

Goldman lifts its LNG price outlook 50% on China's one-two punch



Bloomberg/Singapore

Goldman Sachs Group Inc jacked up its spot LNG forecast after the market was hit by China's double blow of boosting demand for gas while lifting prices of the fuel's main competitor coal by limiting mine output.

The bank increased its 2019 estimate for the Japan-Korea Marker, a closely watched liquefied natural gas Asian benchmark, by 52% to \$9.50 per million British thermal units, according to a report from analysts including Christian Lelong. They also raised their 2020 projection by 43% to \$8.55, and boosted their outlook for UK natural gas prices.

China became the world's largest buyer of natural gas in May in its pursuit to reduce smog in urban centres, as it forces homes and factories to burn the cleaner fuel instead of coal. A cold winter last year, which was followed by a hot summer, also increased demand for LNG, while disruptions at production

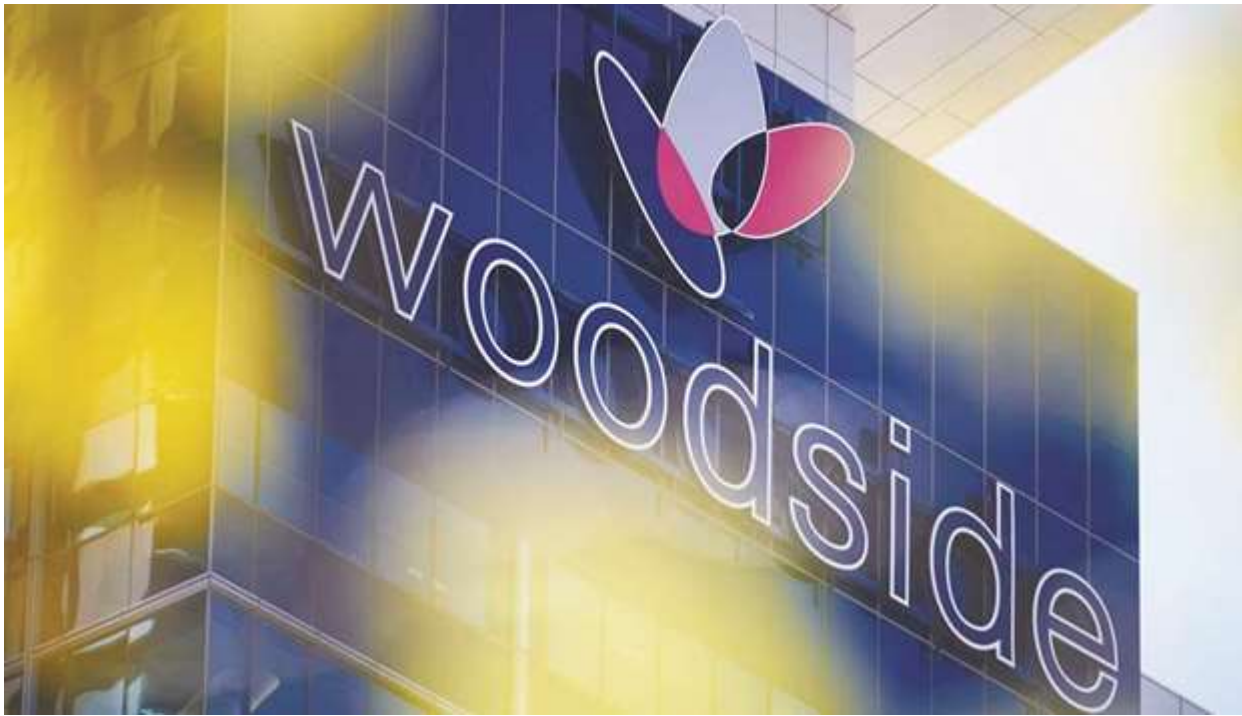
plants reduced supply and longer tanker journeys increased transportation costs, Goldman said its research note dated Oct. 17.

“Global gas prices have exceeded our expectations,” said Lelong and fellow analyst Damien Courvalin. “China’s war on pollution has created significant demand with limited price elasticity, and its supply reforms have reduced competition in the global fuel mix by closing thousands of coal mines.”

