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Oversupplied LNG market will persist into next decade, IEA says

(Financial Post; Canada; June 8) - Global natural gas prices will remain under pressure in the medium-term as tepid demand persists, leaving suppliers looking at new markets, according to the International Energy Agency. "Weak demand, low prices and a sharp cutback in investment weigh on growth," the Paris-based energy watchdog said in its latest five-year gas forecast, published June 8. The IEA expects gas demand to grow 1.5 percent a year until 2021, down from 2.2 percent annual growth the past five years.

"The IEA expects global gas markets to remain heavily oversupplied until 2018 and then to rebalance gradually, as the wave of new [LNG] capacity tails off, import infrastructure comes online and the full effect of low prices filters into consumption patterns." However, as the oversupplied market and low prices curtail investments in new projects, it could set up gas-supply risks over time, the agency said. "This could sow the seeds for much tighter markets into the next decade."

"The next five years will witness a reshaping of global gas trade," said IEA executive director Fatih Birol. Weakening demand in Japan and South Korea will result in major shifts in trade patterns as LNG suppliers look for buyers elsewhere, Birol said. Low prices have not revived growth in Asia and producers will have to look to other markets such as Europe, but weak demand growth and low coal prices will limit how much gas Europe can absorb. "Well-supplied markets help accelerate changes toward more flexible contractual structures. As spot prices remain under pressure, buyers will search for better pricing and non-pricing terms from sellers," the IEA report said.

LNG producers hear another warning about price-sensitive buyers

(The Australian; June 6) - Leading oil and gas executives at global advisory firm KPMG have come to Australia with dour messages for the nation's annual industry gettogether. From Japan, where KPMG's Asia-Pacific head of energy Mina Sekiguchi is based, the message is that LNG buyers from Asia to Europe are gathering together to put pressure on export prices. From across the Pacific, the head of American energy and resources, Regina Mayor, said there was little prospect of a serious rebound in oil prices, with thousands of shale wells ready to start production if prices rise any higher.

Sekiguchi said Asian countries were becoming sensitive about the price they pay for fuel and that many of Japan's LNG contracts had floor prices set at \$60 oil, meaning they are missing out on the full benefit of low oil prices. "LNG has to fight with coal in

some places in Asia," she said, adding that utility deregulation in Japan, the world's highest-priced electricity market and biggest LNG buyer, was putting price pressure on utilities. "A lot of Japanese utilities are trying to renegotiate contract terms," she said.

"I think we are at the beginning of a series of movements, with buyers becoming more like global suppliers by getting larger to increase bargaining power," Sekiguchi said. For Australian LNG producers, the goal should be to drive down costs ahead of the coming downward pressure on prices and to try open up new markets in smaller Asian nations. While forecasts for a doubling of global LNG demand between now and 2035 have been around for a while, they are by no means certain.

Producers advised to adapt to oversupplied LNG market

(Sydney Morning Herald; June 6) - Liquefied natural gas producers need to develop a new range of trading and risk management skills to navigate their way through the next several years of market oversupply, according to experts at professional services firms. One advisory firm, Deloitte, says producers will need to become adept at selling and trading LNG as the market shifts further toward spot and short-term trading and as a "tidal wave" of gas hits the global market, encouraging new buyers into the sector.

Alex Georgievski, a specialist in energy trading at Deloitte, said that as the needs and demands change of new and existing LNG customers, "it is imperative that Australian producers adapt to the new model of selling and trading on spot and short-term terms." Deloitte forecasts a major shift toward shorter-term trading in LNG, in a market that has traditionally been based on long-term supply deals, sometimes lasting 20 years or more.

Deloitte's Jamie Hamilton said spot and short-term LNG trading would increase during the next six years as much as it had in the past 14 years. With new projects starting up across Australia and the U.S., the sector will, on average, see a new production train come online every month for the next two years, sending the market into a long period of oversupply and lower prices. The shift has given more power to buyers that are demanding more flexible terms and conditions for delivery and pricing. Another advisory firm, Accenture, expects LNG will remain a buyer's market for the next five to 10 years.

Shell's shift away from new LNG investments could delay B.C. project

(The Canadian Press; June 7) - Shell says it's shifting away from growing its liquefied natural gas business, a move that raises fresh doubts about the future of its proposed LNG Canada project in Kitimat, B.C. The company said June 7 that its pace of new investment in LNG will slow as it moderates growth and prioritizes cash-flow generation and its returns on existing projects.

