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Qatar gas expansion presents challenge for LNG rivals

(Bloomberg columnist; April 4) - Half of the world's biggest natural gas field is back in play. The Qatari moratorium on development of the North Field has been lifted, ending a frustrating 12-year wait for gas producers and customers. The move challenges gas rivals around the world. Saad Sherida Al Kaabi, CEO of state-owned Qatar Petroleum, announced the plans for new development of the North Field on April 3.

The southern part of the field, largely untouched, will be developed to produce 2 billion cubic feet of gas per day, about 10 percent of the field's current output. With 135 years of reserves at current production rates, Qatar can certainly afford to step up its output. Qatar's move comes as the global liquefied natural gas market remains deep in a three-year slump, which most observers don't see ending until 2020 or even 2022.

Four countries are vying to be the world's top LNG exporter: Qatar, the current leader, with 78 million tonnes per year capacity, is likely to be overtaken by Australia this year. The U.S., awash with cheap shale gas, is building five projects totaling 74 million tonnes per year, with more possibly on the way. Russian President Vladimir Putin said his country will become the top exporter, though that seems a distant aspiration. Gas is easy to find around the world; the hard part is getting it to market at a competitive price.

All these aspirants now realize the giant of the LNG world is back in the game. With its prolific reserves, existing infrastructure and large scale, new Qatari LNG would be the world's cheapest to produce. This move is partly about deterring new LNG projects, with the threat of more ultra-competitive Qatari gas arriving around 2022, just when many observers expect the market to be tightening again.

Long-term LNG contracts 'much more difficult to obtain'

(Reuters; April 5) - Producers of liquefied natural gas have shot themselves in the foot with oversupply, and now face calls for more flexible sales contracts and also see greater competition from other fuels that may force them to take more risks and start trading just like other commodity dealers. That's a big change for a market long dominated by large producers such as Shell and BP that provide major importers with fixed volumes under multi-decade contracts linked to the price of oil.

Under the protection of these lucrative locked-in deals, producers in Australia, Qatar, Russia and elsewhere went on an investment spree that left them with a huge supply overhang when demand in China and India grew more slowly than expected. That,

together with rising fuel competition from coal and renewables, contributed to a more than 70 percent crash in spot Asian LNG prices to under \$6 per million Btu, increasing the pressure to grant more flexible contracts and better pricing options for buyers.

"The LNG market is changing rapidly, (and) the large-volume, long-term contracts that traditionally underpinned the development of the industry are today much more difficult to obtain," said Steve Hill, executive vice president of Shell Eastern Trading, during a gas conference in Japan on April 5. Another thing about to change is that trading specialists that buy commodities from producers to sell at a profit — and that have so far played a smaller role in LNG than they do in oil or coal — are jumping into the game.

Still, the market should not expect producers and suppliers to risk large-scale projects, said Elizabeth Spomer, head of the proposed Jordan Cove LNG project in Oregon. "Even the international oil companies that have the big balance sheets are not going to make final investment decisions without long-term take or pay contracts," she said.

CEO says \$7 to \$8 LNG 'would get most projects going'

(Reuters; April 4) - The global liquefied natural gas industry will face a supply shortfall in about five years because low prices have discouraged investment in new projects, major producers said April 4 at a gas conference in Chiba, near Tokyo. Without the investments, suppliers may not be able to meet the needs of buyers at a time when reducing emissions from other dirtier fossil fuels will be crucial to abate global warming, executives with international gas majors said.

"We are facing global overcapacity that is putting pressure on prices," Total CEO Patrick Pouyanne told the Gastech conference. As a result, "the industry is entering a period of reduced investments ... (that) could result in a lack of supply in five years. We must carry on investing for the future," he said. LNG projects typically require billions of dollars over years of development. The industry has usually relied on long-term sales contracts linked to oil prices to ensure producers can get financing on favorable terms.

That has changed in recent years as buyers have been pushing for lower prices and better contract terms. Chevron Vice Chairman Michael Wirth said a "supply gap" could develop over the next few years if new projects are not approved. Other executives echoed Pouyanne and Wirth on the need for investments now to avoid a shortfall in the early to mid-2020s. They included Woodside CEO Peter Coleman, who said buyers and sellers are starting to align on prices that can get projects going. "Sellers are looking for prices above \$7 per million Btu; somewhere between \$7 to \$8 would get most projects going, and I think also that's a sustainable level for buyers," Coleman said.

