# Oil and Gas News Briefs Compiled by Larry Persily December 27, 2018

#### Mitsui in talks to buy stake in Russia's Arctic LNG-2 project

(Nikkei Asian Review; Dec. 23) - Japanese trading house Mitsui & Co. told Nikkei Asian Review on Dec. 22 that it is in talks to buy a stake in Novatek's Arctic LNG-2 project, as it weighs various investments in Russian gas developments. Novatek, which already operates Yamal LNG in Siberia, plans to start operations at Arctic LNG-2 by 2022 or 2023, producing 19.8 million tonnes of liquefied natural gas a year. It has already sold a 10 percent stake in the project to French major Total to help cover its \$25.5 billion cost.

Novatek is considering selling off another 30 percent. Saudi Aramco and the Russian Direct Investment Fund, a sovereign wealth fund, are in talks for a piece of Arctic LNG-2, Reuters reported Dec. 21. The size of each investment has yet to be decided. Mitsui may also take part in other Russian gas projects, including expansion of the Sakhalin-2 LNG plant and a new LNG export terminal on the Baltic Sea. Sakhalin-2, led by Gazprom, has been producing LNG since 2009. Yamal started up in December 2017.

Yamal, Sakhalin-2, Arctic LNG-2, and the Baltic terminal would give Russian more than 55 million tonnes a year of liquefaction capacity, boosting it to the top four in the world behind Qatar, Australia, and the United States. Mitsui said it will closely examine the profitability of investing in Russia's Arctic gas ventures before making a final decision. Total and Chinese interests hold 49.9 percent of Yamal. Shell may invest in Gazprom's Baltic Sea LNG export terminal.

# BP and partners give go-ahead for LNG project in Africa

(Reuters; Dec. 21) - BP and its partners have given the green light for development of a large gas project off the coast of Mauritania and Senegal, a first for the two West African nations. The Greater Tortue Ahmeyim development, Africa's deepest at more than 1.2 miles below the sea's surface, will consist of a floating production vessel and a separate, nearshore floating liquefaction plant, BP said. This is the second major LNG project to get the go-ahead this year as energy companies bet on future demand growth. Shell has decided to start building its LNG Canada project in British Columbia.

The Tortue floating liquefied natural gas project will produce 2.5 million tonnes of LNG per year. The field holds total gas resources estimated at about 15 trillion cubic feet. Work will begin in the first quarter of 2019, and first gas is expected in 2022. The Tortue go-ahead was given after the governments of Mauritania and Senegal reached an agreement over the sharing of production from the development.

BP is the project's operator with a 60 percent stake in the development in Senegal and 62 percent in Mauritania. Other partners include Texas-based Kosmos Energy with a 30 percent stake in Senegal and 28 percent in Mauritania. State-owned oil and gas companies Societe des Petroles du Senegal and Societe Mauritanienne Des Hydrocarbures et de Patrimoine Minier each hold a 10 percent stake on their side. BP's trading arm has been selected as the sole buyer of 100 percent of the plant's output.

#### Shell starts gas production at Prelude offshore Australia

(Reuters; Dec. 25) - Shell said Dec. 25 it has started producing gas at Prelude, the world's largest floating production structure and the last of a wave of \$200 billion in LNG projects built in Australia over the past decade. Prelude has now entered start-up and ramp-up, the initial phase where gas and condensate are produced and moved through the facility offshore northwestern Australia. Shell did not provide an estimate, but analysts expect exports of liquefied natural gas and condensates will start early in 2019.

When Prelude reaches full production of 3.6 million tonnes a year, LNG carriers will pull alongside the 1,600-foot-long mass of steel and pipes and equipment and load up every five to six days. The unit also will produce about 45,000 barrels a day of condensate and liquefied petroleum gas a day. Shell has not disclosed a price for Prelude; industry reports put it between \$12 billion and \$20 billion. Shell owns 67.5 percent of the project, while Japan's Inpex, Taiwan's CPC, and Korea Gas hold the rest of the shares.

First gas from the Browse Basin had been scheduled for 2016 when the project was approved in 2011. Prelude was built in a South Korea shipyard and arrived off the coast last year for additional outfitting and preparations to start production. LNG was delivered to Prelude in June and October to cool down the equipment in readiness for start-up. With Shell as the largest stakeholder, the bulk of the LNG produced is expected to go into the company's LNG portfolio, adding to its volumes from other Australian projects.

## Australia's LNG exports this year will be up 45% from 2 years ago

(S&P Global Platts; Dec. 21) - The Australian government has lifted its forecast for LNG exports for fiscal 2018/2019 (July through June), following start-up of Woodside's Wheatstone LNG, Inpex's Ichthys LNG, and Shell's Prelude LNG projects. The Ichthys project shipped its first LNG cargo in October and is expected to bring the second train online in 2019, the Industry Department report said. Prelude was expected to begin production before the end of 2018.

