# Oil and Gas News Briefs Compiled by Larry Persily May 3, 2018

#### Papua New Guinea LNG partner says expansion could cost \$12 billion

(Australian Financial Review; May 1) - Oil Search CEO Peter Botten has put a figure of US\$11 billion to US\$12 billion on the initial cost of the next phase of LNG expansion in Papua New Guinea with even more investment in new gas field development deferred until later to ease funding needs. Speaking at a conference in Sydney on May 1, Botten said the budget would cover the investment required to add three liquefaction trains at the existing LNG plant and initial development of the Elk and Antelope gas fields.

Further capital spending to develop the P'nyang field would be deferred for a number of years. The expansion plan, broadly agreed by the partners in February, would double capacity at the plant that started up in 2014, adding a third train at the ExxonMobil-led plant for feed gas from existing fields and two trains to process gas from the Total-led Elk-Antelope fields. Papua New Guinea-based Oil Search has stakes in the gas fields and LNG plant, which has been producing at close to 9 million tonnes annual capacity.

The partners are aiming to make a decision in the later half this year to start engineering and design work for the expansion, but still need to agree with the Papua New Guinea government on royalty, taxation, and other terms, and along with details of the project. Botten said the government is keen to see the project move forward, and he didn't expect the issue of the distribution of local benefits to landowners and communities would stand in the way. The LNG project and the government have come in for criticism for delays in paying out benefits to local farmers and villagers.

# LNG didn't help Papua New Guinea as much as predicted, report says

(Australian Broadcasting Corp; April 30) - The immense benefits predicted to flow from Papua New Guinea's liquified natural gas project have not materialized, and the country's economy has even gone backwards on some indicators, according to a report by an Australia nonprofit organization that focuses on economic justice. The report from the Jubilee Australia Research Centre said Papua New Guinea's household incomes and employment had deteriorated since the LNG project began exports in 2014.

The ExxonMobil-led project pipes gas 435 miles from the Highlands to a liquefaction plant for export. Though supporters said it would transform the economy, the April 29 report — "Double or Nothing: The Broken Economic Promises of PNG LNG" — said the changes, while substantial, were not what the government and proponents predicted. It

hasn't doubled the growth rate of Papua New Guinea's gross domestic product, as initially was predicted, said report co-author and economist Paul Flanagan.

Project revenue for the government also failed to materialize, he said. "We would've expected about ... 1.4 billion Kina (\$US430 million) in revenues per year. ... The actual numbers that are coming in are less than 500 million Kina (\$US153 million), most of that is actually from tax payments from employees of the project." Flanagan said many of the missed opportunities were the result of poor decisions by the government, which was too focused on the country's resource sector to the exclusion of all else.

The government greatly increased spending in the project's early years and bought a 10 percent stake in Australian oil and gas company Oil Search at a cost of at least US\$250 million. "The resource curse is a well-established phenomenon where you get a huge resource boost to a relatively undeveloped economy and despite what you'd expect the economy doesn't do well," said Luke Fletcher, executive director of Jubilee Australia.

#### Papua New Guinea calls criticism of LNG project 'fake news'

(Radio New Zealand; May 2) - Papua New Guinea's prime minister has lashed out at a report that contends the country has not benefitted from its huge ExxonMobil-led liquefied natural gas project. The report by the social-justice nonprofit Jubilee Australia said the US\$19 billion LNG project had failed to create jobs or spinoffs for PNG's economy despite big promises. The report said the project had created mostly negative economic impacts for the country since gas exports began in 2014.

Report co-author and economist Paul Flanagan said projections of rapid growth and an influx of easy money prompted the PNG government to embark on a spending spree from 2013-2015 that crippled the economy. "In terms of economic impacts, the promises of a doubling of the size of the economy, massive increases in employment, and government expenditure, those items just haven't happened," he said.

Prime Minister Peter O'Neill used a May 1 speech at a business forum in Brisbane to respond: "It's quite disappointing to note that some of our experts, who align themselves with political interests, continue to try and talk down the economy, and continue to release fake news." PNG National Planning Minister Richard Maru said profits will grow after the owners and the government pay back their project development loans.

One of the areas of most concern in the report was that most landowners around the gas fields still hadn't been paid royalties or benefits they were promised. Exxon said royalty payments due to the government had been ongoing since gas production started in 2014, but that distribution of the royalties is the government's responsibility.