Goldman boosted its spot Asia LNG forecast for the upcoming winter to \$10.75 per million Btu, with downside potential if an El Nino event occurs and brings milder temperatures to East Asia. The bank raised estimates for UK natural gas prices by 45% in 2019 to \$8 and by 38% for 2020 to \$7.30.

Spot LNG in North Asia closed at \$10.50 per million Btu on October 15, according to a price assessment from World Gas Intelligence.

Woodside eyeing Browse gas project deal in 2020



Reuters/Melbourne

Woodside Petroleum Ltd yesterday said it was aiming to bring forward the target date for approving the mammoth Browse gas project off northwest Australia by a year to 2020, with the \$15bn cost estimate potentially being pared.

Woodside, operator and top stakeholder in Browse, expects the earlier final investment decision thanks to recent progress on technical contracts and commercial agreements for processing gas from the project, Woodside chief financial officer Sherry Duhe said yesterday.

"It is something that technically we're quite confident about at this point. And the progress that we're making, in particular on getting very imminently to sign the preliminary agreements, is also supporting that as well," Duhe told Reuters.

Woodside is driving Browse and the \$11bn Scarborough project, also off northwestern Australia, looking to capitalise on an LNG supply gap expected to open up in the early 2020s.

"It's really about us having the confidence to proceed and knowing that the market is there," Duhe said in an interview after the company released its quarterly production report.

Browse, the biggest undeveloped gas resource off northwestern

Australia, has been stuck on the drawing board for years as plans for onshore and floating LNG developments estimated at up to \$45bn were scrapped.

The development cost has been slashed as Browse will now feed the existing North West Shelf LNG plant, rather than requiring a new plant to be built.

And contractors have indicated there might be opportunities to trim the estimated \$15bn cost of the project, Duhe said.

Royal Dutch Shell, BP and PetroChina, along with Japan's Mitsubishi Corp and Mitsui & Co, are Woodside's partners in Browse.

"BP supports developing the Browse resources as soon as possible and is working hard with its JV partners to achieve that," a BP spokeswoman said.

However, a Mitsui spokesman said the joint venture had yet to agree on a 2020 target for a final decision.

Shell deferred to Woodside for comment, while Mitsubishi and Petrochina declined to comment.

Woodside, Australia's largest independent gas and oil producer, reported a 25% jump in third-quarter revenue to \$1.16bn, underpinned by rising output at the Wheatstone LNG project, run by Chevron Corp, and higher oil and LNG prices.

Production for the quarter rose to 23.1mn barrels of oil equivalent (mmboe) from 20.3 mmboe at the same time last year.

In Myanmar, Duhe said Woodside had obtained "encouraging" results from an appraisal of the Shwe Yee Htun gas find, but did not set out timelines for further work on it.

Climate action trumps Trump



By Laura Tyson And Lenny Mendonca /Berkeley

Now is not a good time to be a climate-change denier like US President Donald Trump, given all the recent evidence that the atmosphere is warming faster than expected.

On the Friday after Thanksgiving, for example, Trump's own government published a major report warning that unchecked climate change will impose massive economic and human costs on the United States. And that came on the heels of an alarming study by the United Nations Intergovernmental Panel on Climate Change (IPCC) that painted a dire picture of Earth's near future.

The IPCC finds that if greenhouse-gas emissions continue at current rates, the additional costs due to coastal flooding, droughts, storms, extreme heat, and wildfires will reach an estimated \$54tn by 2040. Shockingly, the world has only about a dozen years to keep global temperatures within 1.5°C above pre-industrial levels, a goal of the 2015 Paris climate agreement. Beyond that limit, even small temperature increases will raise the risk of catastrophic events, threatening millions with poverty and displacement.

For his part, Trump refuses to believe his own administration's assessment that climate change is man-made

and poses an existential threat. He has unilaterally withdrawn the US from the Paris climate agreement, leaving the country standing completely alone on the issue (though Brazil under incoming far-right President Jair Bolsonaro could follow suit). And he has dismantled environmental regulations and strengthened subsidies to boost the US fossil-fuel industry. Yet despite federal opposition to climate-change mitigation, cities and states are responding. Governors of states representing 40% of the US population and 46% of US GDP have committed to implementing the Paris agreement. Through the America's Pledge project, cities, states, and businesses accounting for over 35% of US carbon-dioxide emissions are adopting measures to cut them. State and local agencies are introducing new incentives and policies to encourage the use of renewable energy. A multistate taskforce has committed to putting a minimum of 3.3 million zero-emission vehicles on the road by 2025. And several states are preparing lawsuits to challenge the Trump administration's plans to roll back regulations on emissions from power plants and vehicles. Both the law and the facts favour the states.

