

Oil and Gas News Briefs

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Japan will pledge \$10 billion for LNG investment and financing

(Nikkei Asian Review; Sept. 24) - Japan's public and private sectors plan to invest \$10 billion to encourage broader use of liquefied natural gas worldwide, as growing tensions in the Middle East underscore the dangers of relying on the region's oil. Tokyo envisions funding projects such as LNG plants, receiving terminals and gas-fueled power plants. Industry Minister Isshu Sugawara will announce the plan at the annual LNG Producer-Consumer Conference in Tokyo on Sept. 26.

The \$10 billion will include public-sector financing from the Japan Bank for International Cooperation, as well as investment from the state-backed Japan Oil, Gas and Metals National Corp., along with trading houses and financial institutions. In addition, the government-owned Nippon Export and Investment Insurance will offer full coverage for LNG-related financing provided by foreign funds and other institutional investors.

Japan has imported LNG for five decades and remains the world's top buyer. Its companies have experience and expertise that could help markets such as China and Southeast Asia where economic growth is driving LNG demand. The government also promised \$10 billion in support at the 2017 conference. It met that target with assistance in four large-scale projects, including LNG Canada — a joint venture in Kitimat, British Columbia, of trading house Mitsubishi, Shell, Malaysia's Petronas, PetroChina, and Korea Gas — and Russian gas company Novatek's Arctic LNG-2 project.

LNG supply outlook 'feast to famine,' says Wood Mackenzie analyst

(Wall Street Journal; Sept. 26) - Asian buyers of liquefied natural gas are enjoying low prices now but fear a boom-and-bust cycle could hurt them by discouraging investment in projects needed to maintain supply. The glut of natural gas, fueled by a boom in U.S. LNG exports, and the accompanying decline in prices was a top subject when energy ministers and executives from around the world met Sept. 26 at a conference in Tokyo.

"We are going to have an issue in the coming three or four years, paying the price for the lack of [final investment decisions] in the past two or three years," said Laurent Vivier, president of the gas division of French energy company Total. Demand for LNG has grown swiftly in Asia over the past decade, but it has been outpaced by supply as more shale gas than ever is leaving U.S. shores. In July the spot price for LNG in Asia dipped below \$5 per million Btu, roughly a third of the price five years earlier.

Investment in LNG export facilities grew after 2011 as Japan turned to gas following the accident at the Fukushima nuclear plant. It takes years to plan and build the facilities, so the maximum impact is only now being felt. A record eight projects are coming online this year, reported energy consulting firm Wood Mackenzie, contributing to the supply glut. The swing of the investment pendulum will be felt starting in 2021, when only one LNG project is likely to start up, Wood Mackenzie said. That is set to grow to three in 2022 before falling back to one in 2023. “The supply outlook is very much a feast-to-famine situation,” said Nicholas Browne, Wood Mackenzie’s Asia gas and LNG director.

Supplies could turn tight depending in large part on China’s demand — if the nation more aggressively turns to gas to fuel power plants in place of coal. Still some investors are putting off final LNG investment decisions because of uncertainty about the global economic outlook and stiff competition, said Peter Lee, an oil and gas analyst at Fitch Solutions. Hiroshi Hashimoto, an analyst at the Institute of Energy Economics, Japan, said he is optimistic the market will reach an equilibrium over the long term. “This industry repeats ups and downs,” he said. “Spot prices are too low today,” but “bullish prices in the future will encourage new money to pour into project development.”

Korea Gas signs 20-year deal with BP to take U.S. LNG

(Reuters; Sept. 24) - South Korea’s state-run Korea Gas signed an agreement with BP to buy 1.58 million tonnes of U.S. liquefied natural gas for 15 years starting in 2025, its energy ministry said Sept. 24. The LNG will be delivered from the Freeport LNG terminal in Texas, which has started production, and/or Venture Global LNG’s plant in Calcasieu Pass, Louisiana, which is under construction. BP holds offtake commitments at both projects. The deal could be extended for three years at the seller’s option and is estimated to be worth up to \$9.61 billion for 18 years, the ministry said.

