

Oil and Gas News Briefs

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Woodside learned lesson in buyer-friendly LNG contract with China

(The West Australian; Feb. 22) - In the multibillion-dollar liquefied natural gas game, the true consequences of a long-term pricing decision can take years to emerge. Woodside CEO Peter Coleman knows why the North West Shelf (NWS) project in Australia earns less for its LNG than the neighboring, newer Pluto plant, and it goes back to 2002. "Unfortunately, we have a very large contract in the NWS called Guangdong," he said, adding that the contract for deliveries to China is "the gift that keeps on taking."

The confidential but well-known Guangdong pricing formula — LNG priced on a roughly per-million-Btu equivalent of a barrel of oil — put a floor on the oil-linked LNG price at \$US15 a barrel and a ceiling at US\$25 a barrel. It may have seemed a fair risk-sharing after oil prices had fallen close to US\$10 a barrel in the late 1990s. However, oil has not dipped below US\$25 since the first NWS cargo to China in 2006. For about a third of the time, it's been over US\$100. Billions have been lost because of the price ceiling.

There was no caution in 2002 when the NWS partners won the race to supply more than 3 million tonnes of LNG a year for 25 years to the new terminal in Guangdong province. The Chinese had set up a bidding war between Australia, Indonesia and Qatar. Woodside, Australia's largest LNG producer, and its NWS partners, including Shell, Chevron, and BP, brought everything to the chase for the contract. Years later Woodside and the other partners in Pluto LNG, which shipped its first cargo in 2012, negotiated a much better pricing deal for themselves without such a buyer-friendly cap.

Earthquakes prompt citizen complaints against shale drilling in China

(Bloomberg; Feb. 26) - The backlash against shale drilling in earthquake-prone regions — an issue in the U.S. for the past decade — has reached China after several temblors killed two people and reduced homes to rubble. China's biggest oil and gas producer halted drilling in an area of the country's shale hub after three quakes Feb. 24-25 toppled nine houses and caused cracks in dams at five small reservoirs, according to the government website of Zigong city in the southwest province of Sichuan. A dozen people were injured, nearly 11,000 homes damaged, and losses pegged at \$2 million.

The quakes spurred residents to gather at a government building to ask if increased drilling in the area was to blame, state-run CCTV reported. A unit of China National Petroleum Corp. was forced to suspend operations, although Zigong city said on its website that more research is needed to determine whether the quakes were caused by

shale activity. The response echoes concerns in the U.S., whose success Chinese drillers are trying to emulate as they attempt to boost domestic oil and gas production.

It also underscores how China's citizenry is becoming more vocal in contesting any adverse environmental effects of industry. "If local populations became wary of this it could mean greater local resistance to drilling programs," said Neil Beveridge, an analyst with Sanford C. Bernstein & Co. in Hong Kong. Sichuan lies at the crossroads of some of the world's most active fault lines, and a 2008 quake there killed more than 80,000 people. The province is also the center of China's emerging shale industry. CNPC deployed 125 rigs to the province last summer to accelerate its development and the company has a multibillion-dollar spending plan to boost gas production.

Saudi Arabia wants to take a big role in global gas business

(Bloomberg; Feb. 26) - Saudi Aramco aims to become one of the world's largest players in natural gas. The company is eyeing projects in Russia, Australia, Africa, and the U.S. to kick-start a global business in liquefied natural gas. "Gas is a major market and we want to be one of the largest players," Amin Nasser, CEO of Saudi Arabia's state-run oil company, said in an interview in London. "There's appetite to invest in gas and LNG." Nasser declined to name any projects or foreign companies involved in talks.

The world's biggest oil companies have invested heavily in gas and LNG with Shell and ExxonMobil operating large projects from Qatar to Australia. Western companies see gas as part of their energy-transition strategy, as it is far less polluting than oil, releasing less carbon dioxide that contributes to climate change. The push into gas is a change of strategy for Aramco, however, which is already the world's largest oil exporter. The company has a relatively small gas business, which focuses on meeting local demand.

