

Oil and Gas News Briefs

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China's gas consumption growth to average 10% a year, report says

(Gulf Times; Qatar; Aug. 26) - China's natural gas consumption will increase at an average annual rate of 10 percent over the next five years as part of a broader clean-energy drive to reduce carbon intensity and improve air quality in the country's urban centers, a new BMI Research report said. China's gas consumption rose 11 percent year-on-year in the first half of 2017, supported by government efforts to increase the share of the cleaner-fuel in the national energy mix.

Gas consumption also benefited from stronger-than-expected economic growth over the first half of the year, which led to greater uptake among industrial users, the Fitch Group company's report said. Policy backing from Beijing will be crucial to ensuring that gas demand continues to grow. The National Development and Reform Commission has called on local governments to encourage greater fuel switching among industrial and residential end-users by providing subsidies and financial incentives to advance gas-related projects such as power plants, storage facilities and pipelines.

Robust growth in consumption will be matched by comparable growth in production. China's gas output grew 12.8 percent year-on-year in the March-July period and BMI forecasts growth to average 4 to 5 percent a year to 2020. The bulk of the growth will come from offshore and unconventional sources. Beijing is also gradually opening up previously state-dominated shale gas exploration acreage to foreign investors. The report also noted that LNG imports edged out pipeline gas imports in the first half of this year. Ongoing liberalization of the domestic LNG market will help imports by allowing smaller, private players to participate in the spot market.

China's energy majors report oil output down, gas output up

(Bloomberg; Aug. 24) - You think Shell, which paid \$54 billion to buy gas producer BG Group, is Big Oil's biggest advocate of a shift to natural gas. Think again: PetroChina Co., China's biggest oil producer, is also turning its back on the black stuff in favor of gas production, judging by first-half results. Crude oil output fell 7.4 percent from a year earlier, the Beijing-based company said Aug. 24, while gas production was up 4.4 percent. Crude came to just 60 percent of total oil-equivalent production, versus more than 90 percent at the time of PetroChina's 2000 initial public offering.

It's a similar picture at China National Offshore Oil Corp., where crude output in the first half was down 2.1 percent while gas increased 1.6 percent. Together, the two

companies produced 39 million fewer barrels of oil in the first six months of the year, and 78 billion more cubic feet of natural gas.

That's barely the start of it. In one of the more science-fiction moments of the Aug. 24 news conference, PetroChina President Wang Dongjin promised to start commercial production of gas from methane hydrates by 2030. Such technology, based on so-called "flammable ice" deposits on the sea floor, is still in the testing stage — but the fact that Wang called it out is a notable statement of ambitions. A move toward more gas would be beneficial rather than detrimental to PetroChina, which counts the gas production and pipeline unit as its most profitable division.

South Korea refiner signs 15-year deal to buy LNG from Petronas

(Reuters; Aug. 24) - South Korea's third-largest refiner, S-Oil Corp., has signed a long-term liquefied natural gas supply contract with Malaysia's Petronas. S-Oil expects to buy 700,000 tonnes of LNG per year for 15 years from state-owned Petronas starting in March 2018, it said in a stock filing Aug. 24. "We have inked the deal on good terms for our company amid the current favorable LNG market conditions," the refiner said. S-Oil, whose main shareholder is Saudi Aramco, declined to provide pricing details.

The refiner said in a separate statement that the deal was part of its efforts to ensure stable supplies of LNG. S-Oil plans to use the natural gas as fuel to run its plants and as a feedstock for petrochemical products. The company said it will take fuel oil it had previously used to power its plants and instead will use it to produce more expensive fuels such as gasoline, increasing its profitability. S-Oil runs a 669,000-barrels-per-day refinery in Ulsan, southeast of Seoul.

S-Oil's purchase is equal to about 2 percent of South Korea's LNG imports last year.

Cheniere's Gulf Coast LNG sites survive Harvey

(Reuters; Aug. 28) - U.S. natural gas exporter Cheniere Energy reports only "minor cosmetic impacts" from Hurricane/Tropical Storm Harvey at its liquefied natural gas plant under construction in Corpus Christi, Texas, and no interruption of production at its Sabine Pass LNG facility in Louisiana. The company said Aug. 28 it has activated its emergency office location in Dallas to support essential functions to ensure continuing production of LNG at Sabine Pass.