South Korea, the world’s third-largest LNG importer, imports mostly through the country’s sole LNG wholesaler, Korea Gas, which typically ships in between 35 million and 40 million tonnes a year, mainly from Qatar and Australia. The U.S. is South Korea’s third-largest supplier. In the first eight months of the year, South Korea imported 4.82 million tonnes of U.S. LNG, up 5.5 percent from 4.57 million tonnes during the same period a year earlier, according to customs data. Korea Gas currently brings in 2.8 million tonnes a year of U.S. LNG from Cheniere’s facility in Sabine Pass, Louisiana.

Total will focus much of its investment dollars on LNG

(S&P Global Platts; Sept. 24) – French energy major Total said Sept. 24 it would increase its annual investments to between \$16 billion and \$18 billion in 2019-23,

mainly to grow the company's LNG business, as its recent oil and gas production increases are likely to slow down. In a strategy update delivered in New York, Total underlined that much of its future production growth would support its burgeoning liquefied natural gas output in line with its expectations of growing global demand.

The company said it aimed to have annual LNG sales of 50 million tonnes by 2025, derived from both its own and third-party production, compared with a previous target of 40 million tonnes by 2020. "Energy demand growth will benefit mainly gas and electricity and, within these markets, LNG and renewables will grow the fastest," it said in the strategy update, adding it expected to increase cash flow from its LNG business by 2.5 times from 2018 to 2025. Total is second in the world in LNG sales, behind Shell.

Total says it will decide later this year on Nigeria LNG expansion

(Reuters; Sept. 24) - French energy major Total will make a final investment decision on a Nigeria liquefied natural gas project by the end of the year and expects first LNG could come by 2023, the company's head of production, Arnaud Breuillac, said Sept. 24. The expansion project would add 7 million tonnes per year to the existing facilities that can produce 22 million tonnes per year. Total is among the partners in Nigeria LNG, which includes Shell, Italy's Eni and Nigeria's national oil and gas company.

Nigeria last year was the world's fifth-largest LNG exporter, behind Qatar, Australia, Malaysia, and the U.S. The initial liquefaction train at Nigeria LNG started production in 1999. Speaking in New York during the company's Investor Day event, Breuillac said Total wants to grow the share of gas output of its portfolio to 22 percent by 2025 from 14 percent in 2018.

India's Petronet LNG taking risks with long-term U.S. LNG deal

(S&P Global Platts; Sept. 25) - A potential deal by India's Petronet to pump in a few billion dollars to buy equity in the proposed Driftwood liquefaction project in Louisiana in exchange for taking 5 million tonnes per year of LNG over the longer term may take India a step closer to its gas ambitions, but the state-run importer will have to weigh the risks carefully, analysts said. Stock market investors reacted cautiously to the non-binding agreement with Petronet share prices falling as investors wait for more clarity.

Some analysts said the move could be rewarding over the long term, given that the potential to boost India's domestic gas production is limited. "India's move to sign up for more LNG under long-term contracts really demonstrates their commitment toward growing their natural gas demand. Although this deal is promising ... it will still feature challenges," said Jeff Moore, Asian LNG Analytics manager at S&P Global Platts.

"Petronet's proposed diversification to LNG liquefaction business may be a cause of concern given the long gestation risks of cost and time overruns associated with such projects," Kotak Institutional Equities said in a note. Petronet will seek binding contracts for the gas so that the company is not exposed to volume or pricing risk, Kotak said.

Moore said there are challenges to overcome for the gas sector in India, such as building new pipelines to distribute the gas and help grow domestic demand. "Pricing is also a potential complicating factor," he said. Gas demand in India is price sensitive, in part because of government subsidies and partly because of the financial weakness of its power distribution companies. The risk of committing to long-term LNG import contracts, particularly those priced to a global index, not the Indian market, is high.

LNG developer needs to sell two-thirds of output before committing

(Houston Chronicle; Sept. 23) – Houston-based Annova LNG is offering new guidance on when it will make a final investment decision on its proposed export terminal at the Port of Brownsville, Texas. Annova LNG CEO Omar Khayum said the developer needs to sell two-thirds of the facility's production before the company can make a final investment decision and move forward with the project.

Annova LNG is seeking Federal Energy Regulatory Commission authorization to build a plant that would produce up to 6 million tonnes of LNG per year. The company's application is in the final stages of review by FERC officials. The company has not reached signed contracts for any of its production. Khayum said the facility needs contracts for 4 million tonnes before Annova can make an investment decision.

