

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **India negotiates lower price with Exxon for Australia LNG**

(Reuters; Sept. 10) - India has won a price cut on a 20-year liquefied natural gas deal with ExxonMobil in a rare contract renegotiation, a bad sign for producers in a heavily oversupplied global market. In a trade-off for ExxonMobil, India's Petronet LNG will increase its volumes from the Gorgon project in Australia by 1 million tonnes a year to about 2.5 million tonnes a year, but at cheaper rates than initially agreed in 2009.

Long-term contracts are rarely revised in the LNG market, and for a big producer to cave in shows how supply from new plants in Australia and the United States over the past two years has transformed the market, analysts said. "This trend is overall a negative for sellers, as they are forced to provide more flexibility to buyers' needs to maintain their markets," said Saul Kavonic, with consultancy Wood Mackenzie.

India has been aggressive in seeking cheaper deals, also renegotiating a contract with Qatar in 2015, but the real pain for producers would come if major Asian buyers in Japan, Korea, and China followed suit. "Happy to share good news that India has yet again been able to address the long-term price issue of LNG from Gorgon to suit Indian market," India's Oil Minister, Dharmendra Pradhan, said Sept. 9 on social media. If Exxon had not agreed to renegotiate, Petronet might have scrapped the agreement, leaving the major to pursue damages and resell the volumes on a weak spot market.

Exxon agreed to charge 13.9 percent of the Brent oil price at the port of delivery, rather than the original deal's 14.5 percent at the port of loading, a source said. At \$50 oil, for example, the LNG would have cost India \$7.25 per million Btu at the port of loading. Adding about \$1 in transport for the 4,000-mile voyage would make a delivered price of \$8.25 under the old contract. Under the new formula, Gorgon LNG delivered to India would cost \$6.95, slightly above current spot market. Exxon holds a 25 percent stake in Gorgon; Chevron leads the venture. Each partner markets its own share of output.

#### **Global LNG supply/demand rebalance may not occur until 2023-24**

(Platts; Sept. 7) - The global LNG market is not likely to rebalance before 2023 or even 2024 given the expected rise in supply outpacing demand growth, Paris-based Cedigaz said in a Sept. 7 update to its long-term market forecast. Cedigaz is a 56-year-old nonprofit that tracks the natural gas industry. It expects total LNG production capacity will increase by 60 percent to 387 million tonnes a year by 2021. "Demand will struggle to keep up with supply ramp-up and an oversupply situation should prevail," it said.

"Rebalancing of the market is not expected before 2023, or even 2024." Forecasts vary on when the LNG oversupply is expected to end with Cedigaz suggesting a longer period of oversupply than seen by other industry watchers. The International Energy Agency said in June that the LNG glut would persist through the end of 2022. Anadarko sees 2023 as the supply/demand inflection point, while Shell even questions the validity of an LNG glut at all, saying earlier this year that all produced cargoes are being sold.

Cedigaz said the significant increase in liquefaction capacity would be led by strong growth in Australia and the United States through 2021. After 2021, unless new projects are launched, Cedigaz expects a gradual decline in production capacity due to the aging of facilities and growing constraints on resources from long-time producers. "Cedigaz expects that the strongest increases in LNG capacity ... will originate from the U.S., Canada, Mozambique and Qatar." It also forecasts that traditional markets (Japan, South Korea and Taiwan) will remain stable, while emerging markets (such as China, India, Malaysia, Pakistan, Singapore and Thailand) are expected to grow significantly.

### **Report says 154 million tonnes added LNG capacity needed by 2035**

(Bloomberg; Sept. 7) - The global glut plaguing liquefied natural gas markets may start to dwindle in five years, threatening to spur a deficit. New projects are needed to fill the shortfall, with demand for the fuel forecast to double by 2035, Cedigaz, a Paris-based industry research group, said in its LNG Outlook. While liquefaction plants currently in operation or being built will add to global oversupply, aging facilities and shrinking resources in some areas mean capacity will start declining after 2021.

