### Oil and Gas News Briefs Compiled by Larry Persily April 2, 2015

### <u>University energy center forecasts big drop in Qatar's LNG revenues</u> http://dohanews.co/report-gatars-natural-gas-revenue-could-plunge-34-by-2026/

(Doha News; Qatar; March 31) - Qatar will likely collect far less money in the coming decade from the sale of natural gas, the main funding source of its rapid development in recent years, according to a recent forecast. The prediction was made in a report published by the Columbia Center on Global Energy Policy, and comes as Qatar continues to spend heavily on roads, rail lines as well as power and desalination plants to meet the needs of its growing population and to prepare for the 2022 World Cup.

These expenditures have largely been paid for with proceeds from liquefied natural gas sales — Qatar is the world's largest LNG supplier. The Columbia University center said Qatar's annual LNG revenues totaled \$56.5 billion in 2013. However, it expects that new LNG projects around the world, particularly in Australia and North America, will cause Qatar's pricing power to decline and its revenues to fall. Under one scenario put forward by the center, Qatar's LNG revenues could drop by a third to \$37 billion in 2026.

The country's large financial reserves provide it with a significant buffer and the ability to continue spending despite lower revenues, although any drop in income would likely put more pressure on politicians to curb spending. The Columbia University center noted that Qatar's massive gas reserves give it the option to force some its competitors out of the market if it chooses to lift a longstanding moratorium on further gas development. A ban on further development of Qatar's North Field gas reserve has been in place since 2005. Government officials have given no indication when the moratorium may be lifted.

## Analyst says Asian investors will seek bigger stakes in Australian LNG <a href="http://www.smh.com.au/business/mining-and-resources/asian-giants-want-majority-stakes-in-australian-lng-projects-20150330-1m4uab.html">http://www.smh.com.au/business/mining-and-resources/asian-giants-want-majority-stakes-in-australian-lng-projects-20150330-1m4uab.html</a>

(Sydney Morning Herald; March 30) - Asian companies will seek to take majority stakes in Australian LNG projects within five years, KPMG Asia Pacific energy head Mina Sekiguchi said. Utilities, trading houses and national oil companies, particularly from Japan, are enthusiastic about using their minority positions as platforms for further investment and potential acquisitions, she said. "Some are looking to be operators or take bigger stakes, and they think taking these minority stakes is a good way to learn."

"In probably five years time, once construction ends and we start shipping, I think it could trigger the next phase where Japan will get more involved in these projects," she

said. "Some of the projects might be sold because they might not be profitable enough around these prices for current shareholders but that means they will be picked up by somebody else, a new entrant maybe from Japan, China, Indonesia, Malaysia or Korea, for example. That has started happening and there will be a lot more transactions."

But Singapore-based Tri-Zen International consultant Tony Regan said he doesn't believe greater Asian involvement in Australian projects is likely. "It's not the time to be doing something that doesn't seem to be satisfying any strategic objective," Regan said. "To increase your stake in a liquefaction plant or the upstream supply would be hugely expensive. If anything I think you could make the case of ... selling those stakes as they are not getting any benefit from them." He said taking on operatorship was especially unlikely considering the relative inexperience of many of the companies in question.

### Toho Gas buys LNG from Petronas with U.S. gas price linkage http://www.naturalgasasia.com/toho-gas-to-buy-lng-from-petronas-15170

(Natural Gas Asia; March 31) – Toho Gas has entered into an agreement with a subsidiary of Malaysia's Petronas to purchase liquefied natural gas, the Japanese utility announced March 31. Toho Gas will buy seven to nine LNG cargoes a year during the 10-year contract starting in April 2017, it said in a statement. The utility serves more than 70 cities and towns in three prefectures in central Japan, with a combined population of about 11 million residents.

"We accurately keep track of any change in the environment for procuring energy, and strive for LNG procurement diversification, including diversification of the price-index, supply sources and types of contracts to ensure a stable energy supply to customers at a competitive price. For the first time, we entered into a Heads of Agreement for purchase of LNG by portfolio supply with the objective of flexibility of quantity and diversification of the price-index," Toho Gas said.

The LNG prices will be linked to crude oil and also U.S. Henry Hub gas prices, with an option to change the delivery destination after obtaining the seller's prior consent.

