# Oil and Gas News Briefs Compiled by Larry Persily December 1, 2016

#### Australia coal-seam gas LNG projects may need to scale back output

(Australian Financial Review; Nov. 29) - All three of Queensland's liquefied natural gas plants could end up running at less than full capacity as they struggle to make a profit at currently low LNG prices, according to global energy consultancy Wood Mackenzie. The firm is warning that as the Australia ventures extend their drilling to lower-quality coalseam gas acreage, many wells will not be economic unless LNG prices recover. Up to a quarter of the projects' total output risks becoming unprofitable, Wood Mackenzie said.

While Santos has said it would not run its \$18.5 (U.S.) billion Gladstone LNG venture at full production given the cost of buying additional gas, Origin Energy's Australia Pacific LNG plant and Shell's Queensland Curtis facility could end up in the same position should LNG prices remain depressed, said Wood Mackenzie analyst Saul Kavonic. "We think that with time it's going to impact all three," he said of the new plants. "They're just not delivering the way they were expected when they took sanction" in 2010 and 2011.

The three Queensland projects differ from the conventional LNG projects on Australia's northwest coast as they require ongoing drilling of coal-seam wells to maintain gas production. But with Asian LNG spot prices in a slump that is expected to last several years, making that extra investment may not be worthwhile, especially as drilling extends beyond the "sweet spots" that hold the richest resources. "What's new about this is ... it's always been once they are up and built and most of the capex is sunk, you try and squeeze out every drop that you can," Kavonic said.

Other analysts have also pointed to the possibility the Queensland LNG projects will export less than envisaged. Credit Suisse's Mark Samter recently said that at lower oil prices that scenario was "possibly the most financially rational outcome for all parties."

# OPEC move could boost oil drilling but hurt U.S. natural gas prices

(Bloomberg; Nov, 30) - OPEC's decision to shrink oil production is both a blessing and a curse for natural gas markets. U.S. oil explorers have more incentive to drill with oil futures surging on the promised cuts by the Organization of Petroleum Exporting Countries. And with every barrel of oil they pull out of the ground, they'll inevitably pull out gas, threatening to add to a U.S. supply glut and weakening prices. It's bad news for the U.S. gas bulls enjoying a rally that has propelled prices to the highest in two years.

"These guys will drill more, and you are going to get that extra gas at an inconvenient time," said Jason Schenker, president of Prestige Economics in Austin, Texas. While the potential flood of so-called associated gas threatens to derail the rally in U.S. gas prices, it also stands to be a boon for the liquefied natural gas market. A large share of LNG contracts are linked to oil prices. A drop in U.S. gas prices will allow the nation's LNG exporters to offer supplies to the world at a deeper discount to rising oil prices.

"Any increased oil production in the U.S. could limit further gains in natural gas prices, as it would likely increase oil-associated natural gas production, which accounts for about 20 percent of domestic supply," Michael Roomberg, who helps manage \$7.5 billion at Miller Howard Investments in Woodstock, N.Y., said by e-mail Nov. 30. U.S. natural gas futures traded at \$3.346 per million Btu on Nov. 30, almost double the spotmarket price of just eight months ago.

### Australia to review resources tax amid criticism of LNG industry

(The Guardian; Nov. 30) - The government of Australia Prime Minister Malcolm Turnbull has announced a review of the country's petroleum resource rent tax regime, following a rapid decline in revenues from the tax. It follows months of disquiet about the effectiveness of the tax and warnings from the Tax Justice Network that Australia is failing to collect adequate revenue from the explosion in liquefied natural gas exports.

Australia's Treasurer Scott Morrison said Nov. 30 that revenues from the resource tax had fallen by half since 2012-13, to about \$800 million (Australian) last year. The review should be ready in time for next year's budget. There have been no changes to the tax since 2012. "It is actually not primarily about revenue. It is important these companies pay their fair share," Morrison said. A letter by 21 union and left-leaning organizations in September called for a parliamentary inquiry into the tax, voicing "major concerns" of low tax revenues as Australia is set to become the world's largest exporter of LNG.

The tax is one of several paid by the industry. The resource tax, based on profits, allows companies to write off exploration and capital costs against revenues. The LNG industry's total carry-forward expenditure has risen past \$180 billion. "Oil and gas companies are set to export \$40 billion of LNG in 2019, yet the federal government revenue from the resource tax could disappear altogether because of the massive \$180 billion in deductions," said Paddy Crumlin, president of the International Transport Workers' Federation and a Tax Justice Network member. "That's simply unacceptable."

