

Oil and Gas News Briefs

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Ichthys LNG partner expects further overruns on Australia project

(Reuters; Feb. 8) - The giant Ichthys liquefied natural gas project in Australia, the first to be led by a Japanese company, Inpex Corp., is likely to see further cost overruns and possible delays in production, its junior partner said Feb. 8. Costs for the project, which has already been hit with multiple delays, could reach \$40 billion, up from \$37 billion, Patrick Pouyanne, CEO of Total, told reporters at an earnings conference in Paris.

Inpex, Japan's biggest oil and gas explorer, said it is sticking with its schedule to start production by the end of March. Inpex sees cost overruns of up to a few percent on Ichthys, a senior executive told Reuters, describing any further expenses as "minimal." Ichthys has been plagued by delays and overruns and was originally slated to cost \$34 billion and start up in 2016. Other LNG projects in Australia have seen big cost jumps.

It is the first time a Japanese company has attempted to undertake such an ambitious project and it is considered to be a national priority for a country that imports most of its energy supplies. Japan is the world's biggest LNG importer. Inpex is the majority owner of the project, while Total has a 30 percent stake. At full operation, Ichthys is expected to produce 8.9 million tonnes of LNG a year, along with about 1.7 million tonnes of liquefied petroleum gas and about 100,000 barrels per day of condensate. Most of the project's buyers are Japanese utilities, some of which have minor stakes in Ichthys.

China's shale gas unable to rescue country from supply shortage

(South China Morning Post; Feb. 5) - China's gas production is rising at the fastest pace in four years, but that will not be enough to meet demand. Gas output in China in 2017 rose to a record 5.2 trillion cubic feet, up 8.5 percent from 2016, the National Bureau of Statistics said. Production is forecast to climb between 6 and 8 percent a year through 2020, according to researchers at China National Petroleum Corp.

China was the world's sixth-largest gas producer in 2016 after rising investments over the past 20 years. But it's not enough as China's war against smog has created strong demand for the fuel that will keep it reliant on growing imports of liquefied natural gas and piped gas. Consumption rose 15 percent in 2017 to 8.36 tcf, said the National Development and Reform Commission. Though China's gas output is expected to rise, demand will increase by even more, by 12.5 percent to 9.5 tcf a year. That means that China in 2018 will need to import as much as 4 tcf of gas through pipelines and as LNG.

Though China holds the world's largest shale gas reserves, much of it is considered recoverable only if cost were not a constraint. China's three biggest gas basins are beset with geological or technological difficulties. Problems at the Tarim basin, the biggest of the three, stem from the depth of the wells and a lack of water for drilling. Tarim's deepest field is 5 miles down. China's shale resources are hamstrung by mountainous geology, water scarcity, and high land costs. "Without government subsidy, our shale gas business is on the verge of loss-making," said a Sinopec vice president.

Mozambique gives OK to Anadarko to develop gas field

(Reuters; Feb. 7) - Anadarko has received government approval to develop a gas field off Mozambique that promises to generate much-needed revenue for the impoverished country. The Texas-based company plans to build a plant expected to cost about \$15 billion to produce liquefied natural gas by 2022 or 2023. Governmental approval means Anadarko can begin work on the Rovuma Basin Area 1 project, including installation of underwater wells, a pipeline to carry gas to shore, and a storage facility.

Anadarko said it expects to invest about \$150 million this year, primarily for its share of the costs to prepare the site for the LNG plant, which includes starting the resettlement process to clear the land. "Mozambique stands to amass \$30.7 billion through 2047 from taxes and profit-sharing generated from the exploitation of natural gas," said a spokeswoman for the country's Council of Ministers. Mozambique is desperate to plug gaps in government revenue after the International Monetary Fund canceled funding in 2016 citing concerns about how \$2 billion in loans was spent.

The gas is in the Rovuma Basin off the northern coast of Mozambique, where consortia led by Anadarko and Italy's Eni have been exploring. The basin holds about 180 trillion cubic feet of gas. Anadarko has said it will make a final investment decision for the plant after financing and LNG sales contracts are in place. The initial capacity would be 12 million tonnes per year. Separately, Eni and its partners have decided to proceed with a smaller floating LNG production facility in the same area. The \$7 billion offshore project, named Coral South, is scheduled to start up in 2022 at 3.4 million tonnes per year.

India says it needs to build 11 LNG import terminals in next 7 years

(Reuters; Feb. 7) - India's push to more than double the share natural gas has in its energy mix to 15 percent by 2022 will require a huge increase in imports and the construction of more LNG terminals, a government official said Feb. 7. India has four terminals to receive liquefied natural gas; the country imports about 20 million tonnes of

the fuel a year. But over the next seven years the government plans to build another 11 terminals, said Narendra Taneja, spokesman for the ruling Bharatiya Janata Party.

