

Oil and Gas News Briefs

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November 30, 2017

Cheniere will stop releasing terms of LNG export contracts

(Argus Media; Nov. 28) - Leading U.S. LNG exporter Cheniere Energy will stop disclosing details of its future customer contracts after several years of revealing the data. Cheniere started exports in February 2016 from its \$20 billion Sabine Pass, La., LNG terminal, and is building an \$11 billion export facility in Corpus Christi, Texas.

The Houston-based company has been releasing the terms for several years as it signed up customers under 20-year take-or-pay contracts to finance the two projects. The Securities and Exchange Commission requires the filings if the details could materially impact a publicly traded company's business. Cheniere charges liquefaction fees ranging from \$2.25 to \$3.50 per million Btu, which customers must pay to reserve capacity at the LNG plant regardless whether they take any gas. Exporters also are required to pay 15 percent above the cost of feed gas purchased on the market to allow for the gas that will be consumed during the liquefaction process.

The SEC allows companies to request that some details remain confidential if disclosing the information could "adversely affect a company's business and financial condition because of the competitive harm that could result from the disclosure," according to an SEC legal bulletin. "This is a very competitive market and we view that as commercially sensitive," Cheniere CEO Jack Fusco said on a recent earnings call. Six LNG export terminals are being built in the United States, but Cheniere has been the only developer to release its long-term contracts with Korea Gas, GAIL India and others. Cheniere said it is now offering lower fees and shorter contracts to attract new customers.

Shell's floating LNG project may face further delay, cost overrun

(Australian Financial Review; Nov. 29) - Shell has sown doubt in the market about an early 2018 start-up of its innovative Prelude floating LNG project off the coast of northwestern Australia, with CEO Ben van Beurden signalling the project will only start contributing noticeably to cash flow in 2019. Consultancy Wood Mackenzie is assuming initial start-up at the end of the third-quarter 2018, said analyst Saul Kavonic, who has estimated Prelude may cost \$US2 billion more than the original \$US12 billion estimate.

"Despite now being on site and commissioning, we believe carry-over work at the facility risks further delay and additional cost escalation, as carry-over work on site can cost several times as much as work done in the yards," Kavonic said. "As with most LNG projects, it can take three to six months post first cargo before a plant ramps up to full

production ... and being a pioneering technology suggests the overall commissioning and ramp-up schedule estimates would err on the conservatively slower side."

The Prelude vessel, the world's biggest floating structure, arrived at its mooring site in Australia's Browse Basin in July from a South Korean shipyard. Shell originally gave the go-ahead on the floating gas production, liquefaction and storage project more than six years ago. At full production, the 1,600-foot-long Prelude will be capable to making 3.6 million tonnes of LNG per year.

LNG gains as China talks more about 'environment' than 'economy'

(Australian Broadcasting Corp.; Nov. 28) - China's crackdown on burning coal may have the residents of its northern industrial cities breathing easier this winter, but it could also have a positive effect on the big liquefied natural gas producers that have been struggling with chronically low prices. LNG is a fossil fuel too, but lower carbon intensity and pollution levels have made it the logical and economic short-term alternative for coal consumption, which has been restricted in 28 of China's largest cities.

North Asian LNG spot prices are up about 80 percent from the middle of the year. While the pick-up is in part seasonal, Wood Mackenzie's senior China gas and LNG consultant Wen Wang said pollution restrictions look to be driving up China's import demand by 20 million tonnes this winter, a 40 percent jump over 2016. With domestic gas output facing challenges, LNG imports are the next most viable solution, he said.

RBC's Ben Wilson said combatting air pollution is now the single biggest driver of LNG growth in China. Wilson said President Xi Jinping's speech at the Communist Party Congress provided an interesting insight in that he mentioned the environment more than the economy. "The longer history shows this is the first time the environment has been mentioned more than the economy — a high level but insightful commentary on the general direction that Chinese policy is taking," Wilson said.

China succeeds in promoting gas, but winter supply comes up short

(Bloomberg; Nov. 28) - China's efforts to boost natural gas demand worked so well that sellers are running out of supply just two weeks into winter heating season. Distributors have limited supplies to some customers in the northern provinces of Shaanxi and Shandong, according to local reports. One city government ordered factories to avoid burning gas during peak hours, while natural gas-powered taxis and buses in another city had to line up overnight to refuel.