An industry group said the debate was "grossly misleading" because the levy was always intended as a super-profits tax. "When projects are not profitable — usually because prices are depressed or upfront costs have been recovered — the commonwealth still applies a 30 percent company tax to revenue," said Malcolm Roberts, CEO of the Australian Petroleum Production & Exploration Association.

### LNG producers may want higher prices to remove resale restrictions

(Bloomberg; Nov. 29) - The world's biggest liquefied natural gas sellers have a warning for Japan: Flexibility could cost you. Shell and BP say if Japan moves to ease contract restrictions that prevent the country's importers from reselling their LNG purchases, they may have to pay a higher price in return. While some analysts say removing destination clauses could trigger a bout of reselling and push down LNG for as long as five years, suppliers warn that their prices will rise in return for the increased freedom.

"Buyers can prioritize getting the lowest price or getting the most flexibility, whichever is most important for them," Steve Hill, a vice president for gas and energy marketing and trading at Shell, said in a Nov. 24 interview in Tokyo. "You have to be a very good buyer to get the cheapest price and most flexibility, because flexibility isn't free." Japan, the world's biggest LNG buyer, is looking to loosen destination restrictions as it is at risk of being oversupplied by 2020. An estimated 80 percent of long-term contracts between major Japanese and South Korean buyers and suppliers include limits on resales.

Destination clauses are "clearly detrimental to the development of a functioning, fully flexible LNG market," according to the International Energy Agency. Still, with Northeast Asian spot LNG prices down 63 percent since February 2014, the sellers' threats to raise prices lack bite. Customers have the upper hand because of the supply glut, and already are seeing the benefits of cheaper prices and flexibility, Mikiko Tate, a senior analyst at Sumitomo Corp. Global Research, said by phone.

# LNG buyers turning to 'short-termism'

(LNG Industry columnist; Nov. 26) – "Short-termism" is growing in the liquefied natural gas market, which is increasingly characterized by greater spot-market trade, shorter-term supply contracts and buyers diversifying their portfolios to capitalize on the current market oversupply. The trend is driving LNG buyers and sellers to consider how their capabilities need to evolve to compete successfully in such a market.

Over the past few years, there has been a significant shift toward shorter-term contracts — the average length of a term contract signed in 2015 was just eight years, compared to 15 years in 2008. This trend is likely to continue, with global consultancy McKinsey's & Co.'s own survey of LNG buyers and experts suggesting that more than half expect their next LNG term contract will be a five- to nine-year deal.

The short-termism is also reflected in a reduced likelihood that buyers will renew their existing term contracts. In McKinsey's survey, two-thirds of buyers with existing contracts reported that the chances of renewing those contracts were either "somewhat unlikely" or just "possible." The most significant reason given was that the supplier was

not felt to be price competitive (38 out of a possible 100 points). Suppliers face competitive pressure in a market in which their traditional buyers are less likely to renew their long-term contracts and are more inclined to diversify their portfolio.

#### Many Japanese environmentalists prefer LNG to coal or nuclear

(Washington Post columnist; Nov. 27) - In Japan, even environmentalists like fracking. And many seem relieved to hear that a Donald Trump administration, which supports fracking, might encourage U.S. natural gas exports to places such as Japan. If people like Kimiko Harata of the Kiko Network, a prominent Japanese environmental organization, had their way, the country would ramp up renewables — but also burn a vast amount of gas in its power plants over the next two decades until renewables take over.

"The bridging energy source, I think, is gas," she said, revealing the sort of thinking U.S. environmentalists often condemn. Much or all of the fuel would come from outside Japan as liquefied natural gas. "Lowering the LNG cost is key," she said. "In order to transform the energy system, we need [gas]." Gas, though a fossil fuel, produces fewer planetwarming greenhouse-gas emissions when burned than coal, the fuel's direct competitor.

Burning gas instead of coal would be a relatively cheap strategy to reliably produce cleaner electricity in a way that easily integrates into the existing electricity system, buying some time for Japan to develop and deploy carbon-free energy sources. Renewables will not be able do so for a long time. A mountainous, land-poor country, Japan does not have much space for large wind or solar projects. Another reason Japanese environmentalists want to burn so much gas is that they also want to quickly eliminate nuclear power.

# Papua New Guinea LNG expansion decision may be delayed to 2019

(Australian Financial Review; Nov. 28) - Analysts have returned from an investor trip to Oil Search's operations in Papua New Guinea convinced that a long-awaited expansion of the country's liquefied natural gas facility, which opened in 2014, will be delayed by complications in the takeover of one of its partners and by the general election next year. Citigroup analyst Dale Koenders said he assumes the go-ahead for the expansion will be delayed by about 12 months to the end of 2019 in a best-case scenario.

