

Oil and Gas News Briefs

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Global LNG trade grew 2.5% in 2015

(Natural Gas Europe; April 4) - World LNG trade grew by 2.5 percent to an all-time high of 245.2 million metric tons in 2015 — equal to more than 32.2 billion cubic feet of gas per day — according to last week's annual report of the International Group of Liquefied Natural Gas Importers. Europe became a low-priced market of last resort for the global LNG trade, with most world supply growth absorbed by the region with its imports up 16 percent at 83.15 million tons.

“In a global context of lower energy prices and sluggish economic growth, the LNG industry is holding its breath for the impact of an export wave from the U.S.,” said Domenico Dispenza, president of the importers group. Qatar remained the world's leading supplier, with 32 percent of trade in 2015, but Dispenza noted the “U.S. is on track to challenge Qatar as the world's leading supplier of flexible LNG.” Australia last year became the second largest exporter, ahead of Malaysia which was No. 2 in 2014.

Although China's imports increased 5.5 percent, Asia imports as a whole declined 1.7 percent — with top markets Japan and South Korea falling by 4.7 percent and 11.2 percent, respectively. Yet Asia still took 72 percent of world LNG trade. The volume of LNG traded on a spot or short-term basis held stable at 28 percent of world trade. Truly spot trades — delivered within 90 days of transactions — were estimated at 15 percent of trade. In 2015, seven new LNG regasification terminals started up in Indonesia, Japan, Egypt, Jordan and Pakistan, with a total of 23.5 million tons per year of capacity.

Gas demand rebounds in China, but economic slowdown could hurt

(Interfax Global Energy; April 4) - China's appetite for natural gas — which dropped last year because of high prices — looks to be rebounding strongly after November's deep price cut, but analysts say a shaky economic outlook could limit growth. Chinese gas consumption was up by 44 percent on an annual basis in December 2015, followed by increases of 18 percent in January and 19 percent in February 2016. The last time demand expanded by double digits in three consecutive months was June-August 2014.

“It seems the situation started improving when 2015 ended with a cold winter,” Han Qiming, a senior analyst with Shanghai-based Shenyin and Wanguo Securities, said in a conference in Nanjing in March. The cold spell came shortly after China's economic planning agency, the National Development and Reform Commission, cut non-

residential natural gas prices by an average of 28 percent across the country. Both factors helped drive gas demand growth, with consumption surging in several regions.

Lower prices have encouraged users to switch from coal to gas, said a senior executive with gas distributor ENN Energy Holdings. But an economic slowdown partly caused by China's economic restructuring and elimination of outdated industrial capacity will restrict gas demand from factories. "In 2016, the government's emphasis on curbing overcapacity in heavy industry combined with the slowdown in the real estate sector is likely to dampen demand from industrial users," Energy Aspects said last week.

China boosts shale gas reserves, but production comes up short

(Bloomberg; April 6) – Though China boosted its recoverable shale gas reserves more than fivefold last year, the country missed its production target for the fuel. Recoverable shale gas reserves, or those that can be commercially produced, rose almost 3.9 trillion cubic feet last year, said Yu Haifeng, director at the department of mineral resources in the Ministry of Land and Resources, according to a transcript of a briefing April 6. That increases the country's total shale gas reserves to 4.6 tcf.

"The ministry spared no efforts in searching for new resources in 2015," Yu said. Premier Li Keqiang reiterated last month China's goal of boosting production and use of natural gas as a substitute for coal. But while conventional gas production is rising, China missed its annual shale gas target of 230 billion cubic feet by a wide margin last year and cut its 2020 production goal to about a third of its original estimate, citing difficult geology, lack of infrastructure and limited exploration rights.

China produced 158 bcf of shale gas in 2015, a more than threefold increase from the year before, the ministry said April 6, but more than 30 percent off its target. Exploiting the country's shale gas resources has proved challenging for international oil companies including Shell, which last week said it was no longer pursuing its China shale venture — though BP the same week signed its first shale-gas production deal in the country, joining the nation's biggest oil company, China National Petroleum Corp.

Repairs will take Gorgon LNG offline up to two months

(Financial Times; London; April 6) - Production at Chevron's \$54 billion Gorgon liquefied natural gas project off the northwest coast of Australia is not expected to resume for up to two months due to technical problems, the company said. Chevron said mechanical issues with a propane refrigeration unit used to superchill gas into a liquid were to blame for the shutdown just three weeks after Gorgon's first export. The halt is a blow to Chevron, which could face a repair bill of up to \$50 million and delays to gas exports.

