

# California weighs plan to save tropical forests



By Julia Rosen /Los Angeles Times

The smoke is still rising from the Amazon as fires smoulder in the world's largest rain forest. The blazes triggered a wave of global outrage over the loss of precious trees. But California says it has a plan to keep tropical forests standing.

This week, state officials will consider a proposal to protect these forests by steering billions of dollars to countries such as Brazil. The money would fund government efforts to fight deforestation and promote sustainable industries that don't involve chopping down and burning trees. And it would come from companies that offset their own emissions by purchasing carbon credits through markets such as California's cap-and-trade programme.

Preserving tropical rain forests is essential to combating climate change – around the world, roughly a third of the greenhouse gases released each year come from clearing forests. And backers say this plan is the best way to funnel

much-needed cash toward that crucial task.

Others agree on the pressing need to halt deforestation, but they say California's plan is a dangerously misguided way to do it. In their view, it would simply allow polluters to keep on polluting without doing anything about the true drivers of forest loss: rising demand for products such as beef, soy and palm oil.

The issue has divided scientists, environmental groups and indigenous leaders who say the Tropical Forest Standard, or TFS, has ramifications far beyond the Golden State. California is a leader on climate change, and approving the TFS could inspire other states, countries and companies to adopt a similar approach.

"This is a critical moment," said ecologist Christina McCain, who heads the Environmental Defense Fund's climate initiatives in Latin America. "The world is watching."

The TFS wouldn't be the first attempt to fund forest protection through carbon offsets. Several international programmes have employed them as a way to preserve and restore forests while lowering the cost of reducing emissions in wealthy countries and funding sustainable development in poorer ones.

Some of these projects succeeded, but others never came to fruition, leaving the fate of the carbon they promised to store in limbo. Many also spelled disaster for people who live in the forest.

Indigenous groups fell prey to unscrupulous "carbon cowboys" who used questionable methods to secure the rights to native land – and its potentially lucrative carbon. People were kicked out of their territories by governments eager to launch conservation projects without local interference.

In any event, the programmes never attracted enough money to reach their intended scale, said Louis Verchot of the Center for International Forestry Research, who has studied previous initiatives.

"It wasn't what you would call a real enabling environment," he said. "That's where things are stuck right now."

Can the Tropical Forest Standard do better? Its backers certainly think so. They've spent the last decade trying to learn from past mistakes.

The TFS lays out criteria for certifying state, provincial or national governments that want to sell forest offsets, leaving no room for carbon cowboys. Participating governments must commit to reducing deforestation, and they'll only receive credit for the forest they spare beyond their baseline goal.

Plans must be posted publicly, and progress must be closely monitored and independently verified.

"There will be a ton of eyes on it," said Jason Gray, the head of California's cap-and-trade programme.

Governments also have to prove that local stakeholders – especially indigenous groups – have a say in the programme and stand to benefit from it. The Brazilian state of Acre, which has spent years developing partnerships with tribes, is often cited as a model.

"Indigenous peoples are very well-informed and prepared not to let their rights be violated," said Francisca Oliviera de Lima, a member of Shawadawa People who works at Acre's state-run Climate Change Institute. "We are in favour of this California programme."

The TFS tries to address other problems, such as leakage, which occurs when suppressing deforestation in one place simply pushes it elsewhere. That would be difficult to get away with in a state that's part of the programme, said Steve Schwartzman, senior director of tropical forest policy at EDF, a leading supporter of the TFS.

In addition, the TFS mandates that participating states and provinces pony up extra credits as insurance, in case fires or other natural disasters accidentally release carbon that was stored for offsets.

With these safeguards in place, proponents argue the TFS could finally allow real money to flow toward fighting deforestation. Today, less than 1.5% of funding to fight climate change goes to forest protection, according to a new analysis by a coalition of scientific organisations and

environmental groups.

That has bred frustration in countries such as Brazil, where the government had reduced deforestation by upping enforcement of protected areas but where low levels of investment have failed to create new economic opportunities for farmers, loggers and miners who obeyed the rules, said Dan Nepstad, executive director of the Earth Innovation Institute.

With the TFS, offset money could fund things such as community centres, fish ponds for aquaculture and government programme to support sustainable farming practices.

For California, the reward is the chance to drive greenhouse gas reductions far beyond what the state could accomplish at home, Nepstad said: "The TFS lays out the framework for magnifying that tenfold."

Critics of the TFS object to almost everything about it, starting with the very idea of offsets.

He and other opponents say California's cap-and-trade programme already relies too heavily on offsets – polluters can use them to cancel up to 8% of their emissions in the state – and argue that the TFS would take things even further in the wrong direction.

Chief among their concerns is the legitimacy of tropical forest credits.

Barbara Haya, who studies offset programmes at the University of California, Berkeley, worries that leakage will still be a problem, since activities shut out of a participating state can still shift to other states or countries.

It's also hard to ensure that the programme will dole out credit only for carbon savings that wouldn't have happened anyway. Haya examined two decades' worth of data and found that a quarter of potential partners would have been able to generate offsets under the TFS's rules due to declining deforestation rates, even though their progress clearly wasn't due to the programme (it didn't yet exist).

Then there's the fear that, despite the TFS's insurance provision, the carbon that was supposed to offset a polluter's emissions will end up in the atmosphere eventually, either in

a bad fire season or after a change in political leadership reverses a country's deforestation policies.

Others contend that the TFS is based on flawed economic reasoning. So far, the price of carbon offsets on exchange markets is just too low to compete against the forces of global commerce, which make land more valuable than trees, said Tracey Osborne, a geographer at the University of Arizona.