## **Report says China uses Arctic investments to gain influence**

(U.S. Naval Institute News; April 28) - China sees the expanding global markets for natural gas and minerals as solid reasons to invest heavily in exploration, development, and infrastructure across the Arctic, a panel of experts said April 27. Mark Rosen, co-author of a recent CNA report on the challenges this investment poses for international security, advised observers to "follow the money" in evaluating China's ambitions in the Arctic. CNA is a Virginia-based nonprofit research and analysis organization.

China's investment in Greenland's economy is 12 percent of its gross domestic product and about 6 percent of Iceland's, Rosen said. "Money is power," and China is dispensing funds for influence around the globe, he said. In recent years, China has invested \$90 billion in a host of projects above 60 degrees north with more to follow. Hong Nong, executive director at the Institute for China-America Studies, said China's white paper on the Arctic is seen by many observers as Beijing's quest for "a polar or ice silk road," similar to its strategy of expansion into Europe, Africa and Latin America.

Rosen cited Beijing's latest initiative: Through the "Data Silk Road" with Finland, it is laying undersea cable to move financial data more quickly from point-to-point as part of its long-range economic strategy. At the same time, it is building airports in Greenland, cooperating with Russia in expanding port facilities on the Northern Sea Route for liquefied natural gas exports to Asia, and building infrastructure in Canada's Northwest Territories to expand fur and diamond exports to the Chinese market.

## PetroChina continues to lose money on natural gas imports

(Bloomberg; April 27) - PetroChina's profit rose 78 percent in the first quarter as the country's largest oil and gas producer benefited from a rally in crude prices while holding in check its losses from reselling imported natural gas. Net income rose to 10.15 billion yuan (\$1.6 billion) in the January-March period, from 5.7 billion yuan a year ago, the Beijing-based company said.

Like other major global producers, PetroChina, which accounts for more than half the nation's oil and gas output, is reaping the rewards of a price rally mainly driven by OPEC-led production cuts. But as China's biggest gas supplier, it's also burdened by reselling overseas supplies at government-controlled prices, which are lower than its costs of importing through long-term contracts. Losses from importing natural gas — both by pipeline and via tanker as liquefied natural gas — narrowed to 5.82 billion yuan from 5.98 billion yuan because of "effective cost-control measures," the company said.

### LNG market may come up short on shipping capacity

(Platts; April 29) - New liquefied natural gas projects and longer trade routes from the U.S. to Asia are soaking up the surplus LNG shipping capacity built up in recent years, executives at an LNG forum in Singapore said this week. Consequently, the shipping market is tightening, which could lead to a shortage of carriers in two to three years, especially on the spot market where players don't have protection of long-term charters.

Tighter shipping supply is likely to increase freight rates and make it more difficult for U.S. cargoes to reach distant markets in Asia. "There will be a shortage of ships. And you cannot add new orders in the next couple of years," ship owner BW LNG managing director Yngvil Eriksson Asheim said at the forum. It takes roughly two years to build an LNG carrier. She said 60 LNG carriers are expected to be delivered in 2018 and 38 total in 2019-2020. With more than 90 million tonnes of new LNG annual supply coming online the next couple of years, about 125 new carriers will be needed, she said.

Longer voyages from the U.S. Gulf Coast to Asia have been a major driver of tonnemile demand — a measure that includes cargo volume and distance. Typically, 1.3 ships are required to move 1 million tonnes a year of LNG, but for cargoes loaded from Cheniere Energy's Sabine Pass, La., terminal, the longer routes to Asia require 1.76 ships for every 1 million tonnes of LNG, said Rolv Stokkmo, LNG Shipping & Product Broker at Poten & Partners. "The markets of 2019 and 2020 will be short shipping."

#### Asian demand could help next wave of U.S. Gulf Coast LNG projects

(Platts; May 2) – East Asian LNG demand could jump 150 percent from current levels by 2030, bolstering prospects for a second wave of U.S. export projects trying to finance construction, a Japanese government energy official said at a conference in Houston on May 2. The comments underscore the importance the U.S. Gulf Coast will play in global supplies and market prices in years to come.

Across Asia almost a dozen countries are importing LNG, while several are expected to begin doing so soon. Japan remains the world's biggest LNG importer followed by China and South Korea. Even as Japan pursues more renewables for power generation and brings more nuclear generating facilities back online, LNG is still expected to account for a significant share of its energy mix, said the official with the Japanese Ministry of Economy, Trade and Industry's Agency for Natural Resource and Energy.