The Australian government expects LNG exports of 74.9 million tonnes in fiscal 2018-2019, compared to 62.7 million in fiscal 2017/2018 and 52.1 million in fiscal 2016/2017.

The country's chief economist raised the forecast for world LNG trade to 329.1 million tonnes this year, up 2 percent from the previous forecast. The report also showed global LNG trade growing to 367.4 million tonnes in fiscal 2019/2020.

Australia remains on track to be the world's biggest LNG exporter next year, but it probably won't hold the title for long as Qatar has plans to lift its annual export capacity from its current 77 million tonnes to 110 million by the mid-2020s and the United States develops new LNG export projects underpinned by low-cost shale gas production.

#### More U.S. LNG will come online in 2019 as Asian demand flattens

(S&P Global Platts; Dec. 21) – U.S. LNG exporters could face headwinds in 2019 as potentially weaker demand from Asia meets a looming expansion in U.S. liquefaction capacity, keeping the export market under pressure. A longer-term trend could already be at work, though. In Japan the recent restart of Shikoku Electric's 890-megawatt lkata-3 reactor in late October marks the fifth nuclear reactor restarted this year.

In 2019, Kansai Electric has targeted the Takahama No. 1 and Takahama No. 2 reactors for restart. Another four nuclear reactors separately owned by Kansai Electric, Tokyo Electric and Japan Atomic Power have already been approved for restart by Japan's Nuclear Regulatory Agency. According to Platts Analytics, those restarts will result in a measurable cut to LNG demand from Japan with continued demand growth from China now expected to keep Northeast Asian demand roughly flat in 2019, at best.

Just as Northeast Asia's appetite for LNG cools, U.S. exporters face a steep ramp-up in competition. Production at Cheniere's Corpus Christi LNG terminal in Texas has begun with production from the company's Sabine Pass Train 5 in Louisiana likely to follow by early next year. Corpus Christi should have its second train operational by August. At Cameron LNG in Louisiana, Train 1 should be online by April, with Train 2 in October. Freeport LNG in Texas is expected to have its first train operational in the third quarter.

## **China set record in November for LNG imports**

(Reuters; Dec. 23) - China's liquefied natural gas imports hit record levels in November, customs data showed on Dec. 23, with traders rushing to buy the fuel as households and businesses crank up their heating over the freezing winter months. LNG imports totaled 5.99 million tonnes in November, up 48.5 percent from the same month last year, data from the General Administration of Customs showed.

That surpassed the previous record of 5.18 million tonnes hit in January this year. China has been pushing to switch parts of the country to gas for heating, shifting away from coal as it pushes to clean up its air quality. For the first 11 months of 2018, LNG

imports were up 43.6 percent from a year earlier to 47.52 million tonnes, on track to far exceed 2017's record of 38.13 million tonnes.

#### China imported just two cargoes of U.S. LNG in November

(Bloomberg; Dec. 24) - China last month imported two tankers of U.S. liquefied natural gas, nudging open a doorway that had been closed for a month at a time when America is rapidly expanding its exports of the fuel. The three operating U.S. LNG terminals took delivery of more than 5.1 billion cubic feet of gas from shale basins on Dec. 23, the most ever. With two more terminals set to open in the first quarter of 2019, China's reemergence as a customer as winter arrives offers a much-needed outlet for exports.

"This is important because priced U.S. natural gas with the tariff is still economical compared to other sources," said Het Shah, founder of Analytix.AI, an energy market data analytics company in Calgary. While the two U.S. cargoes offer short-term hope, Chinese companies are still unlikely to cement long-term deals for more LNG, hindering future projects without Beijing and Washington resolving their differences over a festering trade war that has spurred tit-for-tat tariffs in a wide variety of sectors.

The world's second-largest economy imported a record 5.99 million tons of LNG in November even as its reliance on American gas fell. In November a year earlier, China imported six tankers of American LNG. The Asian giant last winter was forced to turn increasingly to the U.S. for the fuel after the government required businesses and homes to stop burning coal to cut pollution.

## China looks to expand its LNG carrier shipbuilding

(Marine Link; Dec. 24) - China would like to compete with South Korea in the field of building liquefied natural gas carriers. South Korea has won 86 percent of the world's total orders, or 52 orders for LNG carriers so far in 2018, according to Clarkson Research. The remaining nine orders were shared by shipbuilders from China, Singapore, and Japan. Though China leads offshore engineering products and megacontainer vessel shipbuilding sectors, the country is a laggard in LNG shipbuilding.