That would raise India's LNG import capacity to more than 70 million tonnes per year in what would be one of the fastest gas import expansions since China embarked on its huge gasification program last year. India would eventually require even more terminals to meet its demand, Taneja said, speaking at an industry conference in Indonesia.

India has stated it plans to raise the share of natural gas in its energy mix to 15 percent by 2022 from about 6.5 percent now. At 70 million tonnes a year, India would be close to what top importer Japan currently buys. India plans to electrify millions of households that still burn wood for light, heat and cooking. Like China, it also plans to reduce its reliance on coal, a bigger polluter than gas.

Dispute over steel import duties could delay LNG Canada decision

(Business in Vancouver; Feb. 4) – The Shell-led LNG Canada venture has short-listed two international consortiums for the design, procurement and construction of its proposed liquefied natural gas plant in Kitimat, B.C. But before Shell and its partners make a final investment decision — possibly in the second half of this year — it needs Canada's federal government to exempt the project from costly trade duties on prefabricated steel from China and elsewhere, or the project may be a no-go.

LNG Canada has short-listed two engineering and construction consortiums for the LNG plant — TechnipFMC-KBR and JGC-Fluor. The project would have a total cost of about \$40 billion, including the LNG plant, a new gas pipeline and development of upstream gas resources. The announcement came just days after B.C. Premier John Horgan returned from Asia, where he met with several of the companies in the LNG venture.

In 2016, LNG Canada delayed a final investment decision on the project, which had been expected that year, and its lead contractor canceled the bidding for prefabricated modules. The company asked fabrication yards in Asia to come up with lower prices, but any savings could now be lost to new 45 percent duties on prefabricated steel imports. The Canadian International Trade Tribunal in 2017 imposed the duties after Canadian manufacturers complained that China and South Korea were dumping cheap steel into Canada. LNG Canada has applied for a judicial review, but that is not likely to be heard until 2019 and would delay a final investment decision on the Kitimat project.

LNG developers look to smaller, modular projects to cut costs

(Reuters; Feb. 4) - The liquefied natural gas market is growing, but the terminals that produce and receive the fuel are shrinking. The sector's next-generation infrastructure

is being designed for emerging-market buyers that want smaller volumes on shorter, more flexible contracts. LNG export terminals, where the gas is liquefied and loaded into vessels for shipping, have traditionally been massive, custom-built facilities that cost tens of billions of dollars. To justify the investment, they have typically required equally massive, long-term supply deals, often lasting a decade or more.

The new modular designs are built to snap together like Legos, allowing for small to mid-scale liquefaction or regasification plants that can be expanded if needed. The first next-generation liquefaction plant, at \$2 billion, is under construction in Georgia and is expected to begin operating mid-year. The new designs reflect a changing market. In 2008, the average LNG supply contract was for 18 years and more than 2 million tonnes a year. By 2016 it had dropped to fewer than eight years and fewer than 1 million tonnes.

The new style of liquefaction projects will be built in Asia before being shipped to the U.S. for assembly. With modular units, companies hope to avoid the cost overruns and delays that have dogged mega-projects like Chevron's Wheatstone and Gorgon in Australia. While modular designs allow more flexibility, some experts question whether they will ultimately cost less to build and be as easy to expand as promised. "The issue that everybody is wrestling with is, does that really save you money?" said Jason Feer, head of business intelligence at shipbroker Poten and Partners.

Spot- and short-term LNG deals could grow to 50% of market by 2020

(Bloomberg; Feb. 4) - Buying dozens of full cargoes of liquefied natural gas is going out of fashion. Smaller buyers of gas, such as Sweden's state-owned utility Vattenfall, are in the market to buy portions of cargoes. They are seeking to benefit from the biggest expansion of LNG supply since 2010 by negotiating flexible, shorter deals linked to varied price benchmarks. That's accelerating a move away from the multiyear, oil-price-linked contracts that dominated the past six decades of LNG trading.

A 2015 estimate by U.S. LNG producer Cheniere Energy that spot and short-term LNG trading would almost double to 50 percent of total trade by 2020 may even be beaten, Guy Smith, director of gas trading and LNG at Vattenfall, said in an interview at the European Gas Conference 2018 in Vienna. The boom in contracts lasting less than three years is another sign that the market is evolving rapidly.

