

Oil and Gas News Briefs

Compiled by Larry Persily

March 1, 2018

Shell says world needs \$200 billion in LNG projects to meet demand

(Reuters; Feb. 26) - More than \$200 billion of new investment in liquefied natural gas production is needed to meet a boom in demand by 2030, Shell, the world's top LNG trader, said Feb. 26. Demand for the fuel continues to grow, with facilities approved for construction in the first half of the decade coming on line to meet that growth in the early 2020s. But a decline in new project commitments since 2014 will create a supply gap by the mid-2020s unless new investments emerge, Shell said in its 2018 LNG Outlook.

While LNG demand is expected to grow from 293 million tonnes per year in 2017 to about 500 million tonnes by 2030, supplies could come up short due to a lack of new projects and natural declines in existing gas field production, said Maarten Wetselaar, Shell's head of integrated gas and new energies. Shell's forecast is good news for an industry that will see a huge amount of capacity come online the next few years, including five more U.S. LNG terminals expected to start up by the end of 2019.

Shell expects this year to start up its Prelude floating LNG plant in Western Australia, one of the most complex projects in history. "Our investment cycle is coming to an end with Prelude coming on stream. ... We will have the space to take investment decisions, (but) it doesn't necessarily mean we will spend the money," Wetselaar said. Shell is considering moving ahead on LNG Canada in Kitimat, B.C., and Lake Charles, La.

Competition is fierce as projects face off against low-cost gas production hubs such as North America, where the shale boom has led to abundant and cheap supplies, as well as Qatar, Russia, and East Africa. "In order to take a final investment decision on a project of this size you want to make sure it is as low-cost as it can be because the cost of an LNG project ... is going to stick with you for 30, 40 years," Wetselaar said.

List grows of new LNG projects, signaling market is heating up

(Reuters; Feb. 28) - Investments in new liquefied natural gas projects are thawing out after three years of low prices, with ExxonMobil expecting to advance in Mozambique and Qatar, and Oil Search looking to expand in Papua New Guinea. Surging gas demand from China and Southeast Asia is reassuring project developers sitting on huge untapped gas resources that the market cycle is finally beginning to turn.

Oil executives at the LNGA conference in Singapore on Feb. 28 were upbeat on prospects for the development of new supply outside the United States, a recent magnet for LNG investments. ExxonMobil expects to advance "pretty soon" on

Mozambique's huge LNG export potential, said Frank Kretschmer, the company's senior vice president for LNG marketing in Asia Pacific. "We are presently in discussion with our partners on marketing arrangements."

Exxon completed its \$2.8 billion purchase of a 25 percent stake in Mozambique's Area 4 offshore gas reserves from Italian oil firm Eni last year, taking charge of developing one of the world's biggest new sources of gas. Rival Mozambique gas developer Anadarko last week announced the first binding long-term LNG sales for its own planned project. Kretschmer also said Exxon expects to expand its LNG capacity in top producer Qatar, in addition to expansions in Papua New Guinea. Qatar rocked the industry last year with plans to raise its liquefaction capacity by 30 percent to 100 million tonnes a year.

Anadarko in talks to sell Mozambique LNG to Indian buyers

(Live Mint; India; Feb. 26) - Anadarko Petroleum is in talks with nine Indian companies to buy gas from Mozambique's Rovuma basin, two sources said. The Texas-based company, holding 26.5 percent stake in Rovuma, is the operator of the offshore block. Gas from the basin is expected to flow starting in 2022-23. "We are in the last leg of gas marketing and the final investment decision will be taken when the final marketing and financing arrangements are wrapped up," one of the sources said. Anadarko and its partners are looking at a large-scale onshore facility to liquefy the gas for export.

"We are in talks with a number of companies in India. We think India will be a big market for LNG in the future," a source said. The Anadarko-led consortium is in talks with Petronet LNG, Oil and Natural Gas Corp., Hindustan Petroleum, Bharat Petroleum, and Gujarat State Petroleum among others, the sources said. Anadarko a week ago signed a deal with Électricité de France to take 1.2 million tonnes of LNG per year for 15 years.