Harvey, the most powerful hurricane to hit Texas in more than 50 years, first hit land late Aug. 25, and has since stayed around Texas' Gulf of Mexico Coast where it is forecast to remain for several more days, drenching areas with a year's worth of rain in the span of a week. Cheniere Energy, the first LNG exporter on the Gulf Coast, said

Harvey had not, as of yet, significantly affected production at its \$18 billion Sabine Pass facility on the Texas-Louisiana border.

And early inspections of the company's 2,000-acre, \$13 billion Corpus Christi construction site, less than two dozen miles from Harvey's landfall near Aransas Pass, revealed only minor damage, said Cheniere spokesman Eben Burnham-Snyder. Cheniere evacuated and locked down the Corpus Christi construction site Aug. 24, then closed its Houston offices and reduced Sabine Pass personnel to essential workers only. Burnham-Snyder said Cheniere doesn't expect the Sabine Pass site to close.

Bangladesh LNG imports could hit 30 million tonnes by 2041

(Platts; Aug. 24) - Bangladesh will need to import about 30 million tonnes per year of liquefied natural gas by 2041 to meet growing demand from various sectors including industries, power plants and fertilizer plants as domestic gas reserves are depleting fast, according to Bangladesh's Gas Sector Master Plan 2017, a senior Petrobangla official told S&P Global Platts on Aug. 24. Domestic gas production will peak in 2017 before declining, the report said.

Bangladesh's existing gas reserves of about 12 trillion cubic feet will be completely depleted by 2038 if no new exploration and discovery takes place, said the report prepared by Copenhagen-based research firm Ramboll in association with Geological Survey of Denmark and EQMS Consulting. Ramboll officially handed over the report to state-run Petrobangla this month.

The report, however, said rigorous onshore and offshore exploration could increase gas output by almost 50 percent. Even with that, Bangladesh will still need to boost its LNG imports, which are due to start next year. The first import terminal — a floating, storage and regasification unit being developed by U.S.-based Excelerate Energy — is set to start service in April 2018. A second floating unit is expected to start up by the end of 2018. Petrobangla also plans to set up at least two onshore LNG terminals by 2025.

India swaps U.S. LNG for lower-cost cargoes

(Press Trust of India; Aug. 23) - GAIL India has signed three time-swap deals to sell some of its U.S. liquefied natural gas as it rearranges its supply portfolio in line with domestic demand. Under the deals, the company will sell some of the gas it is under contract to take from U.S. export terminals in 2018-2019, and will buy an equivalent amount of LNG in 2017-2018 from non-U.S. suppliers. Without disclosing the volume traded, the company said a "substantial" U.S. volume has been swapped.

GAIL is under contract to take 3.5 million tonnes of LNG per year for 20 years from Cheniere Energy's terminal in Sabine Pass, La., also is under contract to take 2.3 million tonnes per year from the soon-to-open Dominion Energy terminal in Cove Point, Md. GAIL contracted for U.S. gas to meet the demand of India's growing economy and power sector. But electricity produced using imported LNG is not finding buyers due to cheaper alternatives, leading to stranding of significant generation capacity.

The LNG it will buy 2017-2018 will be linked to the price of a barrel of oil, while the U.S. LNG it will swap for 2018-2019 delivery is based on the U.S. Henry Hub natural gas benchmark price. At today's \$50 crude, oil-linked LNG is less expensive on the global market than U.S. Henry Hub-linked LNG cargoes. GAIL also said in its annual report that it is seeking destination swaps to cut shipping costs of U.S. gas, looking for supplies closer to India. GAIL said it "has already concluded three time-swap deals."

LNG oversupply may lead to seasonal price swings, bank says

(Hellenic Shipping News; Aug. 23) – The commissioning of more liquefaction capacity globally will continue to depress Asian spot LNG prices, leading to further convergence in prices worldwide, said new research by Bank of America Merrill Lynch published Aug. 21. Prices are also poised to experience more pronounced seasonal swings, which could trickle through to affect U.S. and U.K. natural gas prices, the report said.