The pinch is coming as cold winter air is adding an additional layer of heating demand on top of unprecedented consumption from industrial users pushed by the government

to cut dependence on coal and petroleum. Demand has exploded by 19 percent this year, on pace for the highest growth since 2011 and leading Sanford C. Bernstein & Co. to declare the “golden age” of gas in China amid the nation’s effort to clear dirty skies.

“When demand is rising too fast, a supply shortage is inevitable,” Shenyuan Ma, a senior vice president at gas distributor ENN Energy Holdings, said Nov. 29. China had already taken steps before winter to try to stave off a supply shortage similar to the one two years ago that forced offices in Beijing to cut heating to as low as 57 degrees Fahrenheit. Liquefied natural gas imports were up 48 percent from the previous year through October, and PetroChina, the country’s largest gas supplier, has raised prices by 10 to 20 percent from Nov. 1 through March 31 in a move to curtail use of the fuel.

Gazprom spends heavily to boost gas exports

(Financial Times; London; Nov. 28) – A decade ago, Gazprom looked unstoppable. With the world’s largest natural gas reserves and unrivaled access to the European market, CEO Alexei Miller was confident enough to predict that within seven to ten years his company would be worth \$1 trillion, making it the undisputed king of the energy industry. The Russian state-owned gas export monopoly was worth \$255 billion at the time, and its shares were on a tear.

But in the intervening decade, the company’s value has gone the opposite direction, shrinking to just \$55 billion. Today, it is being forced to spend heavily on new projects to safeguard continued growth, while significantly increasing its borrowings. The first blow came after the 2008 financial crisis, which hit energy prices and knocked European demand. Soon after, the emergence of U.S. shale production suppressed long-term energy prices and created a rival in the liquefied natural gas export trade. Geopolitical tensions led some countries to look for alternative supplies and demand lower prices.

In an effort to fight back, Gazprom is betting big. This week, Miller said that next year’s spending would hit a record \$22 billion in a bid to ensure growth in gas exports. Gazprom is simultaneously funding the construction of three big new pipelines. In the Far East, it is spending about \$55 billion on the 2,000-mile-long Power of Siberia pipeline to China and on developing gas fields. At the same time, it is building the 580-mile-long, \$13 billion Turkish Stream pipeline across the Black Sea, and has started work on the \$11.5 billion Nord Stream 2, a pipeline across the Baltic Sea to Germany.

Russian, Japanese companies cooperate on LNG transfer terminal

(Reuters; Nov. 28) - Russia's Novatek said Nov. 28 it had signed a memorandum of understanding with Japan's Marubeni and Mitsui O.S.K. Lines to explore options for a

liquefied natural gas complex in Russia's Kamchatka region. Novatek said the action plan was to explore opportunities to establish an LNG transshipment and marketing complex at Kamchatka in Russia's Far East. Novatek plans to launch its first LNG plant on Russia's Arctic Yamal Peninsula next month to export gas both to Europe and Asia.

“One of the main advantages of creating an LNG transshipment terminal at Kamchatka is its close proximity to consumers and the opportunity to ensure flexible sales terms for the key consuming markets of the Asian-Pacific region,” said Leonid Mikhelson, CEO of Novatek, Russia’s largest independent gas producer. Novatek has signed a cooperation agreement with Kamchatka’s regional government for building the facility that would let ice-class tankers from Yamal or other projects to reload LNG onto conventional tankers.

Novatek said in an earlier statement that the facility would optimize the logistics of LNG supplies from the Arctic region, stimulate usage of the Northern Sea Route and create a new LNG supply hub for Asian-Pacific regional consumers.

German partners looking at country’s first LNG import terminal

(Bloomberg; Nov. 26) - The old trading city of Hamburg in northwest Germany will soon become the center for a drive in Europe’s biggest economy to diversify natural gas imports. Three partners are forging plans to build a terminal for liquefied natural gas on the shores of the River Elbe, not far from an old nuclear reactor that’s fallen victim to the nation’s atomic exit. Costing as much as \$600 million, the LNG import facility would be Germany’s first and a tool to supplement pipeline supply from Russia and Norway.