State governments are also developing climate-adaptation plans. California, for example, is exploring ways to improve the health of its forests so that they will be more resilient to wildfires – timely, since scientists predict that the state's wildfires could be five times worse by mid-century, given base-case temperature rise simulations. And the California Coastal Commission is even considering a massive “managed retreat” plan to move residents away from the shoreline. Both the San Francisco Bay Area and Boston are strengthening natural barriers to absorb and disperse storm surges. Florida is preparing communities for hurricanes and rising sea levels through public-private partnerships across county lines. And with extreme weather threatening crops and livestock, the Iowa Farmers Union is lobbying for national measures to help farmers switch to more sustainable sources of power.

In the private sector, business leaders representing 20

economic sectors and upwards of \$1.3tn in revenue have publicly affirmed their commitment to combating climate change. A broad range of companies have joined the Climate Leadership Council and endorsed a carbon tax and dividend plan. Since 2014, the number of firms pricing carbon into their internal risk assessments has increased eightfold. And now, more than 90 large US companies have set, or have committed to setting, emissions-reduction targets consistent with the Paris accord, with over half of them reporting gains in competitiveness as a result.

Investors, too, are pushing for action on climate change. Globally, more than \$22.8tn – one-quarter of all funds under professional management – has been channelled into sustainable investment. And with climate change already posing a threat to around \$4tn worth of financial assets, the Financial Stability Board has created a task force to encourage more companies to disclose climate-related risks.

In recent years, the US has actually outperformed most other industrialised countries in reducing its CO₂ emissions. But that is largely due to its natural-gas boom, and the US is still the world's second-largest per capita emitter. At the global level, CO₂ emissions increased in 2017 after three years of stability and are headed to a record high in 2018. In most countries and regions, the Paris agreement's pledges, which already are insufficient to keep the increase in global temperatures below the 1.5°C threshold, are not being fulfilled.

According to the IPCC, to stay within this limit would require a reduction of human-caused net CO₂ emissions by 45% from 2010 levels by 2030, and by 100% by 2050. This is "possible within the laws of chemistry and physics," notes Jim Skea of the IPCC, "but doing so would require unprecedented changes." For example, emissions from industry would need to fall by 75-90% by 2050, while the share of renewable energies in the electricity mix would have to increase to 67%, from around 20% today.

Fortunately, innovation, investor pressure, the growth of

green finance, and falling renewable-energy prices all give cause for guarded optimism. Solar power is already the cheapest form of energy for new electricity capacity in the US and around the world, and it is half the price of fossil fuels in some emerging-market economies. By 2020, the cost of renewables already in commercial use is expected to fall within or below the cost range for fossil fuels. Ongoing innovations in electric-vehicle and jet-engine technologies will further reduce carbon emissions from transportation – with today’s technology, an electric vehicle has half the carbon emissions of a fossil-fuel-based vehicle over its lifetime. And other innovations like “regenerative organic agriculture” are reversing environmental damage through natural processes.

In addition to reforestation and new carbon-capture technologies, carbon pricing has an essential role to play in reaching the IPCC’s threshold target. Yet, despite a broad consensus among economists that carbon pricing is the most efficient and effective way to reduce emissions, it faces huge political obstacles. In the US, cap-and-trade and other carbon-pricing tactics remain confined to California and a few other coastal states. Worldwide, the 71 countries and regions that have introduced a carbon price account for only around 20% of total emissions.

At a recent climate summit in California, former US vice-president Al Gore argued that we can combat climate change with both old and new technologies, and that we must do so, because it poses an existential threat to us all. Whether we will, however, depends on the behaviour of political and business leaders in the US and around the world. In the absence of federal leadership, American states, cities, businesses, and citizens are rising to the challenge. – Project Syndicate

* Laura Tyson, a former chair of the US President’s Council of Economic Advisers, is a professor at the Haas School of Business at the University of California, Berkeley, and a

senior adviser at the Rock Creek Group. Lenny Mendonca, Chairman of New America, is Senior Partner Emeritus at McKinsey & Company.