Launched in 2013 and headquartered in Houston, Annova is owned by a consortium of four companies. Chicago utility Exelon owns 80.55 percent, while Canadian pipeline operator Enbridge owns 10.5 percent. Engineering, procurement and construction firm Kiewit and energy technology firm Black & Veatch each own 4.475 percent.

Survey shows Asian LNG prices no higher than \$6 this winter

(Reuters; Sept. 23) - Asian LNG prices will likely be at their lowest, seasonally, in a decade by the end of the year as rapidly rising production outstrips feeble demand, weighed down by a global economic slowdown and the U.S.-China trade war, traders said. Most trade sources in a Reuters survey forecast spot Asian liquefied natural gas for December delivery to go no higher than \$6 per million Btu, which would be the lowest for that month since Refinitiv began collecting such data in 2010.

Traders said January and February prices were unlikely to rise much above December's level. Supplies have been boosted in the past year by new export terminals in Australia,

Russia, and especially the U.S. This rise has upended markets in Europe bringing continent-wide gas inventories to multi-year highs. “I don’t see a clear premium market this winter. Japan is not growing, India’s buying is opportunistic, China was supposed to be the big place, but now it’s not,” one trade source said.

Meanwhile, traders are learning not to expect the demand surge from China that in previous years boosted prices to multi-year highs and turned it into the world’s second-largest purchaser of LNG. Not only are Chinese players better organized for winter gas buying, but the country’s exponential growth has the trade dispute hanging over it. China slapped tariffs on U.S. LNG last year, and tit-for-tat trade levies have taken their toll on economic growth forecasts as well as industrial demand.

Sinopec boosts production at China’s largest shale gas field

(Reuters; Sept. 19) - China’s top shale gas field, Fuling, in the country’s southwest is expected to pump a record 250 billion cubic feet in 2020, as operator Sinopec is set to add nearly 100 new production wells this year, according to a media report and a Sinopec official. The Fuling field currently has a total of 402 wells in production, pumping about 625 million cubic feet of gas a day, according to a report published Sept. 19 on the Wechat platform of state-run Chongqing Oil & Gas Exchange. The annual figure of 250 bcf in 2020 would be about a 10 percent boost over current production.

China last year produced almost 400 billion cubic feet of shale gas, less than 7 percent of the nation’s total gas output. The government has high aspirations for shale gas. China’s shale gas output could reach almost 10 trillion cubic feet, or nearly one-quarter of the country’s total gas output, by 2035, according to a researcher at PetroChina.

CNOOC says production will start late 2021 at offshore gas field

(Reuters; Sept. 24) - China’s national offshore producer CNOOC expects its major deepwater gas field Lingshui 17-2 in the South China Sea to start production at the end of 2021, a company executive said Sept. 24. State-run energy producers are raising spending on domestic oil and gas drilling to multi-year highs with a focus on cleaner-burning gas in a response to Beijing’s call to boost energy supply security.

The Lingshui field, with an average water depth of 4,757 feet at a distance of about 93 miles southeast from Sanya city of Hainan province, is the first deep-sea gas project operated by CNOOC and a key new field to contribute to the firm’s gas output. Annual production of Lingshui 17-2 is estimated at 110 billion cubic feet with maximum production likely to reach 120 bcf a year, or roughly 2 percent of China’s total gas output, the executive told reporters and analysts in Sanya.

The start-up timeline is about a year behind an earlier indication by CNOOC, but analysts said development of such a sizable deepwater gas project can easily take four years from 2018 when Lingshui was first approved. CNOOC is already a deepwater player in offshore Nigeria, the Gulf of Mexico, and Brazil, but mostly in tie-ups with seasoned global players such as Total and Exxon Mobil.

Explorer says new offshore gas find could feed second LNG plant

(Reuters; Sept. 23) – Dallas-based Kosmos Energy said the results of its appraisal drilling offshore Senegal were good enough to consider a second liquefied natural gas export plant in the West African country. Kosmos discovered the Greater Tortue accumulation of gas offshore Senegal and Mauritania in 2015 and partnered with BP to develop the discoveries through a floating LNG plant, Senegal's first such facility. The liquefaction facility is expected to start up in 2022 at 2.5 million tonnes per year.