The company said it still expected to ramp up to full capacity for the first of three LNG trains at the plant over the next six to eight months. Construction is unaffected on the second and third LNG trains. Shipments began March 21, with the first cargo of LNG delivered to Chubu Electric Power in Japan. Dale Koenders, a Citi analyst, said it was not unusual for LNG plants to experience technical glitches that take them offline after start-up, although he added that two months would be a longer-than-usual suspension.

“The cost of fixing this type of mechanical problem is likely to be small, perhaps \$50 million, with the bigger impact being a two-month delay to production and gas shipments worth about \$250 million to \$300 million, although the focus should be on sustainable long-term performance,” Koenders said. Chevron owns 47 percent of the giant LNG development. ExxonMobil holds 25 percent, as does Shell, with the balance held by three Japanese utilities.

Israeli power company buys LNG at lower cost than domestic gas

(Globes; Israel; April 6) - Israel Electric Corp. is set to import natural gas from overseas at a lower price than it pays in the domestic Israeli market. The company will buy three cargoes of imported liquefied natural gas from BP at \$4.90 per million Btu. Israel Electric pays \$5.70 to buy domestically produced gas from the Tamar offshore field. The imported LNG price is lower, even after adding transport and regasification costs.

The imported LNG will be brought to a ship moored 6 miles west of Hadera for onboard storage and regasification. The gas then moves through an undersea pipeline to shore. In 2011-2012, the pipeline flow of gas from Egypt to Israel was cut off and Israel set up the floating LNG import terminal as a backup. Then last summer, after Israel reached a record demand for electricity, the power company imported a cargo of LNG to meet peak needs.

Opponents consider next steps against LNG plant north of Vancouver

(Squamish Chief; Squamish, BC; April 2) - For My Sea to Sky activist Eoin Finn, federal environmental approval for the proposed small-scale Woodfibre LNG project near Squamish, B.C., does not mean the liquefied natural gas plant will be a reality any time soon. “It’s no secret that I’m opposed to the development,” he told an audience at an art gallery April 1. “There are yet a few hurdles to go before this can be anything real ... My Sea to Sky doesn’t regard this as the end of the road,” he told the more than 50 people

Opponents gathered at the gallery to galvanize the campaign and consider next steps. They spent part of the evening brainstorming ideas how best to show their opposition. Finn discussed a few ideas, such as legal challenges using laws that cover fisheries or the transportation of dangerous goods. He also mentioned taking the fight to the political

arena, such writing to newspapers or elected officials. The project developers have yet to make an investment decision for the \$1.6 billion venture 30 miles north of Vancouver

B.C. opposition party speaks against LNG plant near Prince Rupert

(Globe and Mail; Canada; April 4) - In a decision that the B.C. New Democratic Party shared only with federal regulators and its environmental supporters, the opposition party has officially rejected the proposed Pacific NorthWest LNG plant near Prince Rupert, saying the terminal on Lelu Island would generate significant greenhouse gas emissions and threaten Skeena River salmon runs. The decision creates a clear political wedge now as the B.C. government has championed Pacific NorthWest LNG.

The project, led by Malaysia's state-owned Petronas, is awaiting a decision from the Canadian Environmental Assessment Agency. In a letter to the agency dated March 10, B.C. NDP Leader John Horgan and his environment critic George Heyman said the project is deficient because it threatens juvenile salmon habitat and would increase the province's greenhouse gas output by 8.5 percent. However, the decision puts the party at odds with some of its labor allies.

Tom Sigurdson, executive director of the BC Building Trades Council, was in Prince Rupert to talk with First Nations leaders about LNG job opportunities on April 4 when he learned of the party's position. "I'm very disappointed. The building trades have been working hard with LNG proponents to try to develop the industry in British Columbia," Sigurdson said. The labor leader said he hopes to meet with opposition party members of parliament next week to ask where they would propose to support job creation.

Japanese firms bid to supply LNG carriers for India's U.S. imports

(Live Mint; India; March 31) - Top Japanese fleet owners have applied for India's biggest shipping tender worth \$7 billion issued by state-run natural gas company GAIL (India) to hire 11 new liquefied natural gas carriers to transport gas from U.S. LNG export projects. A consortium of Mitsui O.S.K. Lines-Nippon Yusen Kabushiki Kaisha (NYK Line) and Mitsui & Co., and another group comprising Mitsubishi-Kawasaki Kisen Kaisha (K Line) and GasLog applied for the tender by the March 31 deadline.

Monaco-based GasLog is the only non-Japanese firm to apply for the tender. In today's market, it costs more than \$200 million to build an LNG carrier from scratch. "The process of finalizing the successful bidder will take at least two months," said an official advising GAIL on the tender. The tender will be awarded to the bidding group quoting the lowest daily hire rates. GAIL needs the 11 LNG tankers to haul up to 5.8 million metric tons per year it has under contract with U.S. export terminals.