It would also probably spur the creation of short-term products as companies seek to make money from supplies now locked into multiyear contracts, Smith said. But not all agree the shift away from long-term contracts is guaranteed. Some financiers will favor those deals to guarantee loan repayments for multibillion-dollar LNG investments, and should gas prices jump, some buyers will revert to multiyear deals to fix lower rates, said Geoffroy Hureau, secretary-general of Paris-based research group Cedigaz.

Bangladesh moves to sign three more oil-linked LNG deals

(Platts; Feb. 7) - Bangladesh is planning to sign binding liquefied natural gas sales-and-purchase agreements with three suppliers for a combined 3.25 million tonnes per year, which would boost its total LNG import commitment in 2018 to 5.75 million tonnes a year. State-owned Petrobangla has stepped up negotiations in the past week, said company Chairman Abul Mansur Md Faizullah on Feb. 1, as the country is faced with a chronic gas deficit due to depleting domestic reserves and rapid industrialization.

Petrobangla signed a preliminary deal with Switzerland-based AOT Energy on Jan. 30 for 1.25 million tonnes of LNG a year over 15 years, with deliveries due to start later this year. The company also signed a preliminary deal with state-owned Oman Trading on Jan. 31 for 1 million tonnes of LNG, also starting this year. And Petrobangla has signed a letter of intent with Indonesia's oil and gas company Pertamina on Jan. 28 for 1 million tonnes a year over 10 years.

With these deals, Bangladesh's total contractual LNG volume from 2018 would amount to 5.75 million tonnes a year, including a deal with Qatari supplier RasGas for 2.5 million tonnes. The prices of the three preliminary deals have been negotiated at a three-month average of Brent crude oil prices. Similar to Pakistan, Bangladesh aims to change its electricity-generation feedstock landscape by replacing gasoil and fuel oil with less expensive regasified LNG to reduce the country's electricity bill.

China opens second Tianjin LNG import terminal near Beijing

(Xinhua news agency; Feb. 6) - Sinopec's LNG terminal in Tianjin has started accepting liquefied natural gas, a move expected to ease gas shortages in north China. Ding Yi, executive vice general manager of the Sinopec LNG terminal, said the first LNG cargo, which came from Australia, arrived at the port Feb. 6. The first phase of the terminal can handle 3 million tonnes of LNG per year, sending out about 140 billion cubic feet of gas, equaling the annual consumption of 10 million households, Ding said.

It is the second LNG import terminal in Tianjin; the other is operated by oil and gas giant China National Offshore Oil Corp. Tianjin is about 100 miles southeast of Beijing. The two receiving terminals can handle a combined 5.2 million tonnes of LNG per year. The north China region around Beijing faces a gas shortage this winter as more households and companies shift from coal to gas for winter heating to help lessen air pollution.

LNG traffic through Panama Canal continues to grow

(Reuters; Feb. 7) - The number of liquefied natural gas tankers traversing the Panama Canal is expected to jump 50 percent by September due to rising exports of the fuel

from the U.S. Gulf Coast, the head of the canal's governing agency told Reuters. After adding a third set of locks in 2016, the Panama Canal Authority expects that growing global demand for LNG will boost transit through the waterway, said Jorge Quijano, head of the authority. "We are about to reach one (LNG tanker) per day," he said.

The canal received 60 LNG tankers in the last quarter of 2017, up from 43 tankers in the same period a year earlier. The first U.S. Gulf Coast LNG export terminal started shipping cargoes in February 2017, adding traffic to the existing trade of Atlantic Basin producers sending their gas to Asian buyers. Houston-based Cheniere Energy owns and operates the Sabine Pass LNG export facility in Louisiana and is building a second LNG plant near Corpus Christi, Texas, that is expected to come online in December.

[Pipeline dispute leads Alberta premier to call for ban on B.C. wines](#)

(Calgary Herald columnist; Feb. 7) - Karen Collins didn't plan on instigating a full-fledged blockade of British Columbia wines destined for Alberta. The owner of the Astia Trattoria Italiana restaurant in Fort McMurray, Alberta, was fed up with the ongoing pipeline spat with British Columbia and wanted to take action. Her solution was simple: To support oil sands workers in her hometown, Collins was yanking all B.C. wines from her restaurant — it buys about \$2,500 a month — and called on others to do the same.

Collins got more than she bargained for. Alberta Premier Rachel Notley said Feb. 6 her province will ban the import of B.C. wines — \$70 million a year of sales into Alberta. "I didn't mean to be a trend setter. It was a little posting on my own Facebook page to my customers to let them know I was no longer going to sell B.C. wines. I felt it was important," Collins said. "It wasn't an attack on the B.C. wineries or the people who work in the vineyards. But they are attacking our economy and we are feeling the pain here."