Bharat PetroResources, the upstream arm of state-owned Bharat Petroleum, and ONGC Videsh each hold 10 percent of the gas project. Other consortium members are Beas Rovuma Energy Mozambique (10 percent), PTTEP (8.5 percent), and Mitsui (20 percent). Empresa Nacional de Hidrocarbonetos, the national oil and gas company of Mozambique, holds 15 percent. The project's overall capital cost was initially pegged at \$21 billion in 2015 for gas field development costs and the first two liquefaction trains.

Cheniere takes another step toward expanding Texas LNG plant

(San Antonio Business Journal; Feb. 26) - Cheniere Energy has told the contractor for its Corpus Christi LNG export terminal to move forward toward building a third gas liquefaction train at the Texas site. Houston-based Cheniere gave general contractor Bechtel a limited notice to proceed with engineering, procurement and construction on

Train 3, CEO Jack Fusco said in a Feb. 21 call with investors. A final investment decision and notice to proceed with full-scale construction is pending.

"Train 3 engineering has progressed to 25 percent complete. Ground and foundation work have begun and, most importantly, the train construction cost, schedule, and performance are fixed," Fusco said during the call. Cheniere entered into a deal Dec. 12 with San Francisco-based Bechtel, setting a \$2.36 billion budget for Train 3, according to a filing with the U.S. Securities and Exchange Commission.

Construction is moving on schedule and on budget for the first two trains at Corpus Christi. Train 1 is expected to be substantially complete by March 2019, with Train 2 substantial completion set for September 2019. Cheniere recently signed sale-and-purchase agreements with China National Petroleum Corp. for output from Train 3. Cheniere is arranging debt financing, which it anticipates will cover 50 to 60 percent of the costs for Train 3, said Michael Wortley, chief financial officer. The company plans to fund the equity portion of the project with existing cash and future operating cash flow.

Cove Point could export first LNG cargo next week

(S&P Global; Feb. 27) - Dominion Energy's Cove Point LNG terminal in Maryland is days away from exporting its first cargo, a source said. The Gemmata tanker, owned by a Shell affiliate, was anchored in Chesapeake Bay 1.5 miles from the Cove Point port in Lusby, Md., on Feb. 27, according to ship tracking website MarineTraffic.com. The vessel is likely to depart Cove Point "early next week," according to the source.

Cove Point spokesman Karl Neddenien said he could not provide information on LNG ship schedules or the liquefaction project's schedule. Dominion has said it expects the LNG export terminal to enter commercial service in early March, after it was delayed from its previous expected in-service date of late 2017.

Cove Point will be the second major LNG export facility in the United States, following to the market Cheniere Energy's Sabine Pass in Louisiana. The \$4 billion Maryland project will have a capacity of 5.25 million tonnes of LNG per year, bringing total U.S. liquefaction capacity to more than 23 million tonnes. Construction is underway on four more LNG plants in the U.S.

Portland business group supports coastal Oregon LNG project

(Portland Business Journal; Feb. 27) - It's a long way from Portland — 160 miles as the crow flies — but the city's most prominent business group wants federal regulators to approve a controversial liquefied natural gas export terminal in Coos Bay, OR., and its 229-mile pipeline. "Our top priority is to support economic development in the region

and throughout the state of Oregon,” the Portland Business Alliance wrote in a Feb. 19 letter to the Federal Energy Regulatory Commission, which is now weighing the project.

The long-running debate is a hot issue in economically lagging Southern Oregon, pitting the opportunity for development against property rights and environmental concerns. FERC rejected the pipeline and LNG terminal in 2016, but the developer, Calgary-based Veresen, last March restarted the permitting process with a revised plan. Pembina Pipeline bought out Veresen later in the year and is continuing the permitting effort.

In an earnings call Feb. 23, a Pembina executive said the company “has committed \$135 million in our 2018 capital budget to progress Jordan Cove LNG to a final investment decision.” The total project cost is estimated at \$10 billion. The project has proven to be a dicey issue for Oregon politicians, Democrats in particular. Gov. Kate Brown and Sen. Ron Wyden have each avoided taking a position for or against it, but Sen. Jeff Merkley in December announced his opposition, reversing his earlier support.

Shell’s British Columbia LNG project waits on investment decision

(Calgary Herald; Feb. 26) - The world’s largest LNG trader, Shell, believes there will be a global supply shortage beginning in 2020 as an investment decision looms for its proposed plant on Canada’s West Coast. “There’s going to be a supply gap, but Canada will not make it if our ability to deliver gas to these markets is substantially more expensive,” Susannah Pierce, external relations manager for the Shell-led LNG Canada project, said Feb. 26.