That's a boon for companies looking to invest in new production in the next decade to meet demand. "The continuous growth of the LNG market will leave a large margin for the implementation of new projects," Cedigaz said in the Sept. 7 report. The U.S. shale boom will make the country the biggest LNG producer by the end of the period, the report said, while the research group expects output will end in some nations — such as Trinidad and Tobago, which started up LNG exports in 1999 — as reserves decline.

By 2035, additional capacity needs are estimated at 154 million tonnes a year, according to the report. The outlook is based on stable production at Qatar, although the nation recently decided to boost output by 30 percent. A boost by Qatar "could change the game," Cedigaz said. LNG imports are expected to increase to 503 million tonnes by 2035, double the level of 2015, the report said. Asia will remain the biggest import region. New markets, such as Bangladesh, Indonesia, the Philippines and Vietnam, will buy almost 40 million tonnes in 2035, nearly as much as Europe in 2015.

## **Growth in LNG-importing countries could create tight supply**

(Nikkei Asian Review; Sept. 10) - As prices of liquefied natural gas fall, imports of the fuel are rising. And no region is thirstier than Asia, which accounts for 70 percent of global LNG demand. Yet even as the region reaps the benefits of the trend — supply stability, for one — there is concern that the supply-demand balance might tighten once again. Some refer to this fear as the "2023 problem," based on projections

In July, the Japan International Corporation Agency, the World Bank and others agreed to finance construction of an LNG import terminal in Bangladesh. Though the country is a gas producer, economic growth is projected to send its energy demand soaring. It plans to start importing the fuel in 2018. Fourteen Asian countries, including Malaysia and Singapore, began importing LNG in 2013 or after, according to Japan's Ministry of Economy, Trade and Industry. About 10 more plan to do so by 2020, including Vietnam.

For now, the combination of growing energy needs and low LNG prices makes imports a no-brainer. Japan in early 2014 was paying \$18 to \$19 per million Btu. Today it pays only \$5 to \$6. The price drop stems partly from oversupply — not only from traditional sources like Russia and Qatar but also places like the U.S., where shale gas production is picking up, and from Australia, where large gas fields have been developed and almost \$200 billion invested in LNG export projects.

## **Japan restarts 5 nuclear reactors; 21 applications pending**

(Forbes contributor; Sept. 8) - In the immediate aftermath of the 2011 earthquake and tsunami that crippled the Fukushima Dai-ichi nuclear plant, Japan idled all 54 of its nuclear plants. Now, though, five of them are back online, while many more may be on the way. Prime Minister Shinzo Abe, who is pro-business and who realizes that without carbon-free nuclear power the country won't meet its climate objectives, has said that reactors deemed safe by regulators would be restarted.

To that end, the Japanese media is reporting that the Tokyo Electric, which operated the Fukushima plant, is expected to get approval to rev up two units that resemble the design of the reactors that succumbed in March 2011. Meanwhile, another Japanese utility, Kansai Electric, recently started up two different reactors. While 43 other reactors remain offline, about 21 restart applications are pending with estimates of 12 units to come back in service by 2025 and 18 by 2030, Japan Forward reports.

Right now, nuclear energy is providing 1.7 percent of Japan's electricity, which is down from 30 percent before the 2011 accident. The Ministry of Economy, Trade and Industry has said that if the country is to meet its obligations under the Paris climate accord, then nuclear energy needs to make up between 20 to 22 percent of the nation's portfolio mix.

## Lower prices add to LNG's attraction as cleaner fuel

(Reuters' columnist; Sept. 7) - South Korea's planned pivot away from coal and nuclear toward liquefied natural gas and renewables appears to be another blow to the narrative that coal's best hope is growth in Asia. A draft policy paper released by South Korea's energy ministry on Sept. 6 outlined plans to boost the country's electricity generation by between 4.7 percent and 9.5 percent by 2030 using mainly LNG and renewables.

