costs**

(Reuters; Dec. 29) - After years of running flat out, U.S. Gulf Coast refiners are lining up repairs to plants in 2017 — but facing a severe labor shortage that could delay work, drive up costs and raise accident risks. Refiners have delayed routine work in the past 24 months amid high margins but those margins collapsed this year in a global supply glut, providing an incentive for refiners to undertake the shutdowns for maintenance.

Refiners are competing for pipefitters and ironworkers with a host of billion-dollar energy projects under construction, including Cheniere Energy's LNG export terminals and a petrochemical unit for Dow Chemical. Without undertaking the work, refineries run the risk of more unscheduled outages that can disrupt fuel supplies. But many will struggle to execute their plans, said Anthony Salemme, a vice president at Industrial Information Resources. “Refiners are going to have trouble finding even the lowest-skilled workers, such as scaffold builders, and you can't do work at a refinery without a scaffold.”

Salemme’s company estimates that the coastal region from Brownsville, Texas, to New Orleans will be short about 37,400 craftspeople for planned capital projects in 2017. Chevron Phillips — the joint venture between Chevron and Phillips 66 — is spending \$6 billion on building petrochemical units in Baytown and Old Ocean in Texas. Labor costs will drive costs up 10 percent from previous expectations, Phillips 66 President Tim Taylor said in December. Fluor, one of the world’s largest industrial contractors, took a \$154 million charge on the project in November due to cost overruns, including labor.