Shell said while its integrated gas business was previously a "growth priority," it has now reached a critical mass after completing the acquisition of gas giant BG Group in February. Oil and gas analyst Dirk Lever at Altacorp Capital in Calgary said the announcement doesn't mean an end to the company's LNG Canada project, which could cost up to \$40 billion to build, but it could further delay development. "They may just kick the can down the road, but it's not dead," Lever said.

In February, Shell postponed a final investment decision on the project until the end of the year, a timeline it maintained in its latest presentation June 7. A spokesman for Shell Canada said LNG Canada is an attractive project but it will have to compete against other projects in the company's global portfolio. The LNG Canada project would export up to 24 million metric tons of LNG per year. Shell owns a 50 percent stake in the project, with partners Korea Gas Corp., Mitsubishi Corp. and PetroChina Co.

LNG producers in Australia try to understand opposition

(Reuters column; June 6) - It should be a golden age for Australia's liquefied natural gas producers as they sit on the cusp of becoming the world's largest supplier of the fuel with the largest growth potential among fossil fuels. But instead of taking a moment to reflect on its success, industry leaders used their annual conference to lament and lambaste what they say are unfair attacks on LNG. In a change of tenor from previous conferences, the LNG industry knows its enemies but is uncertain how to tackle them.

Enemy No. 1 is the rising tide of environmental activism that is managing to sway public opinion against new gas exploration and production, and also influencing politicians who had previously been champions of the industry. Enemy No. 2 is coal, with LNG needing to make a stronger case in developing countries why it should be the fuel used to generate electricity, rather than coal, which is roughly twice as polluting and not that much cheaper since the falling crude oil price has dragged LNG down to record lows.

Identifying your enemies is one thing, knowing how to fight them is another. Andrew Smith, chairman of Shell Australia, told the Australian Petroleum Production and Exploration Association conference June 6 that the LNG industry is "the subject of an orchestrated, organized and well-funded campaign to hem in its further development." To many in the LNG sector, it's a struggle to understand why it has attracted the ire of environmental activists, given the industry's view that gas is a better alternative to coal.

Australia CEO blames industry for LNG costs and delays

(Sydney Morning Herald; June 7) - The natural gas industry has been "out to lunch," taking years to build LNG projects that ran well over budget and only has itself to blame for failing to capture a bigger share of the fossil fuel market, Woodside Petroleum CEO

Peter Coleman declared. Coleman pointed to the \$200 billion figure that is cited for investment in LNG over the past 10 years in Australia and said it was nothing to be proud of, representing a failure to deliver on what was promised.

"Whilst we may wax lyrical about the \$200 billion, it actually started as \$100 billion," he told an oil and gas industry conference in Brisbane on June 7. "We didn't deliver on our promise. We delivered a very expensive energy source." Coleman took the industry to task for losing discipline in investment, making projects too complex, and losing touch with gas markets. He said a total change in thinking is required. Woodside, based in Australia, has an interest in two LNG production plants and hopes for a third.

"We were taking years to build our projects and we became too expensive, we allowed the opposition, the competition to take our place," he said. "The fact that gas holds such a low percentage of fossil fuel usage today is our complacency; the fuel itself hasn't changed." Woodside is aiming to bring the capital cost for LNG plants down to \$500 per tonne, down from as high as \$2,400 two years ago, and wants to construct plants in half the time, Coleman said.

Japanese utility signs up for LNG from Louisiana plant

(Reuters; June 7) - Japanese utility Toho Gas has entered into a deal to buy three U.S. liquefied natural gas cargoes annually over a 19-year period from a subsidiary of Mitsubishi Corp., the utility said. The LNG will be sourced from the export plant under construction at Hackberry, La. The \$10 billion Cameron LNG project is owned by San Diego-based Sempra, along with France's Engie, Mitsui and Japan LNG Investment, which includes Mitsubishi and a Japanese shipping line as partners.

The price of shipments will be linked to U.S. natural gas prices, Toho Gas said in its prepared statement. Cameron LNG is expected to start up in 2018. Deliveries to Toho Gas are due to begin in 2019. The deal allows Toho Gas the flexibility to divert the LNG cargoes to import terminals in Japan not belonging to the utility or to customers outside Japan, but only if both parties agree to a diversion.

