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Equatorial Guinea wants higher royalties on its LNG sales

(Reuters; May 10) - Equatorial Guinea is looking for higher royalties in its talks to sell liquefied natural gas from the country's Punta Europa project to independent and statebacked oil companies and traders starting in 2020 as it winds down an exclusive export deal with Shell. Minister for Mines and Hydrocarbons Gabriel Obiang Lima told Reuters he is seeking to lift royalties in future LNG deals to get close to 50 percent, compared with the 12.5 percent it earns under existing arrangements with Shell.

Shell's deal, inherited after it acquired BG Group in 2015, was amended in 2009 under government pressure to include a 12.5 percent share of profits, but it is still among the most lucrative contracts for any LNG export deal. Lima said talks are progressing with China National Offshore Oil Corp., Russia's Lukoil, France's Total, trader Vitol, Shell, and a joint venture between Lukoil and NewAge, a privately held African oil and gas company. Deals will be offered for three- to five-year terms. The plant opened in 2007.

Equatorial Guinea's LNG plant, operated by Marathon Oil, is fed by the depleting Alba gas field, which faces an output drop-off starting in 2019-2020. Future production will be underpinned by pooling supply from stranded gas fields in Equatorial Guinea and the wider region. The plant's output capacity is 3.7 million tonnes per year. Shell pays a fixed price linked to U.S. gas prices, as it initially planned to sell supply into that market. As the shale gas boom killed U.S. demand for LNG imports, BG/Shell benefited from paying U.S.-linked prices and then selling into Asia at much higher prices. The original contract made no provision for profit sharing with the government on cargo diversions.

Texas company signs up to supply gas for Equatorial Guinea LNG

(Platts; May 10) – Houston-based Noble Energy has signed a provisional deal with the government of Equatorial Guinea for natural gas from its offshore Alen field to serve the Marathon Oil-operated liquefied natural gas plant on Bioko Island, Noble said May 10. The deal would allow Noble to monetize 600 billion cubic feet of gas and extend the life of the 11-year-old LNG plant. The deal establishes a "framework for development." Sanction of the project is contingent upon final commercial agreements, Noble said.

"This project will transform the Alen platform into an offshore hub for potential development of additional gas fields," said Noble vice president Gary Willingham. First production is anticipated early in the next decade. The Alen field has been producing

gas and condensate since field start-up in 2013, but gas produced to date has been reinjected into the reservoir to enhance liquids recovery.

The Equatorial Guinea LNG export facility shipped 65 cargoes in 2017, supplying the equivalent of almost 200 billion cubic feet of gas, according to data from S&P Global Platts Analytics. The main receiving markets were India, Japan, China, South Korea, Jordan, and Argentina. Project shareholders are Marathon (60 percent), the national oil company Sonagas (25 percent), Mitsui (8.5 percent), and Marubeni (6.5 percent).

Shell continues to focus on costs for proposed LNG Canada project

(Business in Vancouver; May 10) - Shell and its partners are working to make their proposed liquefied natural gas project in Kitimat, B.C., "affordable and competitive" ahead of a final investment decision, Shell's top executive in Canada said May 9. "I'm cautiously optimistic," Michael Crothers, president of Shell Canada, said at the ARC Energy Investment Forum in Calgary. At full development, the project has been estimated at up to \$40 billion.

Shell's partners in LNG Canada are Mitsubishi, PetroChina, and Korea Gas. The venture has selected Japan's JGC Corp. and U.S.-based Fluor for engineering, procurement, and construction. "We keep methodically working through the process. ... We're getting cost estimates finalized [and working] on the economics," Crothers said. "We don't have a definitive timeline for FID," he added. "We're working through and managing these issues and making the project all the more affordable and competitive as we go."

"We're just doing everything we can to make this a success and convince our shareholders — not only Shell but our joint-venture partners as well — that this is the project that should be the next big global LNG investment." If built, LNG Canada's first phase would include two liquefaction trains capable of producing almost 14 million tonnes of LNG a year. A second phase, if approved, would be the same size. Crothers said the second phase "would be even more cost competitive" than the first phase.

Ichthys LNG still plans first gas by end of May

(Reuters; May 10) - Japan's biggest oil and gas explorer, INPEX Corp., said May 10 it will begin production at its Ichthys liquefied natural gas development in Australia by the end of May, the latest start date for a project that has been delayed multiple times. Trial operations at the project's offshore central processing facility will be completed by the end of the month, followed by the first production of gas, said Masahiro Murayama, INPEX senior managing executive officer.