Shanghai-based Hudong-Zhonghua Shipbuilding Co., China's only builder of large LNG carriers, has delivered just 17 LNG carriers to shipowners throughout the world since 2008. That makes China heavily dependent on foreign-built ships to supply its rapidly growing reliance on LNG imports. The ships can cost \$200 million to \$250 million each.

China needs to develop its shipyards to build more LNG carriers, Tan Naifen, deputy secretary-general of the China Association of the National Shipbuilding Industry, was quoted recently by the country's official media China Daily. Tan said Chinese shipyards

should expand into international collaboration, research, and development activities to build more of the highly specialized LNG carriers.

#### Petronas cuts back Canadian gas production due to low prices

(The Canadian Press; Dec. 23) - Natural gas prices in Western Canada are so low that a partner in the country's first LNG export project is shutting off money-losing wells and throttling back its exploration program. Malaysian-owned Petronas, which holds a 25 percent interest in the C\$40 billion LNG Canada project, has been curtailing production by between 50 million and 200 million cubic feet per day from wells in northeastern B.C. capable of producing 700 million cubic feet, the CEO of its Canadian branch said.

A growing number of Western Canadian gas producers are doing the same to avoid selling at prices that often don't even cover the cost of pipeline tariffs. "We talk a lot about oil infrastructure," said Petronas Energy Canada CEO Mark Fitzgerald, referring to price discounts for western Canadian crude blamed on full pipelines. "Gas is trapped as well. If you compare the prices that Canadian gas producers are receiving against our U.S. peers, the differentials are significant and costing us a significant amount."

Growing gas production in Western Canada has oversupplied the market driving down prices. In the July-September quarter, the benchmark price for the gas was almost \$1.50 per 1,000 cubic feet less than in the United States. Pipeline companies are spending billions of dollars to expand their gas systems in British Columbia and Alberta, which will in time improve market access and should boost prices. Petronas plans to supply its own feed gas for its share of the LNG Canada plant capacity, but the Shell-led project in Kitimat, British Columbia, will not be operational until late 2023 or early 2024.

## Shipowners wary of building more floating LNG import units

(Reuters; Dec. 21) - Political instability and low credit ratings in emerging economies are putting some shipowners off from ordering new floating liquefied natural gas storage and regasification units (FSRU). The floating LNG import facilities are less expensive and time-consuming than building onshore terminals and were expected to help build more demand for LNG in emerging markets in Asia, Africa, and South America.

But a boom in speculative FSRU orders from shipowners led to an oversupply of units this year as import projects across the world were delayed or cancelled, suggesting demand had been overestimated. "We will only work with either major energy or state companies now," said Sveinung Stoehle, CEO of Norway's Hoegh LNG, a world leader in outfitting, leasing, and selling the ships. Hoegh has pulled out of FSRU projects in Ghana, Chile, and Pakistan due to delays and cancellations.

"We will not place new orders until we have long-term deals," Stoehle said. Hoegh is thought to have two FSRUs still not committed to a long-term contract. Other shipowners appear to be taking a similar strategy. Belgium's Exmar said it also would look for long-term contracts before ordering new vessels. Japan's Mitsui O.S.K. Lines said it had not placed new orders for FSRUs this year. The oversupply of units led to about seven FSRUs being employed as LNG carriers this year, shipbrokers said.

#### State attorney general questions review of Tacoma LNG project

(Tacoma Weekly; Dec. 21) - The Washington state attorney general's office has raised concerns about the supplemental environmental impact statement for Puget Sound Energy's natural gas liquefaction plant and LNG storage terminal under construction on the Tacoma Tideflats. The letter criticized the draft environmental report on a number of issues, saying it is "fictional" for the review to consider impacts if the plant is not built — the so-called no-action alternative — since construction has already started at the site.

The attorney general's environmental protection unit also noted that the draft review assumes the feed gas for the LNG plant would only come from Canada, which has tighter environmental controls on drilling than the United States — thus "cleaner gas production." But gas is a volatile market and conditions could change and possible changes in gas supply were not addressed in the draft, the letter said. "It is not clear why that assumption should be expected to hold true" for the project's 40-year lifespan.

The final EIS for the Puget Sound Clean Air Agency should be out in February. The utility needs a permit from the agency to complete construction and operate the \$310 million project. Critics include environmental groups and the Puyallup Tribe. They worry that the plant is an environmental risk and would not leave Puget Sound air, water, or land any cleaner. The plant will have the capacity to produce 250,000 gallons of LNG per day for peak-demand heating and use as a maritime and trucking industry fuel.

### First Nations need 'real, sustainable' benefits from development

(The Canadian Press; Dec. 25) - A Vancouver-area First Nation's decision to support the Woodfibre LNG project may have come as a surprise to some, considering the nation's opposition to the Trans Mountain pipeline expansion earlier this year. The Squamish community was one of a handful of First Nations that lined up to convince a federal court in August to overturn National Energy Board approval of the controversial oil pipeline expansion from Edmonton to the West Coast, leaving its future in doubt.