And while advocates for indigenous communities applaud the TFS's social safeguards, some of them say it will be nearly impossible to ensure they are being honoured from afar.

Governments in many tropical countries have a long history of corruption, said Alberto Saldamando, an advisor to the Indigenous Environmental Network. He worries the TFS will only heighten the incentive to coerce or threaten indigenous groups to participate in programmes that don't always serve their interests.

"Carbon, instead of being a poison, is a value, and that perspective leads to all kinds of abuses," he said.

Opponents raised all these issues last fall, when California's Air Resources Board first met to consider the standard. It opted to delay a vote and asked legislators to gather input from both sides. If the board endorses the standard when it meets on Thursday, it won't mean that credits generated under the TFS will be used in the state's market right away; governments that want to participate would first have to qualify, and then CARB would have to decide whether to accept tropical offsets, Gray said. The motivation to propose the standard now is "to set a very high bar" for forest offset programmes in general, he said.

Regardless of whether California ever uses the TFS in its own cap-and-trade programme, CARB's approval would be a powerful endorsement of forest offsets and a setback for efforts to zero out greenhouse gas emissions, opponents said.

Critics would rather see the state focus on other strategies for preserving forests, such as empowering indigenous groups to protect their lands and pressuring companies to rid their

supply chains of goods associated with deforestation. (California lawmakers are considering a bill that would require government contractors to do so.)

Haya and more than 100 other researchers laid out their objections to the TFS and submitted them to CARB. Last month, senator Bob Wieckowski, D-Fremont, released his own letter imploring the board to reject it.

But supporters are speaking up, too.

In June, four Assembly members encouraged CARB to approve the standard as long as it commits to “vigorous and proactive monitoring” of any government that uses it. More than 100 scientists also penned an open letter endorsing the TFS. – Tribune News Service

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## **Attacks on Saudi Oil Plants Risk Lowering Aramco IPO Valuation**



(Bloomberg) – As bankers discussed Saudi Aramco’s initial public offering at the Ritz Carlton hotel in Dubai last week, a drone attack was being planned to hit the heart of its operations over the weekend. It caused Saudi Arabia to halve its oil output and may cut the valuation of Aramco’s milestone deal.

The giant oil producer has accelerated preparations for a share sale that could happen as soon as November in Riyadh. Dozens of bankers from Citigroup Inc (NYSE:C). to JPMorgan Chase (NYSE:JPM) & Co. met last week to work on the deal, with analyst presentations scheduled for Sept. 22, people familiar with the matter have said.

“Crown Prince Mohammed bin Salman will push the company to demonstrate that it can effectively tackle terrorism or war challenges,” analysts led by Ayham Kamel, head of Middle East and North Africa research at the Eurasia Group, said in a report. “The attacks could complicate Aramco’s IPO plans.”

In an attack blamed by the U.S. on Iran, a swarm of drones laden with explosives set the world’s biggest crude-processing

plant ablaze. Floating a minority stake of the oil giant, officially known as Saudi Arabian Oil Co., is part of Prince Mohammed's efforts to modernize and diversify the economy.

The attacks underscored geopolitical tensions in the region. Iran denied responsibility, which was instead claimed by Iranian-backed Houthi rebels in Yemen.

Oil prices surged by the most on record to more than \$71 a barrel after the strike removed about 5% of global supplies. The main Saudi stock index Sunday fell as much as 3.1%, leading losses in the Gulf.

Back in 2017, investors suspected that Saudi government-related funds swooped in to support the market after the imprisonment of local billionaires at the Ritz-Carlton in Riyadh. That also happened amid the international crisis following columnist Jamal Khashoggi's murder at the Saudi consulate in Istanbul.

Here's more from analysts and investors:

#### Eurasia

- "The latest attack on Aramco facilities will have only a limited impact on interest in Aramco shares as the first stage of the IPO will be local. The international component of the sale would be more sensitive to geopolitical risks"
- Current valuation estimates for Aramco and its assets might not fully account for geopolitical risks
  - NOTE: Prince Mohammed, the architect of the IPO, has said he expects Aramco to be valued at over \$2 trillion, but analysts see \$1.5 trillion as more realistic

#### Al Dhabi Capital, Mohammed Ali Yasin

- "I think this attack may delay the IPO even on the local



exchange, and could affect the valuation negatively, as the investors have seen a live demonstration of the risk levels of the future revenues and business of the company. That was very low prior to this weekend attack”

- “Aramco has one main source of revenue, oil. That is its strength, but now it is becoming its biggest weakness if it gets disrupted”

United Securities, Joice Mathew

- This “will force investors to go back to the drawing board and re-evaluate their risk models on Aramco”
- “Even though this is a rare event, which could be potentially categorized as 4 or 6 sigma levels, the geopolitical risk premium on Aramco’s valuation model would show a sharp increase”
- “As far as the pricing is concerned, my view is that there may not be much of an impact if the government is contemplating a 1% listing on the Tadawul. I think the government has the power and ability to influence the decisions of anchor investors there”

Tellimer, Hasnain Malik

- “Ultimately the security risk is not so acute that it outweighs oil price, oil output and free float drivers of the valuation”
- This attack “also provides an opportunity for Aramco to demonstrate the redundancy and resilience of its supply chain by minimizing disruption to customers and thereby helping to mitigate the valuation impact of this risk”

Qamar Energy, Robin Mills

- “It will be all but impossible to proceed with the IPO if there are ongoing attacks”
- “Valuing Aramco like Shell (LON:RDSA) or ExxonMobil (NYSE:XOM) gets us to about \$1.2-1.4 trillion. But that would drop significantly if we apply company-specific

risk factors”

Al Ramz Capital, Marwan Shurrab

- “The attacks could impact foreign sentiment for the IPO, but I don’t see a substantial hit to the valuation at this stage”
- “Geopolitical risk has always been an important factor for valuations across the Middle East region. Aramco will have to demonstrate its financial resilience toward such incidences to gain investors confidence”

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## Germany Inc waits on Merkel’s CO2 plan: Here’s what’s at stake



Bloomberg Berlin/Frankfurt

Chancellor Angela Merkel is working on an investment package

worth perhaps €50bn (\$55bn) that aims to get German efforts to cut carbon emissions back on track.