Shell and partners Korea Gas, PetroChina and Mitsubishi are nearing an investment decision for the LNG Canada project in Kitimat, B.C., which could produce as much as 26 million tonnes of liquefied natural gas per year. The project is in discussions with the federal government about recent anti-dumping tariffs on imported steel that could jeopardize the investment decision. Shell has asked Ottawa to exempt the project from paying heavy tariffs for large, pre-fabricated modules that are needed at the LNG plant.

Shell and its partners will also need to grapple with new payroll taxes unveiled in British Columbia’s budget as it tries to reduce costs for the facility — which at one point was estimated to cost \$40 billion. While Shell’s LNG outlook did not specifically mention LNG Canada, Stream Asset Management chief market strategist Dan Tsubouchi said he believes the company gave out some big hints. “They’re clearly telling us that LNG Canada is investible and that LNG Canada is at the top of their list for LNG projects.”

Papua New Guinea LNG could be closed 6 weeks due to earthquake

(Bloomberg; Feb. 28) - ExxonMobil's \$19 billion liquefied natural gas export project in Papua New Guinea may remain shut down for six weeks after an earthquake rocked the country's remote highlands, which are home to the venture's gas supplies, according to UBS Group. The LNG plant, which accounts for about 3 percent of global production, is about 370 miles from the epicenter of the Feb. 26 quake and shipped almost 8 million tonnes of LNG last year to Japan, China, and Taiwan, according to Bloomberg data.

"Given the location and magnitude of the earthquake, as well as the scale of the aftershocks, we anticipate at least a month's downtime is likely" and six weeks is possible, Nik Burns, an analyst at Switzerland-based financial services company UBS Group, wrote in a Feb. 28 note. Exxon is working with customers to minimize the impact on their businesses and it's "inappropriate for anyone to speculate on timeframes at this stage," the oil and gas company said in a statement.

The company said surveillance showed the pipeline that runs about 435 miles from the gas fields to the LNG plant had not been damaged, but administrative buildings and living quarters were damaged near its gas conditioning plant, as were roads and other infrastructure. The earthquake also wrecked a runway at the airport near the upstream gas facilities, hampering efforts to restore production. "PNG has been one of the best performing LNG projects in the past decade" said Saul Kavonic, an analyst at Wood Mackenzie. "It's literally taken a large earthquake to create a disruption to the plant."

Work continues on gas line from Turkmenistan to India and Pakistan

(Live Mint; India; Feb. 24) - Turkmenistan, Afghanistan, Pakistan and India on Feb. 23 ceremonially broke ground on the Afghan section of an ambitious, multibillion-dollar gas pipeline expected to help ease energy deficits in South Asia. Afghan President Ashraf Ghani and Turkmen counterpart Gurbanguly Berdymukhamedov joined Pakistani Premier Shahid Khaqan Abbasi and India's Minister of State for External Affairs Shri M. J. Akbar for the ceremony at gas-rich Turkmenistan's border with Afghanistan.

Dignitaries were greeted by Turkmen national songs and nomadic tents serving up food at the border post of Serkhetabat, once the southernmost tip of the Soviet Union. "There were pessimistic voices, but now we are witnessing the construction of the TAPI gas pipeline," said Ghani, using the acronym for the line that takes its name from the four countries. The quartet aims to complete the 1,143-mile pipeline and begin pumping gas from Turkmenistan's giant Galkynysh gas field by the beginning of 2020.

The bulk of the up to 1.1 trillion cubic feet of gas to be moved through the line each year will be purchased by Pakistan and India. Turkmen strongman Berdymukhamedov, whose country depends heavily on China as a market for its gas exports, called

diversification of gas sales an “important part of the politics” of the isolated Central Asian country. Turkmenistan sits on the world’s fourth-largest gas reserves.

Pipeline gas volume into China slipped in January

(Bloomberg; Feb. 25) - China’s natural gas imports from Central Asia, a long-time source of the fuel via pipeline, slipped last month, worsening a winter shortage and increasing the world’s biggest energy user’s reliance on liquefied natural gas cargoes. Pipeline imports during January from Turkmenistan, China’s biggest overseas source of gas last year, dropped 14 percent from a year earlier and 4 percent from December, data from the General Administration of Customs showed Feb. 24.