Production from the expansion may start at the end of 2023, he told clients. RBC Capital Markets analyst Ben Wilson described talks on the LNG plant expansion as being on hold. ExxonMobil's takeover deal for InterOil, which owns a stake in the large and undeveloped Elk-Antelope field, had "stalled," Wilson said. Meanwhile, talks with the Papua New Guinea government on a project agreement for the LNG plant expansion would likely have to wait until after the elections next summer.

JPMorgan analyst Mark Busuttil also said the protracted Exxon-InterOil deal could delay progress on the expansion, with the partners likely to wait until the acquisition completes before committing capital. Oil Search had said it was targeting a final goahead on an expansion in the second half of 2018. The project would expand the existing Exxon-led LNG plant and develop the Elk-Antelope field. Oil Search has stakes in both the LNG plant and the gas field.

#### Ivory Coast plans to join list of LNG importers

(Reuters; Nov. 24) -The Ivory Coast's state oil company, French oil major Total and four other partners formally established a consortium Nov. 24 to build a liquefied natural gas import terminal to feed the country's growing electricity consumption. Demand for electricity is rising in West Africa's largest economy by some 10 percent a year, and the energy minister said last year that \$20 billion of investment would be needed in the industry over the next 15 years.

Under the LNG project agreement the new company, Cote d'Ivoire-GNL, is 34 percent owned by Total, while the State Oil Company of Azerbaijan holds 26 percent and Ivory's state oil company Petroci 16 percent. Shell, Houston-based Endeavor Energy and Golar LNG hold minority stakes. "Many electricity-producing projects (in the Ivory Coast) are awaiting a gas supply to really kick off," said Ibrahima Diaby, director general of Petroci.

The Ivory Coast has produced oil since 1980, while gas production came later. But its gas production cannot meet the country's growing demand. The LNG import venture aims to build and operate a floating receiving, storage and regasification unit with initial capacity of 100 million cubic feet a day that would gradually expand to 400 million cubic feet, Diaby said. The project is expected to take about 18 months to complete. Its cost has been reduced to \$100 million from an earlier estimate of \$200 million.

# FERC denies Sierra Club request to widen LNG environmental review

(Argus Media; Nov. 28) - The Federal Energy Regulatory Commission has denied the Sierra Club's request for a rehearing of the agency's April approval of the Magnolia LNG export project near Lake Charles, La. The Sierra Club requested a rehearing for the \$4.4 billion project, claiming the agency did not adequately examine indirect and cumulative effects from the natural gas development. In last week's denial, FERC said it is only required to examine impacts that would be reasonably caused by the project.

FERC has so far denied all such requests to include potential environmental impacts from gas production and consumption in its LNG project reviews. Last week's ruling will allow the Department of Energy to decide whether to grant Magnolia LNG a license to export to countries that do not have a free-trade agreement with the U.S. The

department can only rule on export licenses that have received FERC approval, after requests for rehearings have been denied.

The facility, as proposed by Australian firm Liquefied Natural Gas Ltd., would produce 8 million metric tons per year. The company had planned to make an investment decision this year, but in April said the timeline is unclear because of low oil and LNG prices.

### Sempra files with FERC for LNG export project in Texas

(LNG World News; Nov. 30) - San Diego-based Sempra Energy said it has applied to the Federal Energy Regulatory Commission for authority to build and operate a natural gas liquefaction plant and export terminal in Port Arthur, Texas. The facility would include two liquefaction trains capable of producing a combined 13.5 million metric tons per year of LNG, the company said. Sempra proposes a 2023 in-service date.

Before a final investment decision can be made, commercial agreements need to be signed, permits and approvals granted, financial commitments secured and several other conditions met, Sempra said in a prepared statement. The Port Arthur project is among several proposed U.S. LNG export facilities in various stages of planning, regulatory review and financial consideration by developers. In 2006, FERC approved the Port Arthur site for an LNG import and regasification terminal that was never built.

Sempra LNG & Midstream and Australian LNG player Woodside signed a project development agreement in February that provides a framework for the sharing costs related to the Port Arthur development, technical design, permitting and marketing. Sempra is already busy with construction of an LNG export terminal at Hackberry, La., at the site of an underutilized import and regasification facility. The \$10 billion project is scheduled to go online at full production in 2018 with three liquefaction trains.