Coal currently makes up about 40 percent of South Korea's power generation and nuclear about 30 percent, meaning that a shift away from those two will require massive investment in gas-fired plants, as well as wind, solar and hydro. President Moon Jae-in wants renewables to generate some 20 percent of the nation's power by 2030, up from 5 percent now. The draft paper was light on details, but did include plans to close seven old coal-fired plants by 2022, and halt construction of new coal and nuclear plants.

Using LNG to make electricity costs about 40 percent more in South Korea than coal or nuclear, given that it faces import taxes that aren't levied on the other two. Removing the tariff on LNG would help make it more competitive with coal, but it appears that much of the move to cleaner power in South Korea is driven more by public concerns over pollution and safety, rather than cost. However, lower LNG prices are certainly helping boost use of the fuel and its appeal to politicians and the public across Asia.

## Energy industry hopes gas will save it from oil and coal decline

(Financial Times; London; Sept. 7) – The world's energy industry is betting that the clean characteristics of gas compared with oil and coal will allow it to keep growing as other fossil fuels decline. Companies that once treated gas as the poor relation to “black gold” are now gambling that the colorless commodity can help secure their future in a decarbonizing world. Of the 16 new BP projects due on stream between this year and 2021, 12 involve gas rather than oil. Similar shifts are under way across the industry.

Gas outweighs oil by a factor of 2-to-1 among pre-development resources awaiting investment decisions, said Wood Mackenzie, the energy consultancy. “In the past, when you struck gas rather than oil in this industry you were disappointed, but now we go looking for it,” said Claudio Descalzi, CEO of Eni, the Italian group due to bring the huge Zohr gas field off the coast of Egypt on stream by the end of this year.

“Renewables will dominate in the long run but during the transition, and maybe even at the end of it, there will need to be a stable source of electricity that can step in when wind and solar are not available,” said Maarten Wetselaar, head of gas at Shell. “I'm absolutely convinced that gas will provide that role.” Nowhere is more important to gas than Asia. China and India alone are expected to account for half of the 30 percent

jump in global energy demand forecast by BP through 2035. Coal still accounts for 60 percent of electrical power in China and India, but rising concern about smog — as well as both countries' pledges under the Paris climate accord — is creating an opening for gas.

### **Gazprom, Mitsui will work together on small, mid-sized LNG projects**

(UPI; Sept. 7) - Russian energy company Gazprom said it has signed preliminary agreements for small- and mid-sized liquefied natural gas projects in the Japanese market. Gazprom Chairman Alexei Miller met on the sidelines of a regional economic forum with Masami Iijima, the chairman of trading group Mitsui & Co., to sign a framework agreement on LNG.

"The document reflects the commitment of the parties to collaborate in producing, transporting and marketing small- and mid-scale LNG in Japan, as well as LNG bunkering in the Sea of Japan," Gazprom said in a statement. Bunkering is the ship-to-ship transfer of fuel. With international regulations calling for fewer emissions in the marine transport sector, LNG can serve a growing need. Gazprom and Mitsui are partners in the Sakhalin-2 LNG export project in Russia's Far East. The plant started operations in 2009. Gazprom leads the operating joint-venture.

### **Australia LNG project makes more gas available for domestic buyers**

(Platts; Sept. 7) - The Gladstone LNG project in Queensland, Australia, is redirecting almost 30 billion cubic feet of its export gas over the next two years to the domestic market, project leader Santos said Sept. 7, a few weeks ahead of a federal government decision on whether it is going to limit LNG exports next year. It is understood that the Gladstone partners, including Malaysia's Petronas, France's Total and Korea Gas, bought back the gas from an LNG customer to sell into the Australia market.

The gas will be supplied into the East Coast domestic market over 2018 and 2019 and sold to customers including power companies, Santos said. The government has until the end of October to decide whether there is sufficient gas supply to meet the needs of consumers next year and whether it will limit exports from LNG projects, such as Gladstone, which are drawing gas from the domestic market. Manufacturers and others have complained about tight supplies and high prices since LNG exports grew larger.