### Kuwait to spend \$3.3 billion on LNG import facility

http://www.naturalgasasia.com/kuwait-allocates-more-than-3-bn-for-lng-project-15151

(Natural Gas Asia; March 29) - The Kuwait National Petroleum Co. has sanctioned one billion Kuwaiti dinars (\$3.3 billion) for a liquefied natural gas import project, the Kuwait News Agency reported March 29. Work on the project is to start by the end of 2015, Hatem Al-Awadi, deputy CEO for projects at KNPC, told reporters on the sidelines of a Kuwait risk management conference.

Kuwait has increased the share of natural gas in its primary energy consumption from 34 percent in 2009 to 42 percent in 2012. Kuwait began importing LNG to meet rising demand in 2009 through a floating terminal at Mina al-Ahmadi, mostly for power and water desalination. According to KNPC's website, the company plans to provide long-term facilities for receiving, regasifying and storing the fuel to supply power generation plants during periods of peak electricity demand.

Last March, KNPC awarded global engineering and construction firm Foster Wheeler the pre-front-end engineering design and the front-end engineering design contract for the new onshore LNG import and regasification terminal. The new terminal will have a design send-out capacity of approximately 1.5 billion cubic feet per day of gas, with four 180,000-cubic-meter LNG storage tanks. The design will allow for expansion up to 3 bcf a day in capacity. KNPC plans to start commercial operation of the terminal in 2020.

### Qatari companies invest in new LNG import terminal in China

http://www.bloomberg.com/news/articles/2015-03-30/qatar-qatra-jv-to-build-1-000-filling-stations-in-china-ceo

(Bloomberg; March 30) - Two Qatari companies have agreed to pay about \$5 billion for a 49 percent stake in Shandong Dongming Petrochemical Group to help the Chinese business build a liquefied natural gas receiving terminal and expand into retail gasoline sales.

The investment by Hamad bin Suhaim Enterprises and Qatra for Investment and Development will pay for construction of an LNG import terminal with capacity of 3 million metric tons of LNG a year (an average of about 400 million cubic feet of gas per day), and an LNG storage facility, Ibrahim El-Tinay, Qatra's CEO, told reporters March 30 in the Qatari capital Doha. Shandong Dongming will also use the money to build 1,000 gasoline filling stations in six provinces south of Beijing, he said.

"We hired a financial adviser and expect to close the deal before the end of the year," El-Tinay said. Qatar, the world's biggest exporter of liquefied gas, has been expanding investments in China and Asia, where it already sells most of its oil and LNG. The emirate and its sovereign wealth fund, the Qatar Investment Authority, plan to invest as much as \$20 billion in Asia by 2020. China is the world's largest energy consumer.

### Sinopec, PetroChina push ahead with shale gas prospects

http://www.platts.com/latest-news/natural-gas/singapore/sinopec-petrochina-persevere-with-shale-gas-as-27259583

(Platts; March 30) - State-owned companies PetroChina and Sinopec are pushing ahead with efforts to commercialize shale gas projects in China, mainly because drilling

costs have fallen. Speaking last week at the company's annual results briefing, Sinopec Chairman Fu Chengyu said shale gas and unconventional gas will continue to provide growth for the company, despite a 12 percent cut in its capital budget to \$22 billion.

Sinopec's main focus is on its Fuling shale gas project in southwestern Chongqing municipality. The company said it has made progress in the first phase, with production capacity of about 500 million cubic feet per day (about 3 percent of the country's daily gas consumption). Sinopec has said Fuling's production could double by 2017.

"The Fuling shale gas project can give good returns. Our investment will not stop," Fu said, adding that costs have fallen to about \$13 million per well. He said costs continue to fall due to efficiency and technological advances, and because infrastructure costs such as roads has been sunk and subsequent wells will have lower costs. PetroChina echoed similar sentiments Mach 26. "With advances in technologies, single well costs still have room to fall and production can still rise," President Wang Dongjin said.

### Local customers could pay the price for Australian LNG exports

http://uk.reuters.com/article/2015/03/30/column-russell-natgas-australia-idUKL3N0WW19H20150330

(Reuters' columnist; March 30) - It's somewhat ironic that as Australia ramps up to being the world's biggest exporter of liquefied natural gas, domestic industries are under threat from not being able to buy enough of the fuel. A combination of new LNG plants, exploration moratoriums and a successful anti-gas campaign means that industry and residential users in the three most populous states, New South Wales, Victoria and Queensland, may struggle for natural gas supplies within the next two years.

The first of three coal-seam gas LNG plants started up in December and the others are due to start producing later this year. There are four more plants under construction in the north and west of Australia, but these regions aren't linked by pipeline to the eastern seaboard, where more than 80 percent of Australians reside. Up to now the domestic market in eastern Australia has been characterized by long-term, fixed-price contracts, which has helped underpin industrial users such as glass and paper manufacturers.

