## Qatar could win the race for new liquefaction projects FIDs

In April 2017, Qatar lifted the North Field natural gas production moratorium that had been in place since 2005. This will allow Qatargas to increase production from the world's largest gas field and export more LNG volumes. The company has plans to build three new liquefaction trains with a total capacity of 23.4 million t. This would lift the country's total export capacity to 100 million t (+30%).

The expansion comes at a time when there are several liquefaction trains in the US ready to take FID. The Qatari project represents a challenge for these projects as it is estimated that it has the lowest breakeven price of all the planned projects in the world. Rystad Energy estimates that the breakeven price for the Qatari brownfield expansion would be around US\$5.60 per MMBtu (including transport to Asia), which is around 34% below the breakeven price of the more competitive US projects.

Breakeven prices for the US projects are estimated to be between US\$7.50 and US\$9.10 per MMBtu (including transport to Asia). The main reasons for the Qatari project being more competitive are that natural gas production costs are below other regions, and its proximity to the Asian markets.

Qatargas signed a front-end engineering design (FEED) contract earlier this year sending a clear signal that they will go ahead with the development of the new trains. They have not yet disclosed the signing of long-term supply agreements with potential buyers, however, Chinese buyers could be especially interested in signing new agreements with Qatar since exports from the US could eventually be subject to tariffs if the

trade war between China and the US continues to escalate.

Rystad Energy forecasts that at least 56 million t of new LNG supplies will be needed by 2025. If Qatar goes ahead with the commissioning of the new trains the volumes could come online by the start of 2023 (considering four years of project development), thus an additional 33 million t of capacity would still be needed by 2025 to keep the market balanced.

There are several projects awaiting FID in the US such as Sabine Pass Train 6, Delfin, Driftwood, Rio Grande and Texas LNG. Additionally, there are projects in other regions such as Mozambique LNG and Fortuna FLNG that have advanced negotiations. These projects could add the required additional capacity but would need to start their development by 2020 to avoid a supply shortage as demand continues to grow. On the other hand, there is a risk that too many projects take FID, leading to a loose market with depressed prices after 2020.

Many of the planned projects have not secured project financing since the developers need to sign long-term supply agreements that can guarantee they can meet their financial obligations.

With the current tight LNG market driven by strong Asian demand and Asian Spot prices trading above US\$10 per MMBtu in the summer (a period when prices should theoretically drop), buyers could be more willing to sign new long-term supply agreements at the US\$8 per MMBtu level required to take the US projects forward.

Overall, Rystad Energy expects Qatargas to take FID within 2018 or early 2019. The additional 33 million t will have to come from the US and other international plants but developers need to avoid a race that could potentially create a supply glut.

## Qatar seen beating US in race to supply world with more LNG



## Bloomberg/London

It's going to be hard to trump the world's biggest liquefied natural gas producer on price.

Qatar can start making a profit from the fuel at threequarters of the cost of the cheapest US projects, according to Oslo-based researcher Rystad Energy. The Arabian Gulf nation, which became the world's richest per capita thanks to the superchilled fuel, plans to expand its own production, making it a formidable adversary as the US and Australia vie for its crown.

The nation can tap its share of the world's largest known gas deposit and benefit from its location as it plans to expand LNG output by 30%. That may cement its position and help meet rising demand in Asia.

The US is set to overtake Australia as the second-largest LNG exporter by 2023, according to the International Energy Agency.

"The Qatari project represents a challenge for these projects as it is estimated that it has the lowest break-even price of all the planned projects in the world," Rystad Energy said in a note.

"The main reasons for the Qatari project being more competitive are that natural gas production costs are below other regions, and its proximity to the Asian markets."

With Australia, Qatar and the US together meeting about 60% of global supply by 2023, "the balance of power between suppliers changes," according to the IEA.

It's not just about bragging rights. Controlling more global supply may give Qatar more clout in negotiating contracts. That comes as buyers form powerful global alliances and regulators increasingly scrutinise the way the fuel is sold. The US has a chance to catch up because it's becoming cheaper to build the plants that chill natural gas to minus 160 degrees Celsius (minus 260 Fahrenheit) to turn it into a liquid for export. But lower capital expenditure costs, don't necessarily mean cheaper LNG, Sanford C Bernstein & Co said in a report last month.

