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Tokyo Gas signs 10-year LNG deal linked to coal pricing

(Reuters; April 5) - Tokyo Gas has signed a deal with Shell for a long-term supply of liquefied natural gas, partly using a coal-linked pricing formula in an unusual move for an Asian LNG buyer. It's believed to be the first time a Japanese buyer is using a coal-based pricing index in an LNG contract. The companies signed a heads of agreement for Tokyo Gas to buy 500,000 tonnes a year of LNG for 10 years starting in April 2020.

Japan's second-biggest LNG buyer is stepping up its efforts to diversify its supply sources and reduce costs. A pricing formula based on coal will be used for part of the supply, a Tokyo Gas spokesman said April 5, while the rest will be at conventional gasand oil-linked indexes. Tokyo Gas did not give the volumes under each pricing method. In Asia, most long-term LNG contracts are linked to oil prices, while supply from the United States is typically priced off the benchmark Henry Hub price for natural gas.

The Tokyo Gas deal with Shell follows a series of innovations in contracts announced at the LNG2019 conference in Shanghai, said Nicholas Browne, a Wood Mackenzie analyst. "Coal remains the largest competitor to gas in the power sector in Asia. If the index is competitive, this could be an important step for enabling LNG and utilities to better compete with coal," Browne said.

"Coal indexation in LNG contracts will be particularly relevant for Japanese buyers, not least because coal is an integral part of Japan's power-generation mix," said Abhishek Kumar, head of analytics at Interfax Energy in London. This is "a risk management strategy for somebody who is competing with coal-fired generation," said Christopher Goncalves, chair of the energy practice at Berkeley Research Group. "That is attractive in places which have a lot of coal-fired generation, such as China, India, and Japan."

Project developers will need to assume more risk, analysts say

(Petroleum Economist; April 4) - LNG producers will need to absorb more risk as trading in the market becomes more complex and dynamic, attendees at the LNG2019 conference in Shanghai heard this week. What was once an almost static asset market is being forced into a rapid evolution. On the supply side of the market, there are more portfolio players to sit alongside the traditional point-to-point sellers. On the demand side, buyers are now looking beyond long-term contracts and traditional pricing.

"Buyers want to benefit from spot markets through smaller contracts, flexible contracts, and hub-linked pricing," said Andy Brogan, EY global oil & gas sector leader at consultancy Ernst & Young. Brogan foresees new contract structures in which LNG export project developers absorb increased market risk, a role that traditional project finance debt had previously assumed. "LNG project developers with large balance sheets — oil and gas majors and national oil companies — will be best placed to assume [these new] project lifecycle risks," Brogan said.

Analysts see it emerging into an increasingly complex market in terms of contract length and pricing. "The LNG market is at a critical transition point. New projects, such as LNG Canada, are getting underway and trying to sign new contracts as a significant number of long-term contracts are starting to roll off," said Ira Joseph, head of gas and power at analysis firm Platts Analytics, adding that long-term contracts covering almost 150 million tonnes of annual LNG delivery will expire between 2020 and 2030.

Pakistan fires up first power plant fueled by domestic coal

(S&P Global Platts; April 4) - Pakistan has fired up its first major power plant fueled by one of the world's largest coal reserves in the scorching Thar desert, opening the gates for domestic coal production to compete head on with imported liquefied natural gas in the country's power mix. Pakistan has battled severe power shortages for years and expects to ramp up the share of coal in its electricity mix to 30 percent by 2030 from as little as 1 percent in 2014, driven mainly by its Thar coal fields.

Pakistan's delayed exploitation of its coal reserves comes at a time when developed economies are pulling back from coal-fired electricity. The new 330-megawatt coal power plant went online in March. It comes just a few years after Pakistan introduced imported LNG in its fuel mix with its first import facility at Port Qasim in Karachi. LNG imports were a "savior fuel" with an increasingly vital role, Atif Sajjad, of Pakistan's oil and gas regulatory authority, said at an S&P Global Platts summit in Singapore.

