

# A radical outlook needs strategy to match



By 2035, renewables (solar and wind) will account for more than 50 per of global powergeneration; electric vehicles will be the low-cost option for car, van and small-truck drivers; oildemand will be declining; and gas demand will have peaked. Total energy demand will beplateauing despite a growing global economy and a still-rising population.This is not, as you might imagine, the latest summary of aspirations from a campaign group suchas Greenpeace or Friends of the Earth. Nor is it an ambitious claim by one of the renewables tradeassociations. In fact, all the statements above are drawn from a serious, considered projectionproduced by McKinsey, the global management consultancy.The quality of the McKinsey energy outlook for 2019 lies in its internal consistency and the clarityof its conclusions. The view presented is simple but entirely credible because of how it isconstructed. The authors justify each judgment with a logic that is built on a bottom-up forecast,region by region and sector and sector.

Crucially, the study is based on economics rather than public

policy. This is not a thesis about what could or should be, but a description of how the trends that are already evident are likely to evolve. Policy can certainly support and accelerate the trends but very little in this projection is dependent on government decisions. The key is the falling cost of renewables, which are set "to become cheaper than existing coal and gas in most regions by 2030", McKinsey says. That will encourage electrification across the global economy, driving efficiency by replacing less productive forms of supply. The authors resist making too many guesses about the implications of their projection, but it is impossible to escape the conclusion that increasing supply and peaking demand will lead to considerably lower prices. Much coal, gas and oil will be stranded – not because of a carbon tax or any other climate-driven policy initiative but simply because the market is saturated.

If renewables are set to supply 50 per cent of the global power generation market by 2035 (BP in its own recent long-term projection sees the same trend and predicts a 50 per cent share by 2040), how much could they take by 2050 and where does that leave the hydrocarbons business? Oil – and to some extent natural gas – can find an alternative market in petrochemicals but the long-term outlook is for steady decline. Tellingly, nuclear – a legacy industry made uncompetitive by renewables especially as storage technology advances – is barely mentioned. But McKinsey's radical outlook does not suggest that the problem of carbon emissions and the risks of climate change will be easily resolved. Hydrocarbon consumption on this projection is still high enough to keep emissions rising. If the climate models of the Intergovernmental Panel on Climate Change are correct, atmospheric carbon concentrations will continue to grow and the risks of serious climate disruption will remain.

Change is coming too late and too slowly to prevent temperatures rising and extreme weather conditions

becoming more common. Over the next 20-30 years the energy business is set for an industrial revolution. The 20th-century energy economy, centred on coal and oil, is giving way to something very different. And this transition has ceased to be a matter for the distant future or something that can be pushed off by industry leaders to the next generation of executives. The complacency that smothers hard thinking in most of the major energy companies is outdated. In an industry that thinks on a 20-year horizon, 2035 is within the immediate planning horizon. The revolution is happening now. Establishing a corporate strategy for producing value in very different market conditions should be a priority for all in the sector. We are entering the season when energy companies produce their annual reports and hold their AGMs. Shareholders, large and small, would be well advised to ask the managers and non-executives who work for them to set out in detail their plans for the transition. I would be delighted to publish a collection of the answers.

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**Oil lobby group opposes carbon tax backed by biggest members**



Proposals to tax greenhouse gas emissions have been attacked by the head of the US oil refinery trade group even though the idea has support from some of his largest member companies including BP and ExxonMobil. Chet Thompson of American Fuel & Petrochemical Manufacturers said a carbon tax would be “bad public policy” that raised prices at the pump. He called it “fanciful” to describe such a tax as revenue-neutral. A group of large companies, including several oil producers, has embraced a carbon tax as an efficient way to drive down emissions heating the planet. They were joined this year by economists, including 27 Nobel laureates and four former chairs of the Federal Reserve.