Cameron LNG will include three liquefaction trains, each capable of making 4.5 million metric tons of LNG per year. Cameron will operate under "tolling" agreements, where Engie, Mitsui and Mitsubishi have contracted to pay a fixed charge for a share of the liquefaction capacity at the plant, plus the cost of gas. The three will sell their share of the output, as Mitsubishi has done with Toho Gas. Sempra also will take some of the plant's capacity and market the LNG on its own.

Trinidad's LNG production down 18% due to gas supply shortage

(LNG World News; June 2) - Trinidad and Tobago's sole LNG-producing company, Atlantic LNG, said production at its Point Fortin facility is "suffering badly" from gas supply shortages in the country. The plant's capacity is 14.8 million metric tons per year. "The Atlantic plant is now at record low levels of utilization and we are failing to deliver on our LNG commitments," Atlantic's CEO Nigel Darlow said. "It is hurting Atlantic and it is hurting the global reputation of Trinidad as a reliable producer of LNG," Darlow said.

According to Trinidad's Ministry of Energy, LNG production in the first quarter of this year was down almost 18 percent compared to the same period a year ago. Its full-year production in 2015 was down 7 percent. The plant liquefies gas delivered from offshore fields, but the country's gas production has been in decline since 2010. The LNG facility is owned BP, Shell, the sovereign wealth fund China Investment Corp., and Trinidad's state-owned Natural Gas Co. The first of the facility's four trains opened in 1999.

Yokohama could get Japan's first LNG marine fueling terminal

(Nikkei Asian Review; June 7) - The Port of Yokohama could house Japan's first fueling station for ships using liquefied natural gas under a public-private investment aimed at meeting a growing interest in the clean fuel. A committee including officials from Japan's transport and economy ministries as well as representatives from Tokyo Gas and shipper Nippon Yusen will meet as soon as June 9 to look into building LNG fueling stations, using Yokohama as a model case.

Tokyo Gas already operates an LNG import terminal in Yokohama, while Nippon Yusen has introduced tugboats running on the fuel. The committee will examine costs, technological needs and market factors involved in the project, to produce an infrastructure development plan as soon as this year. Updating port facilities and purchasing fueling ships alone are seen costing almost \$100 million.

The higher cost of building vessels that burn LNG means that only some current container and cruise ships are capable of doing so. Yet the fuel yields environmental benefits compared with traditional heavy oil, releasing few sulfur oxides when burned. Emissions of those compounds already are heavily regulated off the shores of North America and northern Europe. The United Nations International Maritime Organization could tighten rules for other ocean territory as soon as 2020.

Shell selects Pennsylvania for multibillion-dollar petrochemicals plant

(Houston Chronicle; June 7) - Shell said June 7 it will build a multibillion-dollar petrochemical complex near Pittsburgh to make base chemicals and plastics from the natural gas produced within the Marcellus and Utica shale basins. The announcement comes as Shell is cutting costs and jobs during the oil downturn, which analysts said

puts some of Shell's other pending projects at risk, including the \$12.3 billion Lake Charles LNG export plant in Louisiana.

Shell can only afford so many mega-projects, said Tudor, Pickering, Holt & Co., a Houston-based investment banking firm. Shell specifically noted the Pittsburgh-area location for the new petrochemical plant benefits from "shorter and more dependable supply chains, compared to [gas] supply from the Gulf Coast." Shell CEO Ben van Beurden specifically cited chemicals as a growth area for the energy giant. The project, to be built at the site of a former zinc smelter, also will include a gas-fired power plant.

Construction will start late in 2017 on the ethylene cracker and polyethylene derivatives unit. Shell said commercial production would start "early in the next decade." Ethylene is the primary building block of most plastics, while polyethylene is the most common plastic — used for food packaging to auto components. The state is helping with tax credits for the project based on the volume of ethane purchased from Pennsylvania oil and gas operators, along with tax breaks for building in an economic opportunity zone.

Ghana looks to start LNG imports next year

(Reuters; June 6) - Ghana expects to start importing liquefied natural gas early next year, the acting chief executive of Ghana National Petroleum Corp. said June 6, adding that it was in discussion with a range of traders. Alex Mould said Ghana is in the market for between 250 million and 500 million cubic feet of gas per day to help generate power in the West African country of 26 million people. The LNG would supplement Ghana's own production and pipeline gas imports from Nigeria, displacing oil-fired generation.