Falling gas production and costly oil-fired power have taken their toll on the country's fragile economy. By 2016 Pakistan was the 19th-largest user of gas in the world, but its gas production stagnated and its gas shortage doubled in five years to about 2 billion cubic feet per day in fiscal 2015, according to the World Bank. Meanwhile, the country added 1.2 gigawatts of oil-based power generation from fiscal 2005 to 2014, pushing up its oil import bill to \$11.8 billion in 2015, roughly a quarter of its trade bill. Coal mining and the power plant will result in annual foreign exchange savings of up to \$1.6 billion.

Even China's growing demand has not stopped LNG price fall

(Reuters; April 8) - China's natural gas demand is set to grow by 14 percent in 2019, down from last year's 18 percent growth rate, amid a continued government push to spur consumption of the cleaner fuel, a senior industry executive said, requiring the nation to import huge amounts of liquefied natural gas. Yet even China's booming consumption may not soak up a large glut of LNG that has emerged across Asia and dragged spot prices for the fuel down by 60 percent over the past half-year.

"The broad direction is not going to change, which is to restructure the energy mix by increasing the share of natural gas," said Li Yalan, chairwoman of Beijing Gas Group, main supplier to the Chinese capital. Although China's domestic gas production is also rising fast, its 2018 growth of 7.5 percent cannot fully keep up with the nation's expanding consumption. China, the world's second-largest LNG buyer behind Japan, boosted imports 41 percent in 2018 to 54 million tonnes.

But the booming consumption in China is the lone bright spot. Asia is in the midst of a large supply glut that has dragged down spot prices for LNG by 60 percent since mid-2018, to below \$5 per million Btu. This could mean gas producers are in for a stretch of low Asian prices as demand growth, especially outside China, falls behind a supply surge from new projects amid an economic slowdown, resilient coal consumption in many emerging markets, and the rise of renewables. "The surplus can continue till end 2020 or early 2021," said Fereidun Fesharaki, chairman of energy consultancy FGE.

Chevron/Woodside may double the size of proposed B.C. LNG project

(Reuters; April 3) - Chevron Canada and Australia's Woodside Energy have applied for a new license for their proposed Kitimat LNG plant in northern British Columbia that could nearly double its size to 18 million tonnes of LNG per year, Chevron said April 3. The companies submitted the application to Canada's National Energy Board on April 1, with a revised design that could include up to three LNG trains instead of two.

"Chevron and Woodside have re-evaluated the originally proposed two-train, 10-million-tonne LNG plant development concept, with a focus on improving Kitimat LNG cost-of-supply competitiveness relative to other global LNG projects," Chevron said in a statement. The revised Kitimat LNG application follows the investment go-ahead last October for the C\$40 billion Shell-led LNG Canada project, also in Kitimat. That project will initially produce 14 million tonnes per year with the option to increase to 28 million.

A growing LNG industry on the B.C. coast would be a boon for Canadian producers. Chevron and Woodside, which have a 50/50 joint venture in the project, have not set a date for a final investment decision or disclosed cost estimates. Planning for the project started in 2008. Chevron bought out developers Encana and EOG Resources in 2012 and formed a joint venture with Apache. In 2015 Apache sold its stake to Woodside.

Gas producers in Alberta and British Columbia have struggled for years with persistently low prices and an inability to ship their products to overseas markets. The Alberta AECO hub price for natural gas was 49 cents per 1,000 cubic feet on April 3, \$2.19 lower than the U.S. Henry Hub benchmark of \$2.68, data from AltaCorp Capital shows.

Chinese buyer signs 10-year LNG deal with Australian supplier

(Reuters; April 5) - Chinese independent gas distributor and liquefied natural gas import terminal operator ENN Group is beefing up its global business with new supply deals to meet strong demand and to grow its young trading team, a company official said. ENN said April 5 it had signed a heads of agreement for 10 years of supply from Australia's Woodside, the fourth supply pact the private Chinese company has announced.

Zhang Yesheng, ENN's chief executive, told reporters at the LNG2019 conference in Shanghai on April 4 that the company is set to sign up for several million more tonnes of LNG a year as its new import terminal is ready to handle more gas amid rising Chinese demand. "We'll also do swaps and buy and sell to boost our international trading capability," Zhang said. The terminal in the East China port of Zhoushan started up in October. It has capacity to receive 3 million tonnes per year.