The \$3.4m that AFPM spent on federal lobbying in 2018 was the second most of any oil and gas trade group, according to the Center for Responsive Politics. Its opposition points to a rocky path for carbon-tax campaigners even as the climate debate takes on more urgency in Washington. “We have not seen a carbon tax proposal yet that we think comes anywhere close to meaningfully addressing the climate issue,” Mr Thompson said. “The only thing we’ve seen so far are proposals that would raise the price of our products and make it harder for certain segments, particularly less economically viable

segments of our society, to afford them." AFPM's stance is at odds with some of its member companies.

BP, Exxon, Royal Dutch Shell and Total or their subsidiaries are regular members of AFPM. BP has a delegate on its executive committee. They are also founding members of the Climate Leadership Council, a group established in 2017 to advocate for a carbon fee that would fund dividend payments to US households. Investors and environmental activists have chastised energy majors for membership of organisations that undermine efforts to address climate change. A veteran environmental lawyer who served in President George W Bush's administration, Mr Thompson said his association accepted that humans had contributed to climate change. To guard against the higher seas and storms expected to worsen with global warming, he said that coastal refineries had elevated control rooms and electrical transformers, among other measures. The investments paid off when Texas refineries rebounded quickly after Hurricane Harvey in August 2017, he added. AFPM also supports a proposal to raise octane levels in petrol, a shift that Mr Thompson said could reduce carbon emissions equivalent to adding 720,000 electric vehicles to roads each year. "That doesn't mean I'm going to accept bad public policy," Mr Thompson said.

"Can I right now articulate a perfect public policy on this? No. I believe that mankind is going to rise to this challenge just like we've risen to every other challenge and there's going to be breakthroughs that are going to help solve this problem. Do I think the breakthrough is a carbon tax? I do not." Greg Bertelsen, senior vice-president of the Climate Leadership Council, said that a carbon fee would be the "most efficient and effective" type of climate policy. The dividend would pay the average family of four \$2,000 a year, he added. "The amount of dividend they would receive would be greater than any increased cost for energy," Mr Bertelsen said. American Petroleum Institute, the biggest oil and gas trade

group in Washington, said in response to questions that it “will evaluate and respond to specific legislative proposals on carbon taxes, rather than broad policy outlines”. While the US electric power sector has cut carbon emissions in recent years, emissions from oil use were on track to reach nearly 2.4bn tonnes in 2018, the highest in a decade, according to data from the Energy Information Administration. Diesel and jet fuel have underpinned the rise, reflecting the strong US economy and more air travel.

Refinery operations alone emitted about 260m tonnes of carbon dioxide equivalent in 2018, EIA estimated. BP said: “We belong to trade associations because they represent their members on a wide range of issues. We do not expect to agree with, nor do we agree with, trade associations on all issues. BP’s position on carbon pricing has been public, clear and longstanding: we believe carbon pricing is one of the most significant steps to reduce emissions and meet global climate goals.” Shell said: “We have long recognised the importance of government-led carbon pricing systems as an essential tool for reducing emissions. We have also been very clear that the challenge of tackling climate change can only be met through unprecedented collaboration, and we are fully committed to constructive dialogue and input from investors, governments, customers and wider society.” Exxon has pledged \$1m to Americans for Carbon Dividends, a lobbying affiliate of the Climate Leadership Council. It said that “membership in an association should not be construed as automatic support for all of that organisation’s policy positions”

. Mr Thompson also criticised the Green New Deal, a plan by congressional Democrats for the government to rapidly move society away from fossil fuels. “Ridding the world of our products, as suggested by the Green New Deal, is certainly not in the best interests of mankind. The world is such a far better place because of our products. There is no scenario in which I would accept the fact that the world would be better

off without our stuff," he said.

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## Carbon emissions fall in UK for sixth consecutive year



Carbon dioxide emissions in the UK fell for the sixth consecutive year in 2018, driven by falling coal usage in power generation, according to a new report. Last year, emissions were the lowest on record since 1888, apart from during years affected by major industrial action by workers, including 1893 and the 1926 general strike, said Carbon Brief, a climate research and news website. Emissions dropped 1.5 per cent in 2018 compared to 2017, added Carbon Brief, noting that the sustained period of reductions started in 2013.