Nasser wants to change that, starting up gas exports from fields in Saudi Arabia and also from outside the kingdom. In the past Saudi officials have said the kingdom is considering taking a stake in the Russian Arctic LNG-2 project, controlled by Novatek. Aramco is also planning to boost the kingdom's use of gas, aiming to replace the bulk of the 400,000 barrels a day or so of crude and refined products that Saudi Arabia burns to generate electricity. The oil freed by using gas for power generation could be exported.

Shell forms LNG technology joint venture with Gazprom

(Reuters; Feb. 27) - Russian gas giant Novatek and oil major Shell said Feb. 27 that Russian natural gas would remain more competitive in Europe than U.S. gas, as Moscow pursues new mega projects that would be insulated from any new U.S. sanctions. Novatek's Chief Financial Officer Mark Gyetvay said the company would

build equipment and technology in Russia to protect itself. "We will not hold ourselves hostage to U.S. sanctions," he told the International Petroleum Week event in London.

He said Novatek was able to deliver LNG to Europe for \$3.15 per million Btu, less than half the cost of U.S. LNG cargoes. "Russian gas will be very competitive versus the U.S. Gulf Coast," he said. Companies are sending more U.S. LNG to Europe, establishing a foothold in a market dominated by Russia and seen as a key battleground in Washington's efforts to curb Moscow's energy influence.

Shell, which has a long history of energy cooperation with Russia including a stake in the decade-old Sakhalin-2 LNG plant in Russia's Far East, said it has created a new 50/50 venture with Russian state giant Gazprom that will use Shell LNG know-how to develop Russia's own technology for liquefying gas. The venture will effectively insulate Russia from any new U.S. sanctions on LNG where technology belongs to only a handful of players — mainly global oil majors such as Shell, Exxon, and Total.

Not all FERC commissioners satisfied with LNG project decision

(CNBC; Feb. 22) – FERC Commissioner Cheryl LaFleur, who voted last week to approve Venture Global's Calcasieu Pass LNG export terminal in Louisiana, said the required greenhouse-gas disclosure "provided important context" but is only a "first step." She said the Federal Energy Regulatory Commission should have determined the significance of the project's greenhouse-gas emissions rather than just providing the volume of emissions, a further endeavor she called challenging but achievable.

LaFleur also criticized the commission's "failure" to disclose how the project would contribute to the combined effects of LNG infrastructure development. Several LNG export terminals have been built or are under construction along the Gulf Coast. FERC's Feb. 21 vote to approve the Venture Global project was its first authorization of an LNG export project in two years. Commissioners have been hashing out the greenhouse-gas issue, deadlocking at 2-2 until last week's compromise and authorization vote.

Chairman Neil Chatterjee said he is optimistic that FERC now has a framework in place to help it more expeditiously process applications. In approving Calcasieu Pass on a 4-1 vote, FERC disclosed the project's direct greenhouse-gas emissions and compared them to the nation's overall emissions. But that isn't enough, said Commissioner Richard Glick, the sole dissenting vote. FERC failed to embrace "reasoned" decision-making in determining if Calcasieu Pass is in the public interest, Glick said.

Sempra pushes for no more delays in Cameron LNG start-up

(S&P Global Platts; Feb. 26) - Sempra Energy expects the first train at its \$10 billion Cameron LNG export plant to begin production in the second quarter and the remaining two units to be completed later this year and early next as it pushes its contractors to avoid further delays, executives said Feb. 26. The Louisiana project — a joint venture of San Diego-based Sempra, France's Total, Japan's Mitsui, and a company jointly owned by Japan's Mitsubishi and NYK Line — faced delays in late 2017 and early 2018.

As many as 11,000 workers were on site last summer as contractors McDermott International and Chiyoda worked to get the project back on track. Start-up is eagerly anticipated, with the total number of U.S. LNG terminals expected to double this year. During a tour of the facility in Hackberry south of Lake Charles, officials said production could begin within weeks, though they said the exact timeline was unclear. At full operation, Cameron's production capacity will be almost 14 million tonnes per year.