"While this looks very attractive at the surface compared to the projects in the rest of the world, capex only tells part of the story," Bernstein said. "We need to adjust for opexrelated items of gas purchases and shipping."

In the US, projects including Cheniere Energy Inc's Sabine Pass Train 6, Delfin LNG, Texas LNG, Tellurian Inc's Driftwood and NextDecade Corp's Rio Grande are all waiting for FIDs after Cheniere greenlighted a new unit at its Corpus Christi site in May. They will likely compete globally with Africa's Mozambique LNG and Fortuna FLNG, an expanded site in Papua New Guinea and efforts from Canada to Russia.

While the new projects could help meet demand and a potential shortfall, there may be a flip side, Rystad Energy said.

"There is a risk that too many projects take FID, leading to a

# Russian oil faces next challenge now that Opec deal is complete



## Bloomberg/Moscow

Russia's deal with Opec on crude supply is starting to look straightforward — when compared with looming decisions on how taxes will be levied on the nation's oil industry into the next decade.

The Duma, or lower house of parliament, was set to start discussing legislation yesterday, which aims to finally move the tax burden for Russian oil producers to the point of production rather than export, ending years of wrangling. The government now appears to be moving up a gear in pushing

through tax changes, prompted partly by protests over surging gasoline costs after international crude prices rose to multi-year highs.

The changes in the oil industry, which have become known as the tax manoeuvre, are also part of a wider fiscal overhaul aimed at boosting economic growth and increasing revenue. The plans will alter the long-standing system of charges relating to the provision of crude to refineries in Belarus and Kazakhstan which currently costs Russia about 140bn roubles (\$2.2bn) annually. The changes are now expected to take place over the next six years.

Russian government officials have become increasingly vocal about rising pump prices in recent weeks, mirroring a wave of state intervention in retail fuel that has swept from Latin America to India. Newly appointed Russian Deputy Prime Minister Dmitry Kozak secured a freeze in gasoline prices and touted the possibility of increased export taxes on the motor fuel to secure domestic supply. Looking to the longer term, lawmakers will now consider tax incentives to boost the production of gasoline, while measures to raise export duties or cap pump prices will only be looked at on an ad hoc basis, rather than as a main feature of the proposals.

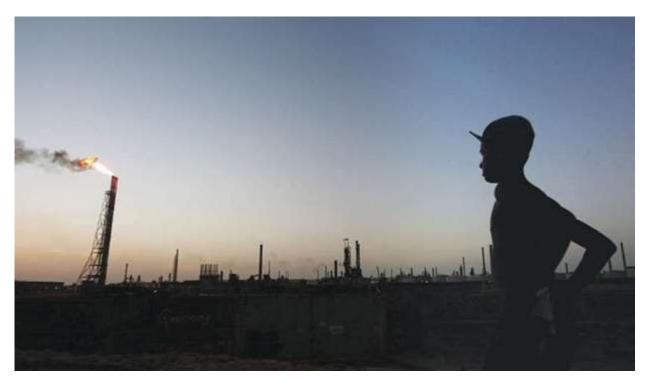
In addition to stimulating gasoline output, oil producers will be granted tax relief to alleviate concerns that the planned gradual increase in the extraction tax from the start of 2019 until 2024 will push up the cost of crude. Companies including state-run Rosneft PJSC, which could suffer from a drop in refining margins as crude costs rise, are expected to be compensated, depending on how much gasoline-processing capacity they have and also whether they are subject to international sanctions. Russia will also seek to introduce a ratio in the excise tax formula to cap increases in domestic fuel prices if global crude prices spike.

Russian export duties and extraction taxes currently equate to between 60% and 65% of oil prices and that will remain roughly the same with the proposed changes, said Denis Borisov, a director at the Ernst & Young Oil and Gas Center in Moscow.

The crude export duty will be abolished in 2024, a year before the scheduled end to tariffs between Russia, Belarus and Kazakhstan under plans for a wider customs agreement. There is currently a disparity in the levy on crude shipped to Belarus and the subsequent supply of fuels back to Russia. The government will also retain the right to reintroduce the levy if crude prices increase above certain limits.

There's still little clarity on how the plan would affect every single Russian oil producer as some of the formulas are yet to be expanded, said Alexander Kornilov, an analyst at Aton LLC in Moscow. "And practice shows that even the most detailed of Russia's schemes for oil taxes — its key source of budget revenue — are often adjusted and re-adjusted after adoption."

