Oil and Gas News Briefs Compiled by Larry Persily September 6, 2016

Japanese bank will finance \$400 million of Russia's Yamal LNG

(Bloomberg; Sept. 1) - Novatek-led Yamal LNG, on a remote peninsula in the Russian Arctic, will get \$400 million in financing from the Japan Bank for International Cooperation, the bank's chief said. JBIC has almost finalized the agreement with the project and plans to sign a memorandum of understanding for strategic partnership with Novatek, which owns a 50.1 percent stake in Yamal LNG, bank CEO Tadashi Maeda said Sept. 2 in Vladivostok, in the Russian Far East.

France's Total and China National Petroleum Corp. each hold 20 percent stakes, and China's Silk Road Fund owns 9.9 percent. The Japanese bank loan follows \$12 billion in financing the project received earlier this year from the Export-Import Bank of China and the China Development Bank Corp. With the JBIC loan, as well as Russian funding, Yamal will have secured about \$18.9 billion in loans for the \$27 billion project.

Yamal LNG plans to start output from its first production train in late 2017, with two more liquefaction units in the construction plan.

Yamal LNG on track for late 2017 start-up, says Russian partner

(Reuters; Sept. 5) - Russia's Yamal LNG project is on track and on budget, with Novatek and its partners having invested \$18.5 billion so far, Novatek's CEO said. The first phase of the Arctic project, a single production train of the proposed three-train plant, in which Novatek is in partnership with France's Total and China National Petroleum Corp. and China's Silk Road Fund, is due to start operation late next year.

Investment in the Yamal project, which will require \$27 billion in total, was at risk after Novatek came under Western sanctions over Moscow's role in the Ukraine crisis, but the project has since secured funding from Chinese and Russian banks, as well from the Russian government. "To date, we have resolved all issues related to Yamal LNG's financing," Leonid Mikhelson, Novatek CEO and a major shareholder, told reporters in comments cleared for publication on Sept. 5.

In April, Yamal LNG signed loan deals with Chinese banks worth over \$12 billion. It also secured Russian state funds worth 150 billion roubles (\$2.3 billion) from a government rainy day fund and 3.6 billion euros (\$4 billion) from state-controlled Russian lenders Sberbank and Gazprombank. A Japanese bank this month is close to finishing the deal on \$400 million in financing.

Japanese-operated LNG plant in Australia nears end of construction

(Australian Broadcasting Corp.; Sept. 5) - A \$37(U.S.) billion liquefied natural gas project in Australia has reached its final construction phase and is scheduled to start processing LNG late next year. After four years of construction, three production modules arrived Sept. 5 from Thailand at the Inpex-led Ichthys project in Darwin Harbor. "That's the last of 230 modules. ... This is a really significant occasion," said Vince Kenny, the project's general manager of construction.

"It signifies the end of module delivery and also the final stages of construction and then commencement of testing, commissioning and start-up of our gas plant," he said. The project will take gas from a field off the coast of Western Australia and pipe it 560 miles underwater to a liquefaction plant in Darwin Harbor. Ichthys is one of six LNG projects to start up in Australia 2014-2017. "We're very close to peak [number of employees] with just over 8,000 people coming through the gate every day," Kenny said.

"We expect to hold peak for several months and then start on the ramp down as construction completes," Kenny said. Ichthys will be capable of producing 8.9 million metric tons of LNG per year. Its partners include Japan's Inpex as operator, and minority Japanese stakeholders Tokyo Gas, Osaka Gas, Kansai Electric Power, Jera and Toho Gas, along with France's Total and Taiwan's CPC Corp. The field holds 12 trillion cubic feet of gas and 500 million barrels of condensate, with condensate production expected to peak at 100,000 barrels a day.

ExxonMobil prepares for long-term LNG demand growth

(Bloomberg; Sept. 1) - When it comes to natural gas, ExxonMobil believes in playing the long game. As competitors continue to flood the world market with liquefied natural gas, depressing prices, Exxon is heeding the advice of forecasters scanning a quarter-century beyond the current glut. The company's view is that LNG demand will rise 1.6 percent a year through 2040, more than double the growth rate for crude oil.

With much of that growth set to come from the Asia-Pacific region, the world's biggest energy producer is working to bookend the area with resources, pursuing promising but as-yet untapped gas fields in Papua New Guinea and Mozambique that won't produce for years. "Exxon has a different strategy in that it's not looking to grow its gas business right now but is looking at what will happen in LNG 10 or 15 years from now," said Brian Hennessey, who manages \$1.3 billion at Alpine Woods Capital Investors, in New York.