Japanese shipyard christens LNG tanker for Louisiana project

(LNG World Shipping; Feb. 25) - Japan's Mitsubishi Shipbuilding held a christening ceremony Feb. 21 for the Marvel Crane, the first of two LNG carriers under construction for Mitsui & Co., which will use the ships to transport liquefied natural gas from the Cameron LNG terminal nearing completion in Hackberry, Louisiana. The Sempra-led \$10 billion project is due to start producing from the first of its three liquefaction trains within weeks. A Mitsui-Mitsubishi venture owns a 16.6 percent stake in Cameron LNG.

The Marvel Crane, which will be delivered to Mitsui in March, is 961 feet long. The ship is equipped with a modified version of the Moss spherical tank, an apple-shaped tank with a protruding upper half that extends over the deck of the ship. This tank design expands the ship's LNG carrying capacity without increasing its width, allowing it to pass through the expanded Panama Canal. The propulsion system is a hybrid system combining a steam turbine and a gas-fired engine that can run on regasified LNG.

Shell forecasts global LNG demand to rise 11% this year

(Reuters; Feb. 25) – Worldwide liquefied natural gas trade is set to rise 11 percent this year as China leads a global drive to reduce pollution, Shell said in its annual LNG report Feb. 25. Shell's forecast, which sees LNG demand rising to 354 million tonnes this year and to 384 million tonnes in 2020, reflect a burgeoning industry with new production facilities opening in Australia, the United States, and Russia and more countries becoming importers by building receiving terminals.

Natural gas is expected to be the fastest-growing source of energy in the coming decades, displacing coal in power plants and heavy industries. The transition to gas, the least polluting fossil fuel, has been in large part driven by government policies aimed at reducing pollution in China and India or by reduced reliance on nuclear power in countries such as Germany and Japan. "Around the world we see policy support for natural gas," Maarten Wetselaar, Shell's head of gas told reporters. Shell is also betting on a rapid increase in LNG demand in the ground transport and marine sectors.

Many analysts, including Shell, see a supply crunch around the mid-2020s because at the moment there are not enough new liquefaction facilities being planned, financed, and built. Spot trade supplied close to 30 percent of the global market in 2018, up from 25 percent in 2017, as more buyers moved away from long-term supply contracts. "A rebound in new long-term LNG contracting in 2018 could revive investment in liquefaction projects," Shell said in its report, noting the importance of long-term deals.

Opponents deliver 1,100 comments against LNG project in Texas

(Houston Chronicle; Feb. 26) - Environmentalists delivered more than 1,100 comments to state regulators in opposition to Anova LNG's proposed liquefied natural gas export terminal at the Port of Brownsville, Texas. Organizers with the Sierra Club delivered the comments to the Texas Commission on Environmental Quality in Austin ahead of a Feb. 25 deadline for comments on a state permit for the project.

Annova LNG is one of three LNG terminals proposed at the South Texas waterway. The three are seeking permission to take gas from the Eagle Ford and other shale plays, liquefy it and export to customers around the world. Permit applications are under review by the state agency and Federal Energy Regulatory Commission. All three projects face opposition from a coalition of environmentalists, fishermen, shrimpers, and community groups working under the banner Save RGV from LNG.

The state's permit decision for Anova LNG is not expected until summer. The ultimate decision, however, rests with FERC, which is not expected to make a decision until July. Ananova LNG is subsidiary of Chicago power generation company Exelon, which views LNG as a growth industry and stands behind Ananova's proposed project in Brownsville.

Poland 'happy to buy American' LNG

(The New York Times; Feb. 26) – Huge tankers pull into Poland's Baltic Sea port of Swinoujscie twice a month, ferrying liquefied natural gas from Qatar, Norway, and, increasingly, the United States. The fuel will help light and heat millions of Polish homes, while gradually cutting the country's dependence on coal. This fuel is also an

important geopolitical strategy. Poland is determined to end its reliance on Russian energy in a few years, part of a broader effort to diversify Europe's energy supply.

