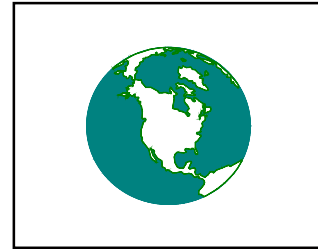


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EUROPE

1. Over Half Of EU Governments Fail To Submit Air Pollution Plans

Fifteen EU member states have yet to tell the European Commission how they plan to improve air quality, five months after the deadline set under the National Emission Ceilings Directive.

Revised in 2016 and complementing the EU's air quality standards, the directive required EU governments to submit by April 2019 National Air Pollution Control Programs (NAPCP). These would detail plans to achieve the EU's 2020 and 2030 air quality targets and would be examined by the Commission in light of national emission reduction commitments.

But according to an updated Commission table, Croatia, Ireland, Latvia and Slovakia have only filed a draft version, while Bulgaria, Czechia, France, Greece, Hungary, Italy, Luxembourg, Malta, Romania, Slovenia and Spain have yet to file any plans at all.

"This is an incredibly worrying sign: by ignoring this legal obligation, national governments are neglecting their duty to deliver cleaner air," said Margherita Tolotto, Clean Air Policy Officer at the European Environmental Bureau (EEB). The green umbrella group said that the numerous EU infringement procedures on air quality already ongoing show that "too many member states are not doing enough to tackle air pollution and protect their citizens' health".

As recently as July, the EU executive announced its latest raft of measures for breaches of rules on air quality, with Bulgaria and Spain joining a growing list of referrals to the European Court of Justice for failing to tackle pollution. In 2018, Germany, the UK, France, Italy, Romania and Hungary were referred to the court for similar breaches.

Separately, the Real Urban Emissions (TRUE) Initiative, a partnership of the FIA Foundation and the International Council on Clean Transportation to improve urban air quality, warned that nitrogen oxide emissions from diesel and emissions of certain pollutants from motorcycles can increase by 30% compared to averages at temperatures above 30°C.

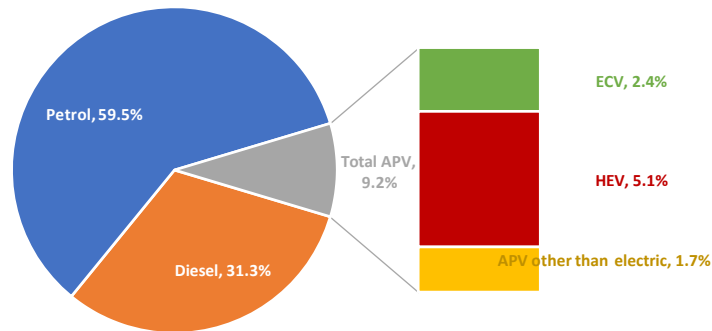
"This poses huge implications for cities all around the world as we face hotter and hotter summers in a climate crisis to which transport is a major contributor. It also shows that two- and three-wheelers are neither the answer to urban air quality nor traffic issues," commented Sheila Watson, Deputy Director of the FIA Foundation.

2. Diesel Sales Decline Continues in EU

In the second quarter of 2019, the EU new-car market shifted further towards petrol vehicles. Petrol now represents nearly 60% of all new passenger car registrations, while demand for diesel continued to fall during the second quarter.

Electrically-chargeable vehicles (ECV) accounted for 2.4% of total new car sales across the region, while all alternatively-powered vehicles (APV) combined made up 9.2% of the EU market.

Petrol And Diesel Cars



Demand for new petrol cars continued to increase in the five major EU markets, except for Germany. The highest percentage gain (+27.4%) was posted by Italy. The Central European countries also saw a surge in demand for petrol vehicles, with registrations

increasing by 7.2%. Petrol expanded its market share from 56.7% to 59.5% in the second quarter of 2019.

By contrast, the number of diesel cars registered across the EU decreased by 16.4% to 1.3 million units, with diesel's market share falling from 36.3% in the second quarter of 2018 to 31.3% this year. In Germany, however, demand for diesel recovered slightly – up 3.5% in the second quarter.

Alternatively-Powered Vehicles (APV)

During the second quarter, registrations of alternatively-powered cars in the European Union showed strong growth (+28.5%). Some 98,553 electrically-chargeable vehicles (ECV) were registered, up 35.6% compared to last year. Sales of battery electric vehicles almost doubled (+97.7%), while demand for plug-in hybrids declined in the second quarter of 2019 (-13.6%).

Hybrid electric vehicles (HEV) posted strong results (+38.2%), with 210,348 units sold from April to June this year. However, registrations of LPG and natural gas cars remained flat in the second quarter, mainly due to a sharp drop in demand for natural gas vehicles (NGV).

Each of the five largest EU car markets saw registrations of alternatively-powered vehicles increase significantly. Germany (+60.7%) recorded the highest percentage gains, boosted by strong demand for hybrid electric vehicles, followed by Spain (+35.8%) and France (+20.0%).

3. Daimler Fined \$960 Million to Settle Rigged Diesel-Car Probe

German prosecutors fined Daimler AG 870 million euros (\$960 million) for “negligent violation of supervisory duties” to settle a probe into selling rigged diesel cars. Prosecutors found the maker of Mercedes-Benz cars sold about 684,000 vehicles that didn't completely comply with regulations on emissions of nitrogen oxides, according to statements from Stuttgart authorities and Daimler. The company agreed not to contest the verdict and confirmed its financial guidance.

The fine is the latest fallout from heightened scrutiny in the aftermath of Volkswagen AG's diesel-cheating scandal, which continues to reverberate across the German auto industry four years later. Volkswagen's Chief Executive Officer Herbert Diess and Chairman Hans Dieter Poetsch on Tuesday were charged with market manipulation in Germany over allegations they failed to inform investors early enough about the rigged engines. (See story below.)

Daimler, which has projected a “significant” decline in 2019 operating earnings, said the fine isn’t expected to result in a “relevant” drag on third-quarter earnings. In a profit warning in July, the company set aside about 1.6 billion euros to deal with diesel-related court proceedings. The provision came weeks after Ola Kallenius took over as chief executive officer.

4. VW Executives and Ex-C.E.O. Are Charged With Market Manipulation

German prosecutors have charged Volkswagen’s two highest-ranking executives with stock market manipulation for failing to inform shareholders of an investigation in the United States that led to its conviction for emissions cheating. The allegations against Hans Dieter Pötsch, the chairman of Volkswagen’s supervisory board, and Herbert Diess, the chief executive, mean that the world’s largest automaker will be led by allegedly criminal defendants as it tries to refashion itself as a climate-friendly manufacturer of affordable electric cars. The prosecutors, in Braunschweig, also charged Martin Winterkorn, a former Volkswagen chief executive.

The legal actions were a further setback to the German car industry, the backbone of the economy, when it is struggling with declining sales and a transition to electric vehicles.

At Volkswagen, Mr. Pötsch and Mr. Diess indicated that they would stay in their jobs, and there was no sign of any move by other members of Volkswagen’s supervisory board or its largest shareholder to oust either of them. Both men, who could be sentenced to up to five years in prison if convicted, denied the charges against them, as did Mr. Winterkorn.

Mr. Pötsch, who was chief financial officer of Volkswagen throughout the period when the company was installing illegal emissions cheating software in millions of vehicles, is a close confidant of the Porsche and Piëch families, which own a majority of Volkswagen’s voting shares. Volkswagen’s other major shareholder is the German state of Lower Saxony, which owns 20 percent of the voting stock. Outside shareholders are heavily outnumbered and have little influence.

It is unusual but not unprecedented for managers of blue-chip German companies to keep their jobs when facing criminal charges. Josef Ackermann remained chief executive of Deutsche Bank after he was charged with approving excessively high bonuses to managers of a company where he was a member of the supervisory board. The charges were dropped in 2006 after he agreed to pay several million euros in a settlement.

Senior managers of Volkswagen have faced criminal charges before. In the early 1990s, the chief purchasing officer was accused of corporate espionage against General Motors, his former employer. In 2007, the head of personnel was convicted of supplying prostitutes and Viagra to labor leaders at company expense.

Volkswagen has acknowledged that its company culture had become toxic. Under a 2017 plea agreement that resolved criminal charges in the United States, Volkswagen promised to change its ways.

Overseeing the ethics drive is Hiltrud Dorothea Werner, a member of Volkswagen’s management board. She defended the accused executives. “The company has meticulously investigated this matter with the help of internal and external legal experts for almost four years,” Ms. Werner said in a statement. “The result is clear: The allegations are groundless.”

But the case could also have financial consequences for Volkswagen. Shareholders have sued, seeking damages that could reach \$10 billion.

At issue is when the Volkswagen executives learned that the company was under investigation in the United States for deploying software that produced artificially low emissions in diesel cars when they were being tested. German law requires senior managers to warn shareholders of events that could affect the stock price.

Prosecutors said that Mr. Winterkorn had known no later than May 2015 that the company could face serious penalties in the United States. Mr. Pötsch was informed at the end of June 2015 and Mr. Diess at the end of that July, prosecutors said.

The three defendants withheld information from shareholders in order to protect the Volkswagen share price, prosecutors said.

Volkswagen shareholders did not learn of the cheating until the Environmental Protection Agency issued a notice of violation in September 2015. Volkswagen's share price fell by almost half, and the cost of the scandal has since topped \$30 billion in court settlements and fines.

The allegations are a particular blow to Mr. Diess, a former BMW executive who arrived only months before the E.P.A. publicly accused Volkswagen of cheating. He has been trying to restore Volkswagen's image by changing the authoritarian, win-at-all-costs company culture that helped foster the scandal.

Recently, he presided over the flashy introduction at the Frankfurt International Motor Show of a battery-powered hatchback, the ID.3. Volkswagen has staked its future on what it says will be a family of moderately priced electric vehicles, making emission-free transportation accessible to middle-class buyers. Volkswagen also introduced a cleaner logo.

"Neither the facts nor the law justify the charges," lawyers for Mr. Diess said in a statement. "Newly arrived in July 2015, Dr. Diess was not in any position to foresee the magnitude of the economic consequences actually resulting from the diesel emissions fraud."

Mr. Diess received moral support from Elon Musk, the chief executive of Tesla. "Herbert Diess is doing more than any big carmaker to go electric," Mr. Musk wrote on Twitter. "The good of the world should come first. For what it's worth, he has my support."

The charges also put pressure on Mr. Pötsch, who was chief financial officer when the scandal came to light in 2015 and was responsible for communicating with shareholders. As supervisory board chairman, he oversees senior management and presides over the annual shareholders meeting.

"The indictment against Mr. Pötsch is unfounded," his lawyer said in a statement. "In the summer of 2015, no obligation to inform the capital market arose at any time even from a purely capital market law perspective."

Mr. Winterkorn's lawyer, Felix Dörr, said in a statement that the former chief executive had trusted assurances from Volkswagen employees that excess emissions in diesel cars were the result of a technical problem, which could be worked out with regulators in the United States.

Volkswagen later admitted that it had programmed the vehicles to recognize when an emissions test was underway and to crank up pollution controls so the cars were deemed compliant. On the road, the cars polluted far more than allowed.

Mr. Winterkorn “had no prior knowledge of the intentional use of forbidden motor management software in diesel passenger cars in the U.S.,” the statement said. Mr. Winterkorn, who resigned days after the scandal burst into public view, already faces fraud charges in connection with the emissions cheating, which he has denied.

Prosecutors had previously disclosed that they were investigating the three executives, as well as dozens of other suspects, for possible involvement in the emissions deception. The cases in Germany are likely to take years to resolve and will continue to corrode the company’s reputation.

The Volkswagen case has focused attention on the degree to which nearly all carmakers in Europe built diesel cars that flouted emissions rules in one way or another.

European laws do not generally provide for fines as hefty as those that Volkswagen paid in the United States, and it is difficult for car owners in Europe to sue for damages. But sales of diesel cars, once the most popular engine option in Europe, have plunged.

5. German Government Agrees \$60 Billion Climate Policy Package

Under pressure from environmental protests and growing support for the opposition Green party, the German government agreed recently on a 54 billion euro (\$60 billion) package of measures for tackling climate change.

German Chancellor Angela Merkel said the deal hammered out by governing parties during marathon talks overnight would boost the country's contribution to fighting global warming. Europe's biggest economy aims to cut its greenhouse emissions by 55% by 2030 compared with 1990 levels.

"We believe that we can achieve the goals and that we've truly laid the foundations for this," Merkel told reporters in Berlin.

But Ottmar Edenhofer, one of Merkel's top climate advisers, slammed the proposals and accused the government of "political faintheartedness." Edenhofer, who heads the Potsdam Institute for Climate Impact Research, said the planned charge for carbon emissions from transport and heating fuels — starting at 10 euros (\$11.07) per ton of carbon dioxide in 2021, and rising to 35 euros (\$38.73) in 2025 — was too low to be effective.