"GNPC will be buying the LNG from traders, mostly on a short-term basis because there is an abundance of LNG. We are talking to Qatargas, BP, Shell, Woodside, the usual suspects, to enter into some sort of agreement with them," Mould said at an oil and gas conference in South Africa. Two import terminals are planned in Ghana. Norwegian shipping company Golar LNG has supplied a floating terminal to the Atlantic port of Tema, but sources said there are logistical issues causing uncertainty over its start-up.

"First gas imports are estimated at end of first quarter of next year," Mould said. The Ghana subsidiary of Quantum Pacific, the industrial investment group owned by Israeli billionaire Idan Ofer, also plans to install a second floating terminal at Tema. That terminal was initially due to arrive at the end of 2016, but now looks set to slip into 2017 or 2018, given it still has not secured access to a vessel, industry sources said.

Croatia may join list of nations to import LNG via floating terminal

(Natural Gas Europe; June 3) - Croatia "might" have a floating LNG import terminal at Krk by 2018 serving the wider region, Mladen Antunovic, managing director of state-run developer LNG Hrvatska said in Brussels last week. Critics, however, point to wrangles over transiting gas from Croatia to Hungary as a potential pitfall to the regional project.

The idea of an import terminal has been on the table for over 20 years, Antunovic said. But low LNG prices now have provided "a window of opportunity where the project will have to materialize," he told the LNG - Dream or Reality for the Danube Region seminar May 26. "We just need a couple of milestones in order to reach a final investment decision." He said LNG Hrvatska is looking to charter a ship to provide LNG receiving, storage and regasification services, following advice from the European Commission.

A floating import operation could start up in 2018. The company is looking to sign an initial five-year charter from a ship owner. Contacts have been made with ship owners already, Antunovic said. A tendering process is due later this year, with the hope that the final investment decision is taken early in 2017.

Israel approves offshore gas project, but no investment decision yet

(Reuters; June 2) - Israel's government on June 2 approved development of the controversial Leviathan offshore field that could give the country a second source of gas supply while potentially turning it into a gas exporter. Leviathan, one of the largest offshore discoveries of the past decade, was found off Israel's Mediterranean coast in 2010. It has an estimated 22 trillion cubic feet of gas and could start production in 2019.

Texas-based Noble Energy, which holds a 40 percent stake in Leviathan, said the field would initially start production at 1.2 billion cubic feet a day and expand to 2.1 bcf a day. Field development, however, would cost at least \$5 billion, and it was not yet clear how the project would be financed. "Strong momentum on the regulatory and marketing fronts represents major steps in advancing the Leviathan project toward a final investment decision," said J. Keith Elliot, a Noble senior vice president.

Last week, Israel's government approved a revised deal aimed at fast-tracking development of Leviathan, which has been mostly earmarked for exports by liquefied natural gas tankers or by subsea pipeline to neighboring countries. A separate offshore gas field, Tamar, has been in production since 2013.

Canada laments market share loss to U.S. oil and gas

(Financial Post; Canada; June 3) - Canada once fancied itself an emerging energy superpower. Instead, it has been outplayed by the U.S., its biggest customer, which has raced ahead to become its top oil and gas competitor. Canada had the promise of big

reserves, great technology, stable governments and smart regulation, but, as it turned out, the U.S. won by making its own luck: rejecting the Keystone XL pipeline to frustrate Canadian oil growth, fracking up a storm and building infrastructure faster. It also got plenty of help from Canadians blocking oil and gas infrastructure in their own country.

The result is that the U.S. has grown its oil and gas production — pushing its Canadian counterparts out of their own market — by flooding Eastern Canada with product and beating Canada in the race to export around the world. To add insult to energy, U.S. companies are buying Canadian oil for less because Canada has no other buyers. "We as Canadians have a propensity to shoot ourselves in the foot," said John Brussa, a board member of eight Canadian producers.

"The U.S. is a rejuvenated force in oil and gas production, one that poses huge risks to Alberta's market share," said a panel that reviewed Alberta royalty rates. "This is problematic, since we have long relied on the U.S. as our primary (and to some extent, only) customer, and we do not have sufficient means to move and sell our oil and gas to other countries." Sales of U.S. oil to Canada have soared tenfold to 422,000 barrels a day this decade. The U.S. is also selling 2 billion cubic feet of gas a day in eastern Canada. "We have been squeezed out of most U.S. markets and we are facing huge competition from U.S. (gas) in our traditional market in Eastern Canada," Brussa said.