Mitsui says Mozambique LNG project decision delayed in 2018

(Reuters; April 4) - Japan's Mitsui & Co. expects a final investment decision on the Anadarko-led offshore liquefied natural gas project in Mozambique in the second quarter of 2018, four months later than expected. "We had hoped to have finalized the negotiations with (the) Mozambican government by December," Hirotatsu Fujiwara, Mitsui's executive managing officer, told Reuters on the sidelines of a gas conference in Chiba, Japan. "We are four months behind."

The two-train, 12-million-tonnes-per-year project could start operations in 2022-2023, after construction taking about four years, he said. The partners — including operator Anadarko Petroleum, Mitsui, Thailand's PTT Exploration & Production, and India's ONGC Videsh, Bharat PetroResources and Oil India — are in talks with Japanese power and gas utilities, aiming to finalize binding long-term offtake contracts within a year, Fujiwara said.

The project has secured non-binding long-term commitments for 8 million tonnes of output a year, but needs to secure binding commitments for about 80 percent of the plant's capacity to get the necessary funding for a final investment decision, he said. The project is ready to offer buyers various price benchmarks, he said.

Ichthys to start condensate shipments this year, LNG in 2018

(Reuters; April 4) - Inpex Corp.'s \$37 billion Ichthys liquefied natural gas project in Australia will start shipping ultra-light crude known as condensate by the end of 2017, with LNG shipments to start next year, one of the partners in the development said April 4. The comments from Total CEO Patrick Pouyanne suggest further slippage in a project that has in recent months been hit by subcontractor disputes.

"We always said by year-end. You have two things. You have the gas production upstream and then it takes time. We have to fill the pipeline and then start the train," he said, referring to LNG production units, known as trains. Condensate shipments will start by the end of this year, while "LNG (cargoes) will be ... in the beginning of 2018."

Most of the LNG projects being built in Australia, including Chevron's Gorgon facility and Shell's floating Prelude production vessel, are having trouble keeping within budget and on schedule. Once completed, Ichthys is set to produce 8.9 million tonnes of LNG per year and about 100,000 barrels per day of condensate at its peak. Japan's Inpex holds 62.245 percent of Ichthys and Total 30 percent. The rest is held by Taiwan's CPC Corp. and Japanese utilities Tokyo Gas, Osaka Gas, Kansai Electric, JERA and Toho Gas.

Petronas may consider new site for British Columbia LNG project

(Bloomberg; April 2) - Malaysia's Petronas may be looking at building its liquefied natural gas export terminal at the site of an abandoned Shell LNG project in Prince Rupert, B.C., according to the company's chief executive officer. While Petronas has yet to make a financial decision to move forward with its Pacific NorthWest LNG project, Shell's Ridley Island location "could be one of the options" for the liquefaction plant and marine terminal, Petronas CEO Wan Zulkiflee Wan Ariffin said March 31.

The Pacific NorthWest LNG project won Canadian government approval in September following more than three years of regulatory reviews and strident opposition from environmentalists, scientists and indigenous communities. However, the project faces economic headwinds from a global supply glut and plunging prices. Shell said March 10 that it had dropped its project on Ridley Island, acquired as part of its merger with BG Group. Ridley is next to Lelu Island, where Petronas has proposed its own terminal.

Petronas has been looking at moving its marine terminal to Ridley in a switch that would help quell local opposition and save as much as \$1 billion by eliminating the need for a bridge over sensitive fish habitat at Lelu. Petronas is carrying out a total review before deciding whether to move forward with the project, the CEO said. Petronas, which bought Progress Energy Resources for \$5.2 billion (Canadian) in 2012 to take control of gas fields that would feed the LNG plant, appears in no rush to make a final decision. "You know why? Because today, we are producing around half a billion cubic feet a day that we are selling into the domestic market," said Wan Zulkiflee. "We're earning cash."

LNG buyers' strength will be watched at Gastech conference

(Reuters; April 2) - The world's gas industry is descending on Japan for a conference this week with something other than cherry blossoms on its mind: A trio of Asian buyers is testing their collective muscle in a push for flexible long-term LNG contracts. Korea Gas, Japan's JERA and China National Offshore Oil Corp. — whose liquefied natural gas volumes account for a third of global trade — are attempting to cement a shift in power from producers to buyers amid a supply glut expected to last to the early 2020s.

Responses from LNG producers to the buyers' alliance may start to provide clues as to who will have the advantage as the fuel surplus puts pressure on suppliers to give buyers greater contractual freedom than they have had since the industry first began to ramp up in the 1970s. "Destination clauses will probably die soon under the pressure of buyers and the growing needs for flexibility," said Anne-Sophie Corbeau, a research fellow at the King Abdullah Petroleum Studies and Research Centre in Saudi Arabia.