Philippines edges nearer to China energy deal



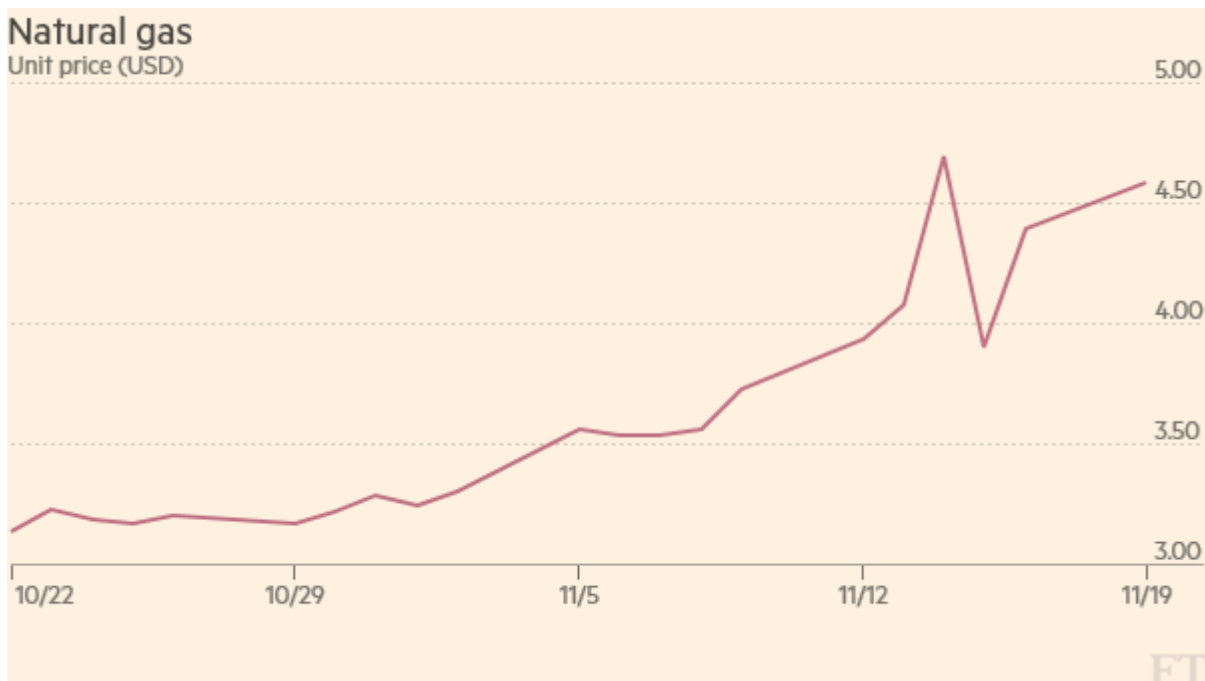
Philippines edges nearer to China energy deal China and the Philippines moved closer to a controversial deal on oil and gas development in the South China Sea yesterday in the latest sign of a deepening rapprochement between the two. As President Xi Jinping arrived in the Philippines for the first state visit by a Chinese leader in 13 years, a long discussed bilateral understanding to unlock rich offshore deposits was

signed between the two countries. Relations between Beijing and Manila had frayed because of a longstanding territorial dispute in the South China sea, but since becoming president in 2016 Rodrigo Duterte has tilted the Philippines away from the US, its additional ally, and towards China.