Shipments from Uzbekistan and Kazakhstan dropped 42 percent and 24 percent from a month earlier, respectively. China National Petroleum Corp., the nation’s dominant pipeline gas importer, said earlier this month that supply from Central Asia went into a “sharp decline” as of Jan. 30, without providing details. China’s gas demand surged last year under President Xi Jinping’s campaign to fight smog by switching industrial and residential coal users in northern China to cleaner-burning gas.

The drop in Central Asian supply was offset by a rise in LNG shipments from Qatar, which gained 17 percent from December to the highest in four years, as well as record U.S. volumes. LNG imports hit a record 5.18 million tonnes in January, up 51 percent from a year earlier. Supply via pipeline gained 8.2 percent to 2.59 million tonnes. “China’s reliance on LNG shipments will likely continue to grow, given new terminals are starting up and LNG’s higher flexibility to help meet the nation’s peak-shaving demand,” said Miao Yingying, an analyst with Beijing-based industry researcher JLC.

China’s domestic LNG plants resume production

(Reuters; Feb. 28) - At least 10 of China’s domestic natural gas liquefaction plants have resumed output in the past week after the government cut off their supply, providing the first signs that the country’s gas crunch is starting to ease, company sources said. The return of the plants, which liquefy domestically produced gas that is then trucked to end-users outside of pipeline distribution networks, has raised LNG supply in the interior.

The restarts are also a sign that state-owned gas producers Sinopec and China National Petroleum Corp have resumed piping gas to the facilities after the government ordered them to divert shipments from the plants to residential users to make up a supply shortfall during the winter heating season as consumers were ordered to switch from coal to gas. Yangcheng Shuntianda Gas Corp., based in China’s Shanxi province, southwest of the capital Beijing, has restarted its plant after shutting in December.

“We lost 20 million yuan (\$3.2 million) each month because we weren’t producing anything. Our boss was under extreme pressure from the bank to pay off loans,” a source said. Yulin Huachen, which runs a similar-sized plant in neighboring Shaanxi province, resumed half of its production last weekend after closing for more than two months, said a company sales manager. More of the LNG plants are expected to resume operations in the coming weeks as gas supplies improve.

China wants to build and finance Kenya’s first coal plant

(New York Times; Feb. 27) - Across a narrow channel from the historic port town of Lamu, Kenya could soon get its first coal-fired power plant, courtesy of China. The plant’s champions, including senior Kenyan officials, say it will help meet the country’s growing demand for electricity and draw investment. Its critics worry it will damage the area’s fragile marine ecosystem, threaten the livelihoods of fishing communities and pollute the air. The battle over the project is frozen pending the outcome of a court case.

The plan embodies a contradiction of Chinese global climate leadership. A Chinese multinational is tapped to build the \$2 billion project in the 700-year-old Indian Ocean port town, and a Chinese bank is helping to finance it. The project is among hundreds of coal-fired power plants that Chinese companies are helping to build or finance around the world. It represents a test for Kenya. The country is seeking to become a renewable energy hub with huge solar and wind projects in the works and a promise to cut greenhouse gas emissions by 30 percent by 2030. Coal could upend those goals.

All morning long on the Lamu seafront, men unload mangrove logs and palm fronds. Fishers bring in their catches. No cars are allowed in the old town. No one here has seen a coal plant before. No one really knows how it will affect them. And whether Kenya even needs coal-fired electricity is in dispute, with some analysts concluding that wind and geothermal could generate enough electricity and be more cost-effective.

According to the Global Coal Tracker, a monitoring group, more than 200 coal-fired power plants are being developed or financed by Chinese companies from Mongolia to Zimbabwe, including in countries that, like Kenya, had previously burned no coal.

LNG import terminal could ease Australia’s local gas shortage

(Reuters; Feb. 26) - A consortium including Japan's JERA Co. and Marubeni is planning to import liquefied natural gas to Australia’s east coast, aiming to supply industrial users and possibly a new power plant. This is the second proposed LNG import terminal for Australia, the world's No. 2 LNG exporter, looking to fill a domestic supply gap at the

same time as the country's gas producers have locked in long-term sales contracts to supply LNG to Japan, China, and South Korea.