"This is the longest stretch of consecutive years with falling emissions," said Simon Evans, author of the report at Carbon Brief, which based its findings on government data. However,

the decline in emissions in 2018 was the smallest fall across the six-year period, raising concerns that the recent run of reductions could be coming to an end. "The UK's emissions reductions are being flattered by reductions in the use of coal, but other sectors aren't going in the same direction," said Mr Evans, noting that oil and gas usage were largely unchanged last year. Carbon emissions were about 361m tonnes in 2018, a reduction of 39 per cent from 1990 levels. The UK is working towards a target of an 80 per cent reduction on 1990 levels by 2050.

As part of its efforts to cut emissions, Britain is aiming to phase out all coal-fired power stations by 2025. Coal accounted for less than 5 per cent of UK power generation last year, down from more than 40 per cent in 2012. Electricity coming from renewable energy sources, such as wind and solar, rose to a record high of 33 per cent in 2018. Power generation from fossil fuels fell to a record low of 46 per cent. Much of the UK's reductions in carbon emissions have come from the power sector, but groups such as the Committee on Climate Change, a government advisory body, have urged more action to promote clean energy in transport and heating. "The closure of coal is within sight and that has been hugely successful for the UK," said Chris Stark, chief executive of the committee.

"What that means is that we're not going to see the same falls [in carbon emissions] in the future unless policies are extended to other sectors." He added: "We're on a good path now, and we need the government to use the policies they have in place to substantially increase the amount of renewables we have producing energy."

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# Kenya recalls ambassador to Somalia over water rights clash

NAIROBI, Kenya (AP) – A top Kenyan official says the country has recalled its ambassador to Somalia and told the Somali ambassador to leave over an alleged land grab by Somalia.

Foreign Affairs Principle Secretary Macharia Kamau said Saturday the recall is a consequence “of a most regretful and egregious decision by the government of Somalia to auction off oil and gas blocks in Kenya’s maritime territorial area that borders Somalia.”

Kenya and Somalia are embroiled in a legal tussle at the International Court of Justice over their territorial waters in the Indian Ocean.

Kamau said the land grab is tantamount to an act of aggression against the people of Kenya and their resources.

Kenyan troops are part of the African Union force bolstering Somalia’s weak government against an extremist insurgency.

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# Europe Spars Over Its Own Green Deal as Germany Urges Prudence



The opening round of talks over the next green deal in Europe highlighted differences between governments over the means and pace of transforming the continent's economies to avoid catastrophic climate change.

Germany sounded caution as energy ministers from member states debated a proposal to aim for net-zero emissions from the bloc by the middle of the century. Governments differed on issues including the pace of emissions cuts and the energy sources and technologies to rely upon, while many stressed the importance of preserving jobs and competitiveness.

"Germany wants to ensure that Europe remains a pioneer in the future and that we see climate strategy as a major opportunity for all countries," Thomas Bareiss, a deputy economy and energy minister, told his counterparts at their meeting Monday in Brussels.

"Nonetheless, I think it's important that we acknowledge the major challenges that we face and be responsible in that regard," he added. "We must ensure growth and well-being for our citizens at the same time as an environmental transition."

The 28-nation EU, responsible for 10 percent of global

greenhouse-gas emissions, is planning ahead to give direction to national governments, companies and citizens in fighting global temperature increases. In the next step, EU environment ministers will discuss the blueprint for a transition to an emissions-neutral economy on Tuesday.

The strategy, drafted by the European Commission in November, is aimed at showing how determined the bloc is to honor the Paris climate accord's targets, even in the face of President Donald Trump's decision to take the U.S. out of the 2015 agreement signed by almost all other countries.