The bank expects 135 million metric tons per year will be added to global liquefaction capacity between 2015 and 2020, a 47 percent increase, and while new markets for the fuel are being developed they are neither sufficiently deep nor being added quickly enough to fully soak up the global oversupply in the next three to five years. This is at the lower end of the time scale, with many other analysts talking about the oversupply ending not before 2022.

"Seasonality in spot LNG prices may end up being more pronounced," the bank said. "For several years, spot LNG prices faced downside risks in the summer as LNG supply has surged above the market's capacity to absorb it during the weak seasonal demand period. With capacity set to increase, spot LNG prices could continue to experience sharp seasonal price swings."

Shell could combine Mediterranean gas fields into production hub

(Bloomberg; Aug. 20) - Shell is seeking creative solutions to bring natural gas from Israel and Cyprus to market, a step that could help turn the Mediterranean region into a major gas-producing hub. Shell is in talks to buy gas from Israel's giant Leviathan offshore field, combine it with output from Cyprus's Aphrodite field, in which it owns a 35

percent stake, and pump it to a liquefied natural gas export plant in Egypt, sources said. Talks are at an early stage and some of Aphrodite's gas could be sold locally.

Combining output from the two fields, which share some major investors, could potentially improve the economics of the projects. Leviathan's partners, led by Houston-based Noble Energy and Israel's Delek Drilling, are looking at various shipment options as they face an estimated development cost of \$3.75 billion. Israeli and Cypriot gas finds, together with the giant Zohr field off Egypt and reservoirs off Lebanon, could create a center of gas production right on Europe's doorstep.

Delek owns a 45.3 percent stake in Leviathan — set to start production in 2019 — while Noble has 39.7 percent. Noble also has 35 percent of Aphrodite and Delek 30 percent, along with Shell. The two sites lie just 20 miles apart and contain an estimated 26 trillion cubic feet of gas. Deliveries to Egypt could be piped to Shell's Idku LNG plant on the Mediterranean coast. Egypt was an LNG exporter until 2014 when declining output and power shortages resulting from political upheaval forced it to divert gas for its own use.

Mexico looks toward shale gas production, but faces hurdles

(Forbes contributor; Aug. 19) - Mexico has fracked just a few test wells, while the U.S. has had nearly 2 million commercial ones. Mexico has not yet produced any shale gas, but thanks to 2013 Energy Reforms that loosened its monopoly laws Mexico's energy sector is now far more open to foreign investment. The National Hydrocarbons Commission envisions fracking from unconventional wells within a few years, but probably no significant production until sometime after that.

The key obstacles to producing shale gas in Mexico are a lack of knowledge on unconventional resource geology, higher costs, a smaller service industry, poor regulatory framework, a dearth of pipelines, lack of security amid narco-trafficking, water shortages and others — plus recent massive demonstrations against rising fuel costs. The government sold deregulation to a skeptical public as the path to lower prices.

Finding some way to produce more gas might be Mexico's most vital energy goal. Mexico has been moving away from oil- and diesel-fired electricity, and gas now accounts for nearly 60 percent of all power generation. This could reach close to 75 percent by 2022. Mexico's domestic gas production, however, has continued to fall, mostly because it's produced as associated gas, which comes along with oil production. Mexico's oil production is down 30 to 35 percent in the past decade. Mexico has been importing more than 4.2 billion cubic feet of gas per day from the U.S. in recent weeks.

Chevron looks at new technology to produce gas offshore Australia

(The West Australian; Aug. 20) - Chevron is considering using a new technology known as subsea compression to keep gas flowing to the Gorgon liquefied natural gas project in Australia and avoid a multibillion-dollar offshore structure. Two giant gas fields, Gorgon and Jansz, feed the Gorgon plant and the domestic gas plant on Barrow Island. Reservoir pressure drives the gas to the island, but the pressure drops with production and eventually the gas must be compressed to keep the operation at full capacity.

The favored option had been a costly semi-submersible compression platform. Gas from the Jansz wells would have flowed to a giant floating structure weighing up to 20,000 tonnes anchored in more than half a mile of water. Gas would be compressed and returned to the existing subsea pipeline headed to Barrow Island. Sources said that late last month Chevron and its partners had switched focus to compressing the gas on the seabed using electric compressors powered from Barrow Island 80 miles away.