Yesterday Mr Duterte described Mr Xi's visit as "a landmark moment", adding: "We have turned a new page and we l I are ready to write a new chapter of openness and co-operation." But the framework oil and gas agreement was roundly condemned by Mr Duterte's political opponents. Opposition senators Antonio Trillanes IV and Francis Pangilinan urged Mr Duterte not to sign an agreement with China or any other country that "diminishes the Philippines' exclusive '[The draft deal] reverses our historic victory at The Hague and signs away Philippine sovereignty' rights". Doing so, they said, would violate the country's constitution. In 2016 an international tribunal in The Hague ruled in the Philippines' favour in its maritime dispute with China over what Manila calls the West Philippine Sea. Mr Trillanes yesterday circulated what he said was a Chinese draft of the deal, seen by the Financial Times, which proposed equal sharing of the proceeds from joint exploration and "friendly consultations" to resolve disputes. The FT could not independently verify the document's authenticity. "It is preposterous and treacherous;" said Risa Hontiveros, another opposition senator. "It reverses our historic victory at The Hague and signs away Philippine sovereignty in the West Philippine Sea." Both Mr Xi and Mr Duterte were keen to play down the issue. "China and the Philippines have a lot of common interest in the South China Sea," Mr Xi said, adding that the two sides would "continue to manage contentious issues and promote maritime co-operation". Mr Duterte spoke of "deepening trust" and said he was "pleased with the current positive momentum of the Philippines-China relations". The area of the South China Sea off the Philippines' Palawan island is thought to contain some of the region's richest energy deposits, but the country has until now been unable to explore it because of pressure from

China.

Options trading firm blows up amid natural gas volatility



Accounts managed by Optionsellers.com “had to be liquidated as a result of these moves,” said INTL FCStone, the company’s futures broker. As its name made plain, Optionsellers.com specialised in selling options contracts to earn income for its investors.

The Tampa, Florida-based company, headed by James Cordier, has been registered as a commodity trading adviser since 2010, according to records at the National Futures Association, a regulatory body. NFA declined further comment.

On Monday, the Optionsellers.com website contained only its name and contact information. Calls to the company were not returned.

Options give holders the right to buy or sell financial products at an agreed price by a given date. Selling options can be a reliable source of revenue when markets do not fluctuate.

However, it can also be an extremely risky strategy. If prices suddenly dive or jump – as they did in oil and gas – the seller can lose almost everything.

Natural gas was long one of the most volatile commodity markets, but surging production from shale formations reduced shortages and damped price moves. In August realised volatility in Nymex gas futures dropped to the lowest level since 1991.

Last week's move "was out of the ordinary given we had such low volatility for the past four, five, six years. You get kind of lulled," said Joe Raia, managing director at RJ O'Brien, a futures broker.

An archived version of Optionsellers.com website said the company specialised in dealing options on commodities. "There is only a small segment of the investment community that knows how to deploy it in a portfolio. The tough part is finding somebody that knows how to do it – right," the website said.

Opening a "starter account" required an initial investment of \$500,000, with "founder's club" and "platinum club" tiers set at \$1m and \$10m, respectively.

"Once you're in, you're one of our family. One of us. One of the elite. You're an Option Seller," the website said.

FCStone, a clearing firm at the futures exchange, is required to collect collateral from traders and post it at the exchange clearing house. An FCStone spokesman declined to comment on whether Optionsellers.com customers faced calls to repay any debit balances, but said their accounts were well collateralised.

“Liquidation of these accounts was in accordance with our customer agreements and our obligations under market regulation and standards,” the New York-based broker said.

Last week’s turmoil in energy markets began when crude oil futures dropped about 7 per cent on Tuesday. This was followed in natural gas by a rise of 18 per cent on Wednesday, then a 16.5 per cent fall on Thursday.

The volatility continues: on Monday, Nymex December gas closed 10 per cent higher at \$4.70 per million British thermal units.

IEA: Too early to tell if Opec+ oil supply reductions will succeed



International Energy Agency

The International Energy Agency said it's too early to tell whether oil-supply cuts announced by OPEC and its allies last week will succeed in balancing global markets.

Even if the Organization of Petroleum Exporting Countries and its partners reduce production as promised, there could be some surplus in 2019, according to a monthly report from the agency. The IEA slashed its forecast for new supplies outside OPEC next year because of a lower outlook for Russia – which is cooperating with OPEC – and Canada, which is separately suppressing output to deplete brimming inventories.

“Time will tell how effective the new production agreement will be in rebalancing the oil market,” said the Paris-based IEA, which advises most of the world's major economies on energy policy. “Stocks have been building with the potential for significant oversupply next year.”

Too Early to Tell

OPEC's cuts may not eliminate the surplus, but further losses from Iran and Venezuela could further shift the market's balance, the IEA says

Note: Both sets of figures still include production from Qatar, which will leave OPEC next month

Oil prices remain stuck in a bear market, trading near \$60 a barrel in London, despite the agreement by the 24-nation coalition known as OPEC+ to curb production by 1.2 million barrels a day. Traders are speculating that the cutbacks aren't deep enough, and that booming U.S. shale production will unleash a new surplus.