"The importance of gas doesn't change," Takuma lino, the agency's deputy director for upstream investment, said at the Offshore Technology Conference. Total Asia-Pacific demand is expected to grow to nearly 34.7 billion cubic feet of gas a day by 2020 (265 million tonnes of LNG per year), a 24 percent build over 2017, S&P Global Platts Analytics said. Chinese demand growth will lead the region, followed by Pakistan and

India. Despite demand growth some U.S. LNG project developers have delayed final investment decisions as they struggle to secure firm long-term contracts with buyers.

#### Korea Gas looks to boost sales to industrial, transportation users

(Korea Times; May 1) - Korea Gas has expanded its natural gas sales to help reduce the country's greenhouse-gas emissions and fine-dust pollution. In addition, the administration of South Korea President Moon Jae-in plans to boost the portion of renewable energy in the country's energy mix from the current 7 percent to 20 percent by 2030 and phase out aged nuclear reactors and coal-fueled power plants.

The government has set a 2020 target of reducing greenhouse-gas emissions to 30 percent below business-as-usual levels. To boost demand for gas, the state-run provider recently announced it will lower the price of LNG for industrial purposes by 10.2 percent. To reduce fine dust, KOGAS said it has paid more subsidies to bus companies when they change their aged diesel-fueled buses to compressed natural gas-fueled buses. Last year, KOGAS paid 11.4 billion won (\$10.68 million) to the companies.

In cooperation with the Ministry of Oceans and Fisheries and Pusan New Port Co., KOGAS also paid subsidies to companies changing out their older diesel-fueled yard tractors to LNG-fueled units. Yard tractors are used to shuttle containers between vessels and container stacks. To encourage more companies to purchase LNG-fueled yard tractors, KOGAS has installed LNG fueling stations.

## India LNG importer plans to set up terminals in neighboring countries

(Live Mint; India; April 30) - In a move that could establish India's role in bolstering its neighbors' energy security, state-run Petronet LNG is planning to set up liquefied natural gas import terminals in Myanmar, Bangladesh, Sri Lanka, and Mauritius at a total investment of about \$2.5 billion. Also, Petronet, promoted by four Indian state-owned oil and gas firms — GAIL (India), Bharat Petroleum, Indian Oil, and Oil and Natural Gas Corp. — is exploring a similar opportunity in the Maldives.

The terminals, totaling about 15 million tonnes per year in annual receiving capacity, will regasify LNG for pipeline distribution and also help India exert economic and strategic influence in the region. The ambitious move comes amid increasing Chinese influence in the countries that India has traditionally considered within its sphere of influence.

CEO Prabhat Singh said Petronet is looking at setting up terminals in Bangladesh (7.5 million tonnes per year), Sri Lanka (2.6 million tonnes), Myanmar (3.5 million tonnes), and Mauritius (1 million tonnes). "Petronet has been until now actually focusing inwards within the domestic market. Now the time has come to make global forays starting with

the neighboring countries first," Singh said. The firm set up India's first LNG terminal at Dahej (15 million tonnes) in Gujarat, and another at Kochi (5 million tonnes) in Kerala.

## Europe's clean-energy push will help boost demand for gas

(Forbes; April 30) - Natural gas demand in Europe is growing at a remarkable pace, according to a report published last week. And this growth is set to quicken over the next five years. This isn't just about market forces — it's the result of concerted European Union policy. The report, published by the Oxford Institute for Energy Studies, concludes that EU laws including the cap-and-trade Emissions Trading Scheme and new rules for power plants are pushing up the share of gas in the EU's energy mix.

Gas demand in Europe increased by 5 percent last year, the third increase in a row, reaching 19.34 trillion cubic feet. The strongest growth was in Germany, France, the U.K., Italy, and the Netherlands. Gas demand in Europe rose significantly in the 1990s, peaking at 25 percent of consumption in 2010 before falling, due in part to difficulties in supply from Russia. Although those difficulties have not abated, the gas proportion is moving up again because of EU policy and will shortly match 2010 highs.

The EU's 2010 industrial emissions directive, which set efficiency requirements and emissions limits for power plants, has had a particular effect, the report said. These limits are expected to effectively ban all but the cleanest coal plants in the next five years. Though coal accounts for 20 percent of EU energy today, that is expected to decrease significantly within the next five years because of decisions to phase out coal in several countries. And while nuclear remains the cheapest power in the long term, political decisions in several countries including Germany will see nuclear phased out.