# U.S. a net exporter of natural gas in November

(Wall Street Journal; Nov. 28) - The U.S. has become a net exporter of natural gas, further evidence of the how the domestic oil and gas boom is reshaping the global energy business. The U.S. exported an average of 7.4 billion cubic feet a day of gas in November, more than the 7 bcf a day it imported, according to S&P Global Platts, an energy data provider. It has been nearly 60 years since the U.S. last shipped out more gas than it brought in annually, according to the U.S. Energy Information Administration.

"It's indicative of things to come," said Sid Perkins, managing partner at the brokerage Ion Energy Group. Natural gas is "going to be taking on the characteristics of a global-macro market, like crude, where global factors will influence what happens to gas." A blast of cold weather could cause heating demand to rise and tip the U.S. back into

being a net importer, analysts said. Still, the rise in export sales is a welcome development for an industry that produced far more gas than the U.S. can consume.

Gas exports have risen more than 50 percent since 2010. The U.S. will export gas equal to as much as a fifth of its annual consumption by 2020, Citigroup estimates. The biggest buyers now are Mexico and Canada. A series of new pipelines running across the southern border helped shipments to Mexico reach an all-time high in August and accounted for almost 6 percent of total U.S. production, according to the EIA. Exports to Canada accounted for 2.5 percent. Meanwhile, LNG exports are growing from Cheniere Energy's Louisiana plant, with four more export terminals under construction in the U.S.

### Canada gives go-ahead for two oil sands pipelines

(Calgary Herald; Nov. 29) – Canadian Prime Minister Justin Trudeau has given the green light to two of three proposed oil pipelines out of Alberta. The decision is a monumental development in Alberta's multi-year quest to open new markets for its oil sands crude, although the two approved projects — especially Kinder Morgan's Trans Mountain expansion — still face major opposition and regulatory hurdles. Trudeau said the cabinet formally approved the Trans Mountain project, which could triple the flow of the existing line from the Edmonton area to Burnaby, B.C., next door to Vancouver.

The company plans to start work next year and put the new pipe into service in 2019. "It means that we can diversify our market, we can get our product to China and we can get more money for our product," said Alberta Premier Rachel Notley.

Trudeau also gave the go-ahead to Enbridge's \$7.5 (Canadian) billion Line 3 project to replace existing pipe running from Alberta into the U.S., doubling the capacity. Start-up is planned for 2019. Trudeau also said Nov. 29 that Enbridge's Northern Gateway project — long opposed by his party and environmentalists — had been rejected. He said the government is trying to strike a balance between economic and environmental concerns. The new pipeline would have run from Alberta to Kitimat, in northern B.C.

While the Alberta government has strongly backed Kinder Morgan's \$6.8 billion expansion of its 700-mile line, the project has faced fierce opposition in B.C. from environmentalists, First Nations and municipalities along the route that are concerned about potential spills and increased greenhouse-gas emissions. Environmental groups vowed to fight through legal means and civil disobedience, while Vancouver Mayor Gregor Robertson issued a statement saying he was "profoundly disappointed."

Companies interested in gas-to-liquids plants for northeastern B.C.

(Pipeline News North; Prince George; BC; Nov. 24) - Expander Energy and Global Renewable Energy are both thinking about facilities that would convert northeastern British Columbia's rich gas deposits into diesel fuel. "The reason we're intrigued with Northeast B.C. is the significant natural gas resource that's been developed over the past number of years," said James Ross, CEO of Calgary-based Expander Energy.

While shipping LNG to Asia remains a big opportunity for Canadian producers, Ross said, there are other uses for B.C. gas. "We see an alternate technology, which is converting natural gas into synthetic diesel or synthetic transportation fuel," he said. Ross recently traveled to Fort St. John, B.C., to meet with businesses and municipal officials, as well as to tour sites for a potential gas-to-liquids facility. The company would decide on a potential Northeast B.C. facility sometime next year, he said. Gas-to-liquids plants require a large capital investment and an affordable feed-gas supply.

Fort Nelson Mayor Bill Streeper, who is also president of Global Renewable Energy, said much of the diesel burned in Fort Nelson is processed down south. "The product from the Fort Nelson area goes down to the Lower Mainland and gets trucked back to Fort Nelson." The gas-to-liquids fuel would be marketed to the transportation industry, but could also be sold in northern communities that burn diesel to generate electricity.

#### India pushes to convert transportation sector to natural gas

(Bloomberg; Nov. 24) - Smothered by increasingly toxic air, India is moving to the forefront of a global push to use more cleaner-burning natural gas in vehicles. The country's state-run gas companies are charting ambitious plans to expand the use of natural gas to trucks and scooters, and to build fueling stations. The International Energy Agency forecasts that India is on course to be the biggest contributor to growth in the use of natural gas in vehicles after the U.S. and China through 2040.