According to the Paris-based Organization for Economic Development and Cooperation, OECD, an effective tax on fuels that reflects the climate costs of carbon emissions would need to be above 30 euros per ton of CO₂.

Environmental campaigners accused Merkel of surrendering to the interests of Germany's powerful automaker lobby by failing to set a deadline for phasing out fuel combustion engines as some other countries have already done. "We think this is a huge mistake, including for the industry itself," said Martin Kaiser, the executive director of Greenpeace Germany. "Because adjusting to the global market means ending the burning of gasoline and getting into electric mobility."

Germany has long been a leader on environmental protection, but in recent years it has fallen behind many European neighbors in part due to persistently high emissions in the transport sector.

The government's cautious climate policy contrasts with the view among most German voters that curbing global warming is the most pressing issue of the day. A recent poll by ARD television showed 63% of voters saying the government should prioritize climate protection over economic growth. Only 24% said economic growth should take priority.

German students have embraced Swedish teenager activist Greta Thunberg's weekly protests, and recently they staged rallies in hundreds of cities across the country. According to police, Berlin alone saw 100,000 people take to the streets — with organizers claiming 1.4 million nationwide — as Merkel outlined her plans nearby.

"We had minimal expectations and still we were disappointed," the youth campaign group Fridays for Future said in a statement. It criticized the government for failing to bring forward the 2038 deadline for phasing out the use of coal, one of the most polluting fossil fuels, and calling the plan a "declaration of bankruptcy."

Merkel acknowledged the pressure her government has come under from protesters, saying young people were justified in demanding "that we do something so they, too, have good chances in life." The 65-year-old old trained physicist said she agreed with Thunberg that was time to "unite behind the science" and there was no point in denying the evidence for global warming. But she also admitted that the climate plan was a compromise.

"Politics is (doing) what's possible, and we explored those possibilities," Merkel said.

Germany's climate policy is being closely watched elsewhere. The country has the sixth biggest greenhouse gas emissions in the world, with a 2.1% share of the global total.

Failure to meet its emissions reduction targets would cost Germany financially; under European Union rules, the country could be fined billions of euros from 2021 if it doesn't meet the bloc's emissions reduction targets.

Aside from the carbon pricing, the government's new plan envisages substantial subsidies for consumers who buy cleaner cars and home furnaces. The installation of oil furnaces will be banned entirely from 2026.

Other measures agreed include raising the climate charge on airline tickets and investing more in low-emission rail travel, including by reducing the tax on train tickets.

Economists warned that a proposal to raise tax deductions for commuters and cut the cost of electricity in Germany — one of the highest in Europe — would undermine the government's effort to get people to save fuel and energy.

6. Audi Gets Ultimatum To Remove Illegal Diesel Software, Report Says

Germany's KBA motor vehicle authority has told Audi that it faces penalties for its failure to remove illegal software from diesel cars that can manipulate emissions levels, the Bild am Sonntag newspaper reported.

The KBA has told Audi in three letters that it had until September 26 to remove the software from thousands of diesel vehicles with V-6 and V-8 TDI engines or else face a fine of 25,000 euros for each car still carrying an illegal device, the paper said.

Germany's transport ministry said last year that the KBA had detected illicit emissions-control software in 127,000 Audi models with Euro 6 diesel engines, including 77,600 cars in Germany.

An Audi spokesman said the automaker was getting closer to upgrading the remaining 8 percent of the cars in question and that it would complete the mission by the KBA deadline.

The emissions-rigging scandal that engulfed Volkswagen Group originated in Audi's engine development department.

7. Dieselgate 4 Years On: Number Of 'Dirty Diesels' Continues To Grow

The dieselgate scandal is 'far from over', according to a new report that finds the number of diesel cars emitting noxious gases beyond European legal limits now totals 51 million. The report, released recently by the European Federation for Transport and Environment (T&E), suggests the number of offending vehicles on roads in the EU has increased by 18% since 2018 and 74% since 2016.

Germany accounted for the largest share of dirty diesels with 9.9 million cars, followed closely by France with 9.8 million and the UK with 8.5 million. Just six of the 28 EU member states, Germany, France, the UK, Italy, Spain and Belgium, accounted for 81% of the entire diesel fleet.

This data comes exactly four years since the 'dieselgate' scandal erupted amid revelations that several major car manufacturers had been manipulating diesel vehicles to cheat in mandatory emissions tests. In their report, T&E defines 'dirty diesels' as models that have revealed nitrogen oxide (NOx) emissions at least twice the Euro standard limit under laboratory conditions, or three times the Euro standard limit on the road.

"Regulators must stop turning a blind eye to the main source of toxic air and force carmakers to get clean now" said Florent Grelier, clean vehicles engineer at Transport and Environment. The report attributed the rising number of dirty diesels to the law enforcement of recalls in "tolerant" member states, and manufacturers continuing to sell vehicles that were approved before the implementation of new, stricter laboratory test procedures.

As the European Commission has no power to order recalls across the entire union, it has to rely on the action of national car authorities. Last March, the Commission released a post-dieselgate roadmap, which called on national governments to "encourage" hardware retrofits.

8. Germany's Environment Agency Says Emissions Of New Diesel Cars Still Too High

Nitrogen oxide (NOx) emissions in relatively new diesel cars are still much higher than EU emissions limit values allow, and their carbon dioxide (CO2) emissions are higher than previously thought, Germany's federal environment agency UBA has found. Together with five other European transport and environment authorities, the UBA tested diesel cars using the Euro 3 to Euro 6c EU emissions norm according to a new list of criteria based on the handbook on emission factors for road traffic (HBEFA), coming to the conclusion that emissions in real life driving situations were "multiple times" above those on the test stand and therefore clearly violated emissions limits. "Especially cars with Euro 5 standard, which were sold up until a few years ago,

have very high NOx emissions in real life. We urgently need mechanical retrofitting with catalyzers of these vehicles to protect the health of city dwellers," said UBA head Maria Krautzberger. Only cars rated with the Euro 6d emissions norm complied with limit values under real-life driving conditions, the UBA said. However, these account for only 5 percent of the diesel car fleet. CO2 emissions were also found to be much higher under the new HBEFA measuring, which, according to the UBA, is due to the average vehicle's constantly increasing size and engine performance. Real carbon emissions of diesel cars have only fallen by 8 percent for new passenger vehicles since 2000 and only by 2 percent for light utility vehicles since 2001.

The diesel emissions fraud scandal has been haunting carmakers in Germany and beyond since 2015, when it was revealed that millions of cars were equipped with defeat devices that manipulated emission levels on test stands. Several German cities have since been compelled to introduce partial driving bans for older diesel cars to comply with EU emission limit values. Germany's major carmakers have so far resisted calls for the retrofitting of manipulated cars with comprehensive hardware and instead stress their readiness to boost electric mobility.

9. Natural Gas No Solution For Truck Emissions, Tests Suggest

Heavy goods vehicles running on liquefied natural gas (LNG) can emit up to five times as much nitrogen oxides than the latest diesel models, according to research commissioned by green group Transport & Environment. A study of three LNG trucks available on the EU market found that NOx emissions were two to five times as high as the best performing diesel equivalent in real world testing conditions. In urban areas, they emitted more than double the amount of NOx compared to diesel.

The three LNG models were found to produce a similar amount of particulate matter as their diesel counterparts, contradicting claims made by their manufacturers that the vehicles all but eradicate particulate pollution. "These claims are simply not true," the study states.

Two models – produced by Scania and Iveco – "emitted quite large numbers of particles per kilometer during urban driving conditions", the report continues, noting that LNG lorries are not required to be fitted with particulate filters until 2023.

"Gas trucks are not clean and can actually be worse than diesel," said Stef Cornelis, T&E's clean trucks manager. "It's time for policymakers to have a fresh look at the evidence and put an end to gas truck subsidies, LNG infrastructure investments and tax breaks for what is just another polluting fossil fuel."

The T&E study also suggests that the reduction in greenhouse gas emissions from LNG trucks is also limited. The Scania and Iveco models registered a 9-10% reduction in CO2 equivalent compared to the average Euro VI diesel truck, based on 2013 figures. A third LNG model, produced by Volvo, performed better, emitting 14% less than the best performing diesel model from the same year.

However, once the full emissions associated with the extraction of natural gas are considered, those benefits shrink further. Two of the LNG trucks tested released more CO2 equivalent once the full fuel production had been accounted for.

The green group has previously published evidence suggesting switching to LNG for shipping would likewise do little to curb the sector's greenhouse gas emissions.

The EU's Alternative Fuels Infrastructure Directive has set requirements for member states to support the roll-out of LNG infrastructure for heavy goods vehicles, but T&E argues that the latest evidence means it should "no longer be counted as an alternative fuel".

Responding to the report, Eurogas secretary general James Watson, stressed that "low- and zero-carbon fuels should be considered if the transport sector is to play a role in helping the bloc achieve carbon neutrality by 2050".

Watson stressed that biogas and hydrogen generate "emissions savings" compared to liquid fuels. "These technologies are being constantly improved to reduce their carbon footprint," he added.

But the Natural & bio Gas Vehicle Association (NGVA Europe), a Brussels-based industry group, has contested the report's findings.

Looking at the same emissions data, collected by the Netherlands Organization for Applied Scientific Research (TNO) in 2017, the NGVA states that the average LNG truck emits only twice as much NOx as the average diesel in urban environments. On motorways, LNG trucks emit the same amount of NOx as the average diesel truck, the lobby group observes.

It also cites other research, named Projet Equillible, showing "a constant reduction in NOx emissions in favor of natural gas trucks, ranging from 40% to 60% compared to diesel".

However, T&E has cast doubt on the reliability of that research. In a response to the NGVA's statement, the green group argues that "many partners in this project were not independent" and had ties to the natural gas industry. In addition, Projet Equillible "lacks technical details and accuracy", T&E claims.

T&E rejected the NGVA's claims that it had misrepresented the amount of NOx emitted by LNG trucks, noting that its analysis made clear that only one LNG model emitted five times more NOx than the average diesel, rather than the average LNG model.

The green group also accused the NGVA of cherry picking a single on-road test carried out by the TNO in 2018 that recorded significantly lower NOx emissions for the Iveco LNG truck used in its analysis.

"In 2018 Iveco took exactly the same truck as tested in 2017 and did seven different on-road tests with different settings to address the NOx issue detected in 2017. In the seventh test they managed to get the lower NOx results presented by the NGVA," T&E states. "However, the settings in the seventh test are not representative of the calibration used on the truck bought and used by the transport buyer."

Both the NGVA and T&E agree that biomethane would substantially lower the carbon footprint of LNG trucks. But T&E states: "When the numbers are run, it is clear that there is not (and will not be) enough biomethane (at any reasonable price or environmental footprint) to decarbonize sectors already using natural gas today (e.g. industry and heating), and even less for new users of natural gas, such as heavy-duty vehicles."

However, in a briefing, the NGVA says it is "nonsense to think that electrified solutions and natural gas technologies would be competing", claiming that "the transport system will continue to use internal combustion engines".

10. Remote Sensing Of Motor Vehicle Emissions In Paris Finds Diesel Car Problems

In 2017, Mayor Anne Hidalgo of Paris and Mayor Sadiq Khan of London jointly committed to making data on real-world vehicle pollutant emissions available to residents of those cities. In support of that aim, The Real Urban Emissions Initiative (TRUE) commissioned in-use vehicle testing campaigns in both cities, to be carried out using remote sensing technology.

In summer 2018, TRUE measured emissions from more than 180,000 vehicles on the road at three Paris sites. A newly published paper¹ reports the results.