# Venezuela says China investing \$250mn to boost oil production



Bloomberg/Caracas

Venezuela's distressed oil sector may get some much needed financing from China, Finance Minister Simon Zerpa said after meetings with officials from China Development Bank and China National Petroleum Corp.

China Development Bank will invest more than \$250mn to boost Venezuela oil production in the Orinoco Belt, Zerpa, who is currently in Beijing for bilateral talks, said in a ministry statement.

"We've received the authorisation for a direct investment of more than \$250mn from China Development Bank to increase PDVSA production, and we're already putting together financing for a special loan that China's government is granting Venezuela for \$5bn for direct investments in production," Zerpa said.

The two countries will sign an additional three or four financing deals in the coming weeks, he said.

Venezuela's oil output averaged 2.9mn bpd in 2013, when President Nicolas Maduro was first elected. In June, output dropped to around 1.36mn bpd, according to International Energy Agency data. State oil company PDVSA has been struggling to send oil shipments to China after a legal order granted to ConocoPhillips froze its assets in Caribbean ports

and terminals.

Maduro has vowed to boost production by 1mn additional barrels, while critics say output will plummet to 1mn bpd by the end of 2018.

Zerpa, who has served in the post since October, was sanctioned by the US Treasury Department before his appointment.

## Big Oil, utilities are lining up for an electric vehicle war



## Bloomberg/London

A red-hot electric vehicle market has triggered a face-off between Big Oil and utilities.

Oil majors, who've sold fossil fuels to cars for a century,

are now moving into an electricity sector that's preparing for exponential growth. The problem is that utilities, the primary power suppliers for a century, have the same idea.

BP Plc predicts electric vehicle sales will surge by an eye-watering 8,800% between 2017 and 2040, making it an attractive business for oil companies as demand for gasoline and diesel are forecast to slow. Big Oil will have to battle the traditional utilities for charging at people's homes, on the road and even offices of green-car owners.

"It's the banging together of" industries "in a way that's never happened before," said Erik Fairbairn, the founder and CEO of Pod Point Ltd, one of the UK's largest electric-vehicle charging companies. Power providers are, for the first time, meaningfully interacting with car companies and the oil industry "is realising if they get this wrong then the requirement for them in the future is significantly diminished," he said.

The logic for oil companies is clear. Gasoline and diesel sales have been a backbone of their business since the internal combustion engine went commercial at the turn of the last century. But with drivers now becoming more conscious about emissions and the environment, most analysts forecast growth in demand of these fuels to slow and eventually drop.

Vehicle charging points are a way to bring drivers to oil companies' retail forecourts, keep the cash registers ringing and also bring in revenue from the sale of coffee and snacks. Tufan Erginbilgic, chief executive officer of BP's downstream business, estimates about half of the gross margin at its retail sites comes from non-fuel sales.

The British oil major said last week it would spend about \$170mn to buy electric-vehicle charging company, Chargemaster, with plans to add the technology to its existing network of retail stations. It follows similar moves by Royal Dutch Shell Plc, the world's second-biggest oil company by market value.

The deal "makes sense," Oswald Clint, an analyst at Sanford C Bernstein Ltd wrote in a report. "BP wants to remain a fuel retailer of choice, therefore they need an EV offering as those vehicle types rise in number."

However, Pod Point's Fairbairn estimates only 3% of car charging will occur while drivers are in transit, with the overwhelming majority plugging them in overnight at home or wherever they leave their vehicles sitting idle. This directly plays into the hands of existing utilities.

For power companies, EV charging is less of a hedge against losing customers and more of an opportunity to capitalize on what will likely be a big surge in electricity demand. Sweden's Vattenfall AB and Finland's Fortum Oyj are currently installing chargers at homes and outside offices. "What we see is that most charging takes place when the car is parked for four hours or more," said Tomas Bjornsson, vice president of e-mobility at Vattenfall. "Essentially at home, at work or at a destination like if you're going to a shopping mall, football game or whatever it could be. So this is really where we want to make sure that EV drivers get access."

Both utilities are also vying to provide drivers with charging infrastructure along highways such as at fuel stations, and rivalling the oil majors' plans.