LNG buyers have for decades accepted rigid long-term contracts that prevent cargo resales because their main priority was security of supply as demand soared amid double-digit economic growth. But a slowdown in Asian growth over the past few years, especially for top buyers Japan and South Korea, mean utilities are now often stuck with surplus cargoes they cannot resell amid stagnant or shrinking demand at home. The

emergence of price-sensitive buyers in India and China is also driving the market toward more spot trade, said Marc Howson, LNG senior managing editor at S&P Platts.

U.S. LNG exec says market will need new supply 2022-2023

(CNBC; April 3) - The liquefied natural gas industry has been plagued by low prices on the back of massive supplies from mega-projects coming online, but there may well be not enough output to meet growing demand in the longer term, industry executives said April 4. "The industry needs extra supply by the middle of 2022, 2023," said Elizabeth Spomer, president of Jordan Cove LNG which has been trying for years to win regulatory approval, customers and financing for an export project on the Oregon coast.

Low prices and supply surplus have sparked a cycle of slowing production amid growing demand, which will contribute to a future output deficit, Spomer said. Rising demand will come from China, where the government is pushing to replace coal-fired plants with cleaner gas-fueled plants. Big buyers are also emerging from the Middle East, Pakistan and Bangladesh to soak up production coming online in Australia and the U.S., said Spomer, speaking on the sidelines of the Gastech conference in Chiba, Japan.

Meanwhile, there will still be "too much gas around" for the next five to six years, although the oversupply will not last forever, said Wood Mackenzie chief analyst Simon Flowers. Prices will likely stay low, at last until 2018, he said. The long-term prospect, however, presents "enormous growth potential" with the global trend of decarbonization. "Gas is a fossil fuel but it's in the best place of the fossil fuel if you compare to coal and oil," Flowers said.

LNG producers soften their resistance to flexible contract terms

(Reuters; April 4) - Major liquefied natural gas producers such as Woodside and Shell are softening up on years of resistance to granting buyers more flexible contract terms, potentially opening the door to a more actively traded market for the commodity. LNG executives and traders are gathering in Chiba, Japan, for an industry conference this week. Top of the agenda is the increased push from buyers wanting more flexibility over what they are allowed to do with supplies they buy under decades-long contracts.

Major LNG producers have started showing a willingness to compromise on the so-called destination clauses. "There is room to negotiate flexibility in new contracts," said Peter Coleman, CEO of Australian energy major Woodside Petroleum, a partner and operator at several LNG export plants. Following the announcement of the buyers' club by Japan's JERA, Korea Gas Corp. and China National Offshore Oil Corp., Woodside was the first major producer to signal future openness to more flexible supply contracts.

Shell's director of integrated gas and new energies, Maarten Wetselaar, also said destination clauses were "not really crucial." This is a significant move by Shell, the world's biggest listed producer of LNG, as smaller suppliers are likely now to show more willingness to offer greater flexibility for fear of losing customers. Driving the fundamental change in contracts is the biggest-ever flood of new supply hitting the market, with large new volumes coming this year from Australia and the U.S., and new future production expected from Qatar, Russia, Mozambique and potentially Canada.

Cheniere OK with allowing its customers to resell LNG cargoes

(CNBC; April 4) - An oversupply of natural gas is keeping prices low for an extended period of time, but U.S. gas exporter Cheniere Energy says it has no problems finding homes for its output as it keeps its contract terms flexible. "What you're seeing is a supply-demand price reaction, which is what you'd expect when the market becomes more transparent, more liquid, more seasonal and less bilateral," said Jack Fusco, CEO of Cheniere, which opened the first U.S. Gulf Coast LNG export terminal a year ago.

The market is moving away from rigid, long-term contracts that have dominated the market for decades to spot-contract trading, which now comprise up to a third of the market, Fusco said at the Gastech conference in Chiba, Japan. Exporters traditionally prefer to lock clients into fixed supply contracts lasting decades, during which buyers take fixed amounts of monthly LNG volumes irrespective of demand. The buyers also cannot resell the gas. Cheniere said it has no problems letting customers call the shots.

That flexibility is essential nowadays, said Nobuo Tanaka, chairman of the Gastech Japan 2017 Consortium and former executive director at the International Energy Agency. "When you purchase LNG in a long-term contract, you have to buy. But when demand comes down due to issues like nuclear reactors restarting, you need to resell," he said. "When caught with this kind of changes, we need some flexibility or the spot market in order to adjust the demand and supply situation in the short term."