Tortue is one of a troika of gas accumulations offshore Senegal that Kosmos is exploring and developing. The other two are the Yakaar and Birallah regions. On Sept. 23, Kosmos said results of its second well at Yakaar “underpin our view that the Yakaar-Teranga resource base is world-scale and has the potential to support an LNG project that provides significant volumes of natural gas to both domestic and export markets.”

It said the well, drilled in 1.6 miles of water and six miles from the first Yakaar well, had proven the company's estimates of the gas field's southern extension. Kosmos ultimately hopes the three gas regions will support three LNG terminals exporting 30 million tonnes a year — about 10 percent of global LNG volumes today. The company believes the three regions have 50 trillion to 100 trillion cubic feet of resources, including 25 tcf of gas initially in place at Tortue.

West Virginia now the nation's seventh-largest gas producer

(Rigzone; Sept. 23) - As it turns out, Pennsylvania is not the only Marcellus shale state with amazing production results. Long a mainstay of U.S. coal production, neighboring West Virginia has quickly become the seventh-largest U.S. natural gas producer. Since the shale revolution took flight in 2008, gas output in the state has boomed more than sevenfold to 1.8 trillion cubic feet in 2018. West Virginia's gas production has reached a record for 10 straight years and now accounts for five to six percent of total U.S. output.

West Virginia today holds around 35 tcf of proven gas reserves. Overlying the Utica play as well, shale accounts for 95 percent of the state's gas output. New pipelines have come online to ship West Virginia gas to markets in the Northeast, Midwest, southern Canada, and the Gulf Coast. The state has over 4,000 miles of interstate and

intrastate gas lines. West Virginia has 31 underground gas storage fields with a storage capacity of 535 billion cubic feet, accounting for almost 6 percent of the nation's total.

Calgary researchers say they have found a cheaper way to make LNG

(The Canadian Press; Sept. 20) - University of Calgary researchers said they have developed a cheaper and more environmentally friendly way to liquefy natural gas. The Split Flow Integrated LNG process uses specialized materials and chemistry to remove carbon dioxide and other impurities from the gas stream without having to cool and then warm the gas, as is done now in the leading LNG process, said associate professor Nassar Nashaat and student Arash Ostovar of the Schulich School of Engineering.

The result is that capital costs are reduced because less equipment is needed, while operating costs and greenhouse gas emissions are lowered because less energy and water and fewer chemicals are consumed. The researchers are seeking an industrial partner to test the technology on a pilot project to prove its benefits. "The idea is that anybody who is producing natural gas can now produce LNG," Nassar said. They are hoping to find a partner to build a project to produce enough LNG to power a small generation plant.

Travis Balaski, vice president of Calgary-based Ferus Natural Gas Fuels, said he was impressed after seeing a presentation on the new technology but is concerned about its operating costs. "This technology is obviously quite attractive to a company like us, but it's got to be proven," he said. The new technology also produces a purer carbon dioxide as a byproduct than conventional LNG technology, Nashaat and Ostovar said. Balaski said that's another selling point for Ferus, as its sister company sells carbon dioxide to customers for use in oil and gas enhanced-recovery operations.

Environmental group criticizes natural gas as so-called 'bridge fuel'

(OilPrice.com; Sept. 18) - The much-touted conversion from coal- and oil-fired power generation to natural gas actually raises the greenhouse effect of energy consumption by around 40 percent because of alarming methane emissions from gas, Berlin-based Energy Watch Group (EWG) said in new study. According to the authors of the study published this week, gas has often been touted as the cleanest fossil fuel that could be the so-called "bridge fuel" toward a zero-emissions future.

However, if methane emissions are considered in addition to the carbon dioxide emissions, it turns out that gas actually accelerates climate change because of the methane emissions in the entire value chain from extraction to consumption, the report said. Gas not only increases the greenhouse effect, it also "creates obstacles to

renewable energy sources, prevents a sustainable, emission-free economic system, and blocks effective climate protection,” the study said.

The study criticizes the International Energy Agency for downplaying gas emissions and said expansion of renewable energies to 100 percent worldwide is the only viable option. “Existing and new subsidies for gas are incompatible with the Paris climate-protection targets. ... We urgently need more investments in renewable energies, because only these have an immediate and lasting positive effect on the climate,” said Hans-Josef Fell, a former member of the German Parliament and president of the EWG.

