

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **Japanese buyers still look to West Coast for LNG supply diversity**

(Environment & Energy News; April 27) - After years of work, the U.S. has four liquefied natural gas export projects under construction, several more facing final investment decisions in the coming months, and the first LNG cargo slated to ship from Cheniere Energy's Sabine Pass, La., terminal before year's end. But despite that real progress for the industry, there is growing concern that low oil prices, disappointing world economic growth and a global gas glut have hurt the economics of U.S. exports.

As Jim Jensen, an independent consultant who has tracked LNG for years, explained recently for the Washington-based Center for Strategic and International Studies' Gas Market Study Group, the U.S. LNG industry is threatened by low oil prices in two ways. First, the cut in the "Asia premium," the higher price that had been charged for LNG in Asia linked to oil prices. Jensen calculated the premium in 2013 amounted to almost \$7.90 per million Btu. Today's low oil prices mean the spread is gone, with LNG prices in Asia about the same as what it costs to buy U.S. gas, liquefy and ship it to Japan.

In addition, Jensen said low oil prices have cut into the profitability of U.S. shale gas plays where gas liquids are an important part of the cash flow because the prices for gas liquids are tied to crude. Since low domestic gas prices have generally pushed U.S. drillers toward these "wet" gas plays for the extra income, much of U.S. drilling is at risk.

Thankfully for LNG U.S. export hopefuls, Japanese buyers are looking at diversifying their energy portfolios. Diversification means the gas supply source, said Hidehiro Muramatsu, Washington office manager for Japan Oil, Gas and Metals National Corp. "The shrinking price differential makes some LNG projects on the West Coast less attractive than before. ... Some Japanese companies are, however, still looking for the possibility and opportunity to export LNG from the West Coast of the U.S. and Canada."

#### **Japan's industry ministry proposes 20% - 22% nuclear power by 2030**

(Reuters; April 28) - Japan should aim for nuclear energy to provide between 20 and 22 percent of the country's electricity mix by 2030, with renewable energy proving slightly more than that, the nation's industry ministry said April 28. The proposal is likely to be unpopular among a public that opinion polls show has consistently opposed atomic energy since the meltdowns at the Fukushima Daiichi plant north of Tokyo in 2011.

The proposal, however, would constitute a shift away from nuclear power, which supplied nearly 30 percent of Japan's electricity before the Fukushima crisis. All of Japan's reactors are currently closed pending safety checks by a new regulator set up after investigations highlighted lax regard for rules and cozy links between industry and regulators. The government proposes that renewables cover 22 to 24 percent of power generation by 2030, with liquefied natural gas at 27 percent and coal 26 percent.

Mutsuyoshi Nishimura, a former Japanese ambassador to U.N. climate-change negotiations, said the 20-22 percent level for nuclear power is unlikely to ever be met, given the lack of public support and court cases that have cast doubt on the future of some reactors. Many reactors will have to be retired because they will have reached the government's limit of 40 years before 2030, unless they get exemptions. "The maximum we would expect is 15 percent for nuclear in the energy mix in 2030," Nishimura said.

### **Freeport LNG completes financing to start construction on third train**

(Freeport LNG press release; April 28) - Freeport LNG Expansion announced April 28 that its subsidiary, FLNG Liquefaction 3, has successfully closed on senior and mezzanine debt financing commitments of approximately \$4.56 billion in capital required for construction of the third train at Freeport LNG's natural gas liquefaction and loading facility on Quintana Island near Freeport, Texas. The company did not disclose financing terms.

A syndicate of 27 banks is providing approximately \$3.64 billion in senior debt financing for the third train, and \$925 million in equity financing for the third train is being provided through mezzanine debt financing. The construction cost for the three-train project is expected to total \$12.5 billion, including owner's costs and interest during construction. A separate \$3 billion has been raised for refinancing and other costs associated with the existing LNG import facility, letters of credit facilities, and a special contingency fund.