In his latest comments on climate, Trump said on Saturday that the so-called Green New Deal to phase out fossil fuels, championed by first-term Representative Alexandria Ocasio-Cortez, would "destroy American energy" and boost his 2020 campaign.

Even though Europe has been traditionally a more committed advocate of environmental protection than the U.S., Monday's meeting in Brussels showed that governments don't take the costs of transition lightly. The bloc must ensure that it also provides prosperity in order to be able to convince other partners in the world to follow suit, Bareiss said.

"We must not forget when discussing details that there's an overarching strategy that cannot be forgotten and it's sometimes better to take slower steps forward so that we don't forget the bigger picture," he said.

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## **EU Unveils Plan to Cut**

# Emissions to Zero, in Bid to Save Planet



The European Union unveiled its long-term vision on combating climate change in a push for more ambitious action on the environment just days after U.S. President Donald Trump rejected his government's warning on the economic costs of global warming.

The 28-nation bloc, responsible for 10 percent of global greenhouse-gas emissions, set a 2050 perspective to help give direction to member states, companies and citizens to anticipate costs in fighting temperature increases. The EU's updated strategy comes a week before representatives from almost 200 countries are due to meet in Poland for an annual conference on addressing climate change.

"With this plan, Europe will be the world's first major economy to go for net-zero emissions by 2050," EU Climate and Energy Commissioner Miguel Arias Canete said. "It is necessary to meet the long-term temperature goals of the Paris Agreement. It is possible with current technologies and those close to deployment," he said.

While the new European strategy doesn't propose changing the bloc's 2030 goal, it sets seven building blocks for the following decades that could be turned into binding targets

later on. These range from energy-efficiency measures, including developing zero-emission buildings and smart infrastructures and greater use of renewable-energy sources.

“Going carbon-neutral will spur investments in European clean-energy solutions of up to almost 300 billion euros (\$339 billion) a year,” Arias Canete said. “And overall, it will help grow our economy up to 2 percent of GDP by 2050.”

The steps are aimed at showing how determined the EU is to honor the Paris accord’s targets even in the face of Trump’s decision to take the U.S. out of the 2015 agreement signed by almost all other countries in the world.

The EU currently has a binding target of cutting emissions by at least 40 percent by the end of the next decade. That’s not enough to meet the Paris objective of keeping global temperature growth well below 2 degrees Celsius, a move scientists say is needed to prevent catastrophic effects of global warming.

“There are many challenges on the road. But with climate change, business as usual is not an option and we cannot afford the price of inaction,” Arias Canete said. “Going climate-neutral is necessary, possible and in Europe’s interest.”

For the EU, which wants to lead by example, the long-term strategy is also a political tool to demand more at the next United Nations talks that start next week in Katowice, Poland. Envoys at the meeting will aim to draw up a rule-book to implement the Paris deal and its mechanisms to step up carbon reductions worldwide.

On Wednesday, Arias Canete will discuss the plan with the European Parliament in Brussels. The European Commission, the EU executive, says all relevant national actors should have policy debates in order to prepare heads of state and government for a meeting on the Future of Europe on May 9,

2019, in Sibiu, Romania.

EU member states are to submit by the end of 2018 their own draft national climate and energy plans, which should take into account the bloc's latest strategy. The EU calls for expanding cooperation with global partners over the years so that all nations, rich and poor alike, submit their own national long-term view. That should also include business associations, regions and cities that are already ironing out their own long-term visions.

"If we do not lead, nobody else will," Arias Canete said. "And if nobody else acts, unrestrained climate change will severely impact Europe, as well as everybody else."

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## **Russia's Arctic LNG project aims to tempt fuel-hungry Japan**



US shale revolution spurs Moscow to look east for new markets

TOKYO – Russia’s push for Japanese participation in an Arctic energy project comes as the world’s largest natural gas exporter, faced with the rise of the U.S. as a rival, looks to Asia to diversify.