Among the study's findings:

- Nitrogen oxide (NOx) emissions from Euro 6 diesel cars on the streets of Paris were 4.8 times those of Euro 6 petrol cars and 6 times laboratory limits. On average, NOx emissions of Euro 6 diesel cars were only 18% lower than those of the oldest petrol cars, and many times higher than newer petrol cars.
- NOx emissions from petrol passenger cars in Paris decline in step with the emissions standard, but diesel cars show little improvement from Euro 2 through Euro 5 standards, and Euro 6 diesel cars only modest improvement.
- In-use NOx emissions increase dramatically at high outside temperatures. NOx emissions of Euro 5 and Euro 6 diesel cars measured at ambient temperatures above 30 °C were 20% to 30% greater than at temperatures between 20 and 30 °C.
- Euro 5 and Euro 6 diesel cars, which qualify for Crit'Air 2 classification and will be allowed to operate without restriction in the Paris low-emission zone (LEZ) until 2024, were responsible for an estimated 63% of total passenger vehicle NOx emissions in Paris during the field study.
- Testing results for the newest diesel cars remain inconclusive. NOx emissions of Euro 6d-TEMP diesel cars observed in Paris were around 70% lower than diesel vehicles certified to earlier Euro 6 stages. But the number of vehicles measured was relatively small because few are yet on the road, no data is yet available on the durability of their emissions controls, and the testing raised questions about elevated NOx emissions at higher engine loads for these cars.
- On average, NOx emissions of Euro VI city transit and coach buses were 59% and 84% lower, respectively, than Euro V buses. On a fuel-specific basis (grams per kilogram of fuel consumed), Euro VI transit buses in Paris on average emit less NOx than Euro 6 diesel cars.
- Fuel-specific emissions of carbon monoxide (CO), particulate matter (PM), and NOx from L-category vehicles (two- and three-wheelers) were on average significantly higher than from petrol cars. L-category vehicles certified to the most recent emissions standard (Euro 4) qualify for the Crit'Air 1 emissions classification and will be allowed to operate without restriction within Paris until 2030. Without new policies to reduce their exhaust emission limits or restrict circulation, the share of air pollution in Paris attributable to these vehicles may grow.

11. Europeans Must Win Consumers On EVs

¹ White paper Published: 2019.09.10 •By Tim Dallmann, Yoann Bernard, Uwe Tietge, Rachel Muncrief, TRUE_ParisRS_study_20190909.pdf

Europe's automakers arrived at the Frankfurt auto show armed with a raft of new electric vehicles and a message to deliver to policymakers: These cars will not solve the climate crisis alone. Authorized to speak on behalf of his colleagues and competitors, PSA Group CEO Carlos Tavares told reporters the industry should no longer be criticized for inaction now that consumers will be able to find a zero-emissions model in showrooms that suits their needs.

The diminutive Opel Corsa-e and the sleek Porsche Taycan celebrated their public debut at the show, while Volkswagen added the cherry on top with its vaunted ID3, the first in a family of affordable, mass-market EVs that are designed to be sold in the millions.

But auto manufacturers used the show to make clear that product availability is only one factor, and customers must now complete the environmental equation by switching to the new technology.

"Having electric vehicles in the dealerships is not going to be enough," Tavares warned, calling on a coordinated society wide approach that includes a major ramp-up of charging infrastructure and meaningful financial incentives. "Freedom of mobility is something fundamental to our democracy," he said.

Thus far, the industry has had trouble moving the needle of change.

High sticker prices, limited battery range and a sketchy charging infrastructure have conspired to hold down EV demand. Sales volume barely registered a blip in the first half of this year, with battery-electric vehicles accounting for just 1.5 percent of the European Union's car market. Plug-in hybrid electric vehicles achieved roughly half that.

Social critics chide the transportation sector for not making any meaningful progress over the past two decades to reduce its absolute CO2 footprint. The shift in demand from more carbon-friendly diesels to gasoline cars in 2017, along with a rising market share of SUVs, reversed a decade-long trend of falling new-car CO2 emissions. Last year, industrywide emissions actually rose by 2 grams, to 120.4 gram per kilometer.

In response, the EU Parliament mandated in April a drastic 37.5 percent decrease in new-car emissions by 2030. That means the industry must now slash its emissions level to roughly 60g/km on average or face steep noncompliance fines.

Had the industry remained stuck at its 2018 levels through 2021, it would be liable for combined fines totaling nearly \$40 billion. Opel CEO Michael Lohscheller implied this was a reason behind General Motors' August 2017 sale of the Opel business to France's PSA Group when he admitted three months later that his company was on track to miss its target with "potentially dramatic consequences."

But now April's EU legislation poses an entirely new dilemma.

Volkswagen Group CEO Herbert Diess warned that his entry VW model, the 3658mm-long Up minicar, has reached the point where it can no longer economically remain CO2-compliant by 2025. The only solution, the Austrian executive emphasized, is to launch battery-electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). Diess even asked for understanding from the leader of an environmental advocacy group who was protesting at the show that VW continues to live from its conventional car business.

"We plan to electrify 50 percent of our fleet in the next 10 years, and that is a huge challenge, so it is unfair to say it's just a fig leaf," the Volkswagen boss said when accused by the advocacy group of "absolute greenwashing."

In fact, the ambitious new EU fleet targets mean Diess must now factor in a vehicle's CO2 impact when calculating the profit potential of a new model. A high-margin vehicle that is a significant CO2 emitter will end up being substantially less lucrative as a result.

A study published recently by European automaker association ACEA suggested a very strong correlation between economic prosperity and uptake rates for battery-powered cars. Norway, a non-EU state and the electric vehicle poster child with its 45 percent EV market share, boasts a per capita GDP that is twice as high as the bloc's average, for example.

But to get where Europe wants to be, with mass acceptance of EVs, sizable infrastructure investment will still be necessary, automakers point out. The companies estimate they will need 2.8 million charging points at least by 2030. At the moment, there are not even 145,000 available across the EU. And three-quarters of them are located in just four of the 28 EU countries -- Germany, the UK, France and the Netherlands.

Almost all member states with fewer than one charging point per 100 kilometers of roads have a share of BEVs and PHEVs that is less than 1 percent, they say.

Mercedes-Benz sales chief Britta Seeger has argued in favor of imposing fees on emissions-intensive vehicles, such as luxury sedans and SUVs, to raise revenue to help finance the purchase of EVs. She believes a policy of taxing one segment of products to foster support for another segment would "help get people enthusiastic about making a switch."

The EU is now preparing legislation that will commit the bloc to a goal of carbon neutrality by 2050. Incoming EU Commission President Ursula von der Leyen has made a "European Green Deal" a cornerstone of her agenda, including its plan for a carbon tax on imports.

"There is no alternative," said Hans Michel Piech, a nonexecutive director on the Volkswagen Group board and large shareholder, referring to the industry's electrification. "Neither for us nor for our competitors."

12. UK Road Traffic Increased By 30% Since 1990, But Many Air Pollutants Down

Road traffic in the UK has increased by almost 30% since 1990 but transport-related emissions of many air pollutants including particulate matter and nitrogen oxide (NOx) have reduced, according to Office for National Statistics (ONS) analysis of the most recent environmental accounts.

The UK's statistics body compared figures from 2017 with 1990, when 255 billion miles were travelled by UK motorists – a figure which has jumped to 328 billion miles in 2018, an increase of 29%.

They said the continued reliance on petrol and diesel cars means reducing emissions from road transport remains a 'significant challenge' as the UK looks to reach net-zero emissions by 2050, especially as at the end of 2018, just 0.5% of all vehicles licensed in the UK were low emission.

Despite this increase in traffic, the ONS found that air pollutants carbon monoxide (CO), particulate matter (PM2.5) and nitrogen oxides (NOx) have reduced following increasingly stringent exhaust emission limits.

Whilst the UK's total greenhouse gas (GHG) emissions have fallen by 32% from 1990 to 2017, GHG emissions from road transport have increased by 6% over the same period, with a fifth of all UK GHG emissions coming from road transport in 2017. Greenhouse gas emissions, primarily carbon emissions, or CO₂, peaked in 2007 before levels of road traffic tumbled during the financial crisis. But road emissions have steadily risen again since 2013 to more than 118m tons in 2017.

Total fuel used for road transport in the UK remained relatively stable from 1990 to 2017 as the fuel efficiency of newer vehicles has improved, whilst petrol use declined and diesel use has increased.

Responding to the ONS analysis, Jenny Bates, campaigner at Friends of the Earth, said: 'Despite noise made by vehicle manufacturers about cleaner petrol and diesel technology, transport is still the most climate polluting sector and it's clear petrol and diesel sales have to stop as soon as possible.

'Admittedly there has been some progress but the ever-increasing number of car miles is still locking us in to a high carbon future, as well as causing health-damaging air pollution.

'The only way to stop transport from leading us to further climate breakdown is to drastically cut the miles travelled by car. Cleaner options – such as bicycles, buses and trains – need to be made more accessible and more affordable, which will be good for the health of people and the planet.'

Car owners were encouraged by government in previous decades to switch to diesel, a policy that helped limit carbon emissions but contributed to worsening air quality in urban areas. Though greenhouse gas emissions improved relative to the volume of traffic, the slow rate of change has resulted in the transport sector overall – including rail and domestic aviation – overtaking energy production as the most polluting sector. Overall UK emissions dropped by almost a third in the same period.

Campaigners' calls for a modal shift in transport come in the face of figures showing declining use of buses. The number of annual journeys in England has fallen by more than 300m in the last five years, to 4.3bn in the year to March, and the Local Government Association repeated warnings last week that half of all routes were at risk. Fares on buses, as on trains, have risen faster than inflation.

Hopes for bringing down emissions otherwise lie in the swift uptake of low- and zero-emission cars. The Tesla Model 3 helped sales of battery electric vehicles surge last month to a record 3.4% of the UK market, although there was an accompanying slump in sales of hybrids from last August, after subsidy cuts at the turn of the year.

The business minister Nadhim Zahawi said: "As electric vehicle sales reach a record high, the potential of this market for the UK car industry and wider economy is huge. We are committed to achieving our aim for all new cars and vans to be effectively zero emission by 2040."

Although motor manufacturers have said the viability of that transition remains in doubt, in May the Committee on Climate Change recommended bringing forward the deadline so that only zero-

emission vehicles would be sold after 2035. By the end of last year, while almost 2% of new registrations were ultra-low-emission vehicles, they comprised only 0.5% of all cars on UK roads, the ONS said.

Research published by Go Ultra Low, a joint government and industry campaign to promote electric vehicle (EV) use, found that despite low current sales, EVs were regarded as increasingly normal. It found 69% of people expected “electric cars” to be referred to simply as “cars” by the end of the decade. Almost half cited concerns over the availability of charging points as the biggest deterrent to buying an electric car.

13. Air Pollution A Growing Threat For North Macedonia

The World Health Organization (WHO) recently ranked Skopje, the capital of North Macedonia, as the third most polluted city in Europe. The organization’s data shows that Skopje’s annual air pollution stood at 40 µg/m³ in 2018, 60 per cent higher than EU guidelines and four times higher than WHO guidelines.

North Macedonia has an especially poor record when it comes to particulate matter (PM) air pollution, one of the most damaging causes. In 2018, it was the country’s eighth largest mortality risk factor and was linked to 7.3 per cent of deaths, decreasing the average life expectancy in North Macedonia by 0.81 years.

What’s more, the effects of air pollution go beyond health and have a considerable impact on economic growth: it increases medical expenditure, decreases work productivity and contributes to a rise in premature deaths.

Health expenditure in North Macedonia has increased to around 397 million US dollars, which is almost 3.5 per cent of GDP. The country’s job performance has also been affected: the World Bank estimates that the productivity impact of air pollution is around 0.13 per cent of GDP (4.7 million US dollars). Furthermore, the increased death tolls, which result in reduced labor hours and total profits, lead to a decrease in gross domestic product.

Such a major health crisis requires immediate solutions by both public and private actors in the Macedonian economy, with a green economic transformation being vital to resolve the issue.

Air pollution will therefore be one of the key topics of the Macedonia2025 Summit between November 13 and 15 in Skopje, a platform for sharing knowledge, connecting business and inspiring innovation not just in North Macedonia, but all of Southeastern Europe, serving as an opportunity to address the issue by sharing expertise and encouraging a joint dialogue by all stakeholders.

NORTH AMERICA

14. EPA Staff Call For Stricter PM_{2.5} NAAQS Poses Test For Trump’s Agenda

EPA staff’s just-released policy assessment (PA) detailing options for revising particulate matter (PM) ambient air standards recommends tightening the limits for fine particulate matter (PM_{2.5}), posing a test for President Donald Trump’s deregulatory agenda as stricter standards would impose more onerous air controls on industry.

In the draft PA document released September 5, staff suggest tightening the primary health-based PM2.5 national ambient air quality standard (NAAQS) from the 2012 limit of 12 micrograms per cubic meter (ug/m3) down to a level above 8 ug/m3. The PA says that EPA need not, however, consider tightening the existing secondary health based standards for PM2.5 that are 15 ug/m3 annually, and 35 ug/m3 over 24 hours.

The PA recommends leaving the current primary and secondary standards for PM10 unchanged at 150 ug/m3 over 24 hours based on staff's review of the latest science on PM10's effects on health and the environment.

The document will inform the agency's ongoing Clean Air Act-mandated review of the 2012 NAAQS that is due to conclude in December 2020 with a rule either revising the standards or leaving them unchanged.

By law EPA must set its NAAQS at a level requisite to protect public health with an "adequate margin of safety," but the Trump administration could seek to weaken the standards as part of its deregulatory push.

