# Oil and Gas News Briefs Compiled by Larry Persily November 3, 2016

#### Insufficient planning to blame for much of LNG cost overruns

(Financial Times; London; Oct. 31) - The total value of capital expenditure overruns in building Australia's liquefied natural gas industry over the past decade has risen to almost \$50 billion (Australian) after Chevron acknowledged a \$5 billion overrun at its Wheatstone LNG facility. The latest construction overruns come on top of a fall in global LNG prices, meaning that the profitability of Australia's LNG industry is being squeezed at a time when it is poised to overtake Qatar as the world's largest exporter this decade.

"The rampant cost inflation on Australian projects combined with the collapse in oil prices is damaging for a lot of these projects," said Neil Beveridge, an analyst at Sanford C. Bernstein & Co. "You need a triple-digit oil price to justify the economics of these projects and deliver a return on capital to shareholders," he said. Much of the LNG is sold under oil-price-indexed contracts. Japan's Inpex and ConocoPhillips are among other companies acknowledging LNG project overruns in recent years.

Dale Koenders, analyst at Citi, said each Australia project cost overrun has been due to project-specific issues but generally reflect insufficient planning. "There's also a growing level of complexity involved in LNG projects, which means that any delay, be it because of flare design at Pluto or labor productivity issues for Wheatstone module fabrication, can have bigger flow on impacts to project budget and schedule." Chevron and other operators say a profitable return on their investments is still possible as the life of the LNG plants are 30 years or more and most of the gas is sold under long-term contracts.

### Pakistan taking bids for 240 LNG cargoes; more expected

(Times of India; Nov. 2) - Pakistan LNG has launched a mid- and a long-term tender to buy a combined 240 cargoes of liquefied natural gas, the company said on its website, as the country emerges to become a major gas importer. Pakistan, which can only meet about two-thirds of its needs with domestic gas production, is expected to issue further tenders seeking twice as much LNG supply to fill out remaining capacity at its new import terminal in the commercial capital Karachi, said a Pakistani energy expert.

The mid-term tender covers a period of five years and calls for 60 shipments, while the long-term tender is for 15 years and 180 cargoes. Suppliers must submit bids by Dec. 20. Pakistan has ploughed billions of dollars into natural gas infrastructure, including construction of a second LNG import terminal and pipelines linking Karachi with Lahore in the Punjab region, the nation's industrial heartland.

The current crop of tenders is a small part of Pakistan's projected LNG demand as the country works to bring two more import terminals online within the next couple of years, making it a potent force in global gas markets. The country first began buying LNG last year and has already contracted supplies from trading firm Gunvor and from Qatargas, the world's biggest LNG producer.

#### Qatar Petroleum sets up joint venture to market non-Qatari LNG

(Gulf Times; Qatar; Oct. 31) – Qatar Petroleum has established Ocean LNG to market its future liquefied natural gas portfolio sourced outside of Qatar as part of QP's decision to strengthen its international presence. The move to establish Ocean LNG, a joint-venture of a Qatar Petroleum affiliate (70 percent) and an ExxonMobil affiliate (30 percent), was driven by QP's aspirations to invest in LNG projects outside Qatar.

"It is crucial for us to establish a global LNG marketing arm that will be instrumental in monetizing opportunities that Qatar Petroleum will be pursuing and capturing outside Qatar," QP CEO Saad Sherida al-Kaabi said. "We will pursue market development opportunities in emerging and new markets and will establish LNG's full potential, leveraging on our strengths and expertise and our understanding of the LNG market."

In addition to owning a stake in 14 liquefaction trains in Qatar, most of which include ExxonMobil as a partner, Qatar Petroleum is a partner with ExxonMobil in Golden Pass LNG, an import terminal in Texas that opened in 2010 but which is mostly unused. The partners are working toward adding liquefaction capabilities to the site, getting into the U.S. LNG export business. The Federal Energy Regulatory Commission issued the project's final environmental impact statement this past summer. Golden Pass is still waiting on full LNG export authority from the U.S. Department of Energy.

### BP still fighting to turn back LNG import capacity at Maryland terminal

(Natural Gas Intelligence Daily; Nov. 1) - BP Energy continued its long-running dispute with Dominion Cove Point LNG on Oct. 28 when it asked the Federal Energy Regulatory Commission to expedite action on a case recently remanded by the U.S. Court of Appeals. BP wants to turn back its contracted liquefied natural gas import, storage and regasification capacity at Dominion's Chesapeake Bay terminal as FERC previously allowed another import customer.

BP's filing comes as Dominion is constructing a \$3.8 billion LNG export plant on the same property as the underused import terminal. The company plans to start up the plant late next year. Just weeks after Dominion filed its application with FERC for the export project, its import terminal customers BP and Shell filed protests, citing concerns

that the addition of a liquefaction plant could degrade services to Dominion's import customers and that the company was giving preferential treatment to certain customers.