The influx of LNG from projects first conceived a decade ago has swamped markets with excess supply, dropping global prices. In Japan, the world's biggest LNG market,

the price of cargoes from Qatar tumbled 70 percent in two years to \$4.93 per million Btu. But the glut may be short-lived as low prices spur new buyers to enter the market and the advent of low-cost import facilities enables poorer nations to receive cargoes.

"There are going to be periods of oversupply and periods of shortness, and we do expect that into the early part of the next decade that there will be some oversupply. But we keep focused on the long-term value proposition," Jeff Woodbury, an Exxon vice president, said in July. "Consensus is that the LNG market will be oversupplied for the next 5-plus years," Anish Kapadia, managing director at Tudor Pickering Holt & Co. in London, said Aug. 31. "However, there is the potential for the market to tighten around the end of the decade as we see downside risks to supply and upside risks to demand."

Gas industry execs set up online market for LNG spot sales

(Bloomberg; Sept. 1) - A group of liquefied natural gas industry executives is launching a digital platform that will allow LNG traders to buy and sell spot cargoes via online auctions. The Global LNG Exchange, or GLX, will begin testing its platform in October and plans to handle live deals starting in the first quarter, said CEO Damien Criddle. He hopes the site can replace the current system handled through e-mails, instant messages and phone calls, which dominate the current spot and short-term market.

The launch comes as spot LNG trading expands and new liquefaction plants increase global supplies and spur some traditional buyers to resell cargoes they don't need. Spot and short-term deals accounted for 28 percent of the global LNG trade last year, according to the International Group of LNG Importers, up from 16 percent a decade prior. "Right now you have to find information on the market through rumors and various angles," said Criddle, a former Shell attorney.

"When you see supply and demand on a screen, that will lead to price discovery, which will lead to a more transparent market, which will lead to more liquidity," he said. The platform will allow members to post offers to sell or requests to buy cargoes, and then let other participants anonymously bid on proposals. When the auction is finished, the winning bidder and the auction poster will be connected so long as the bid meets a reserve price, and the two parties will be able to close the deal. The platform has been funded so far by the management and private investors from Australia.

Indonesia could face gas deficit of 4 bcf a day by 2030

(The Jakarta Post; Sept. 1) - Indonesia is expected to suffer from a natural gas deficit in 2030 and become a net gas importer as domestic supplies fail to meet rising demand. By then, the nation's deficit is estimated to reach 4 billion cubic feet per day, according

to data from state-owned oil and gas company Pertamina. The highest demand for gas will come from Java and Sumatra on the back of growing industries in the region.

Most of the gas demand currently comes from state-owned electricity company PLN, but other non-PLN demands are expected to rise by 7 percent per annum from 2015 to 2025. The demands are driven primarily by fertilizers, refineries and mining, most of which are in eastern Indonesia. Indonesia is not the only country in the Southeast Asian region to experience a surge in gas demand. Pertamina director for gas and renewable energy Yenni Andayani said all of Southeast Asia would become net gas importers by 2030, resulting in import needs of more than 2 trillion cubic feet of gas per year.

Indonesia has two major LNG production facilities totaling 10 liquefaction trains, the first of which started up in 1977. Despite the country's gas reserves, a lack of pipelines prevents many areas of the islands nation from getting access to the gas, with increasing demands on LNG production for domestic deliveries in those regions in addition to fulfilling export contracts. Floating receiving, storage and regasification facilities are helping to meet that local demand.

Floating terminals are key to Pakistan's boost in LNG imports

(Wall Street Journal; Aug. 31) - Pakistan is taking on its energy shortage by dramatically ramping up imports of liquefied natural gas, while undertaking the long-term goal of new pipelines, refineries and storage facilities. Key to Pakistan's plan are floating terminals that will convert imported LNG into gas. Costing less than half an onshore terminal and faster to put into operation, the vessels anchor at ports, often on a long-term basis, and pipe gas into onshore grids, helping cash-strapped countries meet urgent energy needs.

The floating terminals have opened up new markets for LNG producers, which are under pressure from prices that have fallen in the past two years due to a wave of new supply. Pakistan started LNG imports in 2015 with petrochemical and energy company Engro leasing a floating import terminal. A second is planned for mid-2017 by a venture led by Pakistan GasPort. Up to five such terminals are needed, said Sheikh Imran ul Haque, CEO of the country's biggest energy importer, Pakistan State Oil.

Haque said Pakistan will be in the market in the next four months to buy about 4 million tons per year of LNG to supply its second import terminal. The LNG will most likely be purchased in a series of small tenders. The country of nearly 200 million people has long suffered from a lack of investment in its energy sector, causing hours of rolling supply cuts to homes and businesses daily. Pakistan produces 4 billion cubic feet of gas a day, meeting about half its needs, Haque said. Pakistan has no gas pipeline imports.