The dispute between has ramped up in recent weeks over the Trans Mountain pipeline expansion. The \$7.4 billion project would triple the amount of oil shipped from Alberta to a B.C. coastal terminal for export. Notley said it could generate \$1.5 billion annually in benefits to the Alberta treasury. It would also improve oil prices for Alberta producers. Canada's National Energy Board approved the project in 2016. Yet Trans Mountain faces stiff opposition in B.C. and owner Kinder Morgan is a year behind schedule. The latest flashpoint came last week after the B.C. government said it would study proposed regulations to restrict oil volumes moving through the province by pipelines and rail.

Tribes ask Washington governor to halt LNG plant construction

(The News Tribune; Tacoma, WA; Feb. 2) - The Puyallup Tribe and leaders from 14 other Northwest Tribes called on Washington Gov. Jay Inslee to halt construction of Puget Sound Energy's liquefied natural gas plant on Tacoma's Tidelands until an environmental review is complete "and all permit requirements are satisfied." Last week, the multi-county Puget Sound Clean Air Agency called for additional environmental review of the plant before it can get its required air permit, a move the Puyallup Tribe and environmental groups heralded as a win in their fight against the \$310 million plant.

That review process (a supplemental environmental impact statement) is expected to take several months and will look at greenhouse-gas emissions that would be created through the entire lifecycle of the project. That's expected to include the emissions created upstream (gas production) and downstream (gas consumption) of the facility. "The decision reinforces what we have been saying all along — the process has been flawed since day one," Puyallup Tribal Chairman Bill Sterud said in a statement.

The facility would produce 250,000 gallons of LNG a day, taking its feed gas from a pipeline to the waterfront site. A storage tank would hold 8 million gallons of LNG. The liquefied gas would be sold to maritime customers, including shipping company TOTE Maritime, and to utilities as a back-up supply for high-demand days. Critics, including the Puyallup Tribe, say the plant would be dangerous and dirty, and have protested its construction on what was once tribal land. The plant is planned for completion in 2019.

Lack of pipeline capacity cuts into prices for Canada's oil and gas

(The Globe and Mail; Canada; Feb. 4) - Canada's oil producers can't catch a break. The parade of earnings begins in full this week amid a global recovery in energy prices that has largely missed Canada. Global oil prices jumped 25 percent in 2017 from a year earlier. But Canadian executives are likely to be consumed this week by concerns over pipeline delays and a sharp deterioration in prices for Alberta's oil and natural gas.

West Texas intermediate oil has climbed to around US\$65, supported by rising demand and production discipline by the world's top exporters. U.S. gas futures traded in New York have also strengthened. But the rally has largely bypassed Canada. Companies with production skewed toward gas have been especially pinched. In the quarter, Alberta wholesale prices for the fuel averaged \$1.72 per 1,000 cubic feet, down from \$3.11 a year ago. To cope even the most efficient producers have cut spending.

In Canada's oil sands, prices have turned sharply lower, with little relief seen. Prices have been under pressure from extended restrictions on pipelines out of the region. Western Canadian Select's discount against WTI on Feb. 2 surpassed US\$30 a barrel. The steep price gap comes as a series of oil sands expansions gear up and prospects

for export pipelines grow increasingly remote. "We expect this trend to continue ... as material oil sands supply growth and delays in the construction of major pipelines ... will likely continue," Chris Cox at Raymond James told clients.

Growing Appalachia, Texas gas production could squeeze prices

(Bloomberg; Feb. 5) - Gas producers who last week were basking in the strongest price environment in almost a quarter-century are getting crushed. A January rally in U.S. gas futures that was on course to be the best since 1994 fizzled in the final two days of the month as mild winter forecasts cast gloom on the demand outlook. More than \$7 billion in market value has been wiped out so far this year for the eight biggest gas producers that don't also pump significant amounts of oil, according to calculations by Bloomberg.

In a matter of months, swelling output from Pennsylvania gas wells is expected to crash head-on into a growing quantity from West Texas fields where it's a byproduct of oil production. Gas shipments to Mexico and overseas isn't growing fast enough to absorb burgeoning output from shale fields including the Marcellus, Eagle Ford, and Permian. Ground zero for the clash of competing supplies will be the Gulf Coast, home to the nation's first large-scale LNG export facility as well as pipelines that take gas to Mexico.