New evidence of health effects at low levels of exposure helps to justify tightening the primary PM2.5 NAAQS, says the PA. "[V]arious levels from 8.0 ug/m3 to < 10.0 ug/m3 could be supported, depending on the weight placed on specific aspects of the evidence and analyses," it says, noting that levels between 10 ug/m3 up to 12 ug/m3 could also be supported, if EPA places more weight on scientific uncertainty.

This stands in contrast to prior statements by Trump EPA air officials that levels of below 12 ug/m3 might not be attainable or enforceable in practice. Some studies have pointed to levels as low as 6 ug/m3.

In tightening the primary annual limit, EPA should also consider revising the related 24-hour primary limit of 35 ug/m3, EPA staff says. The document says, "consideration of 24-hour standard levels at least as low as 30 ug/m3 could be supported" under certain circumstances, although staff says the benefits of tightening the 24-hour limit appear more uncertain than of ratcheting down the annual level.

The PA says that EPA need not, however, consider tightening the existing secondary standards for PM2.5 "[W]e find that the available evidence does not call into question the protection afforded by the current secondary PM standards against PM-related welfare effects. Thus, our preliminary conclusion for the Administrator's consideration is that it is appropriate to consider retaining the current secondary PM standards, without revision," it says.

The PA recommends leaving the current primary and secondary standards for PM10 unchanged, arguing that the existing limits are adequate to protect human health and the environment.

The draft PA will now be reviewed by the Clean Air Scientific Advisory Committee (CASAC), chaired by industry consultant Tony Cox, a noted skeptic of EPA's risk assessment process. The seven-member CASAC was harshly critical of EPA's draft integrated science assessment synthesizing the policy-relevant science that will inform the NAAQS review, finding the ISA too ready to find risks from low levels of PM2.5 exposure.

EPA is also convening a panel to peer-review a forthcoming agency document outlining possible "alternative" methods for characterizing the risks to health from very low levels of PM2.5. So far,

no safe level of PM2.5 has been identified, complicating EPA's mandate to set the NAAQS sufficient to protect public health with an adequate margin of safety.

EPA is operating under a tight deadline to decide by the end of 2020 whether to maintain or strengthen these national standards. A more stringent standard means more controls may be needed on power plants, refineries, trucks and all other sources of fine particle pollution.

The EPA staff estimated there are up to 50,000 deaths related to fine particle pollution in the U.S. per year, including nearly 20,000 deaths from heart disease complications, under the current standards.

The draft policy assessment is open for public comment until Nov. 12.

At least one former EPA employee, John Bachmann, said the standards ought to be strengthened. Bachmann, a former EPA associate director for science policy on air quality, told Bloomberg Environment that the EPA's risk assessment points to "pretty large" health benefits that could result from tightening the current annual standard of 12 micrograms per cubic meter of ambient air. For instance, the draft policy assessment estimates up to a 27% risk reduction from tightening the annual limit to 9 micrograms per cubic meter.

15. The EPA Fired These Air Pollution Scientists. They're Meeting Anyway.

An advisory panel of air pollution scientists disbanded by the Trump administration plans to continue their work with or without the U.S. government. The researchers — from a group that reviewed the latest studies about how tiny particles of air pollution from fossil fuels make people sick — will assemble next month, a year from the day they were fired.

They'll gather in the same hotel in Washington, D.C., and even have the same former staffer running the public meeting.

Christopher Frey, a scientist from North Carolina State University who chaired the group, said at least 21 million Americans live with air that is dirtier than what the government deems acceptable, according to one standard. The Environmental Protection Agency is conducting reviews to determine whether those current standards should be tightened or loosened.

Frey argued Trump's EPA has significantly weakened its science review process. "As a public service, we can still tap our expertise and develop advice which we will share with [the] EPA," he said.

The EPA has defended the changes it has made as a drive to encourage consideration of a wider range of viewpoints.

The 20-person panel with Frey will include experts in epidemiology and toxicology, as well as people experienced in clinical experiments with humans. One of the dismissed members, Doug Dockery of the Harvard T.H. Chan School of Public Health, was lead author of the landmark Six Cities study that linked the particle pollution from fossil fuels, called "particulate matter," to early deaths.

The Trump administration is accused by at least half a dozen whistleblowers of muzzling climate and pollution science.

The air pollution experts follow in the footsteps of a separate group that reassembled to call for the government to better prepare for climate disasters.

Gretchen Goldman, research director at the Union of Concerned Scientists, called the regulation the “holy grail” for industry, and she said that’s why the Trump administration wants to weaken it by the end of 2020, before a new president might enter the White House.

Weak standards, Goldman said, “means cities across the country wouldn’t have to do as much to keep their air clean, industry could get more permits approved, it would be easier to roll back environmental regulations.”

The finding that particle pollution is dangerous is integrated into nearly all major pollution standards, for power plants, cars, and project permits, she said. The government counts the health benefits of reducing particle pollution, in addition to the health benefits of cutting other pollutants, in justifying the costs of regulations.

If Trump officials can argue that particle pollution isn’t as bad as previously thought, they can strengthen industry arguments for rolling back environment and health protections.

Earlier this month, EPA chief Andrew Wheeler selected a new group of “non-member consultants” to assist that panel with work on both particle pollution and smog. About half of the new consultants are linked with industry. Their recommendations to the panel will happen behind the scenes, rather than in public meetings.

16. NHTSA and EPA Versus California: The Battle Lines Are Drawn

EPA, NHTSA Release Final Rule Revoking California Auto GHG Authority

EPA and the National Highway Traffic Safety Administration (NHTSA) have released the text of their final regulation revoking California’s authority to enforce auto greenhouse gas and zero-emission vehicle (ZEV) standards, with administration officials arguing the step is necessary to preserve a single set of national requirements.

The September 19 final rule, which takes effect 60 days after it is published in the Federal Register, relies on two main arguments: that California does not need the GHG and ZEV standards to address “compelling and extraordinary conditions,” and that the Energy Policy & Conservation Act (EPCA) preempts the state’s rules because they are “related to” fuel economy.

Administration officials add that the rule is a necessary predicate for their forthcoming regulation to scale back Obama-era GHG and fuel economy standards.

The agencies’ rule will “help ensure there will be one, and only one, set of national fuel economy and greenhouse gas emission standards for vehicles,” they write in a press statement distributed at a September 19 event at EPA headquarters.

EPA chief Andrew Wheeler wrote in the statement that “one national standard provides much-needed regulatory certainty for the automotive industry and sets the stage for the Trump administration’s final” rule scaling back Obama-era GHG and fuel economy limits.

Trump officials had signaled they would take the step for days, and California officials and their allies have already begun assailing the decision as bad policy and illegal.

“This is the fight of a lifetime for us. We have to win this, and I believe we will,” said Mary Nichols, chairwoman of the California Air Resources Board (CARB), during a September 18 press conference. “I think there’s no question, of course, that we will be in court as soon as we have a document actually out there -- maybe even ahead of that.”

An EPA fact sheet says the agency is withdrawing the January 2013 waiver of federal preemption after it determined “it has the authority to withdraw a waiver in appropriate circumstances” -- a step EPA has never taken.

The legal basis for withdrawing the California Waiver is claimed to be that under CAA section 209(b)(1)(B), which covers compelling and extraordinary conditions. EPA finds that California does not need its GHG and ZEV standards to meet compelling and extraordinary conditions because:

- Those standards address environmental problems that are not particular or unique to California;
- That are not caused by emissions or other factors particular or unique to California; and
- For which the standards will not provide any remedy particular or unique to California
- The California waiver authority exists because California has uniquely difficult problems with ozone-forming pollutants.
- The California waiver authority does not exist to allow California to address national and global issues such as climate change.

Further, NHTSA is arguing that EPCA bars states from establishing their own fuel economy standards. “This includes state laws that substantially affect fuel economy standards (such as tailpipe GHG emissions standards and ZEV mandates),” the press statement says.

The fact sheet adds that NHTSA is finalizing a conclusion that EPCA “does not preempt all potential State or local regulation of [GHGs] from vehicles,” though it is not immediately clear what type of rules this refers to.

The Environmental Protection Agency in August 2018 proposed revoking a waiver granted to California in 2013 under the Clean Air Act as part of the Trump administration’s plan to roll back Obama-era fuel economy standards through 2025.

The EPA and the National Highway Traffic Safety Administration (NHTSA) are seeking approval to finalize the first portion of the rule dealing with California and other states before completing action on setting yearly fuel efficiency requirements. The plan would not revoke California’s ability to set low-emission vehicle standards for “conventional” pollutants.

California and Other States Sue U.S. Over Emissions Rules

A group of 23 states, escalating a fight over regulation, state rights and climate change, have sued to undo the Trump administration’s determination that federal law bars California from setting stiff tailpipe emissions standards and zero-emission vehicle mandates.

The states, led by California and joined by the District of Columbia, Los Angeles and New York City, are seeking a court order blocking a determination by the Transportation Department and the National Highway Traffic Safety Administration, according to papers filed in the U.S. District Court in Washington.

"Mr. President, we'll see you in court," California Attorney General Xavier Becerra said in a statement.

The states suing include New York, Michigan, Colorado, Illinois, New Jersey, New York and Massachusetts.

The Transportation Department said that federal law preempts state and local regulation of vehicle fuel economy, including California's greenhouse gas vehicle emissions rules that are followed by about a dozen other states.

The legal challenge does not address a parallel decision by the EPA to revoke a 2013 waiver California received under the Clean Air Act to set emissions standards. That does not take effect until late November.

Becerra said the Transportation Department's determination was unlawful, and that the administration misread federal law and ignored the intent of Congress. "The administration insists on attacking the authority of California and other states to tackle air pollution and protect public health," Becerra said.

In its new policy, the administration asserts that the Department of Transportation's authority to set fuel-economy standards for cars and light trucks preempts California's ability to dictate tailpipe-emissions standards for greenhouse gases.

The states suing contend the administration action is unjustifiably arbitrary and capricious, and willfully misreads the federal Energy Policy and Conservation Act as preempting state emissions standards. They also say it defies the National Environmental Policy Act by failing to assess the impact of the administration's action upon the environment and public health.

Secretary of Transportation Elaine Chao, who was named as a defendant in the suit, said the administration's action would ensure that there would be just one set of national fuel economy standards, "as Congress mandated and intended."²

"No state has the authority to opt out of the nation's rules and no state has a right to impose its policies on everybody else in our whole country," she said. More than a dozen states had previously elected to adopt (not imposed on them) California's emissions regulations as their own:

² In years past, the country and the industry worked fine with two sets of standards, national and California. During the debate over what eventually became the 1977 Clean Air Act Amendments there was intense discussion over the issues when section 177 was under consideration. There was some interest in allowing each state to set its own emissions standards. Industry argued with merit that it would create a nightmare if multiple sets of standards with multiple distribution networks, etc. were imposed. The compromise was section 177 which made clear that there could only be two sets of standards – National and California – and the states could choose to have one or the other. Only Two sets period. Two sets of standards seemed to work fine in practice and led to the evolution of what became known as 50 state cars. These were cars that met the most stringent of the national and the California requirements and therefore could be sold in any state. That helped to pave the way for the emerging practice of EPA and California working closely together where California would tighten requirements and EPA would follow closely a short time afterward.

Once GHGs became a high priority it was then in industry's best interest to expand the coordination to three agencies – EPA, CARB and NHTSA which led to the 2012 agreement. It seems that going forward, if CARB goes ahead with its GHG standards and EPA and NHTSA coordinate their GHG and Fuel Economy requirements, respectively, we could once again see the emergence of 50 state cars which take the most stringent of the three in one car.

Colorado, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont and Washington.

Nichols and other state officials raised several policy and political arguments against the Trump preemption rule, including pushback on Wheeler's claims that the move would only go after the state's climate rules and not its standards for conventional pollutants.

"You can't separate these two things," Nichols argued. "The standards we are now in the process of enforcing are necessary to protect the public health and welfare, not just because we care about the future of the planet or polar bears. It's because we actually need these extra clean cars in order to meet the health standards that are set by the federal government that we violate now on a very regular basis throughout southern California and the San Joaquin Valley."

She added that if the administration's rollback and preemption rules prevail, "millions of people in California and other states that follow our standards will be breathing dirtier air. They will suffer from more pollution, more asthma cases, more hospitalizations, more premature deaths."

Newsom more generally charged that Republicans in the Trump era have dropped their support for federalism in favor of policies that support oil companies.

"I don't know what the hell's happened to the Republican Party," he said. "By the way, where is the Republican Party right now? Why aren't they pushing back? They believe in federalism; they believe in state rights -- at least they assert that. And they're nowhere to be found on this."

Targeting Venue, States Hoping to Slow Down the Process

The September 20 lawsuit, *State of California, et al. v. Elaine Chao, et al.*, was filed in the U.S. District Court for the District of Columbia -- a notable choice given assertions in the September 19 final rule that any lawsuits should be brought in the U.S. Court of Appeals for the D.C. Circuit.³

The states argue that the D.C. district court is proper "because a substantial part of the events or omissions giving rising to the claim occurred in this district."