At full operation, Ichthys is expected to produce 8.9 million tonnes of LNG a year, along with about 50,000 barrels of liquefied petroleum gas per day and 100,000 barrels per day of condensate, an ultra-light form of crude oil. Ichthys will send gas from its offshore production facility through a 550-mile pipeline to the Australian mainland near the city of Darwin, where it will be liquefied for export. The project has been hit by delays and cost overruns, with reports that the final cost could approach US\$40 billion.

INPEX holds 62.245 percent of Ichthys; France's Total has 30 percent; with the rest spread among Taiwan's CPC Corp. and Japanese buyers Tokyo Gas, Osaka Gas, Kansai Electric, JERA Corp., and Toho Gas.

LNG project wants Papua New Guinea to settle benefits distribution

(Australian Financial Review; May 11) - Oil Search chairman Rick Lee has upped the pressure on the Papua New Guinea government to hand out the long-awaited benefits from the PNG LNG venture owed to local land owners in a bid to head off escalating resentment just before a targeted US\$12 billion expansion of the facility. Grilled by several local land owners and a pressure group at the Papua New Guinea company annual shareholder meeting, Lee acknowledged growing "frustrations" about a lack of transparency on the fate of royalties paid to government from the US\$19 billion venture.

Production started four years and many landowners are still waiting for payments to start. Oil Search and its partners have fulfilled their royalty obligations, and it's up to the PNG government to forward the payments, Lee said. Oil Search CEO Peter Botten said Papua New Guinea had received 14 billion kina (\$5.7 billion) from the project since production started, with 3.9 billion kina paid to the state and land owner groups in royalties, development levies and equity. Some 708 million kina of land owner money is held in trust, awaiting completion of the government's landholder identification process.

The intensification of the debate around the issue comes as Oil Search and its partners are negotiating with the government on an agreement to cover crucial fiscal terms, benefit-sharing and national work content for the plant expansion. The partners, led by majors ExxonMobil and Total, are targeting this December to start engineering and design work on three new liquefaction trains, more than doubling the plant's output.

Japanese buyer looks for LNG to replace canceled B.C. project

(Reuters; May 10) - Japan Petroleum Exploration Co. (JAPEX) is seeking liquefied natural gas cargoes after its joint-venture LNG project in Western Canada was scrapped last year, industry sources said May 10. The oil-and-gas company is seeking three to six cargoes a year of LNG starting in 2020, the sources said. JAPEX will look for a mix of spot, mid-term, and long-term supplies through 2030.

A company spokeswoman said JAPEX has been looking for a portfolio of LNG supplies since the Pacific NorthWest LNG project, in which it had a 10 percent stake, was scrapped last July. The venture, led by Malaysia's state-owned energy company Petronas, abandoned its plans to build an LNG export terminal in Prince Rupert, B.C., due to low prices and other concerns.

More than half of U.S. LNG went to Asia in first four months of 2018

(Platts; May 11) – U.S. LNG is still a rare visitor to European shores despite low liquefied natural gas stocks — especially in northwest Europe — and high European hub prices. Once expected to be the mainstay market for U.S. production, Europe remains relatively untouched by supplies of cheap U.S. shale-based LNG, and current pricing suggests cargoes will continue to be attracted to other, higher-priced markets.

Europe's stockpiles were drawn down to record low levels at the end of the winter on freezing temperatures, leading to an expectation that LNG supplies would rise over the summer to help refill storage. LNG from Cheniere's Sabine Pass, La., terminal and the newly opened Cove Point, Md., facility were seen as likely candidates to help Europe rebuild its stockpiles in time for next winter. But cargoes are few and far between to Europe. Just three U.S. LNG cargoes have landed in Europe since the turn of the year.

Since the start of the year, Europe has been unable to compete with higher-priced markets for U.S. gas. During the first four months of the year, U.S. LNG exports have overwhelmingly shifted east, with Asia taking 52 cargoes, or roughly 54 percent of U.S. output over that timeframe, according to S&P Global Platts Analytics. That's up from roughly 32 percent during the first four months of last year. Spot-market prices in Asia have been \$1 to \$2 per million Btu higher than in Europe.