A final investment decision is expected this year on the project to import about 2 million tonnes of LNG a year starting in 2020 into a market where energy prices are soaring, said a spokesman for Australian Industrial Energy. "This market is desperate for new gas," James Baulderstone, a former Santos executive who is leading the venture, told Reuters. This comes after reports last year that Australia was experiencing a shortfall of affordable gas on its east coast amid rising LNG exports and declining production.

Australia is one of the world's largest gas exporters but the government's liquefied natural gas ambitions and slowing domestic gas output are hitting the eastern region's supplies and driving up prices. The LNG receiving terminal would be able to meet three-quarters of the gas needs of Australia's most populous state, New South Wales.

Carnival orders ninth LNG-powered cruise ship

(LNG Global; Feb. 27) - Carnival Corp. announced Feb. 27 it has signed a shipbuilding contract for a third next-generation cruise ship for its AIDA Cruises brand. The ship will be fully powered at sea and in port by liquefied natural gas. Scheduled for delivery in 2023, the new 180,000-ton ship, being built by German shipbuilder Meyer Werft at its shipyard in Papenburg, will have an estimated 2,700 staterooms.

In total, Carnival has agreements in place with German and Finnish shipbuilders Meyer Werft and Meyer Turku to build nine LNG-powered ships across four of its global brands with delivery dates between 2018 and 2023. The total includes three for AIDA Cruises with delivery dates between 2018 and 2023, two for Costa Cruises with delivery dates in 2019 and 2021, two for P&O Cruises UK with expected delivery dates in 2020 and 2022, and two for Carnival Cruise Line with expected delivery dates in 2020 and 2022.

Work proceeds on converting TOTE's Alaska ships to burn LNG

(Marine Link; Feb. 26) - TOTE Maritime Alaska has completed the first conversion phase of its two Orca-class vessels that will enable the ships to burn liquefied natural gas. TOTE's North Star arrived in Anchorage on Feb. 25, completing its first voyage after being outfitted with two LNG tanks immediately behind the ship's bridge. In addition to the tanks and infrastructure, the ship's engines are being upgraded to burn either natural gas or diesel. Three more work periods will be required in a Victoria, B.C., shipyard to complete the conversion to use LNG, now scheduled for early 2021.

Custom-built for the Alaska trade in 2003, the 840-foot North Star is a roll-on/roll-off ship designed to accommodate trailers including units over 53 feet long. The conversion of

TOTE's other ship, the Midnight Sun, also is scheduled for completion in early 2021. The vessels operate between Tacoma, Wash., and Anchorage. The conversions will significantly reduce air emissions, virtually eliminating sulfur oxides and particulate matter and reducing nitrogen oxides and carbon dioxide, TOTE said. The cleaner fuel will enable to ships to meet stringent new international environmental standards.

The conversion cost was reported at \$80 million when TOTE announced its plans in 2013. The company has contracted for LNG from the \$310 million Puget Sound Energy gas liquefaction, storage, and marine fueling depot under construction in Tacoma.

Canadian producers group blames tax, regulatory policies

(The Canadian Press; Feb. 26) - Investment in Canada's oil and gas industry is expected to fall again this year as higher taxes and regulatory uncertainty persuade investors to spend elsewhere, said the head of a group that represents Canada's oil and gas industry. "We need some urgent action, now," said Tim McMillan, CEO of the Canadian Association of Petroleum Producers, citing recently reduced U.S. corporate taxes and regulatory burdens under President Donald Trump.

"We've seen other countries announce that in light of the tax changes just recently adopted in the U.S. — China, Japan, Russia — they're going to look at their tax policies to ensure that they are competitive," he said. "No country is closer to or more challenged with competition with the U.S. than Canada." McMillan appeared at a news conference in Ottawa one day before the federal budget is to be presented.

Regulatory confusion and delays in Canada have prevented the timely completion of projects such as the Trans Mountain oil sands pipeline expansion, leading to difficulty in getting Canadian crude to markets and steeper-than-usual discounts imposed on oil sands prices compared to U.S. oil. McMillan said capital investment in the oil and gas sector increased globally in 2017 but fell in Canada to \$45 billion, down 19 percent from 2016. Spending in the U.S. increased last year by 38 percent to \$120 billion.