The country has found a ready replacement in the United States, which has an abundance of natural gas from the shale boom and a political incentive to ease Russia's chokehold on Europe. "Given a choice of suppliers and a good commercial deal, Poland was happy to buy American," said David L. Goldwyn, who served as the State Department's international energy envoy in the Obama administration and now heads an advisory firm, Goldwyn Global Strategies.

"The strategy of the company is just to forget about Eastern suppliers and especially about Gazprom," said Piotr Wozniak, president of PGNiG, a state-controlled company that dominates Poland's gas market. In the past six months, three U.S. LNG suppliers — Cheniere Energy, Venture Global LNG, and Sempra Energy — have all signed long-term agreements with Poland. If all sources prove successful, Poland will have more than enough gas to replace its flow from Gazprom. But price is an issue, too. Natural gas prices are largely set by financial markets, and Russia can produce gas cheaply.

Novatek plans ambitious LNG expansion by 2030

(Reuters; Feb. 26) - Russian natural gas producer Novatek currently plans to produce 57 million tonnes of LNG a year by 2030 but intends to boost that target in a year or two to 70 million tonnes by 2030, company boss Leonid Mikhelson said Feb. 26. Mikhelson made the comments at a meeting with President Vladimir Putin, according to a report published on the Kremlin's website.

Novatek is the majority owner and operator of the \$27 billion Yamal LNG project, which started shipping cargoes in December 2017 and which, at full capacity, will be rated at 17.5 million tonnes per year. Novatek also is assembling partners, financing and sales contracts for Arctic LNG-2, just east of Yamal, with a final investment decision expected later this year on the \$25.5 billion, 19.8-million-tonne-per-year project with first cargoes by 2024.

To meet its 2030 goal of 57 million tonnes annual capacity or to jump to the 70-million-tonne target, Novatek would need to build a third and possibly a fourth LNG export terminal in the next decade.

Gazprom boosts its share of Europe's gas market

(Reuters; Feb. 26) - Gazprom increased its share of the European gas market last year despite a rising challenge from imports of U.S. liquefied natural gas, company officials told investors in Hong Kong on Feb. 26. A meeting was held a day after the surprise

departure of deputy chief executive Alexander Medvedev who has led Gazprom's export efforts for the past 16 years. Gazprom's share of the European gas market rose to a record high 36.7 percent last year from 34.7 percent in 2017, the company said.

All this unfolded despite calls from the European Commission for EU states to diversify away from Russian energy in the wake of Moscow's annexation of Crimea in 2014. Gazprom has also faced a rise in imports of U.S. LNG into Europe, which saw a near fivefold increase this winter. Europe accounts for around two-thirds of Gazprom's gas sales.

BP contracts for floating LNG unit at West Africa project

(S&P Global Platts; Feb. 26) - Golar LNG said Feb. 26 it has entered into a 20-year lease-and-operate agreement for BP to charter a Golar floating liquefaction unit for the Greater Tortue Ahmeyim gas project offshore Mauritania and Senegal. The FLNG Gimi is designed to produce approximately 2.5 million tonnes of LNG per year in the first phase of the project, expected to start in 2022. Financial terms of the agreement were not released. BP and its partners gave the go-ahead for the project in December.

A Golar subsidiary will construct, own and operate FLNG Gimi, which is expected to cost about \$1.3 billion, excluding financing costs, Golar said. The LNG carrier Gimi has been relocated from lay-up status to the Keppel Shipyard in Singapore, where it will be converted into a floating liquefaction and storage vessel for the West Africa assignment.

The Tortue project is based on 15 trillion cubic feet of estimated gas resource. BP plans to expand LNG production from 2.5 million to 10 million tonnes per year in later phases. The Tortue discovery was made by Texas-based Kosmos Energy. BP is the operator and largest shareholder of the project. The other partners are Kosmos, Senegal's state-owned Societe des Petroles du Senegal, and Mauritania's Societe Mauritanienne Des Hydrocarbures et de Patrimoine Minier. BP will take 100 percent of the plant's output.