ENN, already a stakeholder in Australia's oil and gas producer Santos, is eyeing more investments in upstream businesses, including in the United States and Russia's Arctic region, Zhang said. He did not elaborate.

Novatek says half of Arctic LNG-2 output will be sold short term

(Reuters; April 2) - Russia's Novatek will sell 50 percent of the liquefied natural gas from its Arctic LNG-2 project through short-term or spot-market sales, a senior company executive told the LNG2019 conference in Shanghai on April 3. The other 50 percent will be sold through long-term offtake agreements, said Mark Gyetvay, chief financial officer and deputy chairman of Novatek's management board.

"This is driven by liquidity in the market and the emergence of portfolio players to take risks," Gyetvay said. In comparison, 96 percent of the volumes from the Yamal LNG project was sold through long-term contracts, he said. The \$27 billion Yamal project went online in December 2017. Its full-operational capacity is 16.5 million tonnes per year. Novatek is expected to make a final investment decision later this year on its Arctic LNG-2 project, planned for 19.8 million tonnes annual capacity.

Enough Arctic gas for 140 million tonnes of LNG a year, Novatek says

(S&P Global Platts; April 5) - Russian gas producer Novatek sees the resource base in the Arctic Yamal and Gydan peninsulas as providing enough gas for 140 million tonnes per year of LNG, CEO Leonid Mikhelson said April 5. Novatek has led an increase in Russian liquefied natural output in recent years, building Yamal LNG, at 16.5 million tonnes annual capacity, and planning for an investment decision later this year on Arctic LNG-2, at 19.8 million tonnes annual capacity.

Mikhelson called for the creation of an LNG cluster in the region. "By our estimates the resource base of Yamal and Gydan alone will allow for production of 140 million tonnes per year of LNG," Mikhelson said at an industry event in Moscow. "Technologically, we are already ready to target such aims," he said. The audacious target of 140 million tonnes per year is almost double the capacity of world leaders Qatar and Australia.

Russian LNG could go to Siberian Arctic towns

(The Barents Observer; Norway; April 3) - Liquefied natural gas produced for export by Novatek on Russia's Arctic Yamal Peninsula is increasingly seen as a source of fuel by local authorities, looking to take their own deliveries. The government of the Chukotka region said it intends to develop infrastructure for LNG users in Pevek, an arctic town of about 4,200 people more than 2,000 miles east of Yamal. That would include LNG fueling stations for cars and trucks, Chukotka Deputy Gov. Mikhail Sobolev said.

That would include vehicles used in the Peschanka project, a major copper mining initiative with 23 million tons of copper and 2,000 tons of gold resources. The mine is scheduled to start producing by 2024. Russia's first floating nuclear plant also is coming to Pevek, scheduled for towing from its construction yard in Murmansk this summer.

Separately, in Arkhangelsk, a city of more than 35,000 residents more than 620 miles north of Moscow, authorities are preparing for a small plant to make LNG locally. Regional Gov. Igor Orlov in mid-March signed an agreement with state company Rostech for building a gas liquefaction plant capable of producing 120,000 tonnes a year from about 6 billion cubic feet of gas. The LNG would replace aging diesel, heating oil and coal-fired plants. The project is estimated at about \$215 million.

Cheniere sticks with LNG deals tied to U.S. gas prices

(S&P Global Platts; April 4) - Cheniere Energy is eager to keep its leading position among major U.S. LNG exporters — and it's not going to change its strategy to achieve that. Even as the field of competitors has grown increasingly crowded in the three years

since it launched its first export terminal and new business models have taken hold, Cheniere is sticking to its tested formula, CEO Jack Fusco said during an interview April 4 with S&P Global Platts on the sidelines of the LNG2019 conference in China.

The comments come amid a debate about whether the second wave of U.S. LNG developers should go in a new direction to fund construction, as Louisiana project developers Tellurian has done on the project financing side and NextDecade has done on the price-indexation side. Cheniere built Sabine Pass in Louisiana and is building out its export terminal near Corpus Christi, Texas, on the back of 20-year take-or-pay agreements, mostly indexed to the U.S. Henry Hub natural gas price benchmark.