At just over 33 million barrels a day in November, OPEC is pumping well in excess of the 31.6 million a day the IEA estimates is required on average next year. Even if the coalition delivers its pledged cutback in full, it might not be enough to check a glut, though the IEA noted the potential for continued declines in supply from Iran and Venezuela.

OPEC Report

OPEC's own monthly report, published Wednesday, presented similar findings. While the cuts might be sufficient to keep supply and demand in balance in the first half of next year, the coalition may need to almost double the reduction in the fourth quarter, data from the report indicated.

The IEA assumes that Russia will participate in the cutbacks as agreed, and lowered projections for non-OPEC supply accordingly. The non-OPEC outlook was also reduced as the Canadian province of Alberta dials back output to clear a backlog that's clogging up local infrastructure.

Non-OPEC oil production is now forecast to increase by 1.5 million barrels a day in 2019, down 22 percent from the 1.9 million a day estimated in last month's report. Forecasts for global oil demand were kept unchanged.

Supply growth outside OPEC, which is driven by the U.S. shale-oil industry, is also being constrained as the construction of pipelines and other infrastructure fails to keep up with surging output at the Permian Basin and Bakken formation.

Despite the reduced supply outlook, the IEA report showed how OPEC's task of keeping markets balanced remains formidable.

Stockpiles Grow

Oil inventories in developed nations are above average levels again, after increasing for a fourth month in October. They stood at 2.87 billion barrels, the highest since January.

Although the IEA had warned OPEC that efforts to boost prices could hurt the global economy, the report didn't criticize the group's strategy.

Just last month IEA Executive Director Fatih Birol said that output curbs risked tightening markets excessively, having previously cautioned that prices had approached the "red zone" that inflicts damage on economic growth.

"Recently, prices have been volatile," the agency said in its latest report. OPEC is due to meet again in April, "and we hope that the intervening period is less volatile."

IEA Says OPEC's Unplanned Supply Losses Could Double Its Cut



OPEC may be about to succeed by accident, again.

Unplanned supply losses from members Iran and Venezuela could effectively double the intended cutback of 800,000 barrels a day the cartel pledged last week, according to the International Energy Agency.

There's a precedent for this: It was the Latin American country's collapsing oil industry that accelerated OPEC's effort to clear a supply glut in 2017. This time, U.S. sanctions on the Persian Gulf nation could amplify that effect.

Going Deeper

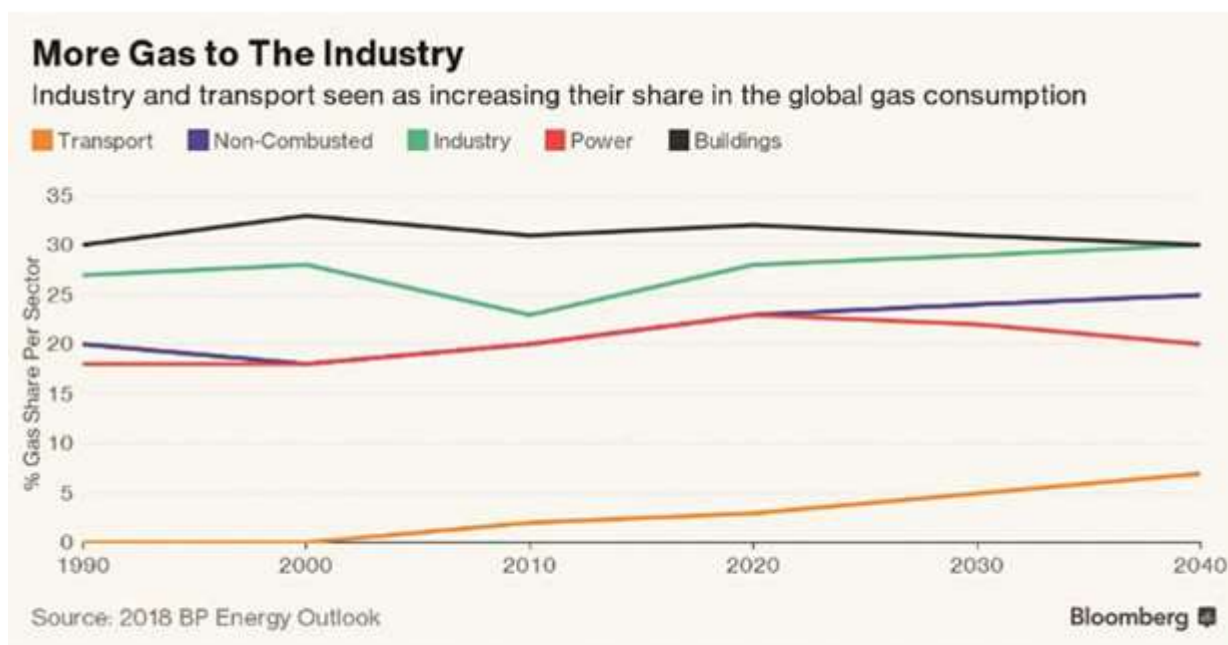
The IEA assumes Iran and Venezuela's losses will double the size of OPEC's cuts