Israel says regulatory turmoil is over and it's time to look for gas

(Bloomberg; Aug. 31) - Israel's Energy Minister Yuval Steinitz is out to persuade big energy explorers put off by years of regulatory turmoil to search for natural gas off his country's shores. At a road show in London this week, Steinitz will sit down with executives from large and mid-sized energy companies to make his case that prospects for finding big reserves are good. "According to geological and seismological surveys, it is very probable that most of the natural gas is yet to be found," Steinitz said.

A report by French consultants Beicip-Franlab estimated that Israel's waters hold almost 78 trillion cubic feet of undiscovered gas, about 2½ times the amount in known fields, Steinitz said. In the past 12 months, Steinitz said, he's met with chairmen, executives and directors of most of the world's major gas companies to promote new exploration. Israel is actively seeking energy investors now that the last of the regulatory, legal and political challenges that held up gas development for years was swept away in mid-May.

New exploration licenses could be issued as soon as November. Companies shied away from Israel during the past four years of regulatory turmoil, which ended with higher taxes and forced divestitures for investors. Amos Hochstein, the U.S. State Department's envoy for global energy affairs, said explorers will need to be reassured that the Israeli government won't start changing regulation and tax laws. "We need some time to pass to restore confidence in contract sanctity and regulatory longevity in the system. There's been some damage done to its reputation but it's not irreparable."

Argentina overbought LNG; delays, diverts or cancels some cargoes

(Reuters; Sept. 1) - Argentina is diverting or cancelling incoming shipments of liquefied natural gas after mild late-winter temperatures curbed fuel demand and forced state-run buyer Enarsa to rework some deals. South America's biggest LNG importer launched back-to-back tenders in June and July after a cold start to winter, lining up dozens of cargoes at bargain prices as global output continued to outpace demand.

But a milder streak in August has undercut demand for heating fuel and left state-run LNG importer Enarsa juggling a supply overhang, the company and trading sources said. Enarsa said it had delayed three cargoes until next year because of one of the warmest Augusts in a decade. Stubbornly high stock levels at Argentina's two import terminals, Bahia Blanca and Escobar, also mean there is no storage for more imports.

Trade sources said at least four cargoes destined for Argentina have been canceled or rescheduled. Seven tankers are now crowded around the country's import terminals, ship-tracking data shows. The problem stretches beyond Argentina. "LNG imports into Latin America in the first half of the year are down by 3 million metric tons, or 28 percent lower than volumes received over the same period last year," LNG consultant Andy Flower said. In Mexico, cheaper U.S. pipeline gas imports have pushed out LNG, while Brazil cut imports by 60 percent as heavy rainfall replenished hydroelectric reserves.

Growing demand could end years of low U.S. natural gas prices

(Wall Street Journal; Sept. 2) - Too much of a good thing can be wonderful. Just ask ordinary American consumers and industries such as petrochemicals that have benefited from a multiyear glut in natural gas. Now, though, evidence is mounting that the bonanza is nearing its end. The question isn't merely if or even when the surfeit eases, but how sharp the impact might be on prices.

After so many years of low prices, the consequences of a sharp and lasting boost may be particularly jarring to business plans that assumed low prices ad infinitum. At face value, it doesn't seem to be too painful — yet. Futures prices around \$2.80 per million Btu are higher than the sub-\$2 level many predicted earlier this year, but that is seen as the temporary cost of a hot summer and air-conditioning demand. The amount of gas in U.S. underground storage last week still was an all-time seasonal high.

At the same time, onshore gas production fell in June for the fourth consecutive month, according to the U.S. Energy Information Administration. And the number of rotary rigs drilling for gas in North America touched an all-time low last week. Meanwhile, the low cost of gas has stoked demand for it as a power generation fuel. The EIA said in March that this year should see gas overtake coal for the first time ever. U.S. power producers consumed a seasonal record amount of gas in June, up 9 percent from a year earlier.

Gas consumption at U.S. power plants up 8% in first half of year

(Reuters column; Sept. 1) - U.S. power producers burned an unusually large amount of natural gas in June and their consumption will almost certainly hit an all-time record in July as a result of the heat wave that hit much of the country. Warmer than normal weather is maximizing electricity demand while cheap gas prices provide a strong incentive to meet that demand by running gas-fired rather than coal-fired plants.