BP argued that Dominion allowed another import customer, Statoil, to turn back its import terminal capacity, while denying BP the same opportunity. BP asserted in court that it has to pay Dominion more than \$25 million a year for import capacity that it no longer wants. FERC denied BP's protest, finding that the company and Statoil were not similarly situated, and BP turned to the courts. The U.S. Court of Appeals for the District of Columbia said in July that BP's petition for review would be remanded to FERC "for further explanation," and issued a formal mandate of that decision last month.

#### KBR moves into FEED for small-scale LNG plant near Vancouver, B.C.

(Upstream; Oct. 24) – Houston-based global contractor KBR is moving forward with front-end engineering and design work for the Woodfibre liquefied natural gas project just north of Vancouver, B.C. The company said Oct. 31 it will proceed with the second phase of the contract it won earlier this year to perform multi-phased services for the LNG export facility, estimated at almost \$2 billion and with a planned capacity to make 2.1 million metric tons of LNG per year.

The company will provide FEED services, working toward a lump-sum turnkey price for an engineering, procurement and construction contract. The value of the multi-phased contract was not disclosed. The Woodfibre LNG export project, owned by Singapore-based Pacific Oil & Gas, received Canadian federal environmental approval in March. In addition to waiting on an investment decision by its owners, the project still needs permits and approvals from Fisheries and Oceans Canada and Transport Canada.

### FERC wants Texas LNG projects to address nearby rocket launch site

(Bloomberg; Oct. 28) - A U.S. agency is looking into the impact that a failed rocket launch at billionaire Elon Musk's SpaceX site in Texas may have on a trio of liquefied natural gas export terminals developers want to build nearby. The Federal Energy Regulatory Commission has asked the companies proposing to build LNG plants along the coast of Texas to hire experts that can weigh in on how a failed rocket launch at the Space Exploration Technologies site in Boca Chica Village could affect LNG operations and shipping. They have 90 days to respond, letters filed by the commission show.

The federal inquiry follows a Sept. 1 fireball that destroyed one of SpaceX's rockets on a launch pad in Cape Canaveral, Fla. The company is working to send rockets to space from the same area along the Texas coast that LNG shippers are hoping to use to send shale gas overseas. There are "possible siting concerns posed from potential failed

rocket launches," FERC said in letters to the developers this week. "We have determined that more information" is necessary.

#### Containerized LNG deliveries could serve small markets, report says

(LNG World Shipping; Oct. 28) - Remote areas of the United States without access to gas pipelines are turning to containerized deliveries of liquefied natural gas, though the volumes they need are small, according to a new report by the U.S. Energy Information Administration. Demand is expanding to move LNG to low-volume markets for marine fuel, power generation and to use in oil and gas production.

One solution to the growing demand for small-scale deliveries — especially to Hawaii and the Caribbean — is the use of insulated containers that can be transported by ship, with highway and maybe even rail transport an option in the continental U.S., the report said. Small-scale or portable regasification units would complete the delivery process.

NuBlu Energy has started to build the first of three liquefaction trains at a small-scale LNG plant along the Mississippi River at Port Allen in Louisiana to serve the domestic off-grid market. These smaller markets are off-limits to LNG tankers, which need deep water and extensive shore-based infrastructure. The easily moved insulated containers, often 40-foot-long tanks, offer the ideal solution, the report said. "The containers are capable of storing LNG ... for up to 75 days, providing enough time for the cargo to reach its destinations and to serve as a viable means of storage," the EIA said.

### Forbes columnist sees long-term demand growth for natural gas

(Forbes columnist; Oct. 31) - It is hard to overstate the impact of the U.S. shale gas revolution. In 2005, U.S. gas production had dropped below 50 billion cubic feet per day, and it was widely believed that the U.S. was set to become a growing importer of liquefied natural gas. Fast forward a decade, and gas production in the U.S. has surged by 50 percent, natural gas prices have fallen from \$13 per million Btu to \$3, and the U.S. has started to export some of the nation' surplus shale gas to overseas markets.

These developments weren't widely foreseen a decade ago, highlighting the difficulty of making long-range predictions. Nevertheless, long-range forecasting is critical, and there are a number of demand-side drivers that are likely to keep upward pressure on prices long term. Companies will have to aggressively expand U.S. production in order to keep up with growing demand, with four large drivers in particular: The growth of LNG exports, the Environmental Protection Agency's push to phase out coal, a renaissance of chemical manufacturing, and the growth of pipeline gas exports to Mexico.

Nearly 18 gigawatts of electric generating capacity retired in 2015, and more than 80 percent of that was coal-fired. The EPA's proposed Clean Power Plan will accelerate the phase-out of coal (should it prevail in court), and gas will be the primary beneficiary. In addition, new chemical manufacturing is expected to be a major demand driver. And Mexico continues to take more U.S. gas, growing to 2.9 bcf a day in 2015 — with no sign of slowing down. The factors point to strong demand growth in the years ahead.