Russian gas company Novatek’s Arctic-2 liquefied natural gas project is located on the Yamal Peninsula, where conditions are remarkably harsh even for the natural gas industry, which is known for plopping down work sites in jungles and deserts.

The peninsula, whose name means “end of the land” in the indigenous Nenets language, boasts rich gas reserves. But with temperatures approaching minus 60 C at times, extracting it requires dealing with permafrost, and icebreaker ships are needed to transport it.

Novatek’s first project there began operating in 2017. The company has asked Japanese trading houses Mitsubishi Corp. and Mitsui & Co. to participate in the second – something the Japanese government has welcomed as an opportunity to encourage progress on a long-running territorial dispute with Moscow.

Russia is a relative latecomer to the LNG business, as most of its gas exports travel to Europe by pipeline. Before the Yamal projects, its only LNG plant was Sakhalin-2 in the Russian Far East, which Mitsubishi and Mitsui are also involved in.

A clue as to the reason for Moscow's sudden enthusiasm for LNG lies in a comment by President Vladimir Putin that development in the Far East is pivotal to Russia's advancement.

To maintain its position as a leading energy producer, the country needs to cultivate Asian markets, which are now driving demand. This requires not only pipelines to directly transport gas to China and elsewhere, but also facilities to liquefy gas for shipment to more distant destinations.



Two trends have encouraged Moscow to look eastward: concerns in European countries about overdependence on Russian gas, which resurfaced after Moscow's 2014 annexation of Crimea, and the rise of the U.S. as a major oil and gas producer.

Facilities for processing shale gas into LNG and petrochemicals have proliferated along the Gulf of Mexico in the U.S. states of Texas and Louisiana. The surge in production of cheap shale gas has transformed America's energy outlook from the days when Washington forecast that the country would need to import 390 million tons of LNG annually to meet its energy needs in 2030.

For natural gas exporters, this development has not only robbed them of an anticipated source of growing demand, but also – with the start of U.S. LNG exports in 2016 – led to the emergence of a rival supplier. LNG from Africa and the Middle East that had been expected to go to America has flowed into Europe instead, threatening Russia's near-monopoly and prompting it to turn to Asian markets.

Faced with sanctions from Western countries over the Crimea annexation, Moscow is seeking support from Asian natural gas



buyers – particularly Japan, the world’s largest LNG importer – to ensure the success of its Arctic development.

Tokyo is pressing Mitsubishi and Mitsui to make a decision, but doing so may prove difficult. While the trading houses understand the potential significance of the Yamal project as a new source of LNG, American LNG shipments are also starting to arrive in Asia.

Mitsui and Mitsubishi must examine whether Arctic LNG can be competitive under these conditions. They also have to consider ramping up production at Sakhalin-2, which already has a 10-year track record, as a potentially quicker alternative.

Complicating matters further is Russia’s relationship with Saudi Arabia, the world’s largest exporter of crude oil, which has also been hit by the shale revolution. Moscow and Riyadh have teamed up to oppose rising shale oil production and to cut output in an effort to stabilize prices.

Their cooperation may not stop there. Saudi Arabia is looking to become an international energy player, focusing initially on building a “global gas” business, Energy Minister Khalid al-Falih told *The Financial Times*. The Russian Arctic-2 project is a potential candidate for this effort, and al-Falih has indicated that Riyadh is interested in buying a 30% interest from Novatek.

“If Russia and Saudi Arabia take the lead on the project, Japan will be overshadowed,” a Japanese source warned. Tokyo, caught in the middle of the battle among Moscow, Riyadh and Washington for energy dominance, is unlikely to emerge unscathed.

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# Analysis: Low LNG prices, noncommittal Asian investors hit LNG projects



Singapore – A prolonged period of low LNG prices is keeping Asian buyers from committing to offtake agreements to meet future gas demand, which means that many new investment-starved gas projects may not see the light of day.