OPEC production may decline by 1.4 million barrels a day from October levels to 31.5 million a day during the first quarter and then slip further to 31.2 million in the second, according to the IEA's monthly oil market report.

The reduction, which the agency says is an assumption rather than a forecast, includes both the planned OPEC cutback of 800,000 barrels a day, plus involuntary losses of 600,000 barrels a day in the first quarter from Iran and Venezuela – both of whom are exempt from making voluntary cuts. In the second quarter, the pair's reduction will rise to 900,000 barrels a day, the IEA said.

If the agency's assumptions are correct, global oil inventories could shrink substantially in the second quarter, a phenomenon that's often accompanied by rising prices.

Natural gas tries to eke out a future in greener world



Bloomberg/Frankfurt

The natural gas industry is trying to up its green credentials as it bids to join electric cars and renewable power plants in

a lower-emission future.

European energy companies spent years touting the role gas can play as a transition fuel to replace dirtier sources of round-the-clock power. Now they are increasingly promoting gas as a cleaner alternative to oil products in transportation and investing in technology to produce less-polluting fuel.

“Natural gas will play a bigger role in a greener world,” Guy Smith, head of gas trading at Swedish utility Vattenfall AB, said on Tuesday. “It will be the fuel of choice for an intermediary situation towards a greener economy, and after that, new technologies will come and drive the markets.”

With governments and investors increasingly concerned about climate change, and meeting in Poland for UN climate talks, the natural gas industry has questioned its own survival. The fuel’s share in primary energy supply is expected to rise to a quarter by 2040, though annual consumption growth is expected to slow to 1.6% from 2.3% over the 25 years to 2016, according to the International Energy Agency.

The fact that natural gas is less polluting than other fossil fuels, with emissions as much as 55% below those of coal, have made it an energy company darling. Companies from Scania AB to Royal Dutch Shell Plc are investing to increase the role of natural gas in the transportation sector.

“The view that gas is just a transition fuel is changing,” said Eva Hennig, chairwoman of the distribution system operators committee at Brussels-based industry lobby group Eurogas.

Austria’s OMV AG is assessing a liquefied natural gas corridor for trucks from Germany to Bulgaria, one of the main traffic routes for international heavy traffic in Europe, it said in an emailed statement. The company, which operates more than 2,000 filling stations in 10 countries, declined to provide more details on the investment.

“If you want to stay in the game, you have to play it and decarbonise,” said Kaloyan Tsilev, EU affairs manager at Brussels-based lobby group Natural & Bio Gas Vehicle Association Europe. “Change the portfolio to accommodate the

demand.”

Shell expects the global market for LNG as a transport fuel to quadruple by 2030 as implementation of government policies that tax carbon emissions prompts demand for cleaner sources.

“Transport is an area where gas hasn’t played a role historically, but it can,” Steve Hill, executive vice-president at Shell Energy, said at a conference in Lisbon last month. “Cars will be electrified eventually, but heavy-duty transport, where you have to move heavy loads long distances is not very suitable for batteries and electricity, which can be a segment for LNG.”

The challenge for natural gas to expand into transportation is the lack of political will and a better regulation framework, according to Manfred Leitner, an executive board member at OMV. Current European legislation focuses on vehicles emissions, which put electric cars in a better position than other technologies.