#### State approves financial plan for LNG plant on Tacoma waterfront

(News Tribune; Tacoma, WA; Oct. 31) - Puget Sound Energy's quest to build a liquefied natural gas plant on the Tacoma, Wash., waterfront passed a major hurdle Oct. 31 when a state regulatory commission approved a financial agreement with the utility company. The agreement was reached in October after more than a year of negotiations over the business structure for the LNG plant. The company plans to break ground on the \$310 million plant "in the near future," said spokesman H. Grant Ringel.

Ringel said the project still needs building permits. The company wants to open the plant by 2019. Under the arrangement, the Macquarie Group — the multinational consortium that owns Puget Sound Energy — will create a subsidiary called Puget LNG to handle the new plant's commercial business. The utility and Puget LNG will jointly own and operate the tideflats plant. Utility and state officials said the deal will protect utility ratepayers from higher bills if Puget LNG loses money.

The plant is being built to make and store LNG for regional use during peak winter demand. The plant also will provide LNG for the marine industry, in particular to Totem Ocean Shipping Express which operates two ships in freight service to Alaska. The plant will be able to produce 250,000 gallons of LNG a day, with an 8-million-gallon storage tank. The plant is planned for a 30-acre site leased from the Port of Tacoma.

### Finland puts world's first LNG-powered icebreaker into service

(The Associated Press; Oct. 31) - Finland says it will start to operate the world's first icebreaker powered by liquefied natural gas on Nov. 1 as the number of LNG-fueled vessels is steadily increasing in the Nordic country that is surrounded by the Baltic Sea and is heavily reliant on maritime transport. State-owned operator Arctia said the 128 million euro (\$140 million) icebreaker, which also runs on low-sulfur diesel, has two large LNG tanks that allow it to run for 10 days in rough ice conditions without refueling.

Finland, which commissioned its first icebreaker in 1890, currently has a fleet of eight icebreakers, operating mostly in the northern part of the Baltic Sea and the Gulf of Finland. The newest ship, named Polaris, can break through ice almost 6 feet thick, moving at 3.5 knots. The 360-foot-long ship has a top speed of 17 knots. The European

Union assisted with funding construction of the ship. The vessel is equipped with three Azipod propulsion units that rotate 360 degrees for maneuverability.

### New England still at risk of winter-peak price spikes for natural gas

(Bloomberg; Nov. 1) - The global glut of natural gas still hasn't reached one corner of the U.S. The heating fuel may surge to \$20 to \$25 per million Btu in New England this winter, the highest in the world, as pipeline bottlenecks limit supplies during frigid weather, traders said — despite that prices have collapsed across the world amid tepid demand growth, rising exports and a plunge in crude oil prices earlier this year.

Competition for pipeline access into New England is poised to intensify as the electric power grid, already getting more than half of its supply from gas-fired plants, becomes even more reliant on the fuel as coal plants shut down. But opposition from environmental and consumer groups threatens to delay and derail new pipelines. "New England remains pipeline constrained, so if bouts of very cold weather move in this winter, you could certainly see prices spike," said Alex Tertzakian with Energy Aspects in London. "This would likely make New England briefly the world's premium market."

Gas deliveries for January and February on Spectra Energy's Algonquin line to Boston and other New England cities were priced at more than \$7.60 per million Btu on Nov. 1, nearly triple the spot-market price of a day earlier. "There is going to be a lot of volatility and it's going to be driven by the weather," said John Borruso, ConEdison Energy's manager of natural gas trading. New England will also need to keep importing liquefied natural gas this winter to meet demand. About three to four tankers per month are expected to dock at Engie's LNG terminal near Boston.

### Jordanians protest 15-year deal to buy natural gas from Israel

(Bloomberg; Oct. 26) - For one hour every Sunday, Alaa Wishah and his family sit at home in the dark. The pharmacist in Jordan's capital of Amman isn't trying to save money. The family is joining the protest against a \$10 billion natural gas import deal with Israel that has revived old animosities in this part of the world. "Even if the alternatives are harder and more expensive, we don't want to get gas from the Zionist entity," said Wishah, 40. "It's not theirs; it belongs to the Palestinians."

The weekly demonstrations in homes and on the streets of Amman are relatively low-key and unlikely to lead to a cancelation of the deal that would provide Jordan with gas for 15 years. What they highlight, though, is the resistance among some Arabs to turn closer economic ties from energy resources in the eastern Mediterranean into warmer relations with Israel. The contract is Israel's first from its giant offshore Leviathan field. Shipments to Jordan will start by 2019, through a pipeline due for completion this year.