Cheniere LNG cargo headed to Israel

(Bloomberg; May 10) - Israel is about to receive a cargo of U.S. liquefied natural gas, the first to arrive in the Middle Eastern nation from America since exports began in 2016. The vessel British Diamond, owned by BP, is set to arrive at Israel's Hadera import terminal on May 27 after departing Cheniere Energy's Sabine Pass, La., terminal on May 3, ship tracking data compiled by Bloomberg show.

U.S. shale gas has sailed from the nation's two operating LNG export terminals — Sabine Pass and Dominion Energy's Cove Point facility in Maryland — to buyers from Mexico to China. With three more U.S. Gulf Coast export projects set to start up in the next year, the United States is on course to rival Qatar and Australia for global LNG dominance in the next five years. Israel's gas imports, meanwhile, may slide in coming years as the nation produces more gas from domestic fields.

Trinidad LNG production recovers as new gas output comes online

(Reuters; May 10) - Liquefied natural gas production in Trinidad, a top 10 global exporter, is recovering thanks to a new field start-up, but competition from U.S. shale is forcing sellers of its output to go much further afield. Trinidad built LNG facilities during a second wave of the industry's expansion in the 1990s, with the goal of supplying North and Latin America. But the U.S. shale gas revolution has since dented that strategy.

Trinidad's facility can produce up to 15 million tonnes of LNG per year. BP and Shell are major shareholders. The liquefaction plant ran at 75 percent of capacity last year as gas deposits become depleted, though output has been broadly rising since November after the \$2 billion BP-operated Juniper project came onstream. BP said at the time that the project would add 590 million cubic feet of gas a day to its output in the country.

The completion of an onshore compressor that improved gas recovery from BP's lowpressure wells further raised its gas capacity by 200 million cubic feet per day. BP has sanctioned another gas project while appraising a two more discoveries, and Shell has invested further — trends that should increase and maintain Trinidad's LNG output in the medium term. Without the U.S. market, Trinidad gas has gone as far as China, which received twice as many cargoes in the first four months of this year as last year; as well as India, with a 50 percent increase in volumes; the U.K. and Thailand.

Canceled Iran deal, higher oil prices bad for U.S. natural gas prices

(Bloomberg; May 9) - President Donald Trump's decision to scrap the Iran nuclear deal and restore sanctions was great for oil bulls. But for natural gas drillers in America's hottest shale play, it could be a disaster in the making. The highest oil prices in more than three years are poised to boost output from areas like the West Texas Permian Basin, the most prolific U.S. reservoir of the fuel. But that would add to the supply of gas that's produced alongside crude there, making an existing gas glut even bigger.

The Permian boom has filled gas pipelines to capacity, trapping gas in the region and making prices there the cheapest of any major U.S. hub. West Texas gas prices could drop to zero on some days, said Tudor Pickering Holt & Co., forcing explorers to shut production or burn off excess supplies in a process known as flaring. Gas is "getting incredibly cheap again versus oil and refined products," said John Kilduff, founding partner at Again Capital in New York. Producers "are just going to try to give it away."

Gas at a West Texas hub traded at \$2.06 per million Btu on May 11 vs. \$2.7161 at the Henry Hub in Louisiana, the benchmark for the New York Mercantile Exchange. In the Permian alone, gas flaring is likely to jump as much as five-fold in the next year, said Matthew Portillo, managing director of exploration and production research at Tudor

Pickering. But state regulators typically won't allow that to continue indefinitely, and limits to flaring could ultimately curtail oil and gas production gains, he said.

France's Total invests to promote natural gas-fueled trucks in U.S.

(Platts; May 10) - French major Total has taken a further step downstream in the natural gas supply chain, with a plan to facilitate the purchase of natural gas-fueled trucks in the U.S. The aim is to make the upfront capital cost equal to an equivalent diesel truck. The company also intends to guarantee a discounted natural gas fuel price to diesel. It's a pattern among international oil companies to invest in all parts of the gas value chain and stimulate demand for the fuel in new markets such as land and maritime transport.

The company said May 10 that it has entered into a strategic agreement with Clean Energy Fuels Corp. Total will take 25 percent equity in the U.S. company for \$83.4 million, making it CEF's largest stockholder. CEF plans to launch a leasing program to promote early switchover for trucking firms from diesel to gas. Total intends to provide up to \$100 million of credit support for the program, set to launch in the third quarter.