Work on the semi-submersible in Perth has been suspended while subsea compression is investigated. Subsea compression has worked in the Statoil-operated Asgard field off Norway since 2015, but the equipment in the North Sea is complicated. The raw gas from the wells is cooled, separated into gas and liquid streams that are compressed and pumped respectively. Reliability is the biggest concern with subsea compression.

LNG imports boost natural gas supply for Pakistan vehicle owners

(The International News; Pakistan; Aug. 23) – The All Pakistan Compressed Natural Gas Association said Aug. 22 that it hopes its sector will fully revive with an increase in liquefied natural gas imports. "In 2012, around 3,200 CNG stations were shut down following a ban on the supply of natural gas due to the shortage of the commodity" used extensively to fuel motor vehicles. But about 2,300 stations have reopened in the past year "thanks to LNG," said Ghayas Abdullah Paracha, the association's leader.

"It is hoped that in the next two years the LNG market will reach one billion cubic feet per day," he said, almost double the current average daily import volume. Pakistan opened its first LNG import terminal in 2015. Compressed natural gas filling stations are now receiving uninterrupted supplies, Paracha said. With the continued growth in LNG imports, the association is pushing for an end to the government's 35 percent import duty on LNG, which had been imposed to discourage the use of natural gas in vehicles.

"With the import of liquefied natural gas, supply to all consumers has improved significantly ... so there is no justification for the import duty," Paracha said. Eliminating the charge would reduce costs and encourage use of the cleaner-burning fuel, he said.

BC Ferries continues move to LNG

(Business in Vancouver; Aug. 22) - BC Ferries launched its third LNG-fueled vessel earlier this month and plans to switch some of its existing vessels to the cleaner-burning fuel. The Salish Raven replaces the Queen of Nanaimo and will serve the Tsawwassen-Southern Gulf Islands route. It and BC Ferries' other LNG vessels, the Salish Eagle and Salish Orca, were built in Poland and can run on LNG or diesel. Liquefied natural gas emits significantly less sulfur and nitrogen oxides than diesel fuels.

An additional benefit is that LNG costs about 40 percent less than BC Ferries' traditional fuel of ultra-low-sulfur marine diesel. BC Ferries' LNG supplier is FortisBC, which operates the only two LNG production facilities on B.C.'s West Coast: Its Tilbury plant, across the Fraser River from Vancouver; and in Mount Hayes, near Duncan, on Vancouver Island. Over the next two winters, BC Ferries plans to retrofit the Spirit of Vancouver and Spirit of British Columbia to burn LNG.

Besides environmental benefits and cost-effectiveness, LNG also provides local benefits, said Sarah Smith, director of natural gas for transportation at FortisBC. "The vast majority of the natural gas that we consume in British Columbia comes from northeastern B.C. There's a net economic benefit to the province."

Canada will take wider look at oil production, consumption emissions

(The Canadian Press; Aug. 24) - In a decision cheered by environmentalists but considered a setback by the oil and gas industry, Canada's energy regulator said it will allow a wider discussion of greenhouse-gas emission issues in upcoming hearings for the Energy East Pipeline. The National Energy Board said Aug. 23 it will for the first time consider the public-interest impact of upstream and downstream greenhouse-gas emissions from potential increased oil production and consumption due to a pipeline.

The NEB for the first time also will allow discussion at hearings of the effect of meeting government greenhouse-gas emission targets on the financial viability and need for TransCanada's proposed \$15 billion project that would stretch nearly 3,000 miles to carry as much as 1.1 million barrels a day of Alberta oil sands production to Canada's eastern refineries and for export overseas. Previously, the NEB only considered greenhouse-gas emissions directly associated with pipeline construction and operation.

Alberta's energy minister expressed disappointment in the decision. "Based on our initial analysis, we believe this would be a historic overreach and have concerns about what this means for energy development across Canada," Minister Margaret McCuaig-Boyd said. Deciding the merits of a pipeline on downstream emissions "is like judging transmission lines based on how its electricity will be used," she said. But, Ecojustice lawyer Charles Hatt said the decision is "both lawful and sensible."