The domestic supply arrangement follows Santos' recent announcements on the delivery of more than 65 bcf of gas over four years into the southeastern Australian market through a swap agreement and the sale of up to 15 bcf to a power station in South Australia. But all that may not be enough to prevent the government from deciding it should limit gas exports to protect domestic gas buyers.

## **Total offers Indian LNG importer bargain rate on unused carrier**

(The Hindu Business Line; India; Sept. 6) - State-owned GAIL (India) is set to sign a ship-chartering deal this month with Total to hire one LNG tanker for three years from the French oil major for hauling liquefied natural gas from the U.S. beginning January 2018. Total emerged as the successful bidder for the short-term charter by quoting the lowest day rate of \$44,900. The deal can be extended by one year, sources said.

“Other ship owners that participated in the bidding were unwilling to match the day rate offered by Total, posing a challenge to GAIL for hiring the balance of LNG tankers it will require” for its U.S. cargoes, said an official briefed on the plan. “The fair market price today for a two- to three-year charter of an LNG ship of that size is about \$65,000 per day,” said a shipping industry official. GAIL needs several more ships to handle the volume it is contracted to take from Cheniere Energy’s terminal in Sabine Pass, La.

The tanker offered by Total is owned by Teekay LNG Partners, one of the world’s top independent owner-operator of LNG carriers. The ship was chartered to Total through 2029 for the Yemen LNG project. “However, due to the political situation in Yemen,” the plant has been closed since 2015. As a result, the ship came off-hire. Total was losing money on the ship because it had to continue paying the charter rentals to Teekay but didn’t have a job for the vessel. The charter to GAIL (India) will reduce Total’s losses.

## **Battle continues in Pennsylvania over methane in water**

(The Associated Press; Sept. 2) - The well water at Ken Morcom and Kim Grosso’s house is laced with so much explosive methane that a Pennsylvania environmental regulator who went there to collect samples this summer decided it would be safer to coast her SUV down the driveway. Morcom and Grosso want to leave their home in Dimock, Pa., but doubt they could sell a house with tainted water. So, a few weeks ago, they asked the gas driller they blame for polluting their well to buy them out.

“I was hoping they’d fix it. But I’ve given up hope,” said Morcom, 49, who supports drilling but has become disillusioned with Houston-based Cabot Oil & Gas. Dimock, a patchwork of homes and farms about 150 miles north of Philadelphia, became a battleground for pro- and anti-drilling forces after state regulators found that Cabot — one of the biggest drillers in the vast Marcellus Shale gas field — had contaminated 18 residential wells with methane. Homeowners sued accusing the company of polluting their water with toxic chemicals and methane. Activists and celebrities descended.

It’s a much quieter place these days. But the questions surrounding Dimock’s groundwater have yet to be resolved — and the federal government is back for the first time in more than five years to investigate ongoing claims of contamination. Public health experts visited 25 homes last month to test for bacteria, gases and chemicals.

State regulators say Cabot still hasn't fixed the water. Cabot says the methane was there long before it began drilling. It's an argument that's been going on for eight years.

### **Toyota will switch to LNG-fueled vehicle carriers by 2020**

(Nikkei Asian Review; Sept. 6) - Toyota Motor plans to use environmentally friendly ships fueled by liquefied natural gas to transport its automobiles across the globe, responding to a tighter environmental rule taking effect in 2020. The three maritime carriers owning vessels for Toyota — Nippon Yusen, Kawasaki Kisen and the Toyota group's Toyofuji Shipping — are expected to order more than 20 ships within several years, starting with three to six each. The ships could total 200 billion yen (\$1.83 billion).

Toyota now employs at least 60 ships a month to transport automobiles by sea. The 20 or so that carry some 7,000 vehicles each — the ships used mainly on North American routes — will be replaced. The bunker C fuel oil that powers these vessels has high sulfur content. Aiming to reduce sulfur oxide emissions, the International Maritime Organization decided last year to cap the sulfur content of fuel oil at one-seventh of the current limit, starting in 2020. Toyota's move will likely spur other automakers to act.