“There are incentives only for electric cars. They are defined as low emitters, but when you look at the whole chain you ask yourself where the electricity comes from?,” Leitner said in a telephone interview. “The gas for mobility market would fly if there was political will. We see a better future with a mix of technologies.”

Natural gas companies are also investing in technology to clean the fuel. Green gas should help Engie SA, Snam SpA, Gas Natural SDG SA and other electricity generators as well as operators of gas pipelines and storage facilities to ensure long-term demand for existing infrastructure, Elchin Mammadov, a Bloomberg Intelligence industry analyst, said in a recent report.

“The decarbonisation of gas is possible and is a very important part of the narrative of the climate talks” taking place this week in Poland, said Dr Ludwig Mohring, head of German oil, gas and geothermal energy lobby BVEG said at a conference in Berlin last month. “Natural gas will be the second element next to renewables.”

U.S. Oil Surge Makes Bank of Russia Skeptical on OPEC+ Success



Russia's central bank is not convinced that OPEC and its allies' supply cuts can revive the oil market as it's being countered by surging U.S. production.

The Bank of Russia cut its crude price outlook for next year to \$55 a barrel from \$63 on higher supply risks, mainly related to "fast output increase" in America, according to Governor Elvira Nabiullina. Just a week ago the country's Energy Minister Alexander Novak brokered a deal that led to the so-called OPEC+ group agreeing to cut production by 1.2 million barrels a day in an effort to boost prices.

Crude remains stuck in a bear market, trading around \$60 a barrel in London, despite the larger-than-expected output reduction. While most, including the International Energy Agency, expect the curbs to reduce global stockpiles in the first half of 2019, resultant higher prices could help American drillers boost production. Legendary oil trader Andy Hall said the U.S. shale boom has made it far harder to predict global supplies.

OPEC kept 2019 forecasts for global oil supply and demand mostly unchanged in its most recent monthly report this week. However, it said production from outside the group, powered by U.S. shale drillers, is poised to expand 2.16 million barrels a day next year, faster than the 1.29 million a day increase in demand, the report showed.

U.S. oil production is expected to top 12 million barrels a day next year, up from 10.88 million in 2018, according to the Energy Information Administration.

Though the Bank of Russia is traditionally cautious in its outlook, it cited crude market risks as a key factor in raising the benchmark interest rate for the second time this year on Friday. Besides shale output exceeding “expectations of many,” softening global demand is also a concern, Nabiullina said.

“We see risks of oil-price reduction related to demand and supply factors,” she said. “We see how outlooks for global economic growth are gradually being revised down.”

Kristian Ulrichsen: Leaving OPEC Reinforces Qatar's Autonomy



Kristian Ulrichsen, a Baker Institute fellow and author of “The Gulf States in International Political Economy,” published an op-ed in The New York Times this week on the logic behind Qatar’s decision to leave the Organization of Petroleum Exporting Countries, commonly known as OPEC.

According to Ulrichsen, OPEC has become mired in geopolitical disputes like the Saudi-Iranian rivalry, to the detriment of its member states and its central mission to stabilize international petrochemical markets.

Qatar has persisted in its mission to serve as a secure natural gas exporter. Qatar provides more than half of India’s natural gas imports, as well as 14-15% of China’s, Japan’s, and the UK’s, according to the MIT Observatory of Economic Complexity. Following the illegal blockade, Qatar signed long-term natural gas agreements with China, Japan, and the UK. Qatar even still provides natural gas to the United Arab

Emirates through the Dolphin Pipeline, despite the blockade.

Qatar remains committed to the central mission of mission of OPEC – maintaining a stable international market for petrochemical products. Its decision to increase natural gas exports was in response to a projected increase in international demand, according to then-CEO of Qatar Petroleum, Saad Sherida Al Kaabi. Qatar Petroleum is investing \$20 billion in U.S. oil and gas fields, most notably the Golden Pass LNG terminal in Texas, even though the U.S.'s LNG exports will inevitably compete against Qatar's primary source of revenue in the global market.

Qatar's departure from OPEC is a business decision, allowing Qatar the autonomy to develop its natural gas resources – its foremost economic strength – independent of other members' geopolitical agendas.