With closing on financing, Freeport LNG has completed all milestones and issued a full notice to proceed to CB&I Inc., Zachry Industrial Inc. and Chiyoda International Corp. to construct the third train at the project, which is adding liquefaction and export capability to an existing LNG import terminal. Full three-train operation is expected by the third quarter of 2019. LNG production from the first train is expected in early 2018, with commercial operation to commence by the third quarter of 2018.

### **EIA says U.S. gas exports could reach as high as 10 tcf a year by 2040**

(Houston Chronicle; April 28) - The U.S. could export anywhere between 0.2 trillion cubic feet and 10.3 trillion cubic feet of natural gas as LNG annually by 2040 (as much

as 28 billion cubic feet a day), according to the latest government projection. Where along that spectrum the actual figure lands will be determined by global energy prices and the availability of U.S. natural gas, the Energy Information Administration said April 28, restating projections made in its Annual Energy Outlook for 2015.

The wide range and uncertainty hasn't stopped companies from proposing dozens of export facilities. While market watchers say it's unlikely all will be built, several are on track to begin shipping this decade. Regardless how many are built, the EIA said the U.S. will become a net exporter by 2017, including LNG exports and also pipeline gas to Mexico. Most of the growth will come before 2030, the agency said, as production gains in shale gas will allow the U.S. to meet its own growing domestic needs and then some.

The highest range of U.S. gas exports will happen if new technology and drilling continue to increase the amount of gas coming from U.S. shale. In that case, U.S. prices will remain much lower than global prices, encouraging both pipeline and LNG exports, the report said. The high end of this range would be about 10.3 trillion cubic feet for LNG exports per year and 2.9 trillion cubic feet for pipeline exports in 2040.

### [Oregon LNG loses appeal of county ruling against pipeline](#)

(The Daily Astorian; OR; April 29) - The Oregon Land Use Board of Appeals on April 29 upheld Clatsop County's decision to deny a permit for Oregon LNG's proposed natural gas pipeline, a potentially critical setback for the \$6 billion liquefied natural gas export terminal. The county Board of Commissioners voted unanimously in 2013 to reject the gas line. The 87-mile pipeline would run from Washington through portions of Columbia, Tillamook and Clatsop counties to connect to the LNG plant in Warrenton.

About 41 miles would cut through Clatsop County, making the county one of several local, state and federal authorities responsible for vetting the project. "Today's decision marks a significant turning point for LNG on the Columbia River," Brett VandenHeuvel, executive director of Columbia Riverkeeper, an environmental group that opposes the project, said in a statement. "The people of Clatsop County want clean water, safe communities and strong salmon runs. LNG ... would take us in the wrong direction."

Opponents of Oregon LNG believe the Land Use Board of Appeals ruling is significant because local land-use permits for the project are necessary for state approval. The Federal Energy Regulatory Commission is also reviewing the project. The LNG plant and pipeline proponent, a subsidiary of Leucadia National Corp., a New York-based holding company, could choose to challenge the Land Use Board of Appeals ruling before the Oregon Court of Appeals.

## [Indonesia looks to LNG imports to help meet growing demand for gas](#)

(Platts; April 29) - Indonesia's state-owned oil and gas entity Pertamina plans to seek 6.1 million metric tons of LNG per year (almost 300 billion cubic feet of natural gas) to meet the country's forecasted annual demand by 2019-2020, a senior official said April 28. The country expects it will meet most of its need with domestic gas production, mostly by pipeline or delivered as liquefied natural gas, but will turn to LNG imports if domestic gas falls short.

If domestic gas cannot cover Indonesia's growing demand, Pertamina will look to major companies such as Shell and BG, as they are seen as having good LNG portfolios, Arief Basuki, Pertamina's general manager for LNG trading, said on the sidelines of the Platts Indonesia Energy conference. Meanwhile, Pertamina is looking to domestic projects as much as possible. Pertamina plans for domestic gas demand to increase 4.8 percent per year over 2015-2025. Indonesia has been an LNG exporter since 1977.