Tellurian is offering long-term gas offtake in return for upfront equity investment in its project. It's had one investor so far — French major Total. During a panel discussion at the conference, NextDecade CEO Matt Schatzman said many of its potential customers are not willing to have more than 20 percent of their global portfolio of long-term LNG offtake contracts indexed to U.S. Henry Hub. The company's first foundation customer, Shell, has signed a 2-million-tonne-per-year offtake contract that calls for 75 percent of the volume to be linked to Brent crude, with the remainder linked to U.S. gas indexes.

One area of agreement is that banks are largely unwilling to finance new U.S. LNG capacity without developers having commercial deals in place. "My favorite model," said Roberto Simon, a managing director at French investment bank Societe Generale, "is the one where I take the least amount of risk and get the highest rate of return."

China to build world's largest LNG carrier

(People's Daily; China; April 2) - China is building the world's largest liquefied natural gas carrier with the capacity to move about 5.5 billion cubic feet of gas as LNG, almost double the volume of standard-size carriers and enough to supply 4.7 million households in Shanghai for a month. The ship, just slightly larger than the world's reigning champ, Qatar's 1,135-foot-long Q-Max carriers, will help China meet rising demand for the clean fuel, a top shipbuilder said April 2.

Shanghai-based Hudong-Zhonghua Shipbuilding, a unit of China State Shipbuilding Corp., has joined with Norway-based accredited maritime registrar and classification society DNV-GL, for construction of the carrier, Hudong-Zhonghua officials said at the LNG2019 conference in Shanghai. Under the agreement, research and development work on the vessel is set to be completed by the end of 2020. The announcement did not include a cost estimate.

DNV provides technical support and design advice to the maritime industry. LNG carriers are commonly called "super freezer cars on the sea," as they transport the LNG at minus 260 degrees Fahrenheit.

U.S. gas inventories start to rebuild from below-average stockpiles

(S&P Global Platts; April 5) - With the withdrawal season officially over, gas storage fields must now refill stocks before the next heating season begins, but several regions face obstacles as they look to climb out of deficits. Total U.S. gas storage inventories fell to a low of 1.107 trillion cubic feet this year before the first net injection occurred the last week of March. Outside of winter 2013/14, the injection season has not started at a lower level since 2003, according the U.S. Energy Information Administration.

An S&P Global Platts Analytics forecast calls for adding 2.126 tcf over the injection season. This is slightly more than usual over the past five years. However, multiple regions face hurdles to replenish stocks at or above average. For example, the Pacific region is currently 44 percent below the five-year average and will find trouble rebuilding back to normal without gas curtailments this summer. California storage inventories entered the summer injection season at a 10-year low, according to Platts Analytics.

Back in the Southeast and Texas, storage inventories are poised to exit this summer and enter next winter's withdrawal season at their lowest mark in the past 10 years, according to Platts Analytics. The combination of rising demand from liquefied natural gas, pipeline gas exports to Mexico, constraints moving Permian gas east on the Texas intrastate grid, and competition with Midwest markets for Northeast gas production will leave the Southeast and Texas region short in its bid to refill this coming summer.

B.C. ferry returns after LNG retrofit in Polish shipyard

(Vancouver Sun; April 3) - The Spirit of Vancouver Island is expected to sail into B.C. Ferries' refit facility in Richmond on April 3, a little over a month after it left Poland where it was converted to run on liquefied natural gas rather than diesel only. It left British Columbia last Sept. 14 for the mid-life refit at Remontowa Ship Repair Yard in Gdansk, Poland. Work included installation of new engines and fuel system, new navigation and propulsion equipment, upgraded elevators, and improvements to the passenger area. Once work was complete, it sailed out of Poland on Feb. 28.

The Spirit of Vancouver Island serves the Tsawwassen-Swartz Bay route (Vancouver to Victoria). A similar refit was carried out on its sister ship, the Spirit of British Columbia, between the fall of 2017 and spring 2018. The new technology in both ships will reduce carbon dioxide emissions by 12,500 tonnes every year — the same as taking 2,500 vehicles off the road, B.C. Ferries CEO Mark Collins said in a statement. The 548-footlong Spirit of Vancouver Island was built in 1994 and can carry up to 348 cars and 2,100 passengers and crew. The cost to upgrade the two ships was \$140 million.