They later add that the preemption rule "was not accompanied by any action changing or setting NHTSA fuel economy standards or EPA's GHG standards," even though the agencies proposed such steps in conjunction with the preemption provisions in August 2018.

That language could be important, according to one attorney tracking the issue. That is because NHTSA changes to fuel economy limits must be brought in appellate court. "The statute doesn't include a NHTSA rule on preemption in the basket of stuff that has to go to a court of appeals," the source says, adding that the "default rule" is that challengers must take their case to district court. The attorney notes that this makes it "more complicated for everybody, and maybe slower."

The states' choice of venue clashes with the Trump administration's desire. EPA and NHTSA's final rule asserted that all challenges should be brought in the D.C. Circuit, given procedures in Clean Air Act section 307(b) that require such a court venue for a policy that is either "nationally

³ The United States courts of appeals or circuit courts are the intermediate appellate courts of the United States federal court system. A court of appeals decides appeals from the district courts within its federal judicial circuit, and in some instances from other designated federal courts and administrative agencies.

applicable” or has “national scope or effect.” The agencies claim EPA’s preemption revocation is such a policy.

In addition, they argue that because of the “inherent relationship” between EPA’s action and NHTSA’s preemption rule, the latter should also be challenged in the D.C. Circuit.

At a September 19 event unveiling the rule, DOT General Counsel Steven Bradbury said “we can accelerate the timetable for getting a definitive final judgement from the courts” on the issue, giving the auto sector regulatory certainty. Those statements underscore efforts by the Trump administration to obtain a speedy court review of the measure -- potentially to get the dispute to the Supreme Court during President Donald Trump’s current term. That could help block a future White House from quickly reversing the policy if Trump loses his re-election bid.

The state coalition includes all 13 states that have adopted California’s GHG standards under section 177 of the Clean Air Act, 10 of which have also adopted California’s zero-emission vehicle (ZEV) sales mandate.

“The California standards at issue in this case are longstanding and fundamental parts of many State Plaintiffs’ efforts to protect public health and welfare in their states, to meet state goals for the reduction of harmful air pollution including greenhouse gases, and to attain or maintain federal air quality standards,” the suit says. The filing adds that EPA has approved both the GHG and ZEV standards as “necessary components” of “several” state compliance plans to attain national ambient air quality standards, while also approving “state reliance” on the ZEV standards with regard to transportation planning.

The suit specifically targets NHTSA’s final rule preempting the state from enforcing its GHG and ZEV standards, and it does not name EPA as a defendant, even though it cites that agency’s “separate action” withdrawing California’s January 2013 waiver of federal preemption under the air act for those standards.

The states note that EPA “expressly relies” on NHTSA’s preemption rule for its action.

They charge that the rule “directly conflicts with the decisions of the two federal courts that considered this question in the past and held that California’s standards are not preempted by” the Energy Policy & Conservation Act (EPCA).

“It also contradicts the Supreme Court’s decision in *Massachusetts v. EPA*, which rejected the federal government’s argument that [GHG] emissions standards under the Clean Air Act interfered with NHTSA’s ability to set fuel economy standards under EPCA,” the filing says.

Further, they push back on NHTSA’s claim that California’s ZEV rule conflicts with fuel economy limits. “In EPCA, Congress has not authorized NHTSA to set fuel economy standards for vehicles, including ZEVs, that run exclusively on alternative fuels like electricity. And it has prohibited NHTSA from taking the availability of ZEVs into account when setting federal fuel economy standards, meaning that ZEVs do not affect fuel economy standards.”

U.S. Environmental Groups Also Sue

Nine U.S. environmental groups have sued the U.S. Transportation Department over its effort to bar California from setting tailpipe emissions and electric vehicle requirements. The groups include Environment America, Public Citizen, Sierra Club, the Union of Concerned Scientists,

Center for Biological Diversity and the Natural Resources Defense Council. Last week, a group of 23 states joined by the District of Columbia, Los Angeles and New York City filed a similar suit in U.S. District Court in Washington.

The Transportation Department's determination is formally set to take effect in late November.

"There's no legal basis for the Trump administration's efforts to leave Californians choking on smog and helpless to curb greenhouse gas pollution spewing out of car tailpipes," said Maya Golden-Krasner, an attorney at the Center for Biological Diversity.

The suit challenges the determination unveiled last week by the Transportation Department and its agency the National Highway Traffic Safety Administration, that federal law preempts state and local regulation of vehicle fuel economy.

Several law professors are also detailing possible legal arguments that may bolster any challenges to the rule.

For example, critics are circulating a forthcoming law review article by Greg Dotson, a former Democratic Hill staffer who is now a law professor at the University of Oregon, who concludes that multiple laws -- including several updates to the Clean Air Act, the 1992 Energy Policy Act, the 2007 Energy Independence and Security Act and a 2015 highway law -- show "abundant evidence of Congress's consistent intent to ensure that state emissions standards are protected from preemption."

In addition, Stanford University law professor Michael Wara in a series of Twitter posts cites "enormous reliance interests" by states and automakers after the Obama EPA issued California its waiver allowing the state to enforce its own GHG and ZEV rules, which have subsequently been adopted by roughly a dozen other states under a separate air act provision.

"Imagine if three years after you finished building your dream home, the planning department could show up at your door, revoke your certificate of occupancy, and make you comply with the NEW NEW building code? That's what EPA is asking for," he wrote, adding that the law "disfavors take backs."

The legal challenges do not yet address a parallel decision by the U.S. Environmental Protection Agency (EPA) to revoke a 2013 waiver California received under the Clean Air Act to set emissions standards.

California Thumbs Nose at Trump

As the Trump administration works to gut California's right to regulate fuel efficiency standards, the state's top air pollution regulatory board September 19 approved plans to set its own standards with automakers Ford, Honda, BMW, and Volkswagen. The California Air Resources Board unanimously voted to advance its efforts to reduce air pollution despite federal attempts to weaken standards. The board gave staff authority to continue negotiations with the automakers despite the fight with federal officials.

"It's a bitter moment because I never thought I would see something like this," Board Chairwoman Mary Nichols said.

California has received 100 waivers over 50 years and if Washington is successful, it would be the first one ever revoked. California officials have promised to fight the move in court. “The idea that the EPA would sign off on something so contrary to law and what they know is right is sad,” Nichols said. “It reflects a new low. It’s really a frontal attack on the whole structure of the Clean Air Act.”

When talks between California and the administration broke down, the state worked with the automakers on a compromise, which raised the ire of the Trump officials and prompted an antitrust investigation.

State officials said the automakers showed guts in aligning with California and they invited other manufacturers to join. “They recognized what we have offered is a compromise and frankly a good compromise for them,” said Nichols, who called the government probe into the agreements harassment.

The Trump administration and the National Automobile Dealers Association say the agreement will result in two different vehicle standards, and there should be one federal rule.

In Washington, many Senate Republicans backed Trump’s move against California’s standards but some who have expressed concerns over climate change, including Sen. Susan Collins (R-Maine) and Mitt Romney (R-Utah), oppose the move. “I understand the need not to have every state have different regulations with regards to transportation,” Romney said. “That would be very difficult but this has been worked out, the auto companies are supportive, so I see no reason to interfere with that.”

The framework agreement includes:

- Changing the year-over-year greenhouse gas emission reductions of a previously agreed to 4.7% over four years to 3.7% over five years
- Rewarding companies that sell more electric vehicles with credits in order to meet overall fleet standards; and
- Removing a requirement that upstream greenhouse gas emissions related to electricity production for electric vehicles is calculated as part of overall fleet emissions.

DOJ Launches Antitrust Probe Of Auto Firms That Joined GHG Deal

The Justice Department (DOJ) has launched an antitrust investigation into the four automakers that signed a voluntary agreement with California on vehicle greenhouse gas standards, underscoring the White House’s anger over the state agreement as it tries to roll back federal limits.

The consumer advocacy group Public Citizen says the effort is a “retaliatory” move by the Trump administration because the agreement might undermine its rollback.

The Wall Street Journal is reporting the start of the probe of Ford, Honda, BMW and Volkswagen to determine if they “violated federal competition law by agreeing with each other to follow tailpipe-emission standards beyond those proposed by the Trump administration.”

The story adds that the probe is preliminary, and quotes one person familiar with the move asserting DOJ’s antitrust division is “acting on its own accord and without direction or coordination

with the White House.” It says DOJ staffers are “concerned the deal is effectively an agreement not to compete, which could cross legal lines.”

Trump “is saying to the auto companies: ‘California has no legal authority in our opinion, so it can’t threaten to set its own standards, so you don’t need to make a deal,’” said Jody Freeman, a Harvard environmental law professor who helped craft the first round of Obama auto rule, according to Bloomberg.

Public Citizen in a September 6 press release on the antitrust investigation argues DOJ’s move is “Trumpian revenge” against the automakers for signing the agreement with California.

The group adds: “In an economy increasingly characterized by monopoly, oligopoly and anti-competitive conduct, it’s utterly implausible that Trump’s DOJ is devoting resources to investigating a clean vehicles initiative out of concern for promoting market competition. The antitrust laws were never intended to promote competition in more pollution.”

Democratic members of U.S. Congress have demanded that the Justice Department and White House turn over documents and explain the decision to probe the automakers.

A person briefed on the matter said the Justice Department will begin meeting with the four automakers next week, confirming a Wall Street Journal report.

Trump Escalates War Over California Auto Deal With EPA Warning, DOJ Probe

The Trump administration is escalating its war over California’s voluntary agreement with four automakers regarding vehicle greenhouse gas standards, launching a Justice Department (DOJ) probe into whether the automakers are violating federal antitrust laws and issuing an EPA warning that the deal is illegal and must be withdrawn.

“The purpose of this letter is to put California on notice that this framework agreement [with the four automakers] appears to be inconsistent with Federal law,” EPA and Transportation Department (DOT) general counsels said in a September 6 letter to California Air Resources Board (CARB) Chairwoman Mary Nichols.

“Given the importance Congress placed on the authority of DOT and EPA for motor vehicle fuel economy and nationwide vehicle emissions standards under Federal law, we urge you to act immediately to disassociate CARB from the commitments made by the four automakers,” the letter adds.

The letter echoes many of the same legal arguments that the agencies made in their proposal to rescind California’s waiver of federal preemption under the Clean Air Act to enforce its own auto GHG standards -- including that such authority conflicts with federal fuel economy law that blocks states from issuing standards “related to” fuel economy.

CARB’s Nichols said in a statement that DOJ “brings its weight to bear against auto companies in an attempt to frighten them out of voluntarily making cleaner, more efficient cars and trucks than EPA wants. Consumers might ask, ‘who is [EPA Administrator] Andy Wheeler protecting?’”

The administration’s warnings to California and the anti-trust investigation of the four automakers come shortly after reports surfaced that EPA and DOT are also speeding their plans to finalize rules that would preempt California’s authority to regulate vehicle GHGs under the Clean Air Act.

But the administration's efforts are drawing sharp criticism from Democratic lawmakers and academics who support more stringent vehicle regulations.

Sen. Tom Carper (D-DE), the ranking member of the Senate environment committee, said in a September 6 release that it is "absurd that the same federal agencies that first tried to reduce the California agreement to a 'PR stunt' are now feigning concern over its legal consequences. Really, it's ironic, given that this administration's alternative to this agreement actually is illegal."

In the September 6 letter to CARB, DOT and EPA reiterate arguments that Congress has vested the authority to set fuel economy standards for new vehicles, and nationwide standards for GHGs with the federal government, not with California or any other state.

"Section 209 of the Clean Air Act prohibits California and other States from adopting or attempting to enforce their own emissions standards. And the Energy Policy and Conservation Act (EPCA) expressly preempts States from setting fuel economy standards for motor vehicles or taking any other action 'related to' the regulation of fuel economy," the letter says.

Given the "direct, scientific link between tailpipe GHG emissions and fuel economy, any effort by California to adopt or apply the standards and related commitments agreed to in the framework clearly implicates EPCA's preemption provision," it adds.

The letter is signed by DOT General Counsel Steven Bradbury and EPA General Counsel Matthew Leopold.

Policy and legal experts who oppose the Trump administration's auto rule rollback see the letter, antitrust probe and accelerated preemption plan as Trump's latest tactics to block California from influencing nationwide standards.

"This from an administration that is not known for its zealous enforcement of antitrust laws unless a company angers the President," states a September 6 blog post on Legal Planet by University of California-Los Angeles law professor Ann Carlson. She argues that the various actions show the White House is acting out of "spite," arguing this is the "only explanation" for the reported strategy of revoking California's auto GHG waiver without simultaneously rolling back the federal vehicle standards.