Some 100 LNG-fueled ships currently operate around the world, mainly in Europe and North America. Yet they are limited to ferries and passenger ships for short-distance travel. LNG-fueled ships are about \$10 million more expensive to build than their conventional counterparts. They also require infrastructure investment for refueling at ports of call. The costs have hindered a widespread switch to the vessels.

### **Work begins on first of seven LNG-fueled cruise ships for Carnival**

(LNG World News; Sept. 7) - Carnival Corp., the world's largest leisure travel company, held a virtual keel-laying ceremony Sept. 6 during an event at a Hamburg shipyard for the first of seven new cruise ships that will be fully powered by liquefied natural gas. The seven ships for four Carnival global brands — Carnival Cruise Line, P&O Cruises UK, Costa Cruises and AIDA Cruises — will feature a "green cruising" design.

The ships, with delivery between 2018 and 2022, will be built by German and Finnish shipbuilders Meyer Werft and Meyer Turku. German shipbuilder Meyer Werft on Sept. 6 lowered the first building block into place for the LNG-powered vessel named AIDAnova, which will join the company's AIDA Cruises brand in fall 2018. AIDAnova will sail on trips around the Canary Islands. Next will be a new ship for Costa Cruises, to start service in 2019. Carnival has signed a framework agreement with Shell to supply fuel to power the first two LNG ships for AIDA Cruises and Costa Cruises.

## **University finds way to turn oil sands output into pellets for transport**

(Canadian Press; Sept. 6) - A new technology that transforms heavy crude oil into pill-sized pellets could cure the oil sands industry's transportation headaches, according to University of Calgary professor Ian Gates. The newly patented technique creates self-sealing balls of bitumen of various sizes that can be moved in coal rail cars or trucks with less risk of environmentally harmful spills, thus reducing the need for new oil pipelines, he said Sept. 5.

The technology was discovered accidentally at the University of Calgary's engineering school. "We have an intact pellet that's kind of like a black Advil pill." Gates said a pilot project able to generate one barrel per day of the pellets will start up in November to be followed by a commercial demonstration project able to produce about 600 barrels per day. He estimated it would cost about \$1 million to build a machine to make 100 barrels a day of pellets with the per-barrel cost falling dramatically with larger-scale projects.

Canadian National Railway unveiled a similar-sounding technology earlier this year, announcing it had filed a patent application for CanaPux, a process that turns bitumen into a semi-solid for transport by mixing and coating it with polymer. But Gates said his system is better because it doesn't require chemical additives or complex equipment — it uses heat to remove some of the lighter petrochemical molecules from the bitumen and a roller system to make the pellets.

## **First Nations' protestors plan to build small houses in path of pipeline**

(Canadian Press; Sept. 7) - First Nations' protesters in British Columbia are planning to place tiny homes directly in the path of the Trans Mountain oil sands pipeline expansion, an idea drawn from an influential indigenous movement in the United States. Activists said the houses are symbols of sustainability in the face of what they see as an environmentally damaging project. They are based on structures built at a sprawling protest camp in North Dakota initiated by the Standing Rock Sioux Tribe.

Kanahus Manuel of the Secwepemc Nation in B.C. said she hopes the protest homes have an effect in Canada. "Our goal is to stop this pipeline. Our goal is to stop investors from investing in this pipeline," she said. Trans Mountain, a subsidiary of Kinder Morgan, plans to begin construction this month on the \$7.4 billion expansion of its Alberta-to-B.C. coast pipeline. Members of the Secwepemc Nation and Greenpeace gathered at a site near Chase, B.C., on Sept. 7 to build the first of 10 homes they say will be moved to Secwepemc territory near Kamloops to block pipeline construction.