Many countries put energy and food supplies over politics. The U.S. buys oil from Venezuela and Russia, while the Soviet Union bought American wheat during the Cold War. The contract signed on Sept. 26 allows Jordan to replace gas supplies from Egypt that became unreliable in recent years after a pipeline that connects the countries was sabotaged by Egyptian militants more than 25 times. Beneath the surface, though, suspicion and hostility remains, said Oded Eran, a former Israeli ambassador to Jordan.

### Alberta adopts lower initial royalty rate to allow for cost recovery

(Calgary Herald columnist; Oct. 31) - The provincial government's royalty changes next year "will make Alberta significantly more attractive for investment," said a laudatory new report from economist Jack Mintz at the University of Calgary's School of Public Policy. Mintz, a tax expert who has previously criticized the ruling party over some of its fiscal policies, said the changes will drop Alberta's marginal effective tax and royalty rate on conventional oil and gas below many of its key competitors.

When the new rules take effect Jan. 1, it will make Alberta more competitive than neighboring Saskatchewan and British Columbia, as well as U.S. states such as Colorado, North Dakota and Texas, he said. It's worth remembering the royalty review was a political creation, one of the cornerstone promises made by Alberta's New Democratic Party during its successful 2015 election campaign. After the election, Energy Minister Marg McCuaig-Boyd convened a review panel to examine royalties.

Acting on the report, the government left oil sands royalties intact, but revamped rates on conventional oil and gas production. New wells will pay a flat royalty of 5 percent until payout, and then face a higher rate once costs are recovered. The report said the combination will lower the marginal effective tax and royalty rate from about 35 percent today to 26.7 percent next year. That compares to 28.7 percent in B.C. and 32.6 percent in Saskatchewan. It's also lower than in Norway, but higher than in Australia, the United Kingdom, Pennsylvania, Nova Scotia, and Newfoundland and Labrador.

## Goldman Sachs says OPEC deal increasingly unlikely

(Bloomberg; Nov. 1) - An OPEC deal to cut oil output at a meeting this month is looking increasingly unlikely, with failure justifying prices in the low \$40s, said Goldman Sachs. "The lack of progress on implementing production quotas and the growing discord between OPEC producers suggests a declining probability of reaching a deal Nov. 30," Goldman analysts including Damien Courvalin wrote Oct. 31. Obstacles to a supply agreement are formidable, Greg Sharenow, a PIMCO portfolio manager, said Nov. 1.

OPEC is due to meet in Vienna to implement its first supply cuts in eight years and get other producers to join, notably Russia. Brent crude extended losses below \$50 a barrel Oct. 31 after weekend talks failed to yield details on an accord to reduce the global oil surplus and stabilize prices. "The lack of an agreement so far has pushed prices sharply lower, with weakening oil fundamentals warranting oil prices in the low \$40s a barrel in our view if OPEC is unable to deliver a convincing agreement," Goldman analysts said.

Even if the fear of slumping oil prices prompts the group to hammer out an accord, the probability of the deal successfully reducing inventories is low, Goldman Sachs said. Rising October OPEC production and a faster ramp-up of new non-OPEC projects have reduced the odds that an agreement would translate into a decent draw in inventories during the first half of 2017, it said. Regardless, OPEC will face formidable challenges in imposing a potential deal and monitoring producer discipline, PIMCO's Sharenow said. While the oil market has rebalanced, inventories remain elevated, he said.

### Shell suspects global oil demand could peak in 5 to 15 years

(Bloomberg; Nov. 2) - Shell, the world's second-biggest oil company by market value, thinks demand for oil could peak in as little as five years. "We've long been of the opinion that demand will peak before supply," Chief Financial Officer Simon Henry said on a conference call Nov. 1. "And that peak may be somewhere between 5 and 15 years hence, and it will be driven by efficiency and substitution, more than offsetting the new demand for transport." Shell is not alone in that opinion.

If renewable energy and other technologies such as electric cars continue their rapid advance, petroleum use will peak in 2030, the World Energy Council has forecast. Michael Liebreich, founder of Bloomberg New Energy Finance, predicts a peak in 2025 and decline in the 2030s. "For the first time, oil companies have to think seriously about the future," said Alastair Syme, an oil analyst at Citigroup in London. Drillers that even a couple of years ago believed "every molecule of oil we produce will have a market," have come to realize they "can afford to bring on only the most competitive assets."

And yet, Shell's outlook is at odds with some of its biggest competitors, which are still talking about decades of growth. ExxonMobil, the largest publicly traded oil company, said in its annual outlook that "global demand for oil and other liquids is projected to rise by about 20 percent from 2014 to 2040." Regardless, Shell will be in business for "many decades to come" because it is focusing more on natural gas and expanding its new-energy businesses including biofuels and hydrogen, Henry said. Natural gas made up about 48 percent of the company's total production in the third quarter ended Sept. 30.