With the country’s last nuclear plant shutting in five years, the future of coal in doubt and dwindling Dutch gas exports, Germans face a dilemma: Securing stable energy to counter the intermittency of solar and wind. With Russia exporting more gas than ever, that kind of dependency risks exposing Germany to price shocks and political games.

“It might be very useful for Germany ... it can help the country and industry to diversify and have good negotiating tools,” said Marcel Tjihuis, business development manager at Nederlandse Gasunie, one of three companies behind the Brunsbuettel terminal. The LNG facility would be able to import as much as 175 billion cubic feet of gas as LNG per year, or about 10 percent of Russia’s annual sales to Germany. The joint venture will gauge customer interest ahead of a final investment decision in 2019. Import operations could start by the end of 2022. The cost is estimated at \$350 million to \$600 million.

Pakistan oil refineries lose business to imported LNG

(The Express Tribune; Pakistan; Nov. 25) - The Pakistani government is stepping up imports of liquefied natural gas at the expense of domestic oil refineries, which face the prospect of closure as they are finding it difficult to find buyers for their furnace oil because power plants using relatively cheaper LNG are gradually coming on stream.

Industry sources said the refineries would stop producing petroleum products very soon since furnace oil demand had plunged following closure of 10 oil-fired power plants on the orders of Prime Minister Shahid Khaqan Abbasi due to the gradual start of LNG power plants in the winter season. "The oil storage capacity is brimming with furnace oil; we cannot continue producing refined petroleum products, including jet fuel, petrol, diesel and kerosene oil in the coming days," an industry official said.

"We may not be able to operate if the current situation continues for over 8 to 10 days," said a high official of Byco Petroleum, which runs the country's largest refinery of 120,000 barrels per day. The sudden closure of oil-based power plants coincided with a doubling in the country's LNG import capacity after the second LNG terminal came on line at Port Qasim on Nov. 20. A halt to the refineries' operations would impact oil exploration and production in the country.

Foreign investors drawn to gas complex, says former Qatari official

(Gulf Times; Qatar; Nov. 22) - The world-class facilities created by Qatar at Ras Laffan were the main reason why the country could attract so many international investors to the industrial city and liquefied natural gas production hub, said HE Abdullah bin Hamad al-Attiyah. "If you don't have the infrastructure, you face difficulties in attracting foreign investors," al-Attiyah said, addressing Qatar University College of Engineering students. Ras Laffan includes 14 liquefaction trains, all with some level of foreign partners.

"From a world-scale port to ship building and drydock, the support facilities have helped Qatar become the world's top LNG producer and exporter," said the former deputy prime minister and minister of Energy and Industry. "Ras Laffan was not established for LNG alone. The industrial city is one of the major producers of gas-to-liquids and associated products such as LPG, helium, sulfur, ethane and naphtha."

The chairman of the Doha-based Abdullah Bin Hamad Al-Attiyah International Foundation for Energy & Sustainable Development said many of the byproducts from gas production have huge markets now. "A case in point is sulfur. During our initial days of LNG production, we did not know what to do with sulfur that has to be extracted from gas to make it lean. But soon we found out that sulfur is a major component in phosphate fertilizers. Today, China and India are major consumers of Qatar's sulfur."

TransCanada looks to deliver Canadian oil and gas to U.S. Gulf Coast

(Financial Post; Canada; Nov. 28) - At TransCanada, the big new roads lead to the U.S. Gulf for Canadian oil and gas. In presentations to investors Nov. 28, senior executives at the Calgary-based pipeline giant said that's where they see the growth markets. On the oil side, they are moving closer to a final investment decision to build Keystone XL to move Canadian oil to U.S. Gulf refineries. On the gas side, they're talking up plans to move British Columbia Montney shale gas to Gulf Coast LNG terminals for export.

The Gulf beckons because B.C.'s LNG opportunities remain uncertain and because new oil lines to Canada's coasts have not happened. On Keystone, TransCanada said it continues to analyze a Nebraska Public Service Commission permit that requires an alternate route and has started talking to landowners. Nebraska was the project's last regulatory hurdle, but the route change to skip sensitive areas added new uncertainties for the company and was seized by opponents as an opportunity for further litigation.

Western Canadian natural gas production is also struggling with transportation bottlenecks and excess supplies that are depressing prices. Karl Johansson, TransCanada's executive vice president for Canada and Mexico gas, said the big growth opportunities are in liquefied natural gas exports. TransCanada is making proposals to Montney shale producers to transport their gas from northeastern B.C. all the way to the U.S. Gulf of Mexico to feed LNG export terminals, he said.

Annual survey shows oil and gas investors sour on British Columbia

(Financial Post; Canada; Nov. 28) - A handful of years ago, British Columbia's immense natural gas deposits caught the attention of top global investors eager to produce them and export liquefied natural gas to Asia. Now they'd rather put their cash almost anywhere else. According to the Fraser Institute's Global Petroleum Survey 2017, oil and gas investor perception of British Columbia has plummeted since the election of the New Democratic Party/Green government last May and the province now ranks as the least attractive jurisdiction in Canada, followed by Alberta.

Alberta, also run by an NDP government, improved its global ranking to 33rd among 97 jurisdictions, from 43rd out of 96 last year, while B.C. fell to 76th from 39th, according to the survey of 333 oil and gas executives. "Investor confidence matters, and having a government that's openly hostile to resource development has apparently sent a chill throughout the oil and gas industry," said Kenneth Green, senior director of the Fraser Institute's Centre for Natural Resources and co-author of the 11th annual scorecard.

B.C., which dropped to the bottom 25 percent of global oil and gas jurisdictions, is not in good company. The province fared worse than Myanmar, Tanzania, and Romania in the survey, and slightly better than Mexico, onshore Spain, and Bangladesh. Since B.C.'s NDP and Green parties joined up to form a new government May 29, investors have

grown concerned about investment barriers like political instability, fiscal terms and the cost of regulatory compliance, in addition to disputed land claims and protected areas.

Temporary FERC chair pushes bailout for coal-fired power plants

(Bloomberg; Nov. 28) - President Donald Trump is on the verge of subsidizing coal plants that would otherwise be driven out of business by cheaper, cleaner natural gas. A plan that would leave consumers footing a potential multibillion-dollar bill is expected Dec. 11, and Trump couldn't have chosen a more enthusiastic person to get it done: Neil Chatterjee, a Republican from coal country, who has spent years brokering seemingly impossible deals for Senate Majority Leader Mitch McConnell of Kentucky.

Now Chatterjee is cutting the biggest deal of his career — and he's running out of time to do it. His role as chairman of the Federal Energy Regulatory Commission is temporary with a replacement waiting in the wings. With precious little time, he's pushing a proposal to bail out failing coal plants to be paid for by electricity customers. Chatterjee said he intends to act quickly and save as many plants as possible.

Under his approach, coal and nuclear plants would collect monthly checks from power grid operators to keep them in the black, regardless how much energy they generate. The payments would come from electricity customers, mostly in the Midwest, who could see their bills rise this spring. Third-party studies put the cost at between \$311 million and \$288 billion, depending which plants are eligible and how payments are structured. Chatterjee needs three of the five FERC commissioners to pass his plan. The two sitting commissioners raised concerns the bailout would distort power markets. Two other commissioners — including the incoming chairman — are waiting to be sworn in.

Sierra Club releases nationwide gas pipeline map

(Detroit Free Press; Nov. 21) – Michigan resident Edward Donaldson Jr. had no idea he lived in a designated evacuation zone for a natural gas pipeline — until he was standing on the other side of the road from his home in Oakland County's Orion Township for more than three hours, shivering in the cold. Donaldson lives about a quarter-mile from the site of a large natural gas pipeline leak, explosion and fire that left an 18-foot crater not far from the Great Lakes Crossing Outlets mall Nov. 20.

The explosion and fire came several days after the Sierra Club unveiled a searchable nationwide map that allows people to see whether major gas lines run near their homes or schools, hospitals, day care centers and nursing homes. That includes pipelines with significant, federally outlined evacuation zones. The interactive map, searchable by ZIP Code or pipeline name at <http://sc.org/pipelines>, was released in conjunction with questioning the large-scale transition to gas for energy in Michigan and nationwide.