Carlson says the DOT and EPA letter to CARB "really contains nothing new from a legal perspective but seems designed to intimidate the state into backing down. Hard to imagine California doing so. California and the automakers appear to have really gotten under the President's very thin skin."

Another UC academic is also raising doubts about the administration's antitrust probe. "I do know that the car companies were once sued for conspiring not to use pollution control in the pre-Clean Air Act era," the source says. "If the government is claiming that the companies violated the antitrust laws by agreeing to go ask California to do something, I think that's protected by the First Amendment under Supreme Court precedent. Otherwise, industry groups wouldn't be able to lobby without violating the antitrust laws."

Further, "it also seems to me that if this is an antitrust problem, so are a lot of Presidential 'jaw-boning' exercises, where a president gets industry to agree to take 'voluntary' action," the source adds.

In his statement, Carper also charges that DOJ's probe is nothing more than an attempt to "retaliate against these companies and stoke fear in others. . . . Instead of governing by intimidation, the Trump administration should accept that automakers want this administration to abandon its reckless and illegal proposal" and reach a compromise with California.

Antitrust Experts Say DOJ Probe Of Auto Deal Appears Aimed At Intimidation

Antitrust experts say the Justice Department's (DOJ) inquiry into whether four automakers illegally colluded to stifle competition by joining an agreement with California officials to cut their greenhouse gases appears to be a politically driven effort to intimidate industry and aid the Trump administration's move to roll back federal rules.

DOJ's theory that the California-industry agreement will reduce consumer choice in violation of antitrust laws is a "complete falsehood," Hal Singer, an economist who is the managing director of Econ One Research and an adjunct professor at the Georgetown University McDonough School of Business, told reporters, citing the core structure of the auto GHG requirements.

Singer explains that the theory is false because compliance with GHG standards is determined by a weighted average across a company's fleet, so inefficient cars are not removed from the market. "It's crazy that this agreement would in any way reduce choice," he says, adding the probe is "intimidation, retaliation and political retribution" against the companies that joined the deal and angered President Donald Trump.

Even some of the administration's supporters agree the inquiry is intended to intimidate auto companies. Antitrust investigations are often used as a "shot across the bow to get the attention of corporations," Competitive Enterprise Institute's Myron Ebell told the New York Times.

DOJ's inquiry, first reported September 6, was launched by antitrust division chief Makan Delrahim. He sent August 28 letters to the four automakers -- Ford, Honda, BMW and Volkswagen -- expressing concern that the agreement "may violate federal antitrust laws," according to Reuters.

Separately, EPA and the Department of Transportation (DOT) sent a September 6 letter to California Air Resources Board (CARB) Chairwoman Mary Nichols saying the agreement with the automakers "appears to be inconsistent with Federal law" and asked her to "immediately . . . disassociate CARB from the commitments made by the four automakers."

Now, House Democrats are vowing to review the investigation. "There is virtually no antitrust theory that the Justice Department can use to prove that this agreement will unreasonably restrain trade or otherwise violate antitrust laws," House Judiciary Chairman Jerrold Nadler (D-NY) and antitrust panel Chairman David Cicilino (D-RI) said in a September 9 statement.

California and the automakers announced their framework agreement in July to implement what Gov. Gavin Newsom (D) called robust vehicle GHG standards through model year 2026. It comes amid a joint EPA/DOT rulemaking to aggressively scale back Obama-era federal standards and revoke California's Clean Air Act authority to set its own, more stringent GHG standards that other states can follow.

The deal was seen as a rebuke to the Trump rollback and a potentially groundbreaking voluntary agreement.

Singer and other antitrust experts fault Delrahim for moving forward with what they say is an empty probe, noting he came to the position in September 2017 after serving in political roles at the White House.

Finding an antitrust violation here would be very difficult because of California's involvement, says another antitrust expert. This source agrees there is no violation in the auto GHG deal and calls the investigation a "a really bad use of resources."

A former EPA official says the DOJ inquiry is part of a White House strategy of "pulling out all the stops to prevent any other auto companies from joining the agreement" while seeking to shore up support for rollback.

Barbara McQuade, a law professor at the University of Michigan and former U.S. attorney in Detroit, also questioned the Justice Department move. "It raises a red flag as to whether this is a valid exercise of antitrust laws or an effort to advance the Trump administration's policies to roll back environmental protections, and if so, that would be an abuse of DOJ 's power," McQuade said.

Representative Doris Matsui, a Democrat from California, said the Trump administration's move to "weaponize the DOJ" would itself be probed -- by Congress. "This investigation is a political witch hunt that proves California's efforts to reach an air quality deal with automakers is working, and President Trump can't stand it," Matsui said in an emailed statement.

California Argues EPA Threats On Air, Water Shift Blame, Ring Hollow

California and environmentalists are branding EPA's threat to block the state from receiving highway funds based on incomplete air pollution plans as a political attack that ignores the need for new federal emission curbs and the implausibility that the pro-deregulation Trump administration would impose such limits.

EPA's threats related to air pollution -- followed up just days later with similar attacks on the state's implementation of clean water standards -- are almost surely intended as retribution for the state's strident opposition to the agency's rollback of vehicle greenhouse gas standards, these critics add.

The agency's pointed accusations underscore the extent to which the auto GHG dispute has spawned into a broader political fight that the administration is trying to reframe as less about the vehicle rules and more about whether California is backing up its rhetoric on environmental protection.

"California has met federal standards in the past and we are working hard to meet the current ones," the California Air Resources Board (CARB) says in a statement responding to EPA's September 24 letter to the state chastising it for having dozens of "unapprovable" state implementation plans (SIPs) for federal air quality standards.

"But we cannot get there until the federal government addresses emissions of federal regulated mobile sources including heavy trucks, locomotives, planes and ships," the CARB statement adds.

The state's response also highlights the fact that EPA's letter comes just days after the agency formally revoked its Clean Air Act waiver of federal preemption allowing it to implement vehicle GHG and zero-emissions vehicle programs.

"If the Trump administration is serious about air pollution, it will reconsider revoking our waiver, and while they're at it, why not also fund the EPA to review" air quality plans California has already submitted "in less than a decade."

Administrator Andrew Wheeler's letter to the state asserted that California since the 1970s "has failed to carry out its most basic tasks under the Clean Air Act," blasting the state for "a disproportionate share" of backlogged SIPs.

He urges CARB to commit by Oct. 10 to withdraw its "backlogged and unapprovable SIPs" or EPA will begin disapproving the plans, a process the agency notes triggers statutory clocks for consequences that include withdrawal of federal highway funds as well as stricter new source permitting rules.

"We certainly want to avoid these statutory triggers, but our foremost concern must be ensuring clean air for all Americans," he writes.

Just two days later, Wheeler wrote a September 26 letter to Gov. Gavin Newsom (D) accusing the state of various Clean Water Act "deficiencies," including discharge of combined sewage and stormwater that is treated just for solids but does not receive biological treatment.

As with the air letter, Wheeler urges Newsom to respond within 30 days "outlining in detail how California intends to address these concerns and violations."

On the air allegations, CARB accuses EPA of blaming California for problems caused at least in part by EPA's inaction.

"EPA has unclean hands. It sat on these documents for years and is now pounding the table about paperwork issues for its own creation," the statement says. "We will continue to do work with EPA on its backlog, but EPA also needs to do its job and protect air quality."

State air and transportation officials are wondering whether EPA's letter to California is a one-off product of the political clash over auto GHG rules, or if it could signal broader scrutiny of numerous other states around the country with backlogged SIPs.

But environmentalists and others are already downplaying the idea EPA will follow through with sanctions in California, arguing doing otherwise would put the Trump administration in the unlikely position of advocating hardline regulatory approaches that are anathema to its deregulatory agenda.

Natural Resources Defense Council attorney John Walke argued on Twitter that Wheeler's citation of the agency's "foremost concern" for air quality amounts to "hypocrisy" given the Trump administration's attack on California's vehicle GHG and zero emissions vehicle programs.

"EPA's entire clean air and climate agenda consisting of rolling back safeguards," Walke said, also citing an appellate court ruling earlier this month faulting the agency's lax implementation of cross-state air pollution rules.

Walke then said he would be “willing to call [EPA]’s bluff,” suggesting EPA has ample authority to target California’s highway funds within less than a year while deeming that scenario implausible.

Specifically, Walke noted that EPA disapproval of a SIP triggers a mandatory sanctions clock that plays out over roughly two years, but that section 110(m) of the Clean Air Act authorizes EPA to withhold federal highway funds or impose two-for-one pollution offsets on industry immediately upon disapproving a SIP.

Allowing time for a rulemaking process to disapprove the SIPs, that means EPA can act by “summer of 2020” -- an election year.

“Lower the boom, bring the pain, just do it,” says Walke, suggesting Wheeler could also instruct his staff now to start drafting a federal implementation plan to “take over California’s plan.”

Walke adds there is also no need for EPA to stop with California, calling on EPA to follow through with aggressive regulation of mobile sources that California cannot control -- airports, certain marine vessels, locomotives and nonroad construction and agricultural engines -- and then to extend such controls nationwide.

“Crack down on polluting industries in California by bringing the pain, stand up to Republican and Democratic politicians from your perch in D.C., take on a state population of [40 million] and make other states understand what’s in store for them if they defy you. We all know you won’t.”

Former EPA official Joe Goffman also argued in a September 24 tweet that, “Irony is dead,” noting that the ZEV program EPA attacked just days previously addresses local air pollution as well as GHGs.

“Is [Wheeler] going to couple today’s letter with a rigorous review of actions EPA can take to assist [California]?” he wrote.

Washington State To Challenge Plan To Block Stricter Vehicle Emission Standards

Governor Jay Inslee of the U.S. state of Washington and Attorney General Bob Ferguson vowed to challenge U.S. President Donald Trump’s move to prevent some states from enforcing more stringent vehicle emission standards.

“If the Trump administration has its way, Washingtonians will be left with fewer options for cleaner, more efficient cars that get more gas mileage or use no gas at all. That means driving would cost more and pollute more,” said the two Washington leaders.

Washington has joined 10 other states to adopt California standards developed through a waiver to the 1970 federal Clean Air Act, which allowed them to enforce stricter separate law on vehicle emissions.

“With this unlawful move, the Trump administration has once again demonstrated its callous disregard for the state’s right to protect Washingtonians from the catastrophic effects of climate change,” Ferguson said. “This rule would hurt our pocketbooks, our health, our environment and our communities. We will not allow the Trump administration’s dangerous policies to harm Washingtonians,” he added.

Inslee said Washingtonians deserve better than Trump’s “dangerous anti-environment policy.”

He also pledged to push for zero emissions of vehicles in Washington.

EPA Struggles to Explain Fuel Rule Reopening to D.C. Circuit

Three federal judges pressed the EPA September 6 on whether it upheld its end of the bargain when it decided in 2018 to revisit federal fuel efficiency standards without providing its supporting evidence to the public. At issue is the Environmental Protection Agency's midterm evaluation that the agency's previous fuel economy standards for light duty vehicles produced for model years 2022-2025 are too stringent, and further rulemaking is required.

California is leading a group of 17 states and Washington, D.C., in arguing that the agency ignored the weight of its own record in its evaluation and didn't follow procedural rules it agreed to in 2012.

The state petitioners seemed to argue that the EPA's greenhouse gas emissions regulatory regime, first established in 2012, is "somehow different" from traditional rule and policy making, Judge Cornelia T.L. Pillard of the U.S. Court of Appeals for the District of Columbia Circuit said.

California deputy attorney general David Zaft agreed, saying during a lively oral argument that the agency's long-term coordination on a national emissions program means that the agency had bound itself to certain procedural steps, which the 2018 midterm evaluation flouted.

Courts can only review agency actions that are truly final, and the EPA's main argument was that the midterm evaluation only announced an intermediary step that will lead to a final rule.

Judge Sri Srinivasan seemed amenable to this argument early on, noting that until the agency publishes a new final rule, the fuel standards deemed appropriate by the EPA in January 2017 remain unchanged.

He and Pillard spent time pushing Zaft on what legal obligations or required actions were triggered by the midterm evaluation.

Pillard also said that the midterm evaluation seemed to "have bite" in offering a reasonable prediction of where the agency's rulemaking will lead. She pointed to the underlying regulations, which say the agency "shall" undertake rulemaking if the standards are deemed to no longer be appropriate.

"The agency has made a decision," Pillard said, referring to the midterm evaluation. "It's decided that the older rule is too stringent."

Judge Judith W. Rogers, for her part, tried to pin down what exactly the EPA meant when it wrote that it had decided to "withdraw" the 2017 final determination setting out the fuel economy standards that the agency now says aren't feasible or practicable.