Merkel's Christian Democrats are trying to thrash out a common position with their coalition partners, the Social Democrats ahead of a cabinet meeting on September 20. The outcome of those negotiations will have profound consequences for a range of companies from utilities to airlines as well as the chancellor's increasingly controversial balanced budget.

Germany is way behind on its climate efforts and saw a series of protests this year demanding more action to stem emissions and another demonstration is scheduled for Saturday in Frankfurt. With wildfires sweeping the east of the country and record temperatures disrupting summer travel, the governing parties were punished in local elections as support for the Greens surged.

While opinion polls show that climate change has surpassed immigration as the German public's No 1 concern, the government abandoned a self-imposed target to lower CO2 emissions by 40% from 1990 levels by next year. After struggling to rein in coal-fired power generation, emissions will be just 32% lower in 2018 and Germany risks missing its legally binding EU goals.

### Coalition strains

The coalition parties know they need to step up their climate action, but they don't agree on how much or how fast.

The SPD want more aggressive measures, such as a carbon tax and new debt to finance climate projects. Merkel's CDU favours market mechanisms such as the Emissions Trading System, which lets companies buy or sell their carbon allowances. The CDU also wants to tap private capital more heavily to help finance the measures.

The plans announced so far would be enough to derail Merkel's prized balanced budget if the government ended up footing the bill and Sueddeutsche Zeitung reported on Friday that the program could stretch to as much as €75bn.

That's why CDU Economy Minister Peter Altmaier is proposing an

investment fund seeded with €5bn of government money. To lure investors and win round the German public, he wants to guarantee a 2% return – that's more than you make from a 10-year Greek bond.

But SPD Finance Minister Olaf Scholz, who's looking at a possible campaign to succeed Merkel, doesn't like the idea and his party has threatened to bring down the government if it doesn't get something it likes.

### C-Suite winners and losers

For German executives, there's a lot riding on the outcome. Electricity producers like EON SE and RWE AG could benefit if the policies encourage households to ditch gas heating and diesel cars in favour of electric options. Firms that use a lot of electricity could also benefit, as well as companies that make electric heaters, cars and energy-efficiency products like smart meters.

Firms that can't easily cut CO2 emissions out of their business model are likely to lose out. While companies like Thyssenkrupp AG and Volkswagen AG already have sweeping carbon-reduction strategies, dialysis machine-maker Fresenius emitted 1mn tonnes of carbon dioxide last year and doesn't yet have a goal to significantly reduce that.

If the CDU plan to impose a trading scheme instead of a carbon tax wins out, that would give the government flexibility to help out companies and consumers when the economy slows. Officials could increase the supply of the emissions permits during a recession to lower costs for companies, or cut supply during a boom.

### Cheap air travel

Merkel's Bavarian sister party, the CSU, is proposing a minimum price on airline tickets and all the parties have signalled they'd like to see airfares rise. That could actually benefit Germany's flagship carrier Deutsche Lufthansa AG. Europe's biggest airline is fighting off low-cost challengers like Ryanair, Easyjet and Wizz Air, and its budget

unit, Eurowings, is losing hundreds of millions in euros as it tries to match their bargain-basement fares.

A price floor would be easier for Lufthansa to absorb than for the low cost carriers whose business strategy centres on having aircraft more than 95% full. Indeed, Lufthansa chief executive officer Carsten Spohr has called for an end to loss-leading fares that he said are stoking demand for needless flights that raise pollution and make the industry an easy target for climate campaigners.

"You only have to look at what happened when the first 2011 aviation tax in Germany was introduced," Ruxandra Haradau-Doeser, head of airline research at Kepler Cheuvreux, said. "Ryanair cut capacity by one third."

The CSU also wants to cut the taxes on rail travel.

## Europe's climate fight

Merkel wants something to show abroad as well.

Her climate decision comes three days before UN Secretary-General Antonio Guterres holds a summit in New York to encourage countries to make good on their commitments under the Paris Climate Accord and to make their goals more aggressive. Berlin's renewed push dovetails with efforts by Ursula von der Leyen, the incoming president of the European Commission, to focus attention on the climate. Von der Leyen, who previously served as Merkel's defence minister, wants to make Europe the first climate-neutral continent by 2050.

German plans to put a price on emissions from transportation and heating is in line with von der Leyen's plan to extend the EU carbon market, the biggest in the world, to cover transport and construction.

But more broadly, von der Leyen and Guterres need Germany to deliver. If Europe's biggest emitter can't meet its goals, the EU is unlikely to either. And that would be a disaster for the global push to limit climate change.

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# Saudi supply disruption puts huge US petroleum stash in play



WASHINGTON – The Trump administration is standing by to deploy the nation's emergency oil reserves and help stabilize markets if needed after a series of drone attacks in Saudi Arabia

knocked out half of the kingdom's crude output, or about 5% of world supplies.