About 70 percent of vehicles in India run on diesel, and the country is seeking to cut emissions and its fuel import bill by more than doubling natural gas use in its energy mix by 2021. Adding urgency to the fuel switch is the dubious distinction India's capital gained earlier this month as the world's most-polluted city. Still, progress toward widening the use of natural gas will be slow, given declining domestic production, a patchy pipeline network and limited regasification capacity for LNG imports.

"We just need the right policies to boost investment ... such as laying more pipelines and setting up refueling stations," said E.S. Ranganathan, a director at Indraprastha Gas, which has launched gas-fueled scooters in New Delhi. If the government pushes natural gas as a primary fuel for transportation, India's vehicular consumption could jump eight times to more than 2 billion cubic feet per day by 2030, said Virginia-based consultancy ICF International. Running a vehicle on natural gas is 60 percent cheaper than gasoline and 32 percent less than diesel at current prices, said Indraprastha Gas.

### Egypt contracts for 60 LNG cargoes at 12% to 15% of oil prices

(Reuters; Nov. 28) - Egypt will import about 60 cargoes of liquefied natural gas next year, and global trader Glencore will be the biggest supplier, sources with knowledge of the results of Egypt's mega tender for 2017 and 2018 said Nov. 28. Glencore bagged the right to supply about 25 of the LNG cargoes, while second-placed Trafigura is understood to have won the right to supply about 18 cargoes, the trading sources said.

Other successful bidders included traders BB Energy, Gunvor and Vitol, the sources added. LNG for delivery January through March 2017 is understood to have been priced at about 15 percent of the value of a barrel of crude oil, while the remaining cargoes for 2017 are likely to have been priced at a slope of 12 percent and below, the sources said. At \$50 oil, that would work out to about \$7.50 per million Btu for the LNG in the first three months of 2017, slightly above current Asian spot prices.

The lower price for cargoes to be delivered later in 2017 reflect the weaker demandsupply fundamentals expected in the LNG market, said a trader based in Singapore. Australia and the United States are due to ramp up production in the second half of next year. At \$50 oil, the 12 percent pricing slope would equate to \$6 LNG. Egypt has been forced to import LNG because its domestic production is not keeping up with demand.

### Global demand for gasoline may have peaked, IEA says

(Bloomberg; Nov. 23) - After fueling the 20th century automobile culture that reshaped cities and defined modern life, gasoline has had its day. The International Energy Agency forecasts global gasoline consumption has all but peaked as more efficient cars and the advent of electric vehicles will halt demand growth in the next 25 years. That shift will have profound consequences for the oil-refining industry because gasoline accounts for one in four barrels of refined product consumed worldwide.

"Electric cars are happening," said IEA executive director Fatih Birol, adding the number will rise from little more than one million last year to more than 150 million by 2040. The cresting of gasoline demand shows how rapidly the oil landscape is changing, casting a shadow over an industry that commonly forecasts decades of growth ahead. Shell, the world's second-biggest energy company by market value, shocked rivals this month when a senior executive said overall oil demand could peak in as little as five years.

The IEA doesn't share Shell's deep pessimism. While the agency anticipates a gasoline peak, it still forecasts overall oil demand growth for several decades because of higher consumption of diesel, fuel oil and jet fuel by the shipping, trucking, aviation and petrochemical industries. The biggest victim is likely to be refiners, which have spent

billions of dollars the past two decades to maximize gasoline output at the expense of other fuels.

### Australian audit alleges small underpayment of natural gas royalties

(Australian Business Review; Nov. 29) - Woodside Petroleum and its partners in Australia's North West Shelf liquefied natural gas project face the prospect of paying several million dollars in additional royalties as well as more scrutiny of their deductions after a review by the Australian National Audit Office. The investigation found the administration of government royalties — which were worth almost \$2 billion between July 2014 and December 2015 — was not "sufficiently efficient or effective."

The review also determined there were "significant shortcomings" in royalty calculations. It found that the royalty schedule, which governs the calculations, had not been kept up to date and did not allow for all of the deductions claimed by the North West Shelf partners. The audit said there had been limited scrutiny of the deductions. A Woodside spokeswoman said the maximum potential underpayment of royalties was about \$11.6 million (Australian), assuming all disputed deductions were found to be non-compliant.

Under the project's royalty regime, designed decades ago by the commonwealth and West Australia governments when the global LNG industry was in its infancy, the commonwealth takes one-third and the state two-thirds of the royalties. The facility went online in 1989 and has twice been expanded and now totals five liquefaction trains with an annual capacity of 16 million metric tons of LNG.