"We are covering much of the value chain," said Rami Syvari, head of international sales and business development at Fortum Charge & Drive, a division focused on electric vehicles. "Not all customers are able to charge at home or at the office; it is an overall package."

Big Oil and utilities could, of course, coexist with fuel retailers dominating on-the-road charging and utilities taking on homes and offices. But the oil majors' ambitions are likely to be bigger.

Shell estimates 40% of vehicle charging will occur at home and another 40% at work. So last year it bought First Utility, the seventh largest power-provider in the UK, taking what is perhaps the most direct shot at existing electricity suppliers' market share.

The deal "should come as no surprise," Mark Gainsborough, executive vice president of New Energies at Shell wrote in a LinkedIn post in December.

In October, Shell said it was buying NewMotion, Europe's largest electric-vehicle charging provider. In late November, it reached an agreement with IONITY — a Munich-based venture between BMW Group, Daimler AG, Ford Motor Co and Volkswagen AG — to start charging stations in 10 European nations.

As the battle for market share heats up, Aleksandra O'Donovan, an advanced transportation analyst at Bloomberg New Energy Finance, believes both Big Oil and the utilities will have a part to play, and demographics and geography will determine each sector's success.

"It won't be one solution fits all," O'Donovan said. "The split will vary from country to country depending on how people live. It will be a different story in Norway versus Tokyo."

## EU observer says Zimbabwe election will be 'critical test'



## AFP/Harare

Upcoming elections in Zimbabwe will be a defining test of the country's new era, following years of disputed votes under ousted ruler Robert Mugabe, the European Union (EU) observer mission said yesterday.

Previous elections were marred by violence, intimidation and fraud — often alleged to involve the ruling ZANU-PF party and state security forces.

Mugabe's successor and former ally, President Emmerson Mnangagwa, has pledged to hold free and fair elections as he seeks to mend international relations and draw in foreign investment.

"These elections are a critical test of Zimbabwe's reform process," EU chief election observer Elmar Brok told at a press conference in Harare ahead of the July 30 vote.

"Given the context of past elections, great efforts need to be made to ensure public and political confidence.

"Necessary efforts include transparency and inclusivity, confidence in the integrity of the voter roll, emphasis on (the) secrecy of the vote and the peaceful conduct of the polls."

The poll will be the first ballot-box test for Mnangagwa since

Mugabe was forced out last November after 37 years in power.

EU observers have not attended Zimbabwean elections since 2002. The head of its mission at the time, Pierre Schori, was thrown out of the country on the eve of presidential elections widely condemned as flawed.

At Mnangagwa's invitation, the EU is to deploy 44 observers on July 30, with 44 more observers due to deploy before polling day.

Brok said the mission's work would include monitoring the conduct of the campaign, results transmission and resolution of disputes.

Mnangagwa, 75, is facing youthful opposition leader Nelson Chamisa in a presidential race that has a total of 23 candidates.

Chamisa, of the Movement for Democratic Change (MDC) party, has accused electoral officials and Mnangagwa of blocking essential electoral reforms.

The MDC will hold a demonstration next week to push its demands, which include observing the printing of ballot papers.

## Jordan Pipeline for Israeli Gas Set for Completion by End of 2019



A pipeline to transport \$10 billion worth of natural gas over 15 years from Israel's Leviathan field into Jordan will be completed by the end of 2019, according to the company buying the fuel.

Engineers building a 65-kilometer (40-mile) pipeline from Jordan's border with Israel northward across Mafraq province will finish their work on time to receive first gas from Leviathan at the start of 2020, Abdel Fattah Daradkeh, director general of Jordan's National Electric Power Co., said in a phone interview. A section of pipeline to move gas from the offshore field through Israel to the border is also under construction, he said.

After years of legal and regulatory logjams, the companies developing Leviathan are making significant progress to honor multibillion-dollar export deals. About 54 percent of the nearly \$4 billion Leviathan project has been completed, the companies said this week. Jordan, with negligible energy resources of its own, would become Israel's first buyer for gas from the Mediterranean reservoir.

Nepco agreed in September 2016 to buy about 3 billion cubic

meters of gas per year from the Leviathan partners, under a 15-year contract. That supply, coupled with renewed flows of Egyptian gas in the future, will be enough to meet domestic demand by 2020, Jordan's Minister of State for Media Affairs and Communications Jumana Ghunaimat said Tuesday in a phone interview.