The adoption of gas-fueled trucks, either compressed or liquefied natural gas, could lead to significant oil-demand displacement and a corresponding increase in natural gas consumption. However, the number of natural gas vehicles in the U.S. has held static over the past two years at 160,000, representing just 0.06 percent of the total vehicle fleet. Natural gas-fueled trucks typically cost around \$100,000 compared with \$70,000 for diesel trucks, while the fuel savings depend on the cost of diesel and natural gas.

Permitting delay could push back start-up at Tacoma LNG plant

(Tacoma News-Tribune; May 11) - Puget Sound Energy's plan to open its \$310 million Tacoma liquefied natural gas production and storage plant in 2019 could be in jeopardy. An additional environmental review of the plant ordered in January by the Puget Sound Clean Air Agency has led TOTE Maritime, which would be the plant's main customer, to delay the conversion of its ships' engines to run on LNG. Permitting delays and the extra review also have caused a state commission to cast some doubt on the project.

This week, commercial shipping company TOTE Maritime announced it's delaying the conversion of its two ships to run on LNG. It is planning to convert the ships that move cargo between Tacoma and Alaska to cut back on pollution. The ships now run on marine bunker fuel, a diesel-based mix. Despite the delay, TOTE "is fully committed to convert the Orca class vessels to LNG, the most environmentally friendly maritime fuel available," the company said in a notification to customers.

PSE spokesman Grant Ringel said the company hasn't officially offered a new time line for when the plant will be operational but acknowledged that the extra environmental review will cause delays. In January the clean air agency announced it would hire a consultant to do an in-depth analysis of the lifecycle of greenhouse-gas emissions that would be caused by the liquefaction and LNG storage plant. That review will include an examination of where the natural gas that's piped into the plant originates.

First Nations' group speaks in support of LNG development

(Caledonia Courier; Fort St. James; B.C.; May 11) - A group of northwestern B.C. indigenous leaders said they were encouraged by meetings with the provincial government about prospects for developing a liquefied natural gas industry in British Columbia. Members of the First Nations LNG Alliance traveled to Victoria this week, after Premier John Horgan's government breathed new life into the emerging industry with tax incentives for the proposed Shell-led LNG Canada export terminal in Kitimat.

The Alliance is chaired by Chief Dan George of the Ts'il Kaz Koh, formerly known as the Burns Lake Band. He said the group's role is to present the benefits and risks to communities along the proposed pipeline that would cross their territories. "There are very few opportunities that come along in northern B.C.," George said. "We have very small communities, we don't have prime real estate, so our economic development is very limited. These are once-in-a-lifetime opportunities for us."

The Ts'il Kaz Koh council has been working with TransCanada, proponent of the 415mile pipeline that would bring natural gas from northeastern B.C. to the Kitimat plant. "A pipeline uses a 200-metre right of way, and it's relatively small compared to the big picture in northern B.C.," George said. "We're still living in poverty, so the opportunities like LNG when they come along, are important," said Chief Clifford White of the Gitxaala Nation. "We have been fortunate that people have reached out in partnership with us."

Pipeline shortage knocks down price for Permian oil

(Wall Street Journal; May 10) - The main U.S. oil benchmark, West Texas Intermediate, has soared to its highest level in years at \$71 a barrel. Good luck getting that price in West Texas. In the epicenter of America's drilling boom, Permian crude is going for less than \$60 a barrel because oil output there has overwhelmed pipelines that connect the Texas desert to markets along the Gulf Coast and abroad. U.S. oil prices are splintering because of bottlenecks in the region due to crowded pipelines and worker shortages.

Producers would like to get their oil to places such as Houston, where it can be loaded onto tankers and shipped overseas. There the same crude fetches upward of \$73. But

it could be a year or more until new pipelines catch up with surging production. At the region's current growth rates, analysts at PLG Consulting expect that close to 200 million barrels of oil will be unable to make it to market in the next 16 months. "They're not going to be able to get it all out," said Taylor Robinson, president of PLG Consulting.

This has happened before. In 2014 Midland oil prices fell to a nearly \$20 discount to the national benchmark. Meanwhile, the latest price gap is an opportunity for infrastructure companies to build new pipelines or expand existing ones. Trucks and trains are coming back into vogue in West Texas, but neither is a perfect solution. Rail facilities could take months to get going. And the trucking industry is already stretched thin and already doesn't have enough drivers to move both crude and fracking sand.