Prospective bidders are required to quote for lots of three vessels, with a provision that in each lot one of the vessels will be built in an Indian shipyard. Sate-run Shipping Corp. of India and GAIL have a step-in right to take at least 26 percent and 10 percent stakes, respectively, in each of the LNG carriers hired by GAIL. The LNG carriers would be delivered between 2019 and 2023.

Developer selects contractor for small-scale LNG plant in Georgia

(Houston Chronicle; April 5) - Kinder Morgan has tapped construction group IHI E&C to build its \$2 billion natural gas liquefaction plant in Georgia, the companies announced April 5. The Houston-based contractor will be in charge of engineering, procurement, construction, commissioning and start-up for the Elba Island Liquefaction Project, built on the island near Savannah, Ga. The work will expand Kinder Morgan's LNG import facility at Elba Island into a plant capable of liquefying and exporting the fuel.

When completed, it will have the ability to make about 2.5 million metric tons of LNG each year. Cheniere Energy's plant in Sabine Pass, La., when completed, could be capable of making 10 times as much and could cost near \$18 billion. Elba Island was initially proposed as a partnership between producer Shell and Houston-based pipeline giant Kinder Morgan. In July 2015, Kinder Morgan bought out Shell's stake. Shell, however, is still contracted for 100 percent of the plant's capacity.

Elba Island could begin operating in the first quarter of 2018, according to Kinder Morgan, though the project is still awaiting approval by the Federal Energy Regulatory Commission and approval from the Department of Energy for exports to non-free-trade nations. Elba Island will be built with 10 modular liquefaction trains, according to the press release.

LNG could be a fuel for the future for cruise lines

(Passenger Ship Technology columnist; April 1) – Powering cruise ships with liquefied natural gas was a hot topic at the recent Seatrade Cruise Global convention in Florida. One cruise line executive said 80 percent of new cruise ships will run on LNG by 2025. Just how realistic is it? If we are speaking about newbuilds, I agree. Carnival Corp. is paving the way after awarding a contract to German shipyard Meyer Werft to build four LNG dual-fuel cruise ships, with the first to be delivered at the end of 2018.

Also, Carnival-owned Aida Cruises' AIDAprima has just been delivered. One of three engines in the 985-foot-long ship can burn LNG. Where Carnival goes, others follow. Of course there are challenges, including the fall in oil prices that makes heavy fuel oil seem more attractive. But aside from the strong environmental benefits of LNG, it is

likely that cruise operators take a long-term view. Oil prices will go up at some point, enhancing the cost effectiveness of LNG.

Refueling infrastructure has also been a big challenge, especially for the cruise industry. But another strong point that will aid the use of LNG as a fuel for cruise vessels is that the International Code of Safety for ships using gases or other low-flashpoint fuels is due to be published in January 2017, meaning there will be a set international standards for consistency for the building of cruise vessels using LNG as a fuel.

Cruise line plans for 5,400-berth LNG-powered ships

(gCaptain; April 6) - Swiss-based MSC Cruises has revealed major plans to build up to four new LNG-powered cruise ships exceeding more than 200,000 gross tons each. The announcement was made as the company, the largest privately owned cruise line in the world, signed a letter of intent for construction of the ships with STX France at the company's shipyard in Saint-Nazaire, France. The four ships include two firm orders and two options with delivery planned in 2022, 2024, 2025 and 2026.

MSC Cruises confirmed the order would represent a nearly \$4.5 billion investment. The vessels will feature more than 2,700 staterooms and approximately 5,400 lower berths, making them the biggest LNG-powered cruise ships planned to date. In June 2015, Carnival became the first cruise line to order ocean-going cruise ships powered by liquefied natural gas. Those ships will be built by Meyer Werft and split between their yards in Papenburg, Germany and Turku, Finland.

Utilities can lose a lot of money on natural gas hedging

(Wall Street Journal; April 4) – Natural gas prices have fallen 74 percent in the past 10 years, but some U.S. utilities haven't seen the full benefit because of bad bets. Utilities that distribute gas or burn it to make electricity often enter into hedging contracts as a form of insurance to protect themselves and their customers against wild variations in the fuel's price. The contracts don't represent actual fuel deliveries. Rather, if gas prices go up, utilities make profits on the contracts that help offset higher fuel costs. If prices go down, they lose money on the contracts but still benefit by paying less for their gas.

But in Florida, four utilities including the state's largest, Florida Power & Light, suffered net losses of \$6 billion on their program from 2002 to 2015 because their hedges wound up being considerably more costly than eventual market prices — a bill that was passed along to customers. Ken Costello, an economist at the National Regulatory Research Institute, which advises utility commissions, said that while small hedging losses are normal, "there's something wrong if you have losses as big as Florida experienced."