Yergin says oil-price recovery has started

(Financial Post; Canada; June 5) - As crude posted its best day in more than 10 months, a leading U.S. energy economist declared the price recovery has begun. "I think we're in the beginning of a recovery and when we look out, we think over the next half decade, we think we'll see oil demand increase by 5 million to 6 million barrels per day," IHS Inc. vice chairman Daniel Yergin said June 6 at an event hosted by Canada 2020 in Ottawa.

The pronouncement is a welcome sign for energy producers in Canada and the United States, who have now weathered an almost 2-year-long rout in oil prices. "Price is really powerful, and what price has done is limited the amount of supply that's coming on and increased demand," Yergin said. He said future oil supply would rise to meet that higher demand, and the growth in supply would mainly come from the five largest suppliers in the Persian Gulf, but also from the United States and Canada.

The price for West Texas Intermediate jumped \$1.07 on June 6 to \$49.69, its highest since July 21 on the New York Mercantile Exchange. Yergin made his comments shortly after IHS released a report that said Canadian oil sands crude could eventually push more and more overseas oil out of refineries in Texas and Louisiana. North American oil production could be used to wean the U.S. and Canada off overseas oil shipments, said Calgary-based IHS Energy director Kevin Birn, one of the authors of the report.

Permian Basin, Oklahoma fields profitable even at low oil prices

(Wall Street Journal; June 5) - America's oil and gas producers are still finding places where they can prosper even at today's low prices. Companies are refocusing their drilling efforts on the Permian Basin in Texas and New Mexico and rushing into a part of Oklahoma known as the Stack where they can claim solid returns. While small in terms of overall production, the move is gathering steam, even as drilling in places like North Dakota and Pennsylvania remains sluggish.

Wells in the Permian and the Stack — which stands for Sooner Trend, Anadarko Basin, and Canadian and Kingfisher counties — are racking up between 10 percent and 30 percent returns based on oil at \$45 a barrel, operators say, with premium wells earning greater profit. In part, returns benefit from good access to pipelines, storage and other infrastructure. Drillers in both areas have been able to find energy stacked in layers underground. Some producers also are tapping holdings that were acquired long ago.

An area where production is still rising is the Permian Basin, which spans parts of West Texas and New Mexico. The Permian, a major producer for decades, has been reborn as the combination of horizontal drilling and hydraulic fracturing has helped companies tap oil trapped in dense rock formations. Operators there now pump more than 2 million barrels of oil a day, more than in any other U.S. drilling region. Chevron said it has identified some 4,000 wells in the Permian that can generate a 10 percent return at \$50 a barrel, as well costs in the area have fallen even as output increases.

Investors see low-price opportunities in North Dakota Bakken

(Wall Street Journal; June 7) - Investors hoping for a bargain are buying up oil and gas wells from cash-strapped operators in North Dakota's Bakken Shale, a bet they will eventually be able to profit off one of the country's hardest-hit plays. Hundreds of wells have changed hands or are in the process of being sold, state figures show, to a grab bag of fortune seekers ranging from industry experts to first-time wildcatters picking up properties as more established producers scale back or shed assets to pay creditors.

"In this slump there are definitely opportunities to acquire second-tier unconventional reservoirs," said Eddie Rhea, CEO of Foundation Energy Management, which operates more than 3,000 wells nationwide on behalf of endowments and pension funds. "We buy the 'strip mall,' pretty it up and sell it." In an oil field near Watford City, pump jacks stand idle on a cattle pasture surrounded by wheat fields. The wells haven't produced a drop in over a year and are among 2,005 idled in western North Dakota, the state said.

The new investors say they are waiting for prices to stabilize in the \$60-to-\$70 range before starting up the drill bits again. State regulators are watching the ownership shift

warily amid concerns that investors could leave oil fields in worse shape than they found them if prices drift lower. "It is a big concern," said Lynn Helms, director of the state Department of Mineral Resources, which runs background checks on the buyers. North Dakota drafted new rules in February that add new bonding requirements to prevent operators from skimping on maintenance or abandoning wells if their bets don't pay off.