Australian Senate starts inquiry into oil-and-gas tax

(Australian Financial Review; Sept. 21) - Independent South Australian Sen. Rex Patrick accused oil and gas companies of paying little or no tax and shortchanging Australians as he launched a Senate inquiry into their taxes. Patrick said Australian Taxation Office data "provides clear indications" that the right amount of tax from oil and gas giants hasn't flowed to the Treasury. Companies rejected the allegations, saying they comply with their tax obligations, they support multibillion-dollar investments, and the taxation of oil and gas companies has been extensively reviewed in recent years.

"After investing more than \$21 billion in Australian projects that took four years or more to generate any revenues, combined with a period of low oil prices which meant the company faced significant losses, Santos has not been in an income tax-paying position in recent years," a spokeswoman for Australian producer Santos said. "This is the nature of the tax system in Australia, which is based on profits and encourages capital investment," she said. Launched by Patrick, the Senate Economics Committee will analyze oil-and-gas tax systems worldwide and make recommendations for Australia.

Australia's Petroleum Resource Rent Tax is a cash-flow tax that earns about \$1.4 billion per year, but whether it earns a fair price on oil and gas for the government hasn't been settled. The government asked Treasury on Sept. 3 to inquire into tax rules covering liquefied natural gas projects. Former Treasury official Michael Callaghan had found that pricing rules for the tax probably undervalued gas used in vertically integrated LNG and electricity-generation projects compared with arm's-length sales. Opponents also allege it is too generous to allow full recovery of capital costs before the tax kicks in.

Residents voice concerns over pipeline route to Louisiana LNG plant

(The Advocate; Baton Rouge, Louisiana; Sept. 23) - A proposed 283-mile pipeline that would cross 14 Louisiana parishes to feed a liquefied natural gas export facility has raised concerns from more than 120 residents and an Indian tribe. Meanwhile, about a dozen proponents, ranging from business owners to local politicians, have sent letters

to the Federal Energy Regulatory Commission in favor of the project as a boost for the area's economic development.

The letters of concern focused on the environment, impacts on tribal land and African-American communities, and the potential use of state law that allows land to be taken from opposing owners at market rates. Venture Global LNG said the 42-inch-diameter pipeline would deliver feed gas for export from the company's proposed coastal terminal. The Delta Express line would begin in Alto, southeast of Monroe, near a gas pipeline intersection, then head south, disturbing about 6,000 acres of land on the way.

That concerns representatives of Healthy Gulf, an environmental activist organization in New Orleans, in particular the possible destruction of wetlands in south Louisiana that provide a physical barrier during hurricanes and tropical storms. The Tunica-Biloxi Indian Tribe in Avoyelles Parish has hired a lawyer to voice its concerns about the line crossing tribal lands. And Carolyn Smith, head of the NAACP in Lafourche Parish, is concerned that the route cuts through predominately African-American neighborhoods.

Court stops Alberta law intended to cut off oil flow to B.C.

(Calgary Herald; Sept. 24) - A federal court judge has granted the British Columbia government a temporary injunction against an Alberta law that would limit oil exports to other provinces. The decision blocks Alberta from using its so-called turn-off-the-taps legislation. Alberta Energy Minister Sonya Savage said Sept. 24 the province is not deterred by the temporary setback, as the court case is still moving forward. Alberta's law would allow the province to stop the flow of oil to its neighboring province if British Columbia continues to fight against oil pipeline construction.

Alberta Premier Jason Kenney said his government won't decide on an appeal until it takes a closer look at the ruling. The legislation was in retaliation for what Alberta deemed constant interference by British Columbia in new pipelines, specifically the Trans Mountain expansion to the West Coast. Kenney had said Alberta would not use the powers unless British Columbia further stymied the oil pipeline, which has started construction after the federal government bought the project to ensure its completion.

B.C. Attorney General David Eby applauded the court decision. "It's hard for me to know what the thinking was in introducing this bill in Alberta, but I do know what our thinking is, which is that it's unconstitutional and that will ultimately be the finding of the court." Justice Sebastien Grammond said in his decision that the law could cause irreparable harm to B.C. residents. The Trans Mountain expansion, first approved in 2016, would triple the volume from the oil sands to an export terminal on the coast near Vancouver.