The Israeli government has pushed for gas exports as a way to strengthen economic ties with Arab neighbors. Gas from Israel's Tamar field has been flowing to Jordan since the beginning of 2017. Jordan imported gas from Egypt until attacks by militants on the Egyptian pipeline network and rising local demand led the North African nation to halt shipments in 2013. Egypt is on track to export gas again since the discovery in 2015 of the mammoth Zohr field. Jordan will start receiving liquefied natural gas from Egypt under a seven-year deal from Jan. 1, Jordanian former Energy Minister Saleh Al-Kharabsheh said in April.

# Russia's oil production reached 16-month high before Opec+ deal

Russian oil production rose to a 16-month high in June, ahead of the country's agreement with Opec to ease restrictions on output.

The nation's oil companies pumped about 11.06mn bpd, 90,000 more than in May, preliminary data from the Energy Ministry show. Some of its biggest producers had pushed for a relaxation of output curbs long before Russia's key June 23 meeting with Opec, arguing that prices had risen too far.

June's fi gures show that Rus- sia breached its output quota — set at 10.95mn bpd in the original 2016 Opec+ deal — for a fourth consecu- tive month.

It's not the only country to raise supply: Saudi Arabia ramped up crude exports last month and is preparing to pump a record amount in July, according to people briefed on the country's energy policy.

Rosneft, Russia's largest oil com- pany, drove the nation's output high- er as its Yuganskneftegaz projects in west Siberia pumped more than last year, according to the ministry data. The explorer's assets, excluding those of Bashneft and joint ventures, produced just under 3.9mn bpd last month, 3.3% higher than a year ear- lier and up 1.6% from May. The Organization of Petroleum Exporting Countries and its allies agreed to increase production by about 1mn bpd starting July 1. Rus- sian Energy Minister Alexander No- vak said his country could add as much as 200,000 bpd, though later indicated the fi gure was preliminary and actual volumes supplied would depend on the capacity of other na- tions to raise output. Russia's production data, e-mailed yesterday by the ministry's CDU- TEK statistics unit, show June output rose 1.1% from a year earlier.

## Katara set to buy New York's Plaza Hotel for \$600mn



By Dmitry Zhdannikov/Reuters, London

Qatar has agreed to buy one of New York's most iconic buildings, the Plaza Hotel, for around \$600mn, adding a development that was once owned by US President Donald Trump, to its luxury property portfolio.

Qatar's state-owned Katara Holding is buying full ownership of the hotel, including a 75% stake from Indian business group Sahara India Pariwar. Katara and Sahara were not immediately available to comment.

Qatar has been buying top hotels and luxury properties in the West over the past decade as part of a drive by its \$300bn-plus sovereign wealth fund to diversify the wealth it accumulates from gas and oil exports. Qatar, the world's largest exporter of liquefied natural gas, already owns landmark hotels such as The Savoy and The Connaught in London. Its wealth fund, the Qatar Investment Authority (QIA), has also invested in large Western companies such as carmaker Volkswagen and mining giant Glencore.

Qatar has said the impact of a year-long blockade by its neighbours has been mitigated allowing it to resume large-scale investments abroad, including buying a stake in Russian oil major Rosneft.

The Plaza Hotel deal is the largest investment in the Western property market by Qatar since the start of the blockade in June last year.

Trump bought the Plaza in 1988, but had to sell it to a group of investors more than two decades ago as part of a bankruptcy proceeding.

Sahara has been trying to sell its stake for several years amid financial difficulties for its chairman, Subrata Roy. The Plaza has hosted guests including the Beatles and Marlene Dietrich, who performed there. It was also the site of Trump's marriage to Marla Maples in 1993.

The hotel has featured in movies including the 1959 American thriller by Alfred Hitchcock, North by Northwest; the 1991 drama Scent of a Woman starring Al Pacino; and the 1990 gangster drama The King of New York with Christopher Walken.

## Future of Big Oil Increasingly Shaped by Fate of Global Gas



- LNG demand is expected to grow fastest of all fossil fuels
- Shell's 2016 purchase of BG Group helped major catch Exxon

Majors including Royal Dutch Shell Plc and BP Plc have boosted their proportion of gas output in recent years, helping them trim Exxon Mobil Corp.'s lead as the world's most valuable oil company. Meanwhile Chevron Corp. added two giant Australian liquefied natural gas projects and Exxon is punching back with two major projects of its own, in Papua New Guineaand Mozambique.