For years, drillers in Northeast shale plays were hemmed in and unable to fully access population centers and points of export due to insufficient pipeline capacity. Pipeline operators are furiously building new lines to connect the Marcellus shale in Appalachia to richer markets, but timing couldn't be worse: As soon as much of that gas reaches Louisiana and Texas, it will be competing with gas pumped from Texas and the fight for market share seems likely to squeeze prices. Appalachia drillers upped production to 26 billion cubic feet a day in November, while Texas production jumped to 23 bcf a day.

Chevron's Wheatstone LNG ships first cargo of valuable condensate

(Reuters; Feb. 5) - Chevron has sold the first condensate cargo to be exported from the Wheatstone LNG project in Australia to Thailand's PTT, three sources with knowledge of the matter said Feb. 5. The 650,000-barrel cargo will load in February and was likely done at a small discount to Brent crude oil, the sources said. At current prices, the cargo would be worth more than \$40 million. Chevron declined to comment and PTT does not typically discuss commercial matters.

Condensate production capacity of the Wheatstone and Lago fields, and nearby third-party fields, is 30,000 barrels per day, Chevron has said on its website. The condensate is an ultra-light oil that is often produced alongside natural gas. Several of the LNG projects in Australia are similarly liquids-rich, adding to their value. The \$34

billion Wheatstone project came online in October, a year behind schedule. Chevron said Feb. 2 the plant's second liquefaction unit should come online the second quarter this year.

Chevron reports healthy cash margins on Australia LNG projects

(The West Australian; Feb. 4) - The Gorgon and Wheatstone LNG projects are now enjoying hefty cash margins on their oil-linked gas prices, Chevron said, with production from the \$US88 billion in mega-projects expected to increase this year. New Chevron CEO Mike Wirth told Wall Street analysts Feb. 2 that the company's two Australian LNG projects were "becoming strong cash generators with cash margins of more than \$US30 per barrel at a \$US50 Brent price."

Last month, Gorgon produced an average of 459,000 barrels of oil equivalent a day and Wheatstone achieved 86,000 barrels of oil equivalent a day. Wirth said Gorgon's three gas liquefaction trains and the first of Wheatstone's two trains are running well. Gorgon has had numerous shutdowns since the \$US54 billion project first shipped LNG in March 2016. Wirth said planned shutdowns on Gorgon's trains one and three were completed last quarter to improve reliability and production.

It is understood that one issue the shutdowns addressed was overheating of the trains because of poor air circulation. Production from Gorgon's three trains was 24 percent higher than the average over the last quarter of 2017. Gorgon has a design capacity of 15.6 million tonnes a year of LNG. The \$US34 billion Wheatstone project has a design capacity of 8.9 million tonnes per year.

OPEC risks losing market share to U.S. shale production

(Reuters columnist; Feb. 7) - U.S. crude oil production is set to increase by more than 1.2 million barrels per day in 2018 compared with 2017, according to the latest forecast from the U.S. Energy Information Administration. U.S. output will average almost 10.6 million barrels per day this year. The forecast has been revised sharply higher from the agency's last predictions due to the rapid growth in U.S. onshore production.

If the forecasts prove correct, U.S. shale producers will capture all or most of the predicted growth in global oil consumption this year. Surging output from shale underscores the growing competitive threat to members of OPEC and its allies led by Russia. Efforts to restrain production by OPEC and its allies risk backfiring. The cooperating countries are already conceding market share to U.S. shale producers, in a re-run of the situation before oil prices slumped in 2014.

If OPEC's restraint succeeds in drawing down global inventories even further and pushes prices over \$70, the resulting shale surge will intensify the danger of losing market share. Though OPEC's strategy has worked to boost prices, it is starting to threaten its market share and could become counterproductive. OPEC and its allies need to start planning an exit from their production deal with the goal of capturing at least some market demand in 2018 and 2019 while preventing another price slump.

U.S. oil prices fall back as production continues to grow

(Bloomberg; Feb. 7) - Oil posted the biggest loss in two months as record production from U.S. fields reignited worries that supplies will swamp demand. West Texas Intermediate for March delivery dipped \$1.60 to settle at \$61.79 a barrel Feb. 7 on the New York Mercantile Exchange, the lowest level in four weeks. Crude output from American wells jumped to 10.25 million barrels a day last week. With production set to climb higher later this year, the OPEC-led alliance will come under renewed pressure to reconsider its self-imposed output caps aimed at eroding a global oversupply.

The U.S. Energy Information Administration's weekly tally of domestic output shows the country is probably already on par with Saudi Arabia, OPEC's biggest producer, and closing fast on Russia. U.S. production has jumped 78 percent in the past six years as drilling techniques perfected to release natural gas from shale were adopted by oil explorers. With oil trading above \$60 a barrel, drillers may be inclined to boost output.