Power producers burned 1.011 trillion cubic feet of gas in June 2016, a record for the month of June and an increase of 9 percent compared with the same month in 2015. Power producers' gas consumption during the whole of the first half of the year was almost 8 percent higher than in 2015. Gas-fired plants have seized market share from coal, which has fewer plants and less capacity than in 2015 and utilization rates have dropped. Total coal-fired generating capacity declined by 5 percent.

Gas-fired power plants have benefited from a sharp drop in their fuel costs in both absolute terms and relative to coal. Both gas and coal prices have dropped over the past year but gas prices have fallen more, which has shifted the generation mix. Gas

consumption is set to continue increasing sharply over the next 12 months unless fuel prices rise from their current level.

Oklahoma shuts down disposal wells while USGS investigates quake

(Wall Street Journal; Sept. 5) - The U.S. Geological Survey is examining whether the 5.6-magnitude earthquake that shook Oklahoma on Sept. 3 and tied for the strongest temblor ever recorded in the state was triggered by the underground disposal of wastewater from oil and gas production. The quake, which damaged some buildings but didn't cause serious injuries, spurred Oklahoma regulators within hours to demand that operators shut down 37 disposal wells in a 500-square-mile area.

The quake took place near Pawnee, Okla., a town of about 2,200 people 55 miles northwest of Tulsa, and was felt throughout the middle of the country, as far as Kansas City and Houston. "Without studying the specifics of the wastewater injection and oil and gas production in this area, the USGS cannot currently conclude whether or not this particular earthquake was caused by industrial-related, human activities," the USGS said. Government and academic researchers have found that injection of wastewater into deep disposal wells may help trigger movement along geologic fault lines.

The USGS will continue to process seismic data in the coming days and weeks "that will help answer this question," the statement said. Oklahoma has a history of seismic activity — it experienced a 5.5-magnitude temblor in 1952, for example. But the state has stepped up regulation of injection wells after seeing a dramatic increase in quakes over the past decade that experts at the USGS and in academia have tied to the practice of burying wastewater near faults underground. In 2015, the USGS recorded 2,500 quakes with a magnitude of 2.5 or higher in the state, up from just three in 2005.

IEA chief sees global oil market back to balance in 2017

(Reuters; Sept. 1) - The International Energy Agency expects oil markets to reach a balance between supply and demand in 2017 as the current oil glut slowly eases, IEA chief Fatih Birol said during meetings in South Korea. The head of the Paris-based agency also exchanged views with Energy Minister Joo Hyung-hwan on the direction of the world's energy markets in the wake of the renewed commitment to tackle climate change after last year's Paris climate talks, South Korea's Energy Ministry said Sept. 1.

The IEA forecast in its August report that oil markets will slowly tighten in the second half of 2016. "Oversupply of oil markets will gradually be eased and (oil markets) will find a balance between supply and demand in 2017," Birol said in the statement. Birol also said there is concern that a decline in upstream oil and gas investments because of the prolonged low oil prices could increase oil-price volatility.

Birol also said the start of the new climate regime after Paris would spur research and development investments on clean energy technology, with fast growth expected from the solar, wind power and electric car sectors. Birol added that solar energy costs have dropped by 80 percent over the past five years and wind power costs have declined 35 percent, which means more countries can afford the options. "Several years ago renewables were considered to be a romantic story but now it's becoming a business."

Alberta landowners have filed 1,500 claims for missed rent payments

(Calgary Herald; Sept. 1) - Alberta's oil and gas sector continues to show signs of weakness as landowners file hundreds of new complaints that resource companies have not paid the rent for their wells. The Alberta Surface Rights Board, the agency charged with recovering lapsed payments, said the 320 applications for compensation in the past month alone nearly matches what it normally receives in an entire year.

A sustained spike in unpaid rents in 2016 threatens to deepen the burden on taxpayers who will be on the hook for the bill. Already, taxpayers are under pressure from the oil-price rout as rural municipalities face millions in unpaid property taxes from resource companies. Rising numbers of farmers and ranchers have simply stopped receiving annual checks from companies compensating them for wells on their land. "It's pretty much a disaster," said Patricia Walker, president of My Landman Group, a company that helps landowners deal with industry. "There's just more and more of this going on."

So far this year, the Surface Rights Board has received 1,500 applications seeking payment, nearly double the record 760 requests it handled in all of 2015. Officials with the board believe they are on track to receive upwards of 2,500 applications totaling \$5 million or more by the end of the year. Once it approves applications, the board sends the bill over to the province to pay it, but the government often struggles to recoup the costs from industry. In 2015 alone, the Alberta government paid landowners \$1.7 million in overdue rents, but it recovered just \$121,500 in all of the past seven years.