"People deserve to know what risks these dirty, dangerous fracked gas pipelines pose to our families and our communities," Sierra Club Executive Director Michael Brune said. "Gas pipelines can lead to fatal explosions, dirty air and polluted water, which is why it's important for communities ... to know where these threats are located." The map only includes new gas lines and expansions of existing lines that are tracked by the Federal Energy Regulatory Commission, and does not include gathering or spur lines.

New report points to fracking as potential cause of Texas earthquakes

(Washington Post; Nov. 24) - An unnatural number of earthquakes has hit Texas in the past decade, and the region's seismic activity is increasing. In 2008, two earthquakes stronger than magnitude 3 struck the state. Eight years later, 12 did. Natural forces trigger most quakes. But humans are to blame, too, with mining and dam construction the most frequent suspects. Another prime suspect is the increase in natural gas extraction — including fracking, which produces a lot of wastewater.

To get rid of it, the water is injected deep underground. When wastewater works its way into dormant faults, the thinking goes, the pressure nudges the ancient cracks. Pent-up stress releases and the ground shakes. But it's virtually impossible to tell whether humans or nature triggered a quake. There are no known characteristics of a quake that provide hints to its origins. "It's been a head-scratching period for scientists," said Maria Beatrice Magnani, who studies quakes at Southern Methodist University, Dallas.

Along with a team of researchers at the U.S. Geological Survey, Magnani, an author of a report published Nov. 24 in the journal *Science Advances*, attempted to better identify what has been causing the rash of Texas quakes. Given the lack of faults over the past 300 million years, there is no known geologic process that could explain the sudden outbreak. "There is no other explanation" except that these earthquakes are caused by human activity, Magnani said. The study is in line with what other earthquake experts have surmised using different analyses.

North Dakota struggles with paying the bills post-oil boom

(Wall Street Journal; Nov. 24) - When the oil boom came to Williston, N.D., the city tried to use the influx of new wealth to transform itself from a hub for transient roughnecks into a stable and desirable place to live. It built new roads, a wastewater-treatment plant and a \$70 million recreation center, complete with an indoor water park and four tennis courts. But as the shale oil boom has leveled off, state funding has been stretched thin.

North Dakota legislators are re-examining the special state funds that Williston receives to pay for the influx of workers who weigh on city resources during boom times. The

struggles underscore the difficulties oil towns across the U.S. face in striking the right balance between building quickly in boom times without overspending. In North Dakota, the state money has been going to three cities: Williston, Dickinson and Minot. From 2013 through 2019, they have been allocated \$301 million from state oil-tax revenues.

Williston's spending went largely unquestioned as the oil boom kept pumping money into the state. But since around 2014, the state's agricultural sector began declining just as the oil boom started easing. The dynamic set off a fight for limited state resources at a time when the city's own revenue is also faltering. Williston is spending close to 17 percent of its annual budget of \$211 million on debt payments after borrowing heavily over the past decade. The city has more than \$200 million in outstanding debt, much of it issued to cover infrastructure to accommodate its growing population.

OPEC success in boosting prices also helps its shale competition

(Bloomberg; Nov. 27) - The clash between OPEC and America's oil industry is reaching a day of reckoning. The U.S. shale revolution is on course to be the greatest oil and gas boom in history, turning a nation once at the mercy of foreign imports into a global player. That seismic shift shattered the dominance of Saudi Arabia and the OPEC cartel, forcing them into an alliance with rival Russia to keep a grip on world markets.

So far, it has worked — global oil stockpiles are draining and prices are near two-year highs. But as the Organization of Petroleum Exporting Countries and Russia prepare to meet in Vienna this week to extend production cuts, ministers have little idea how U.S. shale output will respond in 2018. "The production cuts are effective — it was absolutely the right decision, and the fact of striking a deal with Russia was crucial," said Paolo Scaroni, vice chairman of NM Rothschild & Sons and former CEO of Italian oil giant Eni.

Nonetheless, "OPEC has not the same power," he said. "The U.S. becoming the biggest producer of oil in the world is a dramatic change." The stakes could not be higher as OPEC's effort to clear the oil surplus is starting to pay off. They've drained excess inventories in developed nations this year by 183 million barrels, or more than half of the glut, and prices are rising. Yet, the paradox for OPEC is that the more it succeeds in bolstering prices, the more it emboldens shale explorers and other competitors, said Mike Wittner, head of oil market research at Societe Generale in New York.