Traditional projects need committed buyers for their gas, before they can proceed to a final investment decision. As buyers remain on the fence,

LNG projects are starting to fall behind deadlines and some risk being cancelled outright.

The exceptions are some big-ticket projects backed by investors with deep pockets, such as the expansion of Qatar's mega-trains by the middle of the next decade and the Qatar-backed Golden Pass LNG project in the US.

"We expect several further FIDs to be taken in 2019. But this

is a race with clear frontrunners, and the finish line is well in sight,” S&P Global Platts Analytics said in its 2019 outlook report. “LNG buyers remain reluctant to sign long-term contracts, and hence project developers that are able to finance a project without firm offtake agreements seem to be in the driving seat,” it said.

This means that projects with unconventional business models are more likely to push forward, like LNG Canada, a Shell-operated LNG project in western Canada, where equity owners are Asian national oil companies, who will off take the gas produced.

Another option has been to sign up with commodity trading houses and portfolio players. For 2018, Gunvor delivered around 11 million mt of LNG – the equivalent of 176 shipments, while Trafigura traded roughly 9.9 million mt of LNG in the same year, according to company and regulatory data.

## **KICKING THE CAN DOWN THE ROAD**

Depressed LNG prices are a major reason for the lack of urgency among buyers. Spot Northeast Asia LNG prices this winter failed to hit their seasonal peak.

The Platts JKM for April delivery cargoes was assessed at \$6.025/MMBtu on Friday, the lowest in 18 months and the market was still struggling to find a bottom.

“It’s really hard to sell your umbrella when it’s sunny outside,” Texas LNG’s chief executive Vivek Chandra said at the LNGgc conference in Singapore last week. Texas LNG is awaiting FID for a 4 million mt/year export terminal in south Texas in two phases.

“Right now you’re sitting in the situation where JKM is six bucks and the traders are calling you every day saying—‘take my ship take my ship.’ And you’re thinking, there’s a lot of food in the buffet. I’ll wait,” Chandra said.

LNG markets are expected to see record supply in 2019, with the glut lasting until the early years of the next decade, after which a projected tightening could lead to higher prices. Platts Analytics expected JKM to bottom out in 2020 and 2021 at \$7.43/MMBtu and \$8.04/MMBtu, respectively.

Bernstein Research projects that LNG supply growth is likely to fall off a cliff post-2020 due to a paucity in new project approval, and requiring at least 50 million mt/year of new capacity to be approved over the next two years to avoid a deficit.

Uncontracted demand by the world's seven largest LNG buyers – CNOOC, CPC, JERA, KOGAS, PetroChina, Sinopec and Tokyo Gas – could quadruple to 80 million mt/year by 2030, according to Wood Mackenzie's research director Nicholas Browne. These suppliers together account for more than 50% of the global LNG market.

## **TANGLED IN TRADE WAR**

Some of the most vulnerable are part of the so called "second wave" of US LNG projects, with exposure to Asian consumers, mainly China.

Their predicament has been complicated by the trade war.

Chinese buyers were unofficially barred from signing long-term agreements with US LNG projects, according to an executive who was part of the Trump administration's trade delegation to Beijing in 2018.

Before the imposition of the 10% retaliatory tariff on US LNG, China was taking nearly 15% of US LNG cargoes. After the tariffs in November, only three or four have reached China.

China spent the last four months swapping US-origin cargoes with non-US cargoes, Tullet Prebon's head of LNG Asia Tobias Davis said at the conference.

Last week, officials said they were ready to shut the \$43 billion Alaska LNG project for exporting North Slope gas if customers did not show up.

“All American projects are not getting traction in Asia,” Texas LNG’s Chandra said.

Like other US second-wave projects, Texas LNG has several memorandum of understanding with Chinese customers that have not materialized.

It is unclear if an upcoming US-China trade deal will fully resolve the impasse between the countries.

The prospects of US LNG for Asian customers are further complicated by the long shipping distance, recent volatility in freight costs, the Panama Canal nearing full capacity and competition from Russian pipeline gas in China.