But the nation's acceptance of the liquefied natural gas export project last month reinforces a simple truth, said historian Ken Coates. "These are communities that need

real, sustainable, substantial economic benefit, where Indigenous people have been locked out of the market economy for 150 years. ... They have been wanting in for a long period of time," said the Macdonald-Laurier Institute's senior fellow in Aboriginal and Northern Canada issues and the author of several books on Indigenous relations.

Woodfibre LNG gained trust through five years of consultations and by agreeing to abide by conditions under the nation's environmental and cultural assessment process, said Khelsilem, a spokesman for the Squamish Nation council. In return for its support, the community is to receive annual and milestone payments totaling \$226 million over the 40-year life of the LNG project, and its companies will be in line to bid on up to \$872 million in contracts. Construction is expected to start next year on the C\$1.6 billion project at the site of a former pulp mill north of Vancouver, with capacity of 2.1 million tonnes of LNG per year. A Singapore-based company is the project developer.

### Crowley ready with second LNG-powered ship for Puerto Rico route

(Seatrade Maritime News; Dec. 20) - Crowley Maritime has taken delivery of the Taino from shipbuilder VT Halter Marine, its second of two combination container/roll-on roll-off ships fueled by liquefied natural gas. The Taino will soon join sister ship El Coqui that was delivered in July in serving the route between Jacksonville, Florida, and San Juan, Puerto Rico. The ships were built in Halter's Pascagoula, Mississippi, shipyard.

It marks the final chapter in construction of Crowley's \$550 million investment in the two Commitment Class ships and associated port upgrades. The Taino is scheduled to make its first voyage to San Juan on Jan. 8, from a dedicated port in Jacksonville. The new ships, built specifically for the Puerto Rico trade, are 720 feet long and can transport up to 2,400 20-foot-long shipping containers at a cruising speed of 22 knots.

## Mediterranean gas line gets a boost, but Turkey still opposes it

(Wall Street Journal; Dec. 20) - Greece, Cyprus, and Israel said Dec. 20 they are ready to proceed with a U.S.-backed pipeline that would move natural gas from the Eastern Mediterranean to Europe. The EastMed pipeline, at more than 1,200 miles, would bring gas from offshore fields between Israel and Cyprus to European Union markets via Greece. If construction goes ahead, it would spell the end for an alternative pipeline route for Israeli gas via Turkey.

The agreement is expected to be signed in Greece in early 2019 after the project receives EU regulatory approval. Gas reserves in the Eastern Mediterranean are estimated at 125 trillion cubic feet, according to energy consulting firm Wood Mackenzie. That gas could give the region an economic boost and help diversify

Europe's supply away from Russia. But the race to exploit the reserves is entangled with contested territorial claims and longstanding tensions between Cyprus and Turkey.

EastMed would have the capacity to carry up to 2 billion cubic feet of gas per day. Construction is expected to take six to seven years and cost about \$7 billion. The shortest and fastest route to take Eastern Mediterranean gas to Europe would be through Turkey. But Ankara's difficult relations with Israel, the EU, and the U.S. have undermined support for that solution. Turkey objects to the EastMed project. It also strongly opposes any exploitation of gas reserves in Cyprus's exclusive economic zone.

### Falling oil prices drive shale producers to cut back on drilling

(Reuters; Dec. 21) - U.S. shale producers are slamming the brakes on next year's drilling with oil prices off 40 percent and mounting fears of oversupply, paring budgets that in some cases were set only weeks earlier. The reversal is alarming because blistering growth in shale fields has propelled U.S. output up 16 percent to about 10.9 million barrels per day for 2018, above Saudi Arabia and Russia. Production has been expected to rise 11 percent more in 2019 as producers added more wells this year.

"You're really seeing folks pull back on extra spending, pull back on extra drilling and focus on being resilient," said Matt Gallagher, president of Parsley Energy. Right now, shale prices are close to break-even. U.S. crude futures for 2019, based on an average of the year's monthly contracts, this week dropped below \$50 a barrel, near the \$46-\$50 level that shale producers in the Permian, the largest U.S. oil field, need to cover costs.

The price drop is "a shock," said John Roby, chief executive of Dallas-based producer Teal Natural Resources. "A lot of people are cutting back development programs and cutting rigs," he said. The shale cutbacks are the first of what is expected to be a wave of companies shedding rigs and slashing budgets, said Matthew Lemme, a portfolio manager with investment firm Cushing Asset Management. "You can't stick your head in the sand and pretend that oil hasn't fallen 20 bucks in a couple of months," he said.