In addition to possible LNG imports from African suppliers, Pertamina already has lined up 1.52 million tons per year of LNG from Cheniere Energy's proposed LNG plant at Corpus Christi, Texas, under two 20-year contracts. The first supply contract would start up in 2018, with the second in 2019. Cheniere could make a final investment decision on the Corpus Christi project this spring or summer.

## [Geologist questions B.C.'s gas resource for LNG plants](#)

(Terrace Standard; Terrace, BC; April 29) - David Hughes is on an eight-stop tour of northern British Columbia to share his doubts on the promise of a liquefied natural gas economic boom for the region. An independent consultant with 35 years experience at the Geological Survey of Canada, Hughes has been a consistent voice of caution during the province's gallop toward an LNG export industry. His latest study, "BC LNG Reality Check," will be published by the Canada Centre for Policy Alternatives in May.

Hughes believes the amount of gas available in major reserves in northeastern B.C. and the ability of companies to extract it is greatly overestimated by the B.C. government and by companies pitching their multibillion-dollar projects. Just feeding one or two LNG plants would require a dramatic drilling increase beyond the midrange expectations of the National Energy Board, he said. "If we commit to 20-year projects, and are required contractually to provide that gas, we're going to need to import a lot more gas."

The high-case scenario of five LNG plants in B.C. would require 43,000 new wells by 2040, according to his calculations. There are limits to how many drills will fit in these areas without affecting the recoverability of gas reserves, he said. Hughes said he is aware of the optimism in the Terrace area and through northwest B.C. for an economic

upsurge. “Prince Rupert is dying. Fishing is really down. Logging is really down. So people are really looking at LNG as wow, this could be really great.”

### **B.C. community says no to LNG plant unless conditions are met**

(Squamish Chief; Squamish, BC; April 29) - The final response of the municipal district of Squamish to the B.C. Environmental Assessment Office on the liquefied natural gas plant proposed for the community is basically: No, unless all of the district’s conditions are met. At a special meeting April 28, the council approved its 17-page response that outlines concerns over the proposed Woodfibre LNG export plant and related gas pipeline in the area just north of Vancouver, B.C.

The council voted 4-3 to include an amendment in its response to provincial officials — proposed by Mayor Patricia Heintzman — which strongly states the district’s lack of support for the projects. The amendment reads: “Due to the significant outstanding information and the community concerns that have not been adequately addressed, and there are no guarantees at this moment that they will be addressed adequately, the current application is not supportable.” Squamish has about 20,000 residents.

In support of the amendment, Councillor Karen Elliott said it was council’s responsibility to use the strongest language possible to express the community’s sentiment. “If we don’t fight for what is best for this community, who will?” The council’s response asks that project developer be required to provide more information on the plant’s cooling systems, and that the company minimize noise that may have an impact on marine life. The district also wants to lead a socio-economic impact study on the projects.

### **Maine senator asks energy secretary for help getting gas to Northeast**

(Natural Gas Intelligence Daily; April 29) - Skyrocketing wintertime Northeast gas prices are a pipeline problem and not due to a paucity of natural gas supply, a lawmaker from Maine told U.S. Energy Secretary Ernest Moniz. He added, though, that the potential for liquefaction and export of U.S. natural gas is a worry as it would take gas out of a market where it is needed. During a Senate Energy and Natural Resources Committee hearing April 28, Sen. Angus King of Maine asked Moniz to use his department to help coordinate federal and state efforts to expand gas pipelines throughout New England.

"This is an infrastructure problem and it's absolutely urgent for our region," King told Moniz. "We went into natural gas in a big way, as you know, starting in about the year 2000; now 50 to 60 percent of our electricity comes from natural gas. A lot of people, like myself, switched to natural gas to heat our homes and the winter before last we had the highest natural gas prices in the world. ... It's a pipeline problem, not a gas problem. ... It's a really urgent problem for the region."

There are pipeline projects in the works to help alleviate the gas-constrained Northeast market, Moniz said. However, King said he worries the gas could go to proposed LNG exporters, suggesting that the Energy Department require that gas be “divertible during times of peak demand” rather than feeding the export plants. King's call for pipeline infrastructure to serve the Northeast is contrary to what some in New England have been saying about pipelines: They don't want them for environmental and other reasons

## **India wants to cut back on expensive LNG imports from Qatar**

(Reuters; April 27) - India is in talks with Qatar to cut by at least 10 percent the volume of liquefied natural gas it will take under a long-term deal after a drop in spot-market prices has undercut the oil-linked price charged for the Qatari contract deliveries, reducing demand for the more expensive gas by local buyers, an Indian government source with knowledge of the negotiations said.

India would for the first time use the 10 percent reduction clause in its 25-year contract with Qatar's RasGas. The decade-old contract covers up to 7.5 million metric tons a year of LNG, which would average about 1 billion cubic feet of natural gas per day. "We want to lift as little volume as possible under the contract," the Indian source told Reuters. "But we are negotiating for cuts deeper than 10 percent. All LNG terminals are running at lower capacity as customers are not lifting volumes," the source said.

India's LNG import costs under the contract are currently around \$13 per million Btu, versus spot-market prices of \$7, according to R.K. Garg, head of finance at Petronet LNG. Pricing under the long-term contract is linked to the previous 12-month Japan Crude Cocktail of oil prices, including caps and floors based on average JCC prices of the past 60 months. While this formula reduces volatility, it does not quickly reflect market supply-and-demand conditions as much as spot-market sales.

## **Iran wants to expand gas sales, but no plans now for LNG**

(Wall Street Journal; April 27) - A diplomatic thaw between Iran and the West is raising the prospects of an eventual flood of Iranian oil into already-sated global markets, weighing on prices in recent weeks. But Iran's prodigious natural gas reserves may also, someday, start to reshape global energy markets, should Tehran reach a definitive deal with the U.S. and other Western powers which resulted in the easing of sanctions.

Iran holds the world's second-largest gas reserves, behind only Russia. It is the world's third biggest producer, behind Russia and the U.S. But Iran has been slow to develop infrastructure and has been hobbled for years by international sanctions. Its gas exports are still tiny — less than 1 billion cubic feet per day, 23rd in the world. Most of that gas goes to a single customer: Turkey. But Iran is already pushing to expand its

sales. Should it reach a deal with the West, it may find itself in a position to move ahead.

Iran has “plenty of potential to export gas,” said Azizollah Ramazani, chairman of the state-run National Iranian Gas Export Co. Iran’s government has said in recent days it is testing a 167-mile pipeline built to export gas to Iraq, with sales due to start in May. Iran is also in talks with Kuwait to take some Iranian gas via Iraq. But Iran’s ambitions face significant challenges. Unlike crude, which can be shipped easily by tanker, gas sales need heavy investment in pipelines and liquefied natural gas terminals. Amid sanctions, Iran has, at least for now, given up on ambitions of building LNG export facilities.

### **Report notes increasing use of floating LNG import terminals**

(U.S. Energy Information Administration; April 27) - Floating regasification — a flexible, cost-effective way to receive and process liquefied natural gas cargoes — is increasingly being used to meet gas demand in smaller markets, or as a temporary solution until onshore regasification facilities are built, according to an April 27 report by the U.S. Energy Information Administration. Of four countries planning to begin LNG imports in 2015, Pakistan, Jordan and Egypt have chosen to use floating regasification rather than building full-scale onshore facilities.

Floating regasification involves a specialized vessel called a floating storage and regasification unit, capable of transporting, storing and regasifying LNG onboard before feeding the gas into an onshore pipeline system. Floating regasification can work well for smaller or seasonal markets, and can also be redeployed as needed, the report said. There are currently 16 floating storage and regas vessels in the world that also transport LNG, and 5 permanently moored regas units converted from conventional LNG carriers.

Floating regasification capacity totaled 7.8 billion cubic feet per day at the end of 2014, representing 8 percent of the global installed regasification capacity. Floating regas/storage vessels have operated in 10 countries worldwide before this year’s pending addition of three more nations.

### **Production cutbacks help boost price for Canadian crude**

(Bloomberg; April 25) – The price for Western Canadian Select crude may strengthen further as drilling cutbacks free up pipeline space for oil sands producers. WCS’s discount to U.S.-benchmark West Texas Intermediate narrowed to \$11 a barrel last week, its strongest in 22 months, data compiled by Bloomberg show. The discount is poised to dip to under \$10 by summer with additional pipeline capacity and as U.S. refiners increase fuel production, said Carl Evans, a crude analyst at Genscape.

The plunge in global oil prices that started last June will slow Canada's overall crude output by next year, according to Canadian Energy Research Institute data. The slowdown in new drilling will come as conventional oil production from wells falls by 177,000 barrels a day by next year, leaving extra room in pipelines for oil sands crude to flow south.

WCS normally trades at a discount to WTI, representing the quality difference between the two crudes, said Dinara Millington, a vice president at the Canadian Energy Research Institute.

### **Orders plummet for rail oil-tank cars amid cutback in drilling**

(Wall Street Journal; April 24) - Declining output from shale oil fields has cut demand for key types of railroad cars, new data shows, the latest sign of the fallout from lower oil prices. Buyers ordered 4,470 new railway tank cars during the quarter ended March 31, down 6 percent from a year earlier and down about 70 percent from the 14,964 tank cars ordered during the fourth quarter of 2014, according to the Railway Supply Institute, a Washington-based trade group.

Tank car orders had surged along with output from shale oil fields, where drillers generally transport their production to refineries by rail. But with a global oil glut that has driven down prices by nearly 50 percent in the past year, output from North Dakota's Bakken Shale field dropped in both January and February. And the U.S. Energy Department has predicted the Bakken field as well as Eagle Ford, a shale-oil field in South Texas, will report production decreases for April and May.

Orders for covered "hopper" cars — used primarily to deliver fracking sand to drill sites — also plunged in the first quarter, to 131 cars, from 11,565 a year earlier and 8,627 cars during the fourth quarter 2014. Railcar manufacturers still have bulging backlogs of orders for hoppers and tank cars. The industrywide backlog of 52,381 tank cars is enough for at least 18 months of production based on last year's volume, while the backlog of 33,986 hopper-car orders equates to 2.5 times last year's output.

### **TransCanada applies for 200-mile cross-border oil pipeline**

(Wall Street Journal; April 24) – TransCanada, the Canadian energy giant behind the stalled Keystone XL pipeline, is asking the U.S. government to permit a new and different pipeline project. The Calgary-based company filed an application with the State Department April 22 to receive a presidential permit that would let it construct a 200-mile pipeline across the U.S.-Canadian border, according to a company spokesman. If approved, the new line could start service in 2020.

The \$600 million Upland Pipeline Project would transport up to 300,000 barrels a day of North Dakota crude to a connection in Saskatchewan. From there, approximately 70,000 barrels of that oil is expected to flow on TransCanada's planned Energy East pipeline, which aims to ship up to 1.1 million barrels of oil a day nearly 3,000 miles across Canada to refineries and ports along the country's East Coast. The rest of the capacity would feed other pipelines.

TransCanada's move this week indicates the company isn't backing down on its oil-shipping plans despite being embroiled in a cross-border political battle over its Keystone project for nearly seven years. The State Department, which has jurisdiction over cross-border pipeline construction, has been reviewing Keystone XL since September 2008. The department is in its final stage of review but has no deadline to make a final decision on the Alberta-to-Gulf Coast pipeline.