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## **Qatar, EU sign landmark air transport agreement**



Qatar and the European Union initialled a comprehensive air transport agreement at the European Commission headquarters in Brussels on Monday.

The first of its kind ever between the EU and a Gulf Cooperation Council (GCC) member state, the agreement allows for open airspace between Qatar and all the EU member states with unlimited access to their respective territories, in addition to daily shipment flights between the two sides.

The agreement was initialled by HE Qatar's Civil Aviation Authority (CAA) Chairman Abdulla bin Nasser Turki al-Subaey and Head of Unit, International Transport Affairs, Directorate-General for Mobility and Transport, Carlos Acosta.



HE the Minister of Transport and Communications Jassim bin Seif Ahmed al-Sulaiti, HE Qatar Airways Group Chief Executive Akbar al-Baker and Qatar's ambassador to Belgium Abdulrahman bin Mohamed al-Khulaifi attended the signing.

HE the Minister of Transport said: "This agreement, which reflects the EU's trust in Qatar's potentials, will allow for the liberalisation of the fundamental mobility rights between Qatar and EU markets – one of the oldest and largest in the world in the realm of air transport."

"This will contribute to increasing the mobility, tourism and trade exchange between Doha and EU capital cities, widening

the partnership with EU countries and developing our national carrier's network, thus supporting economic growth across all sectors," the minister added.

"This agreement," HE al-Sulaiti noted, "is a completion to the pivotal role the State of Qatar has been playing in developing the global air transport industry and also boosts Qatar's ranking as one of the leading countries in the region in air transport."

He added: "The agreement also recognises the key role our civil aviation bodies play and their compliance with global standards as well as the role of Qatar Airways, which is widely recognised as one of the best carriers in the world and the best in terms of efficiency and quality, while consistently reporting the highest growth rates regionally and universally."

HE al-Baker said: "This historic landmark agreement will offer a host of opportunities for airlines in Europe and Qatar to collaborate and co-operate together, ensuring fair access to markets, competing for market share based on products and services that the customer wants and is willing to purchase."

HE al-Subaey noted the significant role the agreement would play in opening up future horizons for broader co-operation between Qatar and the EU member states, as well as boosting their bilateral relations.

With this agreement in place, he said, Qatar could upgrade its mobility rights and increase its cooperation with the EU member states in all aviation aspects.

He said the agreement was a historic event, particularly under the unjust blockade on Qatar and confirmed that the country is continuing to meet ever more ambitious targets in the aviation industry, which is one of the country's most active economic sectors.

"This event comes in the context of the significant development Qatar's air transport industry has been witnessing. It also fits in our plan for exploring more new opportunities to enable our national carrier to reach as many destinations as it can around the world. In addition, it

enables Qatar Airways to boost its operational processes; something which helps widen Qatar-EU co-operation and secure a common ground for airlines from both parties to explore and find new gateways for broader cooperation and co-ordination.”

The agreement provides a new level of competition for carriers in Europe and Qatar.

Both parties are expected to take bold steps through agreeing upon the terms and conditions relating to fair competition, the environment, consumer protection, social aspects and transparency, in addition to an item relating to doing business under which Qatar will no longer force European carriers to have a local sales agent to be able to operate flights to Doha.

The agreement was initialled following a series of consultative meetings and full-scale discussions that covered the agreement's terms and conditions and all particulars to conclude a final version.

The parties also discussed matters relating to air safety, aviation and navigation security and environment.