<u>Australian LNG producer considering fixed-price contracts</u>

(Reuters; April 4) - Woodside Petroleum is considering the sale of some of its liquefied natural gas output on a fixed-price basis, the CEO of Australia's largest independent oil and gas producer told reporters April 4 at a conference in Japan. LNG supply contracts need to evolve by diversifying their pricing basis, particularly for new entrants in the market, Peter Coleman said at a Gastech press briefing.

Woodside has been considering a fixed-price structure, instead of oil-linked or other index-linked LNG pricing, especially for buyers in developing markets as it gives these new participants surety of supply and price, Coleman said. "It is something we are

looking at for parts of our portfolio," he said. Coleman said he would be comfortable having between 20 and 30 percent of Woodside's LNG portfolio sold on a fixed-price basis, but with shorter contract periods to mitigate risk.

The need for more diversity in LNG pricing comes amid an overall push for contract flexibility in the industry. Other producers are also toying with the idea of fixed pricing. Tellurian Chairman Charif Souki said his firm could guarantee deliveries of the fuel to Japan for \$8 per million Btu starting in 2023. Tellurian is among several companies that have proposed LNG export terminals on the U.S. Gulf Coast.

U.S. LNG adds to global market shake-up

(Bloomberg; April 4) - OPEC isn't the only decades-old energy hegemony being turned on its head by U.S. shale. Liquefied natural gas sellers from Qatar to Malaysia that have long dominated sales to Asia are facing the prospect of rising U.S. exports. While less than 30 U.S. Gulf Coast cargoes have landed in Asia since the trade started a year ago, their effect is being felt amid market turmoil. Average LNG contract lengths were sliced in half in the past decade, and spot prices have fallen 60 percent the past three years.

That means the global LNG titans gathering in Tokyo this week for Gastech are in the midst of the biggest shake-up since the industry was founded in the 1960s. Just as American crude is increasingly making its way to Asia, the world's biggest oil market, the burgeoning armada of LNG cargoes from the U.S. and elsewhere are poking holes in the financial system on which the industry's multibillion-dollar projects are funded.

"As U.S. exports ramp up ... the old models of stable long-term contracts will really have to change," said Zhi Xin Chong, a gas analyst for Wood Mackenzie in Singapore. U.S. plants will help boost global LNG production capacity to 407 million tons a year by 2020, compared with projected demand of about 274 million tons, according to Bloomberg New Energy Finance. "It's no longer the long-term, bilateral, dedicated deal between a certain public utility and exporter but a more flexible and liquid market," said Keisuke Sadamori, director of energy markets and security at the International Energy Agency.

Conoco CEO says smaller LNG projects can help hold down costs

(Natural Gas Daily; April 4) - LNG producers are turning their attention to small- and mid-scale projects to provide new sources of supply and to cut the cost of liquefaction capacity, delegates at the Gastech 2017 conference in Japan heard April 4. Chief executives from some of the world's largest LNG suppliers agreed their companies need to cut production costs and boost demand for LNG to minimize the impact of a wave of new supply hitting the market between now and the end of the decade.

Small- and mid-scale LNG projects can help suppliers reduce costs, said Ryan Lance, ConocoPhillips CEO. "We are working on mid-scale and smaller-scale LNG projects to reduce costs and make it competitive. It is certainly gratifying to see the niche business develop in our company, and [it] clearly has a very bright future," he told delegates.

Lance also said U.S. LNG exports will slow as domestic gas demand grows and available supply is used up. "By the mid-2020s, the existing brownfield supply expansion options will be exhausted both in the U.S. and other countries. New greenfield projects will be needed," Lance said. "To justify those investments, higher energy prices will be required." The industry will also need to return to longer-term contracts that provide security of supply for users and security of demand for suppliers.

French utility sees LNG demand potential in small-scale markets

(Reuters; April 5) - French utility giant Engie has tagged small-scale LNG projects as a key growth area for demand for the fuel amid a supply surplus that has pushed Asia's spot LNG prices down 70 percent over the past three years. "Small-scale LNG was considered by the group to be an area where we need to boost activity," Frederic Deybach, who works on Engie's small-scale LNG program, told Reuters on the sidelines of a gas conference in Japan.