Energy Secretary Rick Perry is ready to draw down stocks from the 630 million-barrel cache "to offset any disruptions to oil markets as a result of this act of aggression," his spokeswoman, Shaylyn Hynes, said in a statement late Saturday. Perry also ordered officials to work with the International Energy Agency on possible options for coordinated action.

Whether the Strategic Petroleum Reserve, the world's largest supply of emergency crude, gets used may depend on how quickly the Saudis can resume production from the world's biggest crude-processing facility.

Set up after the Arab oil embargo in the 1970s sent prices skyrocketing, the stockpile has previously been tapped in response to Operation Desert Storm in 1991, Hurricane Katrina in 2005, and Libyan supply disruptions in 2011.

"Until a damage assessment is available, it's not possible to make high confidence odds on the likelihood it will be tapped," said Bob McNally, a former energy adviser to President George W. Bush and president of the consulting firm Rapidan Energy Group. "For now, the administration is reassuring the market that the U.S. and other emergency stockholding partners in the IEA are ready to act."

McNally said showing openness to an SPR release would have an impact.

"I suspect this is just precautionary verbal reassurance, and I am sure they are dusting off their plans," he said. "Unless the damage is extensive, doubt we will see a release."

Saturday's attacks on Saudi Arabia are expected to rattle oil markets when they open. The kingdom's benchmark stock index tumbled as much as 3.1% on Sunday in Riyadh.

“Almost no geopolitical risk is priced into oil markets focused solely on trade wars and macro concerns,” said Joe McMonigle, senior energy analyst at Hedgeye Risk Management LLC. “An SPR release, especially if coordinated with IEA action, would mitigate some of the spike in oil prices but would also depend on the ongoing and elevated geopolitical risk.”

## SALT CAVERNS

The emergency stockpile is stored in huge underground salt caverns along the U.S. Gulf Coast. Although it was originally created as a backup in case of future supply shocks, the reserve has more recently become Congress’s go-to piggy bank, used to fund everything from roads to drugs to deficit reduction. About 10 million barrels were sold in the latest of a series of congressionally mandated sales last week.

President Donald Trump proposed selling off half of the emergency stockpile in his 2017 budget request. His administration argued that record domestic oil production made keeping such a large reserve unnecessary. But the “potential long term disruption from critical oil facilities” such as the 5 million barrel per-day Abqaiq processing facility hit on Saturday, “is exactly the type of risk the Strategic Petroleum Reserve was designed to mitigate,” McNally said.

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# US beats Saudi to become top



# oil exporter on shale boom



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The U.S. briefly became the world's No. 1 oil exporter as record shale production found its way to global customers, and there are prospects for more.

Surging output from shale helped America ship almost 9 million barrels a day of crude and oil products in June, surpassing Saudi Arabia, the International Energy Agency said in a report, citing gross export figures. There's room to send even more supply overseas as companies add infrastructure to transport the burgeoning production from fields in Texas and New Mexico to the coast.

Gains in U.S. supply are undermining efforts by the Organization of Petroleum Exporting Countries and its allies, whose production cuts are in their third year in a bid to drain stockpiles. The swelling American output, as well as

deepening concerns over global demand fueled by a prolonged U.S.-China trade war, have prompted a drop of almost 20% in benchmark Brent crude from an April high.

The expansion in America's exports in June was helped by a surge in crude-oil shipments to more than 3 million barrels a day, the IEA said. At the time, Saudi Arabia was cutting its exports as part of the OPEC+ agreement, while Russian flows were constrained by the Druzhba pipeline crisis.

The Saudis reclaimed the top exporter's spot in July and August as hurricanes disrupted U.S. production and the trade dispute "made it more difficult for shale shipments to find markets," the IEA said.

The tussle for the No. 1 slot could remain tight in the months ahead. As Saudi Arabia continues to curb production, the IEA said America's crude exports could rise by a further 33% from June levels to as much as 4 million barrels a day as new export infrastructure gets built in the fourth quarter of this year.

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## **Oil prices down 2% on US-China trade doubts, Opec+ talks**



NEW YORK (Reuters) – Oil prices fell about 1% on Thursday after a media report cast doubt on the possibility of an interim U.S.-China trade deal and as a meeting of the OPEC+ alliance yielded no decision on deepening crude supply cuts.

Oil was pressured further after the European Central Bank cut its deposit rate to a record low -0.5% from -0.4% and said it will restart bond purchases of 20 billion euros a month from November to prop up euro zone growth.

Brent crude LC0c1 futures settled at \$60.38 a barrel, shedding 43 cents, or 0.71%. WTI crude CLc1 futures settled at \$55.09 a barrel, losing 66 cents, or 1.18%.

Oil futures extended losses after a senior White House official denied a Bloomberg News report that the United States was considering a temporary trade agreement with China, according to CNBC.

Earlier, prices had been supported on news that the world's two largest economies made some concessions in their protracted trade war.

"We had a lot of moving parts. We came in with the ECB, then we saw the U.S. was going to reach some kind of interim agreement with China, then they ended up saying they're not," said Phillip Streible, senior commodities strategist at RJO Futures in Chicago. "Now we're just back-pedaling and cautiously waiting for the next development in the market, whether it be from economic data, more verbiage from OPEC, and we're still going to monitor inventories as a whole."

Oil prices also stumbled after comments from Saudi Arabia's new energy minister, Prince Abdulaziz bin Salman, said deeper cuts would not be decided upon before a meeting of the Organization of the Petroleum Exporting Countries planned for December.