That final determination incorporated a 1,200-page report and 750 technical studies, and Rogers pressed Justice Department attorney Eric Hostetler on whether the government also considers that information "withdrawn." All that was withdrawn in 2018 was the agency's 2017 decision to not undertake further rulemaking, Hostetler told the panel.

Sean Donahue argued on behalf of public interest "friends of the court" who support the state petitioners. Hostetler's assertion that the scientific record underlying the 2017 final determination wasn't withdrawn by the 2018 midterm evaluation appeared to be a "significant concession" by

the government, Donahue told Bloomberg Law after the argument. That's because the petitioners' main concern is that the EPA effectively wiped its own record of that scientific information when it withdrew the 2017 rule.

According to the framework set out in 2012 to establish fuel efficiency standards, the EPA agreed that its midterm evaluation process would provide an opportunity for public comment and to explicitly consider eight factors in the decision making process. But the agency didn't make its record available for public review, nor did it draft a required technical report, Zaft said. The agency codified these steps in its own regulations and should be required to follow through, he argued.

The EPA argued that it has discretion in its rulemaking process, to which Rogers quipped in reply, "so your point is that the agency can ignore its own regulation?"

She twice expressed her view that the agency appears to have "tried to have it both ways" in its 2018 midterm evaluation. On the one hand, the EPA asserts that it weighed the eight applicable factors and has concerns about the present standards, but on the other hand, it wants to push those concerns to a later agency action, she said.

"The judges were very prepared and clearly performed a searching review of the case to prepare for this argument," attendee Martha Roberts, an attorney with the Environmental Defense Fund, told Bloomberg Law.

She considers the midterm evaluation to be a "deeply flawed document" and says the dispute showcases the importance of agency commitment to its own law.

House Democrats To Review DOJ's Auto Antitrust Inquiry

A key House committee says it will review the Justice Department's (DOJ) antitrust investigation of the four automakers that joined California's deal on vehicle greenhouse gas standards, underscoring critics' arguments that the DOJ probe is a political effort aimed at preventing any more auto companies from joining the pact.

"There is virtually no antitrust theory that the Justice Department can use to prove that this agreement will unreasonably restrain trade or otherwise violate antitrust laws," argue House Judiciary Chairman Jerrold Nadler (D-NY) and antitrust panel Chairman David Cicilline (D-RI) in a September 9 statement.

The article says the Committee will hold hearings and seek documents related to the DOJ probe, which publicly surfaced late last week.

DOJ's antitrust investigation appears to have already prevented at least one other automaker from joining the California deal. According to the New York Times, Mercedes-Benz, which had been planning to join the deal, decided not to after a warning from the German government which had learned of the federal investigation.

The investigation is part of an escalated White House battle with California over vehicle GHG rules, with EPA and the Transportation Department separately asserting that the state's voluntary deal with industry is illegal.

The agencies are also reportedly speeding consideration of their proposal to preempt the state's current regulatory authority to limit auto GHGs. Trump officials argue that their preemption plan

is necessary to preserve a set of nationwide standards as the agencies prepare to roll back current, Obama-era limits in the face of California's opposition.

The state's voluntary pact with Ford, Honda, BMW and Volkswagen threatened to make the federal rollback irrelevant, however, given the companies' plans to meet the terms of the deal across their national fleets. The deal's stringency is roughly midway between the Obama rules and the Trump administration's proposal to freeze limits at model year 2020 levels.

California's top air regulator, Mary Nichols, argued September 6 that DOJ's probe "brings its weight to bear against auto companies in an attempt to frighten them out of voluntarily making cleaner, more efficient cars and trucks than EPA wants. Consumers might ask, 'Who is [EPA chief] Andy Wheeler protecting?'"

Other pushback has come from high-profile Trump administration critics such as House Speaker Nancy Pelosi (D-CA), California Gov. Gavin Newsom (D) and former Gov. Arnold Schwarzenegger (R), who penned a September 8 op-ed calling the Trump administration's efforts hypocritical.

"How many times have you heard conservatives beat the drum of states' rights? But suddenly, when a state wants to pollute less and protect its citizens from deadly pollution, conservatives throw states' rights straight out the window," he wrote.

Minnesota, New Mexico To Adopt California Vehicle Emissions Rules

Minnesota and New Mexico, in a rebuke to the Trump administration, plan to join 10 other states in adopting both of California's tough rules on tailpipe emissions and zero-emission vehicles. The announcements came a week after President Donald Trump said his administration would strip California of the legal ability to regulate vehicle emissions.

Minnesota and New Mexico would become the 11th and 12th states to adopt California's zero-emission vehicle (ZEV) mandate and the 14th and 15th states to adopt its tailpipe standards. Colorado said in August it would adopt the ZEV mandate.

As noted above, a group of 23 states, including Minnesota and New Mexico, sued to block the Trump administration from undoing California's authority to set strict car pollution rules, one of the biggest U.S. battles over climate change.

The legal fight pits California, a Democratic-majority state that has become the U.S. environmental champion against a Republican president who wants to boost the economy by cutting regulation. The debate already is playing out ahead of the presidential election next year.

Minnesota Governor Tim Walz said the state planned to adopt the California rules but must first write regulations that would take at least 15 months. New Mexico Governor Michelle Lujan Grisham said the state would adopt the standards by the end of 2020.

Walz, a Democrat, said state residents would benefit from "cleaner air, more car options, and less money spent on gas."

"While President Trump threatens to rob New Mexico and indeed all states of a valuable tool for combating air pollution and decreasing greenhouse gas emissions, New Mexico will stand up and

deliver on our commitment to environmental leadership," said New Mexico's Lujan Grisham, also a Democrat.

17. US Fines Hyundai \$47 Mn Over Dirty Diesel Engines

South Korean shipbuilding and industrial firm Hyundai Heavy Industries will pay a \$47 million fine for illegally importing and selling dirty diesel engines in violation of American environmental rules, US authorities announced Thursday.

Between 2012 and 2015, the company imported nearly 2,300 diesel-powered heavy construction vehicles with engines that did not meet US emissions standards, the US Justice Department said in a statement.

"Hyundai put profits above the public's health and the requirements of the law," Jeffrey Bossert Clark, head of the department's environment and natural resources division, said in a statement. "We will not tolerate such schemes that skirt the Clean Air Act, designed by Congress to improve air quality."

The case began with a whistleblower tip submitted in 2015 to the US Environmental Protection Agency, which launched criminal and civil proceedings.

A US court earlier imposed a \$2 million fine on the company for the clean air violations.

US officials say the diesel engines were not certified to meet emissions standards for particulate matter and nitrogen oxide, both of which contribute to disease and premature death.

18. Fiat Chrysler Manager Faces U.S. Fraud Charges on Diesel Emissions

A senior manager at Fiat Chrysler Automobiles has been charged with conspiring to rig diesel-emissions tests on the automaker's vehicles, according to a grand jury indictment recently unsealed. The charges come months after the company agreed to a costly legal settlement of lawsuits over the deception.

Federal prosecutors are charging Emanuele Palma, a manager for diesel drivability and emissions, with wire fraud and violations of the Clean Air Act, among other crimes.

From 2011 to 2017, Mr. Palma and unnamed co-conspirators misled regulators and the public by purposefully calibrating emissions-control systems so that cars would produce lower emissions on regulatory tests than in other situations, according to the indictment, dated September 18.

In a statement, a Fiat Chrysler spokesman said the company would "continue to fully cooperate with the authorities, as we have throughout this issue."

Fiat Chrysler agreed in January to pay hundreds of millions of dollars to settle lawsuits accusing it of rigging certain diesel-powered pickup trucks and Jeeps with illegal software to pass emissions tests.

In 2017, the Justice Department sued the company over the Environmental Protection Agency's finding that Fiat Chrysler had illegally used software that switched off vehicles' pollution controls under certain driving conditions. The E.P.A. argued that the software enabled the vehicles to pass emissions tests while allowing them to release higher levels of pollutants in normal driving.

Under the settlement announced in January, the company agreed to pay \$305 million in civil penalties in connection with those claims and another \$6 million over allegations of illegally importing noncompliant vehicles. It also reached a settlement with California, which sued separately.

The Fiat Chrysler engineer pleaded not guilty to the charges.

The alleged scheme involving Emanuele Palma isn't as big as the Volkswagen emissions scandal, which involved nearly 600,000 vehicles. But the indictment shows that investigators are still on the case, months after Fiat Chrysler agreed to a \$650 million civil settlement and said it would fix Jeep Grand Cherokees and Ram 1500 trucks with "EcoDiesel" engines made between 2014 and 2016.

Palma, who was a Detroit-area engineer with a Fiat Chrysler engine subsidiary, is charged with conspiracy, violations of the federal Clean Air Act, wire fraud and making false statements.

"As a result of his engineering decisions, his management, his lies, these vehicles on the road emitted dramatically higher pollutants than were allowed by law," Assistant U.S. Attorney Timothy Wyse told a judge in U.S. District Court in Detroit. Palma's attorney, Ken Mogill, said, "We intend to defend this very vigorously."

U.S. Magistrate Judge Elizabeth Stafford rejected Wyse's request that Palma, a native of Italy who still works at Fiat Chrysler, wear an electronic monitoring device while he's free on bond.

In 2017, more than a year before his death, Fiat Chrysler CEO Sergio Marchionne said there was no comparison between the situations at his company and Volkswagen because there was no intent by Fiat Chrysler to cheat. He said some software on the Fiat Chrysler engines wasn't disclosed to the Environmental Protection Agency because it's standard among automakers and disclosure wasn't previously required.

"There's not a guy in this house that would even remotely attempt to try something as stupid as that," he said of cheating. "And if I found a guy like that, I would have hung him on a door."

Bruce Huber, a professor at Notre Dame law school, said the mention of co-conspirators in Palma's indictment suggests that more people will be charged. "Either people were disobeying leadership or leadership knew about it and lied," Huber said. "Either way it's not going to reflect positively on either the corporate culture or management efficacy."

19. Calif. Gov. Signs Heavy-Duty Truck Smog Inspection Program Bill Into Law

Gov. Gavin Newsom has signed into law a bill that directs the California Air Resources Board and other state agencies to develop and implement a new smog inspection program for heavy-duty diesel on-road trucks. The inspection and maintenance program would begin with a two-year pilot program to develop and demonstrate technologies that show potential for bringing heavy vehicles more than 6 years old and with a gross vehicle weight of more than 14,000 pounds into a permanent testing program similar to one already in place for cars.

"Just as car owners have to get their own personal cars 'smog checked' every two years, so too should truck operators be required to maintain their emissions controls so that we can ensure long-lasting air quality improvements here in California," Democratic state Sen. Connie Leyva,

author of the bill, said in a statement. "With Governor Newsom's signature, SB 210 reinforces California's leadership on improving air quality and public health, while also leveling the playing field for law-abiding truck owners and operators in our state."

The new law would authorize CARB to assess a fee and penalties as part of the program and would create the Truck Emission Check Fund, which would be available upon appropriation by the legislature to the state board for "the regulatory purposes of the program."

Mike Tunnell, California-based director of energy and environmental affairs for American Trucking Associations, said the future system would eventually sunset the current program requiring motor carriers to conduct annual smoke tests and replace it with a program that is more emissions-based. "What that will look like is still to be determined," Tunnell said.

But CARB is hoping to accomplish the goals of the new law with an emissions-testing program that would not have to follow the station-based model of the smog check program currently used for cars.

Instead, the agency has been working on a program concept that could be based on the use of telematics and other data collection and submission tools to enable the inspection process from the vehicle's location, officials have said in discussion documents.

One potential program design concept couples periodic on-board diagnostics system checks as the primary test method with on-road emissions monitoring that would use remote sensing devices and plume capture systems to identify high emitters and verify program effectiveness.

The program should be designed to ensure both in-state and out-of-state vehicles have adequate methods to demonstrate compliance with program requirements, according to CARB.

Currently, there is no smog check-type program for heavy-duty vehicles to ensure their emissions control systems are functioning properly and repaired in a timely manner, according to CARB. CARB's current Periodic Smoke Inspection Program requires diesel and bus fleet owners to conduct annual smoke opacity inspections and maintain records of the tests and repair those vehicles with excessive smoke emissions to ensure compliance. In addition, CARB randomly audits fleets, reviews maintenance and inspection records, and tests a representative sample of vehicles. A fleet owner that neglects to perform the annual smoke opacity inspection on applicable vehicles is subject to a penalty of \$500 per vehicle per year.

CARB officials say that even with modern emissions controls and on-board diagnostics monitoring systems, 2019 estimates indicate that heavy trucks contribute approximately 58% of the statewide on-road mobile source oxides of nitrogen emissions and about 82% of the statewide on-road mobile source particulate matter emissions. Some of these emissions are attributed to broken or failing emissions-related equipment.