BP adds more gas output in Trinidad to help feed LNG plant

(Argus Media; Feb. 26) - BP has started natural gas production from its Angelin project off Trinidad and Tobago. Gas from the project — planned for 600 million cubic feet per day — will "significantly ease" a national shortage that has suppressed production of liquefied natural gas and petrochemicals, the country's energy ministry said Feb. 26. The Angelin development is about 40 miles off the southeastern coast of Trinidad, in a water depth of 210 feet, and includes a new platform and four wells, BP said.

The new platform is BP's 15th offshore installation in Trinidad, the company said. BP's long-term development plan for Trinidad "could potentially include up to \$8 billion of investment in several more major projects over the next 10 years," BP regional president Claire Fitzpatrick said. Two other BP gas projects — Cassia Compression and Matapal — that will have combined capacity of 1.6 billion cubic feet per day, will be commissioned in 2022, the company said.

Trinidad's long-declining gas production bottomed out at 3.33 billion cubic feet per day in 2016 but has rebounded. The country's 2018 gas production averaged 3.62 bcf per day, according to data published by the energy ministry. The improvement in gas production has lifted output at Atlantic LNG, where Shell and BP are lead shareholders in the liquefaction facility. The country's LNG output in 2018 reached its highest volume since 2015, and up 13.6 percent from 2017, according to energy ministry data.

Egypt's return to LNG exports continues to grow in volume

(Reuters; Feb. 27) - Egypt is now shipping 800 million cubic feet of liquefied natural gas per day from its Idku export plant, the country's petroleum minister told the financial newspaper Al-Borsa. Egypt said it exported about 520 million cubic feet per day of LNG in early January and 300 million cubic feet per day in 2018 as new gas production has allowed the restart of the country's LNG export trade and the end of LNG imports to help fuel the nation.

The gas is exported from Idku by Malaysia's Petronas, Shell, and Egypt's two main state oil-and-gas companies — all partners in the Idku plant, which opened in 2005. Egypt's other LNG export plant, the Eni-operated Damietta facility, remains idled, however.

Goldman sees short-term boost in oil before settling back to \$60

(Bloomberg; Feb. 25) - Oil prices could potentially rise as much as 12 percent from current levels, though the rally may prove fleeting, according to Goldman Sachs. OPEC leader Saudi Arabia is cutting output faster than U.S. shale oil can fill the gap, leaving a void in the market that may push global benchmark Brent crude to US\$70-\$75 a barrel in the near future, bank analysts led by Jeffrey Currie said in a note. At the same time, supply disruptions in Venezuela are likely to accelerate in coming months, they wrote.

"The oil market will likely continue to tighten significantly this March and April," Currie said. "While prices could easily trade in a US\$70-\$75 a barrel trading range, we believe such an environment would likely prove fleeting," he said, reaffirming Goldman's forecast for Brent to end the year at US\$60. Brent has rallied 25 percent this year to

around US\$67 a barrel after a collapse of 35 percent in the last quarter of 2018 as the Saudis spearheaded a plan by OPEC and its allies to curb production.

China imported no U.S. oil for second month in a row in January

(Reuters; Feb. 26) - Markets have cheered President Donald Trump's assertion that a deal with China is "very, very close," but data on China's imports of U.S. oil, liquefied natural gas and coal show that once a trade flow is interrupted, getting it back is hard. China's imports of U.S. crude oil were zero for a second month in a row in January, according to Chinese customs data released Feb. 25. In 2018 China imported an average of almost 250,000 barrels per day of U.S. crude.

The advent of Trump's trade tariffs has choked the flow of crude, even though oil wasn't subject to retaliatory measures from Beijing. No U.S. crude is expected to land in China in February or March, according to vessel-tracking data compiled by Refinitiv. A vessel carrying almost 2 million barrels is scheduled to arrive in mid-April, the data shows. Given the six- to eight-week sea voyage from the U.S. Gulf Coast to China, it's likely the earliest significant pick-up in U.S. cargoes would be May or June.