# BP focusing on gas production, with more expansions planned

(Platts; May 1) - BP's oil output dropped 5 percent on the year in the first quarter, partially reversing a large jump in the previous quarter as its Abu Dhabi offshore concession expired. The slip in oil, however, was offset by surging gas production. Excluding its stake in Russia's Rosneft, BP reported its highest production since the fourth quarter 2010, with first-quarter 2018 output of 2.61 million barrels per day of oil equivalent (combining oil and gas output).

In a call with investors, chief financial officer Brian Gilvary said he saw no sign of inflation returning in any part of the company's upstream portfolio, including in its gas-focused U.S. shale operations, where it has 12 rigs, some with breakeven costs as low as \$1 per barrel of oil equivalent in the Haynesville play.

BP is focusing on expanding its gas production, in line with other majors. Its gas projects due for approval include the Tortue/Ahmeyim LNG project offshore Mauritania and Senegal. Its gas production was up 29 percent on the year at 7.46 billion cubic feet per day. Gilvary said BP plans to expand its LNG operations to up to 25 million tonnes per year, comprising both its own production and traded volumes. "You're going to see quite a number of LNG projects come on to market out to 2022."

### Pennsylvania lawmakers try again for gas production tax

(State Impact Pennsylvania; April 30) - Some Pennsylvania lawmakers are introducing legislation again to impose a severance tax on natural gas production. The Legislature has debated enacting such a tax for a decade. Several lawmakers joined Gov. Tom Wolf on April 30 to announce their latest effort: a pair of bills that propose a tax ranging from 4 to 7 cents per thousand cubic feet of gas depending on the price of gas.

The bills reflect the plan the governor outlined earlier this year in his proposed budget. Wolf's plan would raise more than \$200 million in the next fiscal year, according to estimates from the governor's office. "We're proposing a reasonable severance tax in line with other gas-producing states where energy pays its fair share," Wolf said. A severance tax continues to face opposition from Pennsylvania's gas industry. Past efforts in the Republican-controlled Legislature have met little success.

The governor said the tax would be imposed in addition to the state's drilling impact fee, which companies pay for each well they operate. The fee has generated more than \$1 billion since it went into place several years ago. Much of the money is distributed back to communities impacted by gas development. A severance tax would be different, requiring companies to pay based on the volume of gas produced at each well. Every major oil- and gas-producing state except Pennsylvania has such a tax. Pennsylvania produced an average of more than 16 billion cubic feet of gas per day in February.

## U.S. Supreme Court lets ruling stand against gas pipeline

(Times Union; Albany, NY; May 1) - The nation's highest court dealt another setback this week to a proposed \$750 million, 124-mile natural gas pipeline that would connect Pennsylvania gas fields to New York. The U.S. Supreme Court on April 30 declined to consider an appeal from developers of the proposed Constitution pipeline, who last summer lost a lower court challenge to a New York state ruling that blocked the project.

The Supreme Court let stand a U.S. Court of Appeals ruling rejecting Constitution's claims that the state Department of Environmental Conservation unfairly denied water quality permits in April 2016. The pipeline would move up to 650 million cubic feet of gas per day connecting to the Iroquois pipeline in New York. The state refused to issue

water quality permits after the company ignored requests to provide plans showing how the pipeline could go under 251 streams rather than digging trenches through them.

Constitution has separately petitioned the Federal Energy Regulatory Commission to overturn the state's decision. In March FERC gave itself more time to consider the issue. FERC approved the project in 2014 and again in 2016, subject to other approvals. Opponents welcomed the court decision. "The court rightfully denied the attempt to use the federal justice system to force New Yorkers into a pipeline we don't want and don't need," said Wes Gillingham, of Catskill Mountainkeeper.

#### New Mexico faces challenges as it produces more oil and gas

(Farmington Daily Times; NM; April 29) - The New Mexico Energy, Minerals and Natural Resources Department has a list of challenges as the oil and gas industry gains momentum, State Cabinet Secretary Ken McQueen told industry groups in Farmington, N.M. He spoke at an April 13 meeting of the Four Corners' Geological Society, Landmen's Association and Society of Professional Engineers.