A Thursday meeting of the market-monitoring committee formed by the Organization of the Petroleum Exporting Countries and its allies, whose de facto leader is Saudi Arabia, yielded a promise to keep countries within the production quotas they committed to in a global supply deal.

A statement from OPEC and its allies, a grouping known as OPEC+, said oil stocks in industrial countries remained above the five-year average. Oman's energy minister said "the outlook is not very good for 2020."

Prince Abdulaziz said Saudi Arabia would keep cutting by more than it pledged in the pact, which has throttled supply from OPEC+ by 1.2 million barrels per day.

Also feeding the bearish sentiment, the International Energy Agency said surging U.S. output would make balancing the market "daunting" in 2020.

"Booming shale production has allowed the U.S. to close in on, and briefly overtake, Saudi Arabia as the world's top oil exporter ... in June, after crude exports surged above 3 million bpd," the agency, which advises industrial economies on energy policy, said in its monthly report.

The Paris-based IEA kept its oil demand growth forecasts for this and next year at 1.1 million barrels per day and 1.3 million barrels per day, respectively.

Reporting by Laila Kearney in New York; Additional reporting by Shadia Nasralla in London and Aaron Sheldrick in Tokyo; Editing by Matthew Lewis and Leslie Adler

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## The clean-energy fast track



Kingsmill Bond Angus McCrone Jules Kortenhorst | The Daily Star  
The global transition from carbon-intensive fossil fuels to cleaner, more reliable renewables like wind and solar is already well underway. But the big question – for the 2020s and beyond – is how fast it will happen. A slow transition would mean that energy-sector incumbents continue to flourish,

and we would all but certainly miss the emissions-reduction targets enshrined in the 2015 Paris climate agreement. But if the transition is rapid, incumbents will experience varying degrees of disruption – the price of keeping the Paris targets well within reach. As matters stand, both scenarios are possible, representing two paths that lie before us. In a new report for the World Economic Forum's Global Future Council on Energy, we and our co-authors identify four key areas that will determine which path we take. The Speed of the Energy Transition offers compelling evidence that the transition is coming fast, and that all stakeholders in the global energy system – which is to say, everyone – must start preparing. One area where the gradual and rapid scenarios diverge is adoption of renewable energy. When will renewables start displacing incumbents? For markets, the key moment will be when renewables make up all of the growth in energy supply, as well as all the growth in electricity supply. That, most likely, will happen in the early 2020s, long before fossil fuels lose their dominant share of total energy supply. As renewables become the leading growth industries in the energy sector, financial markets will increasingly reallocate capital accordingly.

A second area concerns innovation in energy technology, and whether growth in new applications is linear (the gradual scenario) or exponential (the rapid scenario). Solar and wind are already cheaper than fossil fuels when it comes to generating electricity, and electric vehicles are close to challenging internal-combustion-engine cars on price. The evidence suggests that the barriers to growth for EVs in the foreseeable future are soluble. Moreover, new waves of innovation are forthcoming, in the form of nascent but already viable technologies such as green hydrogen energy. Prices for renewables will most likely drop far below those of incumbent energy sources – and fast – leading to exponential growth in green energy.

A third key area is public policy. Will policymaking remain cautious, or will it become more dynamic and ambitious as new technologies create opportunities to improve the design and functioning of markets? Inertia being a powerful force, existing policies have been limited in scope. But history teaches us that there are tipping points: Once genuine change comes, it tends to be adopted rapidly across the board – as in the case of laws prohibiting smoking indoors.

Given that new technologies are already providing better solutions for consumers' energy needs, policymakers inevitably will respond to their constituents' demands. Once enough politicians recognize that the energy transition is not expensive, and will actually boost competitiveness (thereby reducing prices), they will update the rules governing energy markets to make way for the change that is already underway.

The last key area is emerging markets, which could either follow the fossil-fueled path of developed countries, or leapfrog to newer energy technologies. Countries like China and India undoubtedly need to generate far more energy for their citizens, and there are almost 1 billion people worldwide who still lack access to electricity. But that doesn't mean emerging and developing countries have to opt for high-emission fossil fuels.

Just as mobile phones made landline telephony irrelevant in much of the developing world, increasingly affordable renewables can become the obvious first choice for generating energy.

From our perspective, the evidence clearly points to a rapid energy transition in the years ahead. The danger is that key stakeholders – whether policymakers or investors – will mistake which path we are on, and make poor decisions. If so, we will all have to bear the costs of stranded high-carbon assets and bad investments in obsolete technologies. Worse, we will have missed an early opportunity to achieve



sustainability and minimize the risk of catastrophic climate.

Everyone – from innovative technology startups to energy incumbents and government policymakers – has a role to play in determining which path we take. If stakeholders recognize the rapid pace of the global energy transition already underway and embrace the change, we can still hit the Paris targets and have a planet that allows everyone to thrive.

Kingsmill Bond is the new energy strategist for Carbon Tracker. Angus McCrone is chief editor of Bloomberg NEF. Jules Kortenhorst is CEO of the Rocky Mountain Institute. THE DAILY STAR publishes this commentary in collaboration with Project Syndicate © ([www.project-syndicate.org](http://www.project-syndicate.org)).

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## Europe looks on with dismay as Brexit disarray deepens



By Laura King /London

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Watching the growing disarray unfolding in Britain, the rest of Europe is worried.

With British Prime Minister Boris Johnson battling his own party and parliament over Brexit, smashing political norms as he goes, the prospect of Britain “crashing out” of the



European Union on October 31 is still seen by many as a real possibility – even though British lawmakers have passed a bill meant to preclude that scenario.