Fifty-one First Nations have signed benefit agreements with Trans Mountain, including some bands that are part of the broader Secwepemc Nation, but the project still faces strong opposition from some indigenous groups. A number of First Nations and environmental groups have filed lawsuits challenging Canada's approval of the project.



## **Environmental lawyers criticize Interior Department EIS page limit**

(EnergyWire; Sept. 8) - A new Interior Department policy to streamline environmental reviews could leave the agency vulnerable in the courtroom, environmental lawyers say. Deputy Secretary David Bernhardt issued an order last week, setting time and page limits for major infrastructure reviews conducted under the National Environmental Policy Act. Infrastructure is defined broadly to include not just roads, bridges, pipelines and the like, but also "energy production and generation."

The directive specifies that most environmental impact statements for those projects should be limited to 150 pages and completed within a year of initiation. But critics say the restrictions could land the agency in hot water. "No judge is going to accept as an excuse that, 'Well, we didn't look at this significant effect because we hit the page limit,'" Center for Biological Diversity attorney Michael Saul said.

Federal agencies have extensive obligations under NEPA to consider direct, indirect and cumulative impacts of projects; reasonable alternatives; and environmental justice implications. All of that takes space, Saul said, which is why many environmental impact statements clock in at thousands of pages. Obama-era Interior Solicitor Hilary Tompkins warned that the page and time limits could lead to an uptick in legal battles. "In my mind, this poses a risk that less pages could mean more litigation," Tompkins said.

## **TransCanada suspends application on west-to-east oil sands pipeline**

(Canadian Press; Sept. 8) - New Brunswick Premier Brian Gallant said he will do whatever necessary to make sure the \$15.7 billion Energy East pipeline proceeds and delivers crude — and jobs — to his province. Gallant was responding to a surprise announcement Sept. 7 that TransCanada wants to suspend for now its application to build the proposed 2,800-mile pipeline that would carry crude from Alberta and Saskatchewan to refineries in Saint John, N.B., and other parts of Eastern Canada.

TransCanada said it filed a letter to the National Energy Board asking for a 30-day suspension for the project so it can study how the NEB's decision last month to consider Energy East's contribution to upstream and downstream greenhouse-gas emissions will affect "costs, schedules and viability." TransCanada called the changes "significant," and warned the pipeline and a separate project could be cancelled.

It indicated it may need to record a write-down of its investment. "Should TransCanada decide not to proceed with the projects after a thorough review of the impact of the NEB's amendments, the carrying value of its investment in the projects, as well as its ability to recover development costs incurred to date, would be negatively impacted," the company said. TransCanada had pitched Energy East as a "Canadian solution to a

Canadian challenge.” It said the 1.1 million barrels of crude that would be sent across the country each day would help displace foreign oil imported into Eastern Canada.

### [U.N. fee for Arctic oil and gas becomes election issue in Norway](#)

(Reuters; Sept. 6) - Norway’s plan to shield oil companies from a U.N. fee if they produce oil or gas far from land in environmentally sensitive Arctic regions is in line with long-standing tax policies, the Oil and Energy Ministry said Sept. 6. Opposition parties have accused the government of failing to fully inform parliament of the plan to let companies deduct from their petroleum tax bills paid to Norway any U.N. charges for arctic production more than 200 nautical miles from land.

Under the 1982 U.N. Convention on the Law of the Sea, countries must pay up to 7 percent of revenue from oil, gas, or other minerals produced from their continental shelves more than 200 nautical miles offshore. The money will go to a fund to help developing nations. The U.N. provision is dormant because there has been no production so far from land. The Law of the Sea leaves it up to governments to decide how to raise the special fees with the option of passing on the costs to companies.

The Norwegian government has been telling oil and gas lease bidders since at least 2011 that any such special costs “will be deductible in the calculation of the petroleum tax.” But some opposition parties, campaigning ahead of a national election Sept. 11, said the arctic environment needs special protection and parliament should have been consulted more fully before the government offered the tax deductions.