The state has become the third-largest crude oil producer in the nation, due to booming Permian Basin output. Though the industry is picking up speed, McQueen said it faces a variety of challenges — including water. "Currently we produce about five barrels of water for every barrel of oil we produce, and we're literally running out of places to dispose of this water in the southeast, so we are exploring alternative methods for disposal," he said.

Moving gas to markets also is a challenge, McQueen said. California is drawing back on gas in a statewide initiative to move toward renewable energy, leaving New Mexico producers in a bind since much of New Mexico's gas has historically gone to California power producers. "A real solution for gas out of (New) Mexico is to find (a liquified natural gas) export site on the West Coast. Unfortunately, our friends in California and Oregon and Washington have not been very open to that idea," he said. "I think there's a real market in perhaps establishing an LNG port on the western side of Mexico."

#### Legal experts doubt B.C. will win court case against oil pipeline

(The Canadian Press; April 29) - British Columbia's court case over the flow of Alberta's heavy oil through the province could be damaged by its government's previous positions specifically against expansion of the Trans Mountain pipeline, legal experts said. The province filed last week in the B.C. Court of Appeal, asking if it can assert broad authority — not project specific — to control the shipment of heavy oil based on the impact that spills could have on the environment, human health, and communities.

The province is asking the court whether federal law would override B.C. law. Nigel Bankes, chair of natural resources law at the University of Calgary, said he believes the province will lose because it's targeting a federally approved project. "All rhetoric, all the public announcements, all the announcements from the premier and relevant ministers make it clear that this legislation is actually directed at Trans Mountain," he said.

A precedent was set in 1984 when the courts ruled the government of Newfoundland and Labrador acted outside its authority by introducing legislation disrupting Quebec's right to access hydro power from the neighboring province, Bankes said. "I have not seen any argument as to why the federal government doesn't have authority to regulate this interprovincial pipeline the way it has authority over all kinds of other interprovincial undertakings," said Carissima Mathen, vice dean of the University of Ottawa law faculty.

## First Nation wants upfront payment of legal costs against government

(The Canadian Press; April 29) - An Alberta First Nation that's suing the province and federal government is asking a court to force them to pay all trial expenses up front to try to stop them from "ragging the puck" (going slow) on the lawsuit. "If the Crown has to contribute to funding the litigation, they're going to want to find the most efficient and quickest way possible," said Karey Brooks, lawyer for the Beaver Lake Cree, who live about 60 miles north of Edmonton. "Right now, the incentive is the other way."

The First Nation has filed an application for the governments to front all its legal costs. In 2008 the Beaver Lake Cree filed a lawsuit against Alberta and Ottawa alleging that so much development had been permitted on their land that it rendered their right to traditional activities meaningless. The band counted more than 19,000 development permits issued for the area, mostly for energy development, covering 90 percent of its land. It alleges it has never been properly consulted or compensated for the damage.

The governments filed several times to have the lawsuit dismissed. In 2012 a Queen's Bench judge ruled the claim could proceed and, after the Crown filed an appeal, the province's top court said the claim could go ahead. The First Nation calculates it has spent about \$2.8 million on the lawsuit, about half paid for through outside donations and half by the band. It estimates that finishing the action will cost another \$2.2 million.

#### Marathon will become No. 1 U.S. refiner with purchase of Andeavor

(Wall Street Journal; April 30) - Marathon Petroleum's \$23 billion deal to buy rival Andeavor will create the largest U.S. oil refiner just as an oil-price surge and growing global demand for fuels set the stage for an extended industry rally. The U.S. refining business, once seen as cash-gobbling assets that weighed down lucrative drilling units, has been one of the most profitable sectors in the U.S. economy in the past five years.

The transaction gives Findlay, Ohio-based Marathon access to Andeavor's two refining plants near the prolific Permian Basin, which is set to produce as much oil as Iran or Iraq within a few years. Marathon said it is currently the second-largest American independent refiner. Andeavor, based in San Antonio and formerly known as Tesoro, is mostly focused on the U.S. West, where it has 10 refineries (including one in Nikiski, Alaska) with total capacity of more than 1.2 million barrels a day.

If the deal closes, Marathon will become the largest U.S. refiner with 16 plants, about 3 million barrels a day of capacity, a massive pipeline network through two partnerships that it would control, and a retail network of thousands of gas stations, said Tudor Pickering Holt & Co. The company would control about 16 percent of U.S. refining capacity. "We do not foresee any regulatory problems given the disparate geographical markets of each company," Tudor Pickering said April 30.