Approximately 12 million residents across California live in communities that exceed federal ozone and PM standards, according to state environmental officials. Increased exposure to harmful emissions has been directly associated with serious health impacts, particularly for the elderly, small children and people with pre-existing respiratory issues, it said.

"There's work to be done on a new system," Tunnell said. "Hopefully with the telematics on the truck, something can be designed that is less intrusive than what most of us know as a smog test program."

Trucks used solely for agriculture would get additional time to make repairs. Out-of-state trucks would also have to comply.

The Senate voted 28-11 to clear the bill for the governor's desk. The program would remove the equivalent of 375,000 trucks off the road over 10 years, Leyva said.

The American Heart Association, California Environmental Justice Alliance, Environmental Defense Fund, Natural Resources Defense Council and dozens of other groups supported the bill, saying it would require improvements from vehicles that generate pollution.

The California Farm Bureau Federation, California Fuels and Convenience Alliance, Western States Trucking Association, and three other industry groups opposed the bill. One reason is that trucks in rural areas that are only allowed to be driven 1,000 miles each year would use up 25 percent of their allowance driving to testing facilities, according to an analysis of the bill. "At the end of the day, the small guy is going to get hurt and it's going to drive up the price of products in California," Sen. Brian Dahle (R) said.

20. Port of Long Beach Cuts Diesel Pollution 87%

The Port of Long Beach's clean-air efforts have continued dramatic reductions in air pollution, including an 87% cut in diesel emissions, according to the latest comprehensive study. In addition to diesel particulates, the study found the Port's aggressive actions to curtail pollution have decreased smog-forming nitrogen oxides by 56% since 2005. Sulfur oxides were down 97% and greenhouse gases are 16% lower.

"We're seeing the results of the hard work by the Port and the goods movement industry, and we're showing the world that sustainable cargo movement is possible," said Long Beach Harbor Commission President Bonnie Lowenthal. "There's work to be done to get to our ultimate goal of zero-emissions operations, but I'm confident we will get there together."

While emissions remain dramatically lower than they were in 2005, the Port-funded study for 2018 found a small increase in diesel particulates and greenhouse gas emissions from the previous year's inventory. The 2017 inventory measured an 88% decrease in diesel particulates and an 18% reduction in greenhouse gases compared to the 2005 baseline year. Port officials attributed the change to record throughput of 8.1 million twenty-foot equivalent units in 2018.

"We've accomplished these reductions even while container traffic has risen 21% since 2005," said Port of Long Beach Executive Director Mario Cordero. "We are proud of what we've done in cooperation with our many partners, but we're not finished. The Port is managing \$150 million in projects all across our port, all in the name of cleaner air. This includes \$80 million in grant funding to demonstrate zero emissions equipment and advanced energy systems in Port operations."

The purpose of the emissions inventory is to measure and track the overall cumulative progress of Clean Air Action Plan measures and ensure the Port is on track to meet emission reduction goals. The study calculates the amount of pollution coming from all the ships, trucks, locomotives, harbor craft and yard equipment working at the Port, with the help of terminal operators and other businesses. The results are reviewed by the U.S. Environmental Protection Agency, the California Air Resources Board and the South Coast Air Quality Management District.

21. Hyundai and Cummins to Collaborate on Hydrogen Fuel Cell Technology

Hyundai Motor Company and Cummins Inc. have announced that the two global powertrain leaders have entered into a memorandum of understanding (MOU) to jointly evaluate opportunities to develop and commercialize electric and fuel cell powertrains.

These new powertrains are expected to be developed by combining Hyundai's fuel cell systems with Cummins' electric powertrain, battery and control technologies; the initial development will be focused on the North American commercial vehicle market, including working with North American OEMs on the integration of these systems into their vehicles.

The companies will also explore ways they can work together to develop next generation fuel cell systems and have each committed to assign a team of individuals to investigate and pursue other areas of collaboration.

This partnership provides a springboard for Hyundai Motor Company to increase its presence in the North American commercial vehicle market, and Cummins to enhance its electrified power product portfolio by adding Hyundai's advanced fuel cell technologies.

The new collaboration may extend beyond the commercial vehicle market, as the companies will also evaluate the development of fuel cell power generators. The availability of reliable back-up power generation to prevent data loss in emergency situations is a business-critical requirement for many organizations. Fuel cell back-up power generation is attractive for its reduced carbon footprint.

The MOU comes at a time of heightened demand for fuel cell technology. Hydrogen can be produced from renewable sources, stored economically, and deployed for a diverse range of industrial and residential energy-generation applications; as well as used in fuel cell passenger cars and commercial vehicles. Energy experts predict hydrogen will become increasingly important in meeting fast-growing global energy demand, while also supporting efforts to drive down carbon emissions from energy generation.

Hyundai Motor is a world leader in the development of hydrogen fuel cell technology, having opened the world's first commercial production facility for fuel cell vehicles in 2013. It became the world's first automaker to commercialize fuel-cell electric vehicles with the introduction of ix35 Fuel Cell (also known as Tucson Fuel Cell in some markets) the same year. The NEXO, Hyundai's second-generation fuel cell electric vehicle with a range of over 609 kilometers, is a versatile, three-row SUV that emits clean water vapor and even purifies the air while driving.

Hyundai fuel cell systems are comprised of fuel cell stacks which convert stored hydrogen into electricity, as well as other sub-components — collectively referred to as balance of plant (BoP) —for thermal management and air supply among other integral processes for power generation.

Cummins is a world leader in advanced powertrains and in 2018 launched its Electrified Power business segment, which designs and manufactures fully electric and hybrid powertrain systems along with innovative components and subsystems to serve commercial markets as they adopt electrification. To date, the business has introduced complete electrified powertrain solutions in six markets across seven applications and continues to launch market leading products with customers across the world.

22. Auto Parts Wholesaler Settles Emissions Suit For \$1.1 Million

An automobile parts company will pay \$1.1 million to settle claims that it distributed aftermarket products that tamper with emissions control elements installed in heavy duty-diesel engines. Performance Diesel Inc. allegedly sold engine tuning designed to bypass or defeat emissions control elements, the Justice Department said in the consent decree filed September 12 in the U.S. District Court for the District of Utah.

The government brought its suit under the tampering and defeat-device provisions of the Clean Air Act. Those portions of the federal law prohibit the manufacture, sale, and installation of vehicle parts that render the parts of the car that work to limit pollution, as prescribed by the CAA and its regulations, inoperative.

Emissions controls in vehicles can be managed by both hardware and software. Some of PDI's products had the capacity to rewrite the coding for a vehicle's onboard diagnostics system or electronic control modules, according to the complaint.

PDI stopped selling most of the subject products in May 2018 but doesn't admit CAA liability as a part of the settlement.

23. EPA Passes On Citizen Aftermarket Vehicle Suit Despite Enforcement Priority

EPA is pursuing at least three criminal cases alleging unlawful aftermarket tampering of vehicle emissions controls and is investigating others as part of a priority enforcement effort but its decision declining to join a citizens' group pursuing a civil case against a Utah company that one source describes as an "egregious violator" is confounding.

The cases reflect a somewhat mixed record for the agency on enforcement against aftermarket "defeat" devices, which announced in June that stopping such devices is a new "national compliance initiative" priority.

Consistent with that push, EPA and its law enforcement counterparts successfully prosecuted two cases last spring -- one in Pennsylvania and another in Colorado -- and in April levied charges in a third case in California.

Meanwhile, the U.S. Attorney's Office in the District of Columbia is actively conducting more behind-the-scenes investigations into illegal tuning kit sales and is working with the Department of Justice (DOJ) environmental crimes division as well as EPA, according to one source familiar with the investigations.

However, EPA's decision not to join a civil suit brought by Utah Physicians for a Healthy Environment (UPHE) against one aftermarket device maker is confounding some observers, given the agency's enforcement goal on this issue.

The allegations, "on their face, look like pretty blatant violations, including replacing catalytic converters, which is truly remarkable. The underlying question is, how does EPA let this go on?" asks the source, noting the government could have opted to bring the new civil suit itself and that EPA could still intervene in the matter.

But on the other hand, this source notes that the criminal probes signal a ramping up by federal officials.

Another source familiar with UPHE's recent suit notes that it is "looking so far like a standard case," suggesting that intervention by the federal government is unlikely.

The Ozone Transport Commission (OTC) is also pressuring EPA to do more on the issue, sending an August 28 letter urging EPA to update its enforcement policy for the purchase, installation and use of vehicle aftermarket catalytic converters, calling the current policy "outdated." The letter refers to OTC comments that a late 2018 draft effort to update the policy was inadequate but notes, "It now appears that EPA has discontinued this effort."

Last October, EPA enforcement chief Susan Bodine said the agency would update its 45-year-old policy against tampering of aftermarket parts including catalytic converters, clarifying that if manufacturers can demonstrate with test data that their products meet emissions requirements, then EPA will exercise discretion to limit enforcement. However, OTC is indicating that effort has been abandoned.

Ahead of the new citizen suit filing, UPHE in June sent Utah-based 4 Wheel Parts and EPA a 60-day notice that it would launch a suit over the company's alleged defeat devices -- giving the agency time to consider filing its own case. UPHE filed a citizen enforcement suit September 5 after DOJ and the agency took no action.

The new suit, *UPHE v. TAP Worldwide, LLC, et al.*, in U.S. District Court for the Central District of Utah alleges, "TAP Worldwide has repeatedly violated and remains in violation of the Clean Air Act and the Utah [state implementation plan]. Neither the State of Utah nor EPA has commenced or diligently prosecuted a court action to require TAP Worldwide's compliance with the alleged violations." TAP is the parent company of 4 Wheel Parts.

UPHE says the company sells and installs exhaust kits, "race" catalytic converters and electronic re-programmers "that remove or defeat pollution control systems in motor vehicles." Removing a catalytic converter, which is enabled by the products, "can cause a [20]-fold increase in health-damaging emissions of nitrogen oxide [NOx] from each vehicle, in violation of federal and state law."

The company "admits its race catalytic converters have not been approved by either EPA or [California] and are illegal to sell in California. So why are they for sale in Utah? . . . Pollution controls on vehicles may have been the most important advance in public health protection in our country's history," the group says in a statement.

The company's website highlights these products and notes that some are not street legal.

UPHE points out that the website describes a number of re-programmers, such as the Diablosport Trinity 2 EX, is "illegal to install . . . on a registered vehicle and use it . . . on the street."

The notice letter provided similar examples and says TAP "currently advertises and sells multiple aftermarket exhaust kits [online] and through its 4 Wheel Parts stores that are illegal because their principal effect is to bypass, defeat and/or render inoperative post-combustion emission control devices."

An attorney representing UPHE says the case was brought as part of the group's "strategy to clean up the heavily polluted air along with Wasatch Front in Utah. I believe our case is consistent with the Clean Air Act and EPA's national enforcement initiative," but is not part of a "broader strategy" with EPA.

The UPHE suit is thought to be just the second citizen suit against an aftermarket device maker. Most air law citizen suits have focused on stationary sources.

In the first suit, *UPHE v. Diesel Power Gear LLC, et al.*, a federal district judge issued a landmark March 12 ruling delivering the first successful private enforcement case against a mobile source company. Judge Robert Shelby held the group had standing even though the emissions' contribution of the alleged violations was small, potentially lowering the bar for groups to bring similar suits.

The defendant in that case admitted it violated the Clean Air Act but argued the plaintiffs lacked standing because its pollution contributions were "a drop in the ocean" compared to overall pollution in the Wasatch Front, and did not satisfy the requirements that plaintiffs show they are injured, a key standing test.

Attempts at settling on a remedy have failed and a remedy trial is scheduled to begin Nov. 5.

Meanwhile, the second source says EPA's aftermarket criminal enforcement efforts have "secured results."

In the first case, *United States v. OE Construction Company*, the Colorado-based company was ordered to pay a \$15,000 fine after pleading guilty as an accessory-after-the-fact to violating the Clean Air Act. Also, it will pay up to \$55,000 in restitution to companies that purchased its unlawfully modified trucks, and will complete an environmental compliance plan, according to a March 2018 DOJ press release.

In the second case, DOJ secured an indictment against five men charged with conspiring to modify emissions controls on 30 heavy-duty diesel trucks operating in Pennsylvania and falsify their inspections.

A May 2018 DOJ press release outlines the charges, while a 2018 EPA criminal enforcement update lists the status of the case as having obtained an indictment but does not state the penalty.

The DOJ release says the maximum penalty is five years in prison. It adds that five men were charged with conspiring to impede EPA and Department of Transportation functions and violating the air law. Two of the men worked for Rockwater Northeast, a company that transported liquid for the fracking industry. The men modified emissions systems on 30 company-owