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.

The clean-energy fast track

Kingsmill BondAngus 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.

Can power napping solve electric car charging challenge?

TUTTGART, Germany (Reuters) – Automakers around the world are pushing hard for new networks that can charge electric cars fast. In Europe, some power companies and grid operators are testing whether it might be smarter and cheaper to move into the slow lane.

A 15-month study of electric car charging behavior in Germany has concluded that consumers can be persuaded to accept slow, overnight recharging that could help avoid brownouts from surges in electricity demand or costly upgrades to power grids.

The prospect of millions of EVs hitting the roads as governments gradually ban new diesel and gasoline cars is seen as a major challenge for power companies, especially in Germany which is switching from nuclear and coal to less predictable sources of energy such as wind and solar.

The small study in the wealthy Stuttgart suburb of Ostfildern-Ruit though has helped alleviate the concerns of some grid operators that too many electric vehicles (EVs) charging at peak times could cause network crashes.

The engineers at Netze BW, the local grid operator behind the trial, found that all the households involved came around to leaving their electric cars plugged in overnight and only half ever charged simultaneously.

“Since the experience with the project we have become a lot more relaxed. We can imagine that, in future, half of the inhabitants of such a street own electric vehicles,” said Netze BW engineer Selma Lossau, project manager for the study.

Still, with limited EV battery ranges for now, slow, overnight charging doesn’t get around the problem of how to persuade drivers to ditch petrol cars altogether.

Without a network of fast-charging stations offering quick refueling, drivers may be wary of using EVs for long trips – which is why some automakers want lots of fast-charging stations to encourage the widespread adoption of electric cars.

‘CHANGED MY OUTLOOK’

Slower, or delayed, charging has already gained traction in Norway, Europe’s leading EV market, where nearly 50% of new car sales are zero-emission vehicles.

A study by energy regulator NVE showed that Norway faces a bill of 11 billion crowns ($1.2 billion) over the next 20

years for low- and high-voltage grids, substations and high-voltage transformers – unless it can persuade car owners to charge outside peak afternoon hours.

The investment cost to the country of 5.3 million people could drop to just over 4 billion crowns if cars are charged in the evening, and may fall close to zero if batteries are only plugged in at night, NVE said.

NVE is now working a tariff proposal which will penalize peak-hours charging. Tibber, a Norwegian power company, already offers cheaper electricity for EV charging if you let it decide when your car is charged while firms such as ZAPTEC offer ways to adjust charging to the available grid capacity.

Some of the 10 households participating in the Stuttgart trial said they initially wanted to keep topping up their cars for fear of running out of juice, but soon adapted to leaving the power company to handle it as it saw fit overnight.

An electric car parks next to a charging station in Ostfildern near Stuttgart, Germany, August 19, 2019. Picture taken August 19, 2019. REUTERS/Ralph Orlowski

“At the start, I did not want to take any risks and charged frequently in order to feel secure. Over time, I changed my outlook,” said Norbert Simianer, a retired head teacher who drove a Renault Zoe during the trial. “I grew used to the car and became more at ease in handling the loading process.”

Simianer and his neighbors were given electric cars and 22 kilowatt (kW) wall-boxes for their garages, alongside two charging points in the street, all free of charge.

In return, they gave up their normal cars and allowed Netze BW, which is a subsidiary of German utility EnBW (EBKG.DE), to monitor and carry out a deferred and down-scaled charging process during a seven-and-a-half-hour period overnight.

Netze BW tried various options, either slotting cars in at the

maximum 22 kW charging flow one after another, or lengthening the charging time for individual cars by adjusting the power flow, or combining both methods, Lossau said.

The participants, who used apps to check the status of their car batteries, grew accustomed to the lack of instant charging capability because their vehicles could always handle their everyday commutes of up to 50 km (31 miles).

EnBW said nine of the 10 households in the trial on Ostfildern-Ruit's Belchenstrasse had opted to keep the wall-boxes and most were exploring leasing electric car.

TWO-WAY STREET

Lossau said monitoring 10 households did not in itself provide the "empirical mass to draw conclusions for the load profile of all of Germany".

She also said there would need to be better two-way communication between EVs, the grid and consumers for the system to function efficiently on a large scale.

"There will have to be more exchange of information between e-cars and the grid to update the loading status in real-time, because otherwise, there can be the wrong impression about the speed of loading," she said.

Utility companies developing so-called vehicle-to-grid (V2G) services, however, are struggling to persuade some automakers to use technology that allows two-way flows of information, and power, between batteries and grids.

Carmakers such as Volkswagen (VOWG_p.DE), Daimler (DAIGn.DE) and Ford (F.N), for example, are prioritizing one-directional fast-charging instead to overcome consumer resistance to EVs.

Japan's Nissan (7201.T) has been leading the way among carmakers exploring V2G though Germany's BMW (BMWG.DE) has now decided to develop it too, saying cooperation between cars and

grids will be key to making e-mobility ready for mass markets.

“It is about making sure there is enough supply for the electric cars and that the lights do not go out elsewhere,” a BMW spokesman said. “The cars don’t just load when it’s best for the market, but they can also supply power back to the grid to help even out demand spikes.”

“There has to be more progress on the data exchanges, however. It is not yet the standard,” he said.

Nevertheless, the Ostfildern-Ruit trial has raised hopes that power grids might be able to cope with an influx of electric cars, especially if the consumers play ball.

Even if drivers resist overnight charging, suppliers of software and equipment to power grids, such as Germany’s Siemens (SIEGn.DE), are also looking at safer and more efficient ways to manage how and when power is used to charge cars.

MORE DATA PLEASE

The German city of Hamburg, for example, started a three-year pilot project this month with Siemens to pre-emptively identify overloads on transformers and along cables, and manage EV charging points accordingly.

“Loading processes offer so much flexibility that the overload on the networks can be reduced by deferring loading times or reducing the load that is supplied,” said Thomas Werner, expert at Siemens Digital Grid.

“This happens through the digitization of hardware and software and with communication technology,” he said.

Using software to help protect aging power networks from predictable surges could also avoid costly hardware upgrades to parts of the 1.7 million km of distribution grids in

Germany.

With few than 100,000 electric-only cars in Germany at the moment, there is little threat of blackouts from over-demand. But the Transport Ministry in Berlin envisages up to 10 million electric cars on the roads by 2030.

The number of charging points across the country also only stands at 21,000. That’s up 50% over the last year but still barely a fraction of future needs.

Next up for Netze BW is a trickier test.

Managing the power for 10 households with electric cars in a suburban street of 22 homes is one thing, now the power company is launching a study of car charging behavior in an apartment block with 80 flats, where quarrels over access are likely.

It is also looking at a study in rural areas, where the longer cables required present challenges in maintaining stable voltages for charging.

But that’s still only part of the story. Lossau said power companies would have to work more closely with carmakers to fill knowledge gaps and exchange information.

“It can only work if we get more data from each other.”

Additional reporting by Lefteris Karagiannopoulos in Oslo; editing by David Clarke

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Total starts biofuel plant in France to take on Eni and Neste

Total SA started production at a new biofuel plant in southern France, taking on rivals such as Neste Oyj and Eni SpA for a share of Europe's biodiesel market. The refinery, in La Mede near Marseille, will process vegetable oil, animal fat and used cooking oil to produce as much as 500,000 tonnes a year of so-called hydrotreated vegetable oil, or HVO, which is blended by distributors with diesel to meet government biofuel requirements.

However, the project has been criticised as it will use palm oil for almost half its main feed- stock at the start. "Our biorefinery will allow us to make biofuels in France that were previously imported," Bernard Pinatel, Total's head of refining and chemicals, said on Wednesday in a statement in

which he championed the role of biofuels in cutting carbon emissions. In a September report, Total said it wanted to take more than 10% of the European market for HVO production. It has spent €275mn ($310mn) since 2015 transforming the unprofitable La Mede oil refinery into a biofuel plant, a conversion similar to one carried out by Italy's Eni in Venice. Finnish companies including Neste operate the most HVO capacity in Europe. Total's refinery has been controversial for its planned use of palm oil, whose production in countries such as Indonesia is slammed by environmental groups for causing deforestation.

Use of the oil also denies Total French tax breaks that apply to other renewable fuels, meaning the facility can't compete with European peers, Chief Executive Officer Patrick Pouyanne has warned. The oil major has lobbied the government for a change of stance on the tax break, arguing that it's working with palm-oil producers that are certified under a European Union system that tracks sustainable practices and respect for human rights. Total's plant will use as much as 300,000 tonnes of palm oil a year, and at least 50,000 tonnes of French-grown rapeseed. An analysis by the Palm Oil Transparency Coalition shows European palm-oil importers are unlikely to be able to ensure that the products they sell are "deforestation-free" by a self-imposed goal of 2020. Only about a third of the palm oil imported into Europe by the survey respondents could be traced to the plantation it came from, according to the report.

Tesla in talks with LG Chem

on battery supply in China

Reuters Seoul/Shanghai

US electric vehicle maker Tesla Inc is in advanced talks with South Korea's LG Chem Ltd to source batteries for vehicles to be made in its Shanghai plant, a person familiar with the matter said.

The move represents a push by Tesla to diversify sources of the key component for its electric vehicles from its exclusive supplier, Japan's Panasonic Corp.

Another source said LG Chem agreed to supply batteries for Tesla's China plant, without elaborating.

LG Chem is expanding its China battery capacities and modifying some manufacturing facilities in Nanjing to make a different type of auto battery, according to the first source.

The company currently mainly makes pouch-type auto batteries, but as a major battery maker, it is not hard for it to revamp facilities to make cylindrical auto batteries that Tesla uses, the source and separate people familiar with the matter added.

The source said Tesla is still likely to use Panasonic batteries in the initial phase of production and source from other suppliers including local names in the future. A third

person said Tesla may source batteries from CATL later, as the Chinese battery maker does not have much experience in making cylindrical batteries used by Tesla.
All of the sources declined to be identified because of the confidentiality of the deal.
Tesla did not immediately respond to Reuters' request for comment.
LG Chem and CATL declined to comment. Tesla chief executive Elon Musk said in November the US company would manufacture all its battery modules and packs at the Shanghai factory, which will make Model 3 and Model Y cars, and planned to diversify its sources.
LG Chem has signed battery material supply agreements with China's Huayou and Tianqi, as the South Korean battery maker is trying to expand its foothold in China.
It said it would set up a joint venture with a unit of China's Geely on batteries.
China has scrapped its so-called "white list" of recommended battery suppliers, which did not include foreign firms when it was first published in 2015 to spur a domestic battery sector, a decision foreign companies said could open up the world's biggest market for electric vehicle batteries.
Panasonic has said it could supply batteries to Tesla's Chinese plant either from Japan, the United States or China

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LG Chem set to build 2nd US EV battery plant, say sources

Reuters/Seoul/Detroit

South Korean electric vehicle (EV) battery maker LG Chem is considering building a second US factory, three people familiar with the matter said, accelerating a race to add capacity to meet growing global demand for green vehicles.

LG Chem, one of the leading EV battery makers in the world that counts General Motors and Volkswagen among its customers, is weighing investing about 2tn won ($1.70bn) in the plant that could begin production in 2022, one of the people said.

Kentucky and Tennessee are among the candidates for the plant’s site, the person said.

A decision on the plant’s site is expected to be made by the end of this month, another person said.

Automakers are pushing ahead with billions of dollars in investments in electric vehicles to meet global regulatory requirements.

A new plant by LG Chem would come as South Korean companies have stepped up US investments, moves that have been praised by US President Donald Trump.

LG Chem’s new factory would primarily supply to Volvo, Fiat Chrysler Automobiles, and potentially to Hyundai Motor, GM and Volkswagen, one of the people said.

LG Chem, the most valuable company of the LG conglomerate, said in a statement issued to Reuters it is reviewing various ways to meet its global clients' orders, but there are no concrete plans at the moment.

The sources declined to be named as the plan is confidential.

A second US plant would come amid a growing rivalry between LG Chem and crosstown rival SK Innovation, which recently broke ground on its $1bn US EV battery plant to primarily supply to Volkswagen.

Earlier this year, LG Chem sued SK Innovation in the United States for alleged theft of trade secrets by hiring its former employees.

"We are currently pursuing another production base," LG Chem's new CEO Shin Hak Cheol told reporters this week, without elaborating on the country.

Electric vehicle sales are projected to reach 1.28mn vehicles by 2026 in the United States alone, compared with less than 200,000 in 2018, according to market researcher IHS Markit.

Trump praised US investments by SK, Lotte Group and other South Korean conglomerates and raised hopes that Korean companies will continue to expand in the US. "Thank you very much. Congratulations. It's a great job," he said during his meeting with South Korean business leaders in Seoul on June 30.

The participants included group holding company LG Corp's vice chairman Kwon Young Soo.

LG Chem, the battery supplier for GM's Bolt, currently operates an EV battery plant in Michigan.

LG Chem also has production bases in South Korea, China and Poland.

It drew attention during the groundbreaking of its first US production facility in 2010, when former president Barack Obama travelled to Michigan for the event. LG Chem is also being wooed by the government of South Korean President Moon Jae-in to build a new domestic factory to create jobs – one of Moon's top priorities.

CEO Shin said LG Chem is in talks to build a production

facility for cathode materials used in EV batteries in the southeastern city of Gumi in South Korea, but details have not been finalised.

Climate Changed Turbines in Landfill Trigger Debate Over Wind’s Dirty Downside

Wind turbines may be carbon-free, but they’re not recyclable.

A photograph of dozens of giant turbine blades dumped into a Wyoming landfill touched off a debate Wednesday on Twitter about wind power’s environmental drawbacks. The argument may be only beginning.

Fiberglass turbine blades — which in some cases are as long a football field — aren't easy to recycle. And with BloombergNEF expecting up to 2 gigawatts worth of turbines to be refitted this year and next, there could be heaps more headed for dumps.

A technician repairs a wind turbine blade in Adair, Iowa.

Photographer: Daniel Acker/Bloomberg

Cynthia Langston, solid waste division manager for the city of Casper, declined to say where the turbine debris came from. But she's happy to have it. The 1,000 blades will bring in about $675,000 for the landfill, helping keep trash costs low for local residents. Plus, Langston said, wind-farm junk is less toxic than other garbage.

"It's much cleaner than the contaminated soil and demolition projects from the oil and gas industry," Langston said in an interview. "These are about as non-toxic as you can get."

Wind turbine blades represent a "vanishingly small fraction"

of overall waste in the U.S., according to the American Wind Energy Association.

Sachin Shah, chief executive officer of one of the world's largest clean-power operators, Brookfield Renewable Partners LP, said "there will be an aggressive effort to re-use materials" in the years ahead.

Airlines scramble to overcome polluter stigma

Reuters Seoul/Stockholm/London

In Lorna Greenwood's London home, there is a shelf lined with travel guides.
But the 32-year-old mother and former government employment lawyer has given up flying.
Greenwood, who grew up enthralled by the possibilities offered by plane travel, is part of a growing group of environmental

activists in Northern Europe who are shunning flights as concerns about global climate change increase.

“It’s a tough pill to swallow, but when you look at the issues around climate change, then the sacrifice all of a sudden becomes small,” Greenwood said.

A Swedish-born anti-flying movement is spreading to other European countries, creating a whole new vocabulary, from “flygskam” which translates as “flight shame” to “tagskryt,” or “train brag.”

A number of famous Swedes have stopped flying, including opera singer Malena Ernman, the mother of teenage activist Greta Thunberg who has thrust climate change into the spotlight.

“Flygskam” was a major topic at a three-day airline summit in Seoul this weekend, with global industry leaders launching a counter-offensive.

“Unchallenged, this sentiment will grow and spread,” Alexandre de Juniac, head of the International Air Transport Association (IATA) told some 150 CEOs.

The industry says it is shrinking its carbon footprint and its sustainability plan is among the most ambitious and globally focused of any industry.

“Come on, stop calling us polluters,” de Juniac said at a news conference after detailing the global initiative.

The IATA said the CO2 emission for each CEO’s flight to Seoul was half the amount of a 1990 flight, largely thanks to more fuel-efficient aircraft.

Commercial flying accounts for about 2.5% of global carbon emissions today but without concrete steps, that number will rise as global air travel increases.

The aviation industry has set out a four-pronged plan to achieve carbon-neutral growth from 2020 and halve net emissions from 2005 levels by 2050.

But airline leaders acknowledge they have struggled to articulate their plans in a way that resonates with the public.

When CNN anchor Richard Quest asked a room full of aviation executives whether they had used an often available booking

option to offset emissions from their own flights to the South Korean capital, only a handful raised their hands.

The industry's plan rests on a mix of alternative fuel, improved operations such as direct flight paths and new planes or other technology.

But a widely publicised March study funded by investors managing $13tn said airlines were doing too little.

"If we as an industry can provide better, more concrete answers…people will start to feel more comfortable that airlines are serious about this commitment," JetBlue CEO Robin Hayes said in an interview.

Questions remain over how airlines will slow, steady and finally reduce harmful emissions.

Use of sustainable-fuel would have the single largest impact, reducing emissions from each flight by around 80%, according to the IATA.

The problem is that it is in short supply.

"The reality today is there's just not enough and it's too expensive," KLM CEO Pieter Elbers told Reuters.

KLM last week announced a deal to develop and buy biofuels from Europe's first sustainable aviation fuel plant, due to open in 2022.

Still, the IATA targets 2% of total fuel supply from sustainable sources by 2025 and then expects a steady increase.

In Europe, eliminating dozens of national airspaces borders could reduce fuel consumption by around 6%, but lobbying for a Single European Sky has been bogged down for years.

Airlines say small steps like single-engine taxiing and the use of lighter materials are cutting around 1-2% of emissions each year.

In the absence of a quick and substantial reduction its carbon footprint, the industry has committed to a carbon-offset programme.

The global Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) allows airlines to purchase pollution credits from environmental projects.

It’s unclear what will count as an “offset” and critics say such schemes hide how much effort is being made by industry and how much is being imported and at what price.

“The risk is that the price airlines are effectively paying for carbon will not be politically acceptable in 5 or 10 years,” a senior aviation executive said, asking not to be named.

European Union Transport Commissioner Violeta Bulc told Reuters she favours reviewing available green technology every five years “and then seeing if we can reach even further.”

For now, trains are benefiting from the anti-flight movement, although airline bosses in Seoul said that option barely exists in their busiest new markets such as Indonesia’s archipelago.

In Stockholm, Susanna Elfors says membership on her Facebook group Tagsemester, or “Train Holiday,” has spiked to some 90,000 members from around 3,000 around the end of 2017.

“Before, it was rather taboo” to discuss train travel due to climate concerns, Elfors said. “Now it’s possible to talk about this on a lunch break…and everybody understands.”

Sasol’s SA plants threatened by emission standards

Sasol said some of its South African plants are under threat from sulfur dioxide emission standards that it will need to comply with by 2025.

The company, South Africa's biggest by revenue, operates plants that convert coal into motor fuel and chemicals in Secunda, east of Johannesburg, and Sasolburg to the south. Flue-gas desulfurisation equipment needed to cut emissions of the gas, which causes acid rain and a range of health complications, is too costly and technically difficult to install, Sasol said.

Globally, as well as in South Africa, the company produces a range of chemicals.

Air pollution in the area around coal-fired plants operated by Sasol and Eskom east and south of Johannesburg rivals levels in some of the most polluted cities on earth. The government has proposed doubling the new limit, but is coming under increased pressure to act against the two companies as it's being sued by environmental activists over the breach of current emission limits.

Sasol will have to comply with new sulfur dioxide emission limits for coal boilers of 500 milligrams of the pollutant per normal cubic meter. Its 2018 emission reports show that some equipment at both Secunda and Sasolburg regularly exceeds 1 000 milligrams.

“The new plant standard for sulfur dioxide will pose a compliance risk challenge for Sasol post 2025 from both a technical and financial feasibility point of view,” the company said in an emailed response to questions. “All commercially available technologies for the abatement of sulfur dioxide to meet new plant standards have been evaluated and we continue to scan for new technologies.” A failure to comply could lead to fines and the closing of plants.

While Sasol has already won a postponement, Eskom is yet to hear whether its applications to have its compliance with the sulfur dioxide emission standards delayed from 2020 until 2025 are successful. It has argued that it would only be economic and feasible to fit the pollution abatement technology on its two newest plants.

Eskom, which operates about 15 coal-fired power stations, has said that flue-gas desulfurisation equipment can cost between R20bn and R40bn per plant. Environmental activists including Greenpeace put the cost significantly lower.

“Sasol is still saying they can’t afford flue-gas desulfurisation,” said Robyn Hugo, program head for pollution and climate change at the Cape Town-based Centre for Environmental Rights. “Sasol itself has confirmed that there are no other means to meet these minimum emission standards.”

In addition to being technically difficult and costly, flue-gas desulfurisation equipment would require that additional water and limestone are brought in from the Northern Cape province. Existing limestone mines in that province are 450 kilometers (280 miles) to 800 kilometers away from Sasol’s

plants.

“Flue-gas desulfurisation technology is proven,” Sasol said. Still, “it would be significantly challenging to retrofit” the equipment at the existing plants, it said.

In a separate application for a delay in meeting emission limits for a range of other pollutants, Sasol has asked for permission to significantly exceed caps for nitrogen dioxide, particulate matter and carbon monoxide until 2025. By that time, it says in the application, new equipment should enable it to comply.

On incinerators at its Secunda plant, it wants limits of as much as 90 times the new cap to be applied for carbon monoxide and particulate matter.

Sasol shares have declined by 27% this year as the company battles cost overruns at its Lake Charles chemicals project in Louisiana.

Oil Giant Shell’s Pivot to Electricity Could Bring Investors Less Sizzle

By
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Oil giant Royal Dutch Shell RDS.B -0.93% PLC aims to become the world's largest electricity company without necessarily generating very much power. The Anglo-Dutch company last month detailed its plans to transform into a cleaner business centered on selling electricity. Hoping to capture the most profitable part of the business, Shell's power strategy will be light on assets and focus on trading electricity generated by others.

"Trading will sit at the heart of the integrated approach as a very important source of value," Shell Chief Executive Ben van Beurden said at the company's management day last month. "Of course we will be involved in generating electricity […] but we have a preference for being asset-light and balance our supply by providing electricity from other producers." Oil and gas will remain Shell's core business, the company says, but it is aiming to be the world's largest electric power company by the early 2030s.

Income attributable to Royal Dutch ShellshareholdersSource:

the company
.billion2014’15’16’17’1805101520$25
The shift presents challenges. Sizable companies already exist in the power industry, and generating power has historically produced smaller profits than oil-and-gas production, because utilities often carry more debt and are heavily regulated. “The oil companies have always been used to high rates of returns with the production of crude oil,” said Paul Stevens, senior research fellow at Chatham House, a London-based think tank. “Those rates are just not available in power generation.” Shell says it hopes to achieve equity returns of between 8% and 12% from its power business, lower than the 12% to 15% target for its traditional oil-and-gas business. The company currently is the second-biggest power trader in the U.S., with a trading desk that predominantly buys and sells electricity that other companies generate. Shell, however, doesn’t disclose its trading profits or profit margin on its power-trading business. “Many utilities are hopeless at trading and marketing their power, so it makes sense to let them operate the power plants and have Shell market their power more efficiently,” said Craig Pirrong, a professor of finance at the University of Houston. Shell’s pivot is part of a broad movement among European oil giants to show they can help meet global goals to reduce fossil-fuel emissions while continuing to churn out profits. It also is an acknowledgment that demand for oil, its chief moneymaker, is expected to peak sometime in the early 2030s, according to a host of studies. The company’s recent interest in Dutch energy provider Eneco could serve as an asset-light model for where Shell’s power business might be heading. Earlier this year, Shell announced a joint bid with Dutch pension-fund manager PGGM for Eneco, a firm that sold around three times more power than it produced last year. The size of the bid wasn’t disclosed but analysts have estimated the company to be worth about $3.4 billion. As electricity rapidly makes its way into domestic heating, transportation and industrial processes, more than a quarter of global energy demand by 2030 will be for electric power,

according to Shell forecasts. That compares with 18% today and Shell's forecast of as much as 50% by 2060. Shell could play a leading role in new businesses such as electric charging points in fuel stations, said Nick Stansbury, head of commodity research at Legal & General Investment Management, a shareholder in Shell. "What I am not yet convinced by is whether—in order to be good at power-market trading, be good at making money—they necessarily need to own and have on the balance sheet the renewable assets," Mr. Stansbury said.

A London taxi plugged into a charging station at a Shell gasoline station in London in 2017, not long after Shell agreed to buy electric-vehicle charging firm NewMotion. PHOTO: TIM IRELAND/ASSOCIATED PRESS

Many of the oil industry's biggest companies are investing in clean energy projects. France's Total SA owns a majority share in U.S. solar-system maker SunPower and acquired French battery manufacturer Saft Groupe. In the U.K., BP PLC acquired electric-vehicle charging company Chargemaster last year for about $170 million and invested over $20 million in fast-charging battery company StoreDot. Norway's state-backed oil

company Equinor and Italy’s ENI also have committed to large investments. Overall, European major oil companies are allocating a fraction of their budgets to low-carbon investments, which accounted for a combined 7% of capital expenditures last year, according to investment research firm CDP. Shell’s acquisitions in power include German battery company Sonnen, retail energy providers First Utility and MP2 Energy, electric-vehicle charging companies NewMotion and Greenlots, and U.K. energy technology company Limejump Ltd. Shell also has outlined an ambitious plan to share profits with investors, with a plan to pay at least $125 billion in dividends and share buybacks between 2021 and 2025. Mr. van Beurden has told The Wall Street Journal that the payouts will come from returns on investments the company already has made.

In the long term, those generous dividends could be at risk if the world’s switch to cleaner forms of energy changes pace. Oil giants’ ability to make high profits remains dependent on their core industries, and failing to embrace the change means they’ll eventually be forced out of the business, according to Chatham House’s Mr. Stevens.
“The energy establishment is grossly underestimating the speed and depth of the energy transition,” he said. “I think it’s going to happen a lot faster and be a lot deeper.”
https://www.wsj.com/articles/oil-giant-shells-pivot-to-electricity-could-bring-investors-less-sizzle-11563015600?redirect=amp#click=https://t.co/wqT12UoCEc