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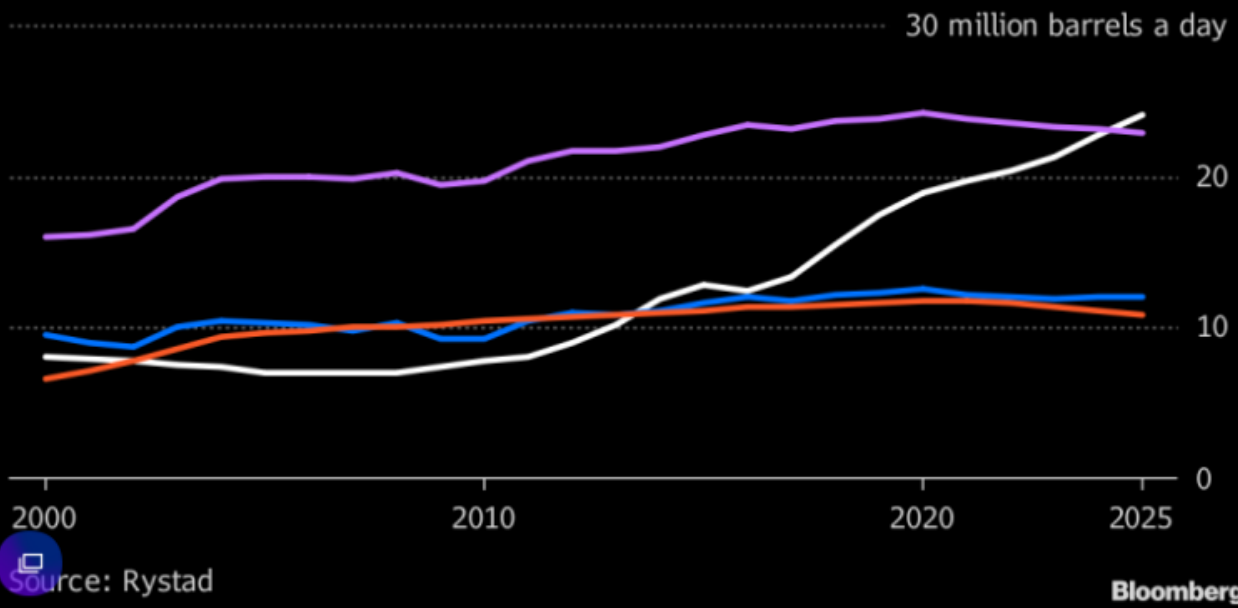
## **U.S. Shale Can Add a Saudi Arabia and Pay Investors, Rystad Says**



## America First

Rystad says U.S. could overtake combined Saudi, Russian oil output in 2025

United States Saudi Arabia Russia Saudi, Russia Combined



(Bloomberg) – U.S. shale-oil companies are on track to add production equivalent to Saudi Arabia’s output by 2030, without needing the external financing the industry’s boom has relied on so far, according Rystad Energy AS.

“They are going to be very profitable, they are going to be able to return surprisingly good cash amounts to investors and still grow one Saudi Arabia,” said Per Magnus Nysveen, senior partner at the Oslo-based consultant.

Although the shale revolution has helped American oil production more than double since the start of the decade, its dependence on debt and equity to grow production volumes while offering limited returns to investors has raised doubts about its sustainability.

That trend seems to be reaching a tipping point, with drillers entering a new era of discipline in which they’ve cut capital spending and launched share buybacks.

The frugality will continue during the shale industry’s coming expansion, which will see it add about 1 million barrels a day

of production a year through to the end of the next decade, effectively creating a new Saudi Arabia, according to Rystad.

“The financing party is over,” he said. But drillers “have enough cash from the producing wells to finance quite a lot of capex, so they don’t need this financing any more.”

Companies have been cash-flow neutral this year, and will be “very positive” in 2020, Nysveen said in an interview in London. Drillers learned to squeeze costs during the market downturn in the middle of this decade, slashing the oil-price needed to produce a barrel by half to about \$40, Rystad estimates.

Despite the flood of American crude, oil markets are unlikely to become oversupplied as demand is healthy and output is declining at ageing fields around the world, said Nysveen. In fact, markets will become “dangerously tight” as the growth in shale output levels off toward the end of the next decade, Nysveen predicts.

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