Natural gas, seen as a clean bridge from coal to renewables, offers the best long-term demand growth among fossil fuels, particularly in its easy-to-transport liquefied form. At the same time, gas exploration comes with high upfront costs and long payback periods. How the majors handle those issues will become key drivers for success moving forward.

"We see the market growing rapidly, with gas demand growing

faster than overall energy demand," said Steve Hill, executive vice president for gas trading at Shell, the world's biggest LNG producer. "We don't see renewables as being a threat to gas."

Industry heavyweights and officials from LNG trading nations — including Qatar, Japan, South Korea and Australia — will discuss global gas dynamics at the World Gas Conference in Washington D.C. starting Tuesday. The meeting is in the U.S. for the first time in 30 years, reflecting America's shale-prodded gas clout.

## **Emerging Gap**

Liquefied natural gas demand will exceed supply without new projects

Gas emits about half as much carbon dioxide as coal. That means it's often seen as both a cleaner-burning alternative and a complement to wind and solar since it can produce electricity when the weather doesn't cooperate. While the global LNG market is likely to be well supplied until 2022, demand will grow by 4 percent to 7 percent annually from 2023 on, according to Bloomberg New Energy Finance.

## **Growth Path**

"In the fossil fuel area, it's the one clear growth part of the business," said Brian Youngberg, an analyst at Edward Jones & Co., based in St. Louis, Missouri.

With that growth, there's a "potential shortage" looming in the mid-2020s that can only be overcome by decisions on new export projects over the next two years, BNEF said in a March report.

Shell's purchase of BG Group for more than \$50 billion in 2016, around the time when oil and gas prices bottomed, was primarily a purchase of gas assets. Shell's LNG capability is

now twice as big as its nearest competitor, according to Edward Jones. It may have helped boost the Anglo-Dutch company's market value, which is now about \$53 billion less than Exxon, compared with about \$150 billion before the deal.

### **Gas Boom**

Shell's integrated gas sales regularly wallop upstream sales

BP is also undergoing a gas expansion. By 2020, the British major expects to produce about 60 percent gas and 40 percent oil, a reversal from 2014 when it was the opposite. Last year, six of BP's seven major projects brought on stream were gas, Chief Financial Officer Brian Gilvary said in an interview.

Chevron shares have returned 40 percentage points more than Exxon over the past three years, mostly because Chevron's giant Gorgon and Wheatstone LNG facilities in Australia came on stream, moving from a period of building and overspending to cash generation.

"Those assets were being risked quite heavily by the financial markets," said Tom Ellacott, senior researcher at Wood Mackenzie Ltd. "Now they're sunk costs and a lot of that risk has been unwound. They're massive cash generators for the company."

Also see: LNG's dormant mega-projects roused by surging Asia demand

Exxon is not standing still. Big Oil's worst performer over the last five years has made LNG a core part of its strategy to rebuild its upstream portfolio of assets, which is suffering from production declines.

The major sources of new LNG exports are likely to be from the U.S., Qatar, Mozambique and Papua New Guinea, BNEF said. Exxon has substantial gas operations in all of these countries, and the latter two are part of the company's five key global

projects for the next decade.

## Changing Mix

Gas accounts for a larger share of global primary energy consumption

Exxon is less worried about competition and more about having the lowest cost assets that will survive the price-swings that affect the market over time, Chief Executive Officer Darren Woods said in an interview last month.

Exxon currently produces about 55 percent oil and 45 percent gas. Woods doesn't expect that to "dramatically shift" but it may change slightly as major projects come on stream.

## **Challenged Model**

With the growth of renewable energy and the success of independents in shale oil production, Big Oil's business model is being challenged. The major producers' weighting in global equity indices is now at a 50-year low, Goldman Sachs Group Inc. said in a March report.

As such, LNG, with its high up-front costs, huge technical difficulty, and good growth rates, has become something of a safe place for the industry.

"The returns tend to be lower but once they're on stream, the cash margins are generally very high," said Wood Mackenzie's Ellacott. "It's increasingly becoming the domain of the majors."