Engie, the world's largest independent power producer, is aiming to develop small LNG-to-power projects in island nations as investments slump in mega-power projects and demand stagnates in mature markets like Japan and South Korea. Total global demand from small-scale LNG projects is expected to rise to between 75 million and 95 million tonnes a year by 2030, Deybach said. That would rival in volume Japan, the world's largest LNG importer at 83.3 million tonnes in 2016.

Small-scale demand also will come from adopting LNG as a shipping fuel, accounting for 20 million to 30 million tonnes a year, and a switch to LNG-fueled trucks, contributing 30 million to 40 million tonnes a year, with the remainder coming from island-based LNG-to-power demand, Deybach said. While demand from islands is forecast to be the smallest piece of the small-scale market, Deybach says its potential is underestimated.

Without government subsidy, India's LNG imports could slip

(Reuters; April 5) - India's liquefied natural gas demand could slip as the government has scrapped its subsidies on gas sales to power companies, the chief executive of the country's biggest gas importer said April 5 at a conference in Japan. Natural gas accounts for about 6.5 percent of India's overall energy mix, far lower than the global average. India plans to raise the share of gas to 15 percent over the next three years, but a major challenge to that goal is the price sensitivity of Indian consumers.

India has for the past two fiscal years been giving discounts on the sale of imported LNG to revive more than 14 gigawatts of stranded power generation capacity that had been hit by domestic gas shortages. But a power ministry official confirmed that the LNG subsidy has not been extended beyond March 31. Petronet LNG CEO Prabhat Singh said the gas-fueled plants cannot compete with plants using cheaper coal.

"If (the power subsidies in India) don't happen, then definitely around 1 million to 2 million tonnes of LNG which was going there will be lost," Singh told reporters at the Gastech conference in Japan. After the subsidies were first put in place, India's annual LNG imports surged 15 percent to 16.08 million tonnes in 2015/2016. Then, for the first 11 months of the 2016/2017 fiscal year, India imported even more — 17 million tonnes.

Small-scale producers says it's OK to raise oil taxes in Oklahoma

(EnergyWire; April 5) - A group of small-scale oil companies said Oklahoma could solve its budget crisis by raising taxes on oil production, touching off a war of words with the state's larger producers. The Oklahoma Energy Producers Alliance represents owners of older, vertically drilled oil and gas wells, many of them family-owned businesses going back generations. The group said it is time to reverse a 2014 law that reduced the levy on oil production from 7 percent to 2 percent during an oil well's first three years.

The tax break went into effect shortly before oil prices began to plunge, and it helped produce a series of state budget deficits that have led to spending cuts throughout the state. Between 20 and 30 percent of the schools in Oklahoma are holding class only four days a week due to spending reductions, according to local media reports. Raising the oil tax would bring in \$200 million to \$250 million a year. The Oklahoma Legislature has been working since February to find a way to balance the state budget.

The alliance's announcement exposed a rift between the conventional drillers and shale drillers that dominate Oklahoma's oil industry. A typical shale well's output peaks during its first year or two of production, so the tax break is especially lucrative for shale drillers. The two groups of drillers also have been sparring behind the scenes over legislation that would give shale drillers an edge in cases of forced pooling, in which the state forces mineral owners to participate in a drilling project with overlapping fields.

Private-equity backed company proposes pipeline for Permian gas

(Reuters; April 3) - NAmerico Partners is proposing to build a multibillion-dollar pipeline to move natural gas from fast-growing production in West Texas to the Gulf Coast, the company said April 3, angling to match pipeline plans by rivals such as Kinder Morgan. The pipeline, one of at least three being considered to ease a looming gas glut in the

Permian region, would link to existing lines, including those that export gas to Mexico and to liquefied natural gas export facilities on the coast.

The pipeline would be the first major project by NAmerico Partners, founded two years ago in Houston. The company is backed by private-equity fund Cresta Energy. NAmerico Managing Partner Jeff Welch told Reuters this week that discussions with prospective shippers were at an advanced stage, and the pipeline would begin operations in 2019 if enough shippers commit to the project. He declined to identify the shippers, but said the company was confident the project would proceed.

NAmerico's 468-mile pipeline, named the Pecos Trail Pipeline, would move 1.85 billion cubic feet per day of gas to the major Gulf Coast refining and petrochemical hub in Corpus Christi. Last month, Kinder Morgan, which operates the largest gas pipeline network in North America, outlined a plan to build a 430-mile pipe traveling a similar route. It would move 1.7 bcf per day of gas. Enterprise Products, another large pipeline operator, has said it may also build a gas line to Corpus Christi from the Permian.