Another problem is that utilities are guided by fear. Following Hurricane Katrina in 2005, many utilities responded to a sharp rise in prices by increasing hedging. In Florida, utility hedging saved consumers about \$1 billion from 2002-2005, but yielded net losses in 8 of the next 10 years. Some states have taken action to prod utilities to rethink hedging. In Washington, where gas utilities racked up net losses of \$1.15 billion on hedging from 2002 to 2012, state regulators have encouraged utilities to figure out a better approach.

Job cuts continue in Canada's oil patch

(Bloomberg; April 4) - After almost two years of sinking oil prices and at least 40,000 job cuts, Canada's petroleum industry still isn't finished slicing its costs. The next round of layoffs has already begun with Cenovus Energy and Murphy Oil announcing job losses last week. Cuts by Suncor Energy, Encana and others will likely result in thousands more jobs lost by the end of the year as the industry shaves billions in spending in order to continue operating in one of the world's most expensive oil-producing regions.

"It will probably take another six months before some of the bloated staffing levels are tackled," said Todd Hirsch, chief economist at ATB Financial in Calgary. "Many of these companies are getting employment levels down to the bare bones, and over the spring and summer there will be more layoffs." The break-even costs from existing operations in Alberta's oil sands are the highest in the world, according to consultancy Rystad Energy.

The largest 27 Canadian producers are set to spend 32 percent less on average this year, including reductions by Imperial Oil and Cenovus, according to company forecasts and analysts' estimates compiled by Bloomberg. Canada's petroleum industry probably employs about 200,000 people, according to industry estimates. Oil and gas account for more than a quarter of the Alberta economy, and until 2014 crude was Canada's most valuable export.

Low prices drive more than 50 oil and gas companies to bankruptcy

(Reuters; April 1) - A 65 percent fall in global crude prices has pushed more than 50 North American oil and gas producers into bankruptcy since early 2015, according to a Reuters review of regulatory filings. And more companies are expected to follow suit. Consultant Deloitte says a third of drillers face bankruptcy risks this year.

At least 20 publicly traded companies — producing about 95,000 barrels of oil and natural gas liquids per day as per their last disclosed annual output figures — have filed for bankruptcy protection since the start of 2015. The largest producers were Swift Energy, Magnum Hunter Resource, Sabine Oil and Gas.

Alberta looks into link between hydraulic fracturing and tremors

(Calgary Herald columnist; April 2) - Early in the new year, a tremor shook the area near Fox Creek in northwest Alberta. It wasn't the region's first earthquake, but it was the largest — rattling pictures on walls, but not causing injuries or damage. However, it did more than simply unnerve local residents. It reverberated into the Alberta government, which ordered the province's energy regulator to speed up its examination into the links between oil and gas hydraulic fracturing and seismic activity.

The tremor that struck just west of Fox Creek on Jan. 12 registered as a 4.8-magnitude event, classified as a moderate quake. Three months later — and after 23 more seismic events in the area — the province has just received a draft report on the issue from the Alberta Energy Regulator, with a final version expected this fall. No one is saying what's in the preliminary version. But it's logical to expect the agency will recommend more education, and possibly more monitoring, as drillers use fracking more frequently.

Hopefully, it will call for more science to understand why this particular area has felt so many tremors, with more than 420 seismic events recorded near Fox Creek since the start of 2015. The review comes as a new survey published this week by a team of researchers indicates a link between fracking in Western Canada and quakes in the region. Between 2010 and 2015, more than half of all induced earthquakes occurred “in close proximity to hydraulic fracturing operations, in both time and space.”

Hawaii Gas wins approval to boost small-scale LNG imports project

(Pacific Business News; April 6) – Hawaii Gas, which became the first utility in the state to begin shipping liquefied natural gas to the islands two years ago, received state regulatory approval to bring in even more LNG to help better manage its fuel costs, the Honolulu-based company confirmed April 6. Currently, Hawaii Gas is using LNG as a back-up fuel for the synthetic natural gas it manufactures from naphtha and distributes to customers for cooking and hot water. The utility wants to boost its LNG imports.

The goal is convert up to 30 percent of the synthetic natural gas production at its plant in Kapolei in West Oahu to LNG. Hawaii Gas brings in LNG from the mainland in 40-foot-long insulated containers. In its approval this week, the Hawaii Public Utilities Commission said “fuel diversity can both insulate customers from volatility in oil prices and ensure continued service in the event of a local shortage [of its current fuel supply].” Hawaii Gas estimates the increased use of LNG could save customers over \$80 million.