Britain's parliament – suspended early Tuesday by Johnson amid a raucous outcry from the opposition – is now in a five-week hiatus that ends just two weeks before the Brexit deadline.

The prime minister says he still wants to make a deal with the EU, but there's been no sign of significant progress on the major points of contention, including how to deal with what will be a new EU-UK land border on the island of Ireland.

Economists generally agree that if Britain departs the 28-nation bloc with no withdrawal accord, the British economy will suffer a far greater shock than will its European counterparts.

But repercussions will be felt across Europe and beyond, with fears in several EU states that Brexit could help nudge a prospective economic slowdown towards full-blown recession.

The EU, which never wanted Britain to leave, is still likely to grant an extension of the October 31 deadline, although Johnson swears he won't seek one, and the bloc is increasingly pessimistic that Britain can find a way out of its conundrum.

The EU is also unsettled over continuing uncertainty about the fate of its 3.6mn nationals living in Britain, many of whom are discovering, to their dismay, that decades of working and paying taxes in the UK are no guarantee they will be allowed to stay.

And while Brussels is accustomed to worrying about anti-democratic tendencies in member states like Hungary and Poland, and about far-right inroads being made there and elsewhere, EU officials have been alarmed by the spectacle of emerging constitutional stresses and strains in Britain, one of the traditional pillars of the postwar order.

Here's a look at some of the major EU players and how they view the latest developments:

#### \* IRELAND

Ireland might have the most to lose. It views Brexit – especially a no-deal departure – as a threat to both peace and

prosperity.

For nearly two decades, the border with Northern Ireland has been open, and that invisibility is considered a crucial element in reversing decades of sectarian strife that killed thousands in the three decades leading up to 1998's Good Friday accord.

With the looming prospect of a "hard" frontier between EU member Ireland and Northern Ireland, which is part of the UK, there are worries that barriers and checkpoints would become a magnet for extremist attacks.

The EU has been adamant in its insistence that the border stay open; Johnson has demanded the scrapping of a withdrawal accord provision meant to ensure that.

The prime minister travelled to Dublin on Monday, where his Irish counterpart, Leo Varadkar, said he hasn't yet seen any concrete British proposals to address the border quandary – and added pointedly that a no-deal departure would only be the beginning of tortuous new negotiations over the Irish frontier.

"There is no such thing as a clean break," he told Johnson.

\* GERMANY

As the continent's economic powerhouse – but one seeing fiscal storm clouds on the horizon – Germany wants to help ease Britain's path out of the EU, if it insists on going.

Chancellor Angela Merkel last month appeared to try to throw Johnson a lifeline when she suggested during a Berlin meeting with him that Britain try in the next 30 days to come up with some concrete new proposals for an accord that the EU previously said was not open to renegotiation.

But three weeks have already elapsed, with no new Johnson talking points disclosed.

Germany's Foreign Minister Heiko Maas said this week that "we remain in principle ready to talk" about Brexit terms, but that that "ultimately requires clear decisions and proposals from London."

Brexit is already depressing German economic projections.

The Federation of German Industries, the main umbrella group

for industrial trade associations, says a no-deal departure by Britain would bring already weak growth forecasts for the year down to zero.

But business uncertainty brought on by a new delay would also dampen economic prospects, said the head of the German Institute for Economic Research, an independent research group. Meanwhile, powerful German companies are already preparing for the possibility of a no-deal break with plans to reduce their footprint in the UK.

BMW, the automaking giant, said it would curtail production at its plant in Oxford as the deadline approaches.

\* FRANCE

French President Emmanuel Macron has shown some willingness to play the EU's disciplinarian in dealings with Britain, while remaining supportive of an orderly departure if one must take place.

This week, Foreign Minister Jean-Yves Le Drian signalled impatience with Britain's inability to either move towards a definitive break with the EU, strike a deal with the bloc or call the whole thing off.

"The British must tell us what they want," Le Drian said exasperatedly in a weekend radio interview, referring to the polarisation and deadlock that have prevailed since the 2016 Brexit referendum, which won narrow approval.

"For three years, the UK... has found no way forward."

Any Brexit extension requires unanimous approval by EU members, and France is unlikely to use its veto power. But the country is preparing for no-deal contingencies, getting ready for a weeks-long "rehearsal" by customs authorities at airports, train terminus points and ports, especially Calais, the gateway to the tunnel under the English Channel.

France, like Germany, has been taken aback by Johnson's take-no-prisoners style on Brexit, but has stressed that Britain, not France or the EU, would bear the economic brunt of a no-deal departure.

However, Macron has already seen his popularity dented by months of "yellow vest" populist protests, and can ill afford

bad economic news.

#### \* THE NETHERLANDS

Holland is a relatively small player among European economies, but Britain looms large in its financial relationships as a main trading partner and its biggest international investor.

The Dutch port of Rotterdam, Europe's largest, now enjoys seamless intra-EU trade with Britain, but will be burdened by the need for customs checks and goods inspections if Brexit goes ahead as scheduled.

Still, the Dutch position on Brexit is hardening.

Holland is working to woo companies that are abandoning Britain to relocate operations within the EU.

Dutch Minister for Trade Sigrid Kaag told the financial newspaper *Het Financieele Dagblad* last week that there would need to be a "good reason" for granting a new Brexit delay.

The Netherlands, like Britain, once bestrode a far-flung empire.

As the Brexit crisis intensified earlier this year, Dutch Prime Minister Mark Rutte offered some succinct advice about the global standing of former colonial powers.

Britain, he told the *Guardian* newspaper, "is going to become an economy of middling size in the Atlantic Ocean. It is neither the US nor the EU. It is too small to appear on the world stage on its own."

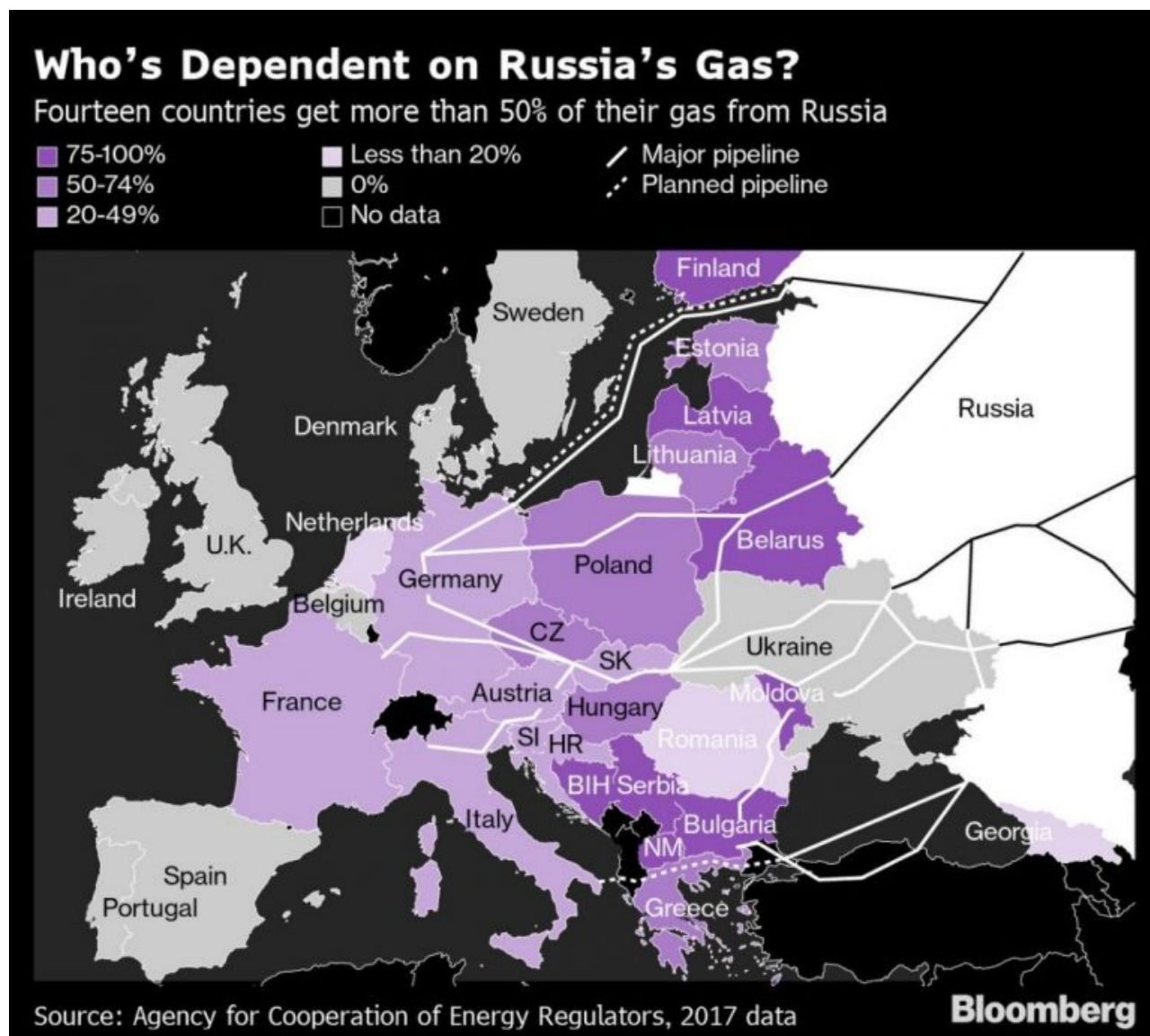
Policymaking in the Netherlands tends to be influenced by a strong pragmatic streak, but Johnson's seeming loss of control over the Brexit process has dumbfounded some influential Dutch politicians.

"We thought the Brits were rational pragmatists," said Anne Mulder, a Dutch lawmaker who leads the country's Brexit planning in parliament, told the *Financial Times*.

"Well, they aren't." – Tribune News Service

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# Russia's Main Gas Route to Europe Seen at Risk After Opal Ruling



(Bloomberg) – Russia may hesitate to strike a multiyear deal with the European Union and Ukraine on natural gas supplies after an EU court ruling on a key German pipeline.

The judgment last week reduces the options Gazprom PJSC has to ship billions of dollars of gas to its biggest market without using Ukraine's pipeline network. But Russia may see the logic in the decision as flimsy and consider it to be a political rather than a valid legal move, said Katja Yafimava, a senior

research fellow at the Oxford Institute for Energy Studies who specializes in European gas regulation.

The three sides are poised to resume talks this week on a replacement transit deal via Ukraine, because the existing one ends this year. There's a lot at stake for all parties. Europe gets more than a third of its natural gas from Russia and has limited options to replace all the supplies, while Russia gets a huge chunk of its foreign income from the sales and Ukraine is heavily reliant on the payments it gets from shipping the fuel through its territory.

"The European Commission might think it's got a stronger hand in negotiations, but I think that's faulty logic," said Yafimava by phone. "It lowers the chance of a long-term transit contract across Ukraine."

How Russia supplied Europe last winter

Poland successfully challenged a 2016 European Commission decision that allowed Gazprom to use most of the capacity on the Opal pipeline, which carries Russian gas from the Nord Stream line to Germany. German regulator BNetzA followed up on the decision, enforcing its implementation, and said Gazprom's shipments through Opal must be reduced to half the capacity. Shipments began slowing along the pipeline on Saturday.

Other analysts including Rystad Energy AS and BloombergNEF have said the decision might actually spur a deal as it limits Gazprom's options. Russia will study the ruling, which "affects the overall situation with the energy supply of European countries," Energy Minister Alexander Novak said Thursday.

Gazprom could even blame the decision for increasing the risk of supply shortages this winter, Yafimava said.

"The ruling adds pressure to Europe's supply situation," said Yafimava. "It was not expected and the timing was very

bizarre, a little before the trilateral negotiations for the Russian-Ukraine agreement. Before the ruling, Gazprom would have the insurance that it would have this capacity and now it is not sure anymore.”

The U.S. and Poland are among nations seeking to hamper Nord Stream 2, a doubling of the capacity of the current link, which is meant to be finished this year but has faced issues with construction permits. Supplies from Russia via Ukraine’s gas grid may halt if an expiring transit deal isn’t replaced by the end of the year.

The latest court ruling moves Russia and Europe further away from each other and from a five-to-10 year Ukraine transit deal, because it further erodes what little goodwill was left, Yafimava said.

“It’s a big gamble. Nowhere is Gazprom obliged to book on a 10-year basis,” she said. “A long-term deal could have been done in exchange for removing obstacles for NS2, for instance, but the court decision on Opal makes it less likely.”

—With assistance from Anna Shiryayevskaya.

To contact the reporters on this story: Mathew Carr in London at [m.carr@bloomberg.net](mailto:m.carr@bloomberg.net); Vanessa Dezem in Frankfurt at [vdezem@bloomberg.net](mailto:vdezem@bloomberg.net)

To contact the editors responsible for this story: Reed Landberg at [landberg@bloomberg.net](mailto:landberg@bloomberg.net), Stephen Treloar, Andrew Blackman

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# China aims to rev up shale gas drive; wean itself off imports amid US trade row



SINGAPORE/BEIJING (Reuters) – China aims to slash its growing dependence on gas imports by boosting domestic projects like shale fields as the security of its energy supply comes under the spotlight amid a festering trade war with the United States.

The row with Washington has overshadowed China's economy, likely slowing gas demand growth considerably this year, a new government research report shows. But Beijing is funding new efforts to boost domestic production, particularly from so-called unconventional sources like shale gas, as weaning China off its import reliance takes on new importance.

The report, released on Saturday by the oil and gas department at the National Energy Administration (NEA) and a State



Council research arm, calls for boosting natural gas production in key resource basins in the southwestern province of Sichuan, the Erdos basin in the north and offshore China.

According to the report, China's gas consumption will rise by about 10% this year to 310 billion cubic meters (bcm), and to continue growing until 2050. Though slowing from last year's 17.5%, 2019's growth still represents an annual addition of 28 bcm, faster than the annual average growth of 19 bcm during 2007-2018, the report said.

While China imposed tariffs on imports of liquefied natural gas (LNG) from the United States starting last year, it remains the world's second-largest buyer of the super-chilled fuel.

"China's reliance oil and gas imports is growing too rapidly, with oil topping 70% and gas moving toward 50%," said Lin Boqiang, Director of the Energy Economics Institute at Xiamen University.

The NEA report calls for building the Sichuan basin into the country's top gas hub due to its rich resource base in both conventional gas fields and unconventional resources, such as shale gas and 'tight gas', a low-permeability gas derived from reservoir rocks and costly to develop.

"Through expanding development of deep-reservoir gas, tight gas and shale gas, Sichuan is likely to account for about a third of the country's total natural gas output," the report said, up from 20% currently.

Shale gas in Sichuan, the key region for China's still fledgling shale gas development, could overtake conventional gas in output, the report added.

## **SHALE GAS**

In a separate report carried by official news agency Xinhua on

Saturday, Zhao Wenzhi, an influential researcher at China's Academy of Engineering forecast that China's shale gas output could reach 280 bcm, or 23% of the country's total gas output, by 2035. Zhao also serves as president of Exploration and Production Institute at state giant PetroChina.

China last year produced about 10.9 bcm shale gas, less than 7% of the nation's total gas output at 161 bcm.

The leap in projected shale gas output would require companies drilling over 500 wells a year between 2019 and 2035, double the 2018 level, Zhao was cited as saying.

Dominant state oil and gas firms have already ramped up drilling activities with near-record spending, in response to a call by President Xi Jinping in August last year to boost domestic energy security.

To expedite the growth, Beijing should consider offering tax sweeteners such as waiving resource tax on the shale gas, Zhao said.

China recently also announced a policy to extend subsidies for another three years on domestic production of unconventional gas, to include also tight gas for the first time.

In a research note last week, Wang Xueke, a consultant at Wood Mackenzie, raised China's tight gas outlook to 85 bcm by 2040, up from an earlier forecast at 68 bcm.

Despite the lofty forecast and state subsidies, China faces complex geology and a lack of technological breakthroughs to make shale gas a profitable enough business to lure private money.

"The investment is still too small as only a handful state-run companies are exploring it ... Technology progress is not fast enough," said Xiamen University's Lin.

Reporting by Muyu Xu and Chen Aizhu; Editing by Kenneth

Maxwell

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