It's much the same for LNG shipments, with Refinitiv data showing one cargo unloaded in January, and none booked for arrival in the coming months. The dramatic slump in China's imports of U.S. energy since the trade dispute ramped up in the middle of last year can likely be reversed, if a suitable deal is reached between Beijing and Washington, though China has shown that it can quickly and easily halt purchases of U.S. energy products. As a percentage of China's total imports, U.S. supplies are modest and Beijing has had little difficulty in finding alternative cargoes.

U.S. shale producers finding it harder to attract financing

(Wall Street Journal; Feb. 24) - The once-strong alliance between fracking companies and Wall Street is fraying as the industry struggles to attract investors after nearly a decade of losing money. Frequent infusions of Wall Street capital have sustained the U.S. shale boom, but that largess is running out. New bond and equity deals have fallen to the lowest level since 2007. Companies raised about \$22 billion from equity and debt financing in 2018, almost one-third of what they raised in 2012, according to Dealogic.

The loss of that lifeline is forcing shale companies to reduce spending and face the prospect of slower growth. More than a dozen companies have announced spending cuts so far this year. The drop in financing is especially felt by smaller, more indebted drillers. But even larger, better-capitalized frackers are facing investor skepticism about whether they can keep spending in check and still hit growth and cash-flow targets.

Banks have provided financing when shale producers spend more cash than they take in from operations, something that has happened every year since 2010. They also help companies hedge their future oil production to lock in prices and avoid market volatility, and provide them with revolving loans backed by future oil and gas prospects. But that is changing. "We are seeing sources of funding dry up, with liquidity being harder to come by, particularly debt," said Regina Mayor, who leads KPMG's energy practice. "I don't think they have that kind of get-out-of-jail-free card like they had last time."

Exxon, Microsoft plan to use cloud technology in Permian

(Reuters; Feb. 22) - ExxonMobil and Microsoft have joined forces to use cloud technology to make data immediately available to workers in the U.S. oil producer's shale operations, the companies said Feb. 22, helping to boost profitability in the nation's largest shale field. The companies will collect data from Exxon's wells and other production assets in the Permian Basin of West Texas and New Mexico, where the world's largest publicly traded oil and gas company holds 1.6 million acres.

The technology will allow immediate detection of equipment leaks to reduce repair times in remote locations and will apply artificial intelligence to analyze drilling and well completion data, Exxon said. The value of the deal was not disclosed. Exxon has pledged to increase its Permian Basin output to 600,000 barrels of oil equivalent per day by 2025. Exxon's fourth-quarter Permian production was 190,000 barrels per day.

The Permian, which produces about 3.85 million barrels per day, is forecast to generate 5.4 million barrels per day by 2023, greater than any single OPEC member other than Saudi Arabia, according to consultancy IHS Markit.

Crowley christens second LNG-powered ship for Puerto Rico trade

(Caribbean Business; Feb. 25) - Crowley Maritime christened the combination container/roll-on roll-off ship Taino in San Juan, Puerto Rico, on Feb. 22. It is among the first of its kind to be powered by liquefied natural gas, as is its sistership El Coqui, which entered service in 2018. The company invested \$550 million in the ships and to reduce turnaround times for its stateside-to-Puerto Rico trade by upgrading its infrastructure.

At its San Juan terminal in Isla Grande, the company added a 900-foot pier and three ship-to-shore gantry cranes, the first new cranes on San Juan Harbor in more than 50 years, the company said. Crowley also added container staging areas and handling equipment for refrigerated and dry cargo.

The ship was named Taino “for the native pre-Columbian Indians who inhabit Puerto Rico and who lived off the land with great appreciation and respect for their environment, and El Coqui is named for the popular indigenous frog on the island,” the company explained. Both ships are 720 feet long, 26,500 deadweight tons, and able to transport up to 2,400 20-foot-long container units at cruising speeds of greater than 22 knots. Both ships were constructed at VT Halter Marine in Pascagoula, Mississippi.