The problem for domestic users is that many of the long-term contracts are expiring in the next few years and suppliers appear unwilling to enter new long-term, affordable contracts. It's now clear that domestic prices will inevitably rise to meet LNG prices. The other problem is the lack of new supplies, partly because of onshore exploration and production moratoriums in New South Wales, Victoria and Tasmania put in place by politicians nervous over campaigns against coal-seam gas and hydraulic fracturing.

### Eni running into delays with Mozambique gas development

### http://www.africaintelligence.com/AEM/oil/2015/03/31/doubts-grow-on-Ing-start-in-2019,108067767-ART

(Africa Intelligence; March 31) – Mozambique natural gas development by Italy's Eni is increasingly falling behind schedule, and problems with the government and Anadarko aren't helping matters. The final investment decision for development of offshore gas reserves and the country's first liquefied natural gas project has slipped to the third quarter of 2015, said Eni managing director Claudio Descalzi. The first effort, a floating LNG processor, is now officially planned for 2019 (but more likely 2020 or even later).

As for the larger Mamba field lying farther south offshore, the FID is now scheduled for the end of 2016, or nearly a year behind time. Mamba is due to supply two liquefaction trains with a capacity of 5 million tons each, much larger than the floating LNG project. Eni would develop that project jointly with Anadarko (operator on offshore Block 1). Gas liquefaction would start in 2021 at the earliest. Due to the high cost of its Mozambique projects, Eni is in talks to sell part of its 50 percent stake in offshore Block 4.

Eni's delays are not helped by the pace of decision-making by the new government, which came to office in January. And friction between Eni and Anadarko isn't helping, either. The U.S.-based producer lowered its profile in Mozambique because of its drop in earnings from falling oil prices. To cut back on costs, a drilling campaign that was to have run until September will end in May. Many of the expatriates who staffed the Mozambique offices that Anadarko opened less than two years ago are heading home.

## <u>Tanzania gas pipeline expected to start service in November</u> <a href="http://www.reuters.com/article/2015/03/31/tanzania-natgas-idUSL2N0WX12I20150331">http://www.reuters.com/article/2015/03/31/tanzania-natgas-idUSL2N0WX12I20150331</a>

(Reuters; March 31) - A pipeline connecting offshore natural gas fields to Tanzania's commercial capital Dar es Salaam is complete, but technical setbacks will keep it from going online until November, officials said March 31. Tanzania estimates it has at least 53 trillion cubic feet of recoverable gas reserves off its southern coastline. Discoveries offshore of Tanzania and Mozambique have led to predictions the region could become a major exporter of liquefied natural gas.

The 330-mile pipeline and gas processing plants, financed by a \$1.225 billion Chinese loan, were initially expected to be completed last year. "Construction of the pipeline is 100 percent complete," said Badra Masoud, spokeswoman for the energy and minerals ministry. "There is some additional work that remains to be done as a result of precommissioning inspection tests on the pipeline." Masoud said construction of two gas processing plants that are part of the pipeline's infrastructure was 96 percent complete.

The government hopes to save around \$1 billion a year in oil imports for electricity generation after completion of the pipeline by switching to gas-fired power plants. LNG exports are years away, dependent on investment decisions by project developers.

#### Statoil finds more gas offshore Tanzania

http://www.lngworldnews.com/statoil-hits-more-gas-off-tanzania/

(LNG World News; March 30) - Norway's Statoil said the Mdalasini-1 exploration well has resulted in a new natural gas discovery offshore Tanzania, increasing prospects of its Tanzania LNG project. The discovery of an additional 1 trillion to 1.8 trillion cubic feet of gas in place in the Mdalasini-1 well brings the total volume to approximately 22 tcf in Block 2, the company said in a statement. The Mdalasini-1 discovery is located in water 7,500 feet deep at the southernmost edge of the block.

Since the start of the program in February 2012, 13 wells have been drilled and eight discoveries made. "There will be a pause in the drilling to evaluate the next steps and to mature new prospects," said Nick Maden, senior vice president for Statoil's exploration activities in the Western Hemisphere.

Statoil operates the license on Block 2 on behalf of Tanzania Petroleum Development Corp. and has a 65 percent working interest. ExxonMobil holds the remaining 35 percent. Tanzania Petroleum has the right to a 10 percent working interest in case of a development phase. Tanzania and neighboring Mozambique both hope that prolific offshore gas discoveries in their waters will lead to development of LNG projects in their countries, creating jobs and boosting their economies.

### Aboriginal land treaties can take years in British Columbia

http://www.reuters.com/article/2015/03/31/canada-aboriginal-treaty-idUSL2N0WP1ZF20150331

(Reuters; March 31) - Aboriginal-owned land in a remote cove on Canada's Vancouver Island is being considered for a multibillion-dollar project to ship liquefied natural gas to Asia. The Huu-ay-aht First Nation, who own the land where the plant would be built, have partnered with Steelhead LNG on the proposal. Both parties say the alliance was facilitated by a so-called modern treaty reached in the past decade, which granted the Huu-ay-aht ownership over a swath of their traditional territory and jurisdictional powers.

"We wanted to open our doors to business," Huu-ay-aht councillor John Jack said of their 18-year effort to achieve treaty status. "We weren't really able to have those kinds of relationships before self-government." It is a sentiment shared by other aboriginal communities with modern treaties. Though rare, such deals provide a model for growth in poverty-hit communities and reducing conflicts over resource development.

Between 1701 and 1923, aboriginal people across much of Canada signed treaties giving up claim to their traditional lands. But in British Columbia, few signed on, leaving

vast areas subject to land claims. This has led to conflict when industry and aboriginals disagree over development. But conflict is less apparent in pockets of the province with modern-day treaties. In northern British Columbia, the Nisga'a Nation have signed a deal on a gas pipeline that will cross their treaty lands, giving them numerous benefits.

Negotiating a treaty can take decades; just nine of roughly 200 aboriginal groups in B.C. have fully ratified modern treaties. Others have preliminary or partial agreements.

#### LNG plant north of Vancouver runs into organized opposition

http://www.theglobeandmail.com/news/british-columbia/activists-rally-along-sea-to-sky-corridor-against-woodfibre-lng-proposal/article23699452/

(Globe and Mail; Canada; March 31) - Opposition has been growing along the Sea to Sky corridor just north of Vancouver, B.C., to a proposed liquefied natural gas plant and gas pipeline. Suddenly a project that looked like it might have smooth sailing is facing a rough time. Woodfibre LNG proposes to build a terminal on a former pulp mill site on Howe Sound. It would be fed by a FortisBC gas pipeline, expanded and slightly extended on an existing route.

Because the project would largely be built on land already disturbed by industrial development, it was generally expected that it would find quick approval and perhaps become the first LNG export project built in British Columbia. But numerous groups have sprung to life since the project was proposed last year including My Sea to Sky, which now boasts thousands of followers on its Facebook page, and a group of Squamish First Nation women, Skwomesh Action.

Melyssa Desilles, co-founder of My Sea to Sky, said her group sprang to life last year, growing from an e-mail thread that had about 20 followers to an organization that now has 5,000 names on its e-mail list. Desilles works for ForestEthics, an environmental organization involved in several campaigns in B.C. The B.C. Environmental Assessment Office recently closed the public comment periods for the LNG plant and pipeline. A quick scan of the submissions shows the vast majority are opposed to the development.

### Public comments close on LNG project north of Vancouver

http://www.squamishchief.com/news/local-news/more-than-2-000-people-comment-onlng-projects-1.1811347

(Squamish Chief; Squamish, BC; April 1) - The lights have been turned off at the open houses, keyboards have been worn out with online commenting and, after a March 29 protest, the signs have been packed away, for now. Plenty of Squamish, B.C., residents have had a lot to say about the proposed Woodfibre liquefied natural gas export plant

just north of Vancouver and FortisBC gas pipeline. B.C.'s Environmental Assessment Office received about 2,100 comments on the projects. Comments closed last week.

"I'm proud to say that our community engagement has led to meaningful change in our project, such as our decision to power our LNG plant with electricity, which will make ours one of the cleanest LNG facilities in the world," Byng Giraud, Woodfibre's vice president of corporate affairs, said in an email to The Squamish Chief. And because of concerns over noise and emissions, FortisBC changed from gas to electric drives to power the proposed compressor in Squamish, said spokesperson Trevor Boudreau.

The site of the proposed Squamish compressor station was also changed based on feedback received in early consultation with residents. "We found a location in the central part of the industrial area to address concerns from residents," Boudreau said. Woodfibre LNG is required to respond to public comments, and the company's responses will be posted on the environmental agency's website. A decision on the Woodfibre LNG project should be made by late summer, an agency official said.

# <u>LNG import-export project in Maine starts environmental review</u> <a href="http://bangordailynews.com/2015/03/29/energy/downeast-lng-to-file-environmental-reports-for-natural-gas-terminal/">http://bangordailynews.com/2015/03/29/energy/downeast-lng-to-file-environmental-reports-for-natural-gas-terminal/</a>

(Bangor Daily News; Maine; March 29) - Downeast LNG, which proposes a liquefied natural gas import-export terminal in Maine's Passamaquoddy Bay, expects to file draft environmental resource reports with federal regulators in the coming weeks. In 2005, the company proposed an LNG import terminal, but after going through a decade of reviews, filings, reports and hearings, Downeast LNG said last summer it would seek federal approval to build a \$2 billion facility that could both import and export LNG.

Robert Wyatt, environment and permits director for Downeast LNG, wrote in an email to the Bangor Daily News on March 27 that the addition of export capability to the terminal is not expected to pose any significant environmental impacts to the area. He said the firm expects to file environmental and engineering resources reports in April and May as part of the Federal Energy Regulatory Commission's pre-filing review.

Downeast LNG president Dean Girdis said increases in Marcellus Shale production means the terminal would be "well positioned" to export U.S. natural gas overseas. But the Canadian government and Passamaquoddy Tribe, each of which must support the project in order for it to receive U.S. Coast Guard approval, are opposed to LNG tankers in Passamaquoddy Bay. The bay is physically split between the U.S. and Canada, and is only accessible by tanker through Canadian territorial waters.

### Energy companies could be forced to pay for earthquake damages

### http://www.wsj.com/articles/frackings-new-legal-threat-earthquake-suits-1427736148?mod=WSJ hp LEFTWhatsNewsCollection

(Wall Street Journal; March 31) - After an earthquake toppled her chimney, sending rocks crashing through the roof and onto her legs, Sandra Ladra didn't blame an act of God. She sued two energy companies, alleging they triggered the 2011 quake by injecting drilling wastewater deep into the ground. Ladra's lawsuit, now before the Oklahoma Supreme Court, highlights an emerging liability: Can energy companies be forced to pay for damages if the tremors can be linked to oil-and-gas activity?

Oklahoma, with a history of mild-to-moderate seismic activity, experienced 585 quakes of 3.0 or greater magnitude last year — big enough to be felt indoors — according to the Oklahoma Geological Survey. That's more than the state had in the previous 30 years combined and the most of any state in the contiguous U.S. The prospect of facing juries over quake-related claims is reverberating throughout the energy industry, which fears lawsuits and tighter regulations could increase costs and stall drilling.

Most of the focus isn't on hydraulic fracturing. Instead, researchers say a more serious seismic risk comes from disposal of toxic fluids left over from fracking, putting it into wells deep underground. Geologists concluded decades ago that injecting fluid into a geologic fault can lubricate giant slabs of rock, causing them to slip. Scientists say disposal wells are sometimes bored into unmapped faults.

Some states are trying to address injection-well worries. Oklahoma will require drillers to prove they aren't injecting wastewater at a depth deemed at risk of triggering quakes — or halve their injection rate. Kansas has reduced maximum injection rates in areas with increased seismic activity. Arkansas and Ohio have marked certain areas off-limits.

## North Dakota requires processing to reduce volatile gases in crude <a href="http://www.reuters.com/article/2015/04/01/north-dakota-regulations-idUSL2N0WY0HN20150401">http://www.reuters.com/article/2015/04/01/north-dakota-regulations-idUSL2N0WY0HN20150401</a>

(Reuters; April 1) – Starting April 1, North Dakota will require the more than 1.2 million barrels of crude extracted each day from the state's Bakken Shale formation be processed to remove volatile gases linked to recent crude-by-rail disasters. The controversial step is designed to abrogate the damage North Dakota crude oil — 70 percent of which is transported via rail — can cause during derailments.

In the absence of concrete regulations from the U.S. Department of Transportation, North Dakota's new rules become the de facto national standard on the treatment of crude before tank-car loading. The new regulations require every barrel of North Dakota crude to be filtered for ethane, propane and other natural gas liquids, which are found naturally co-mingled with oil.

North Dakota crude contains a far-higher percentage of those gases than, for instance, crude extracted in Texas or Alaska, and that added volatility fueled a deadly derailment in Quebec in late 2013, as well as a string of successive disasters. The goal would be to produce a barrel of Bakken crude with pressure of no more than 13.7 pounds per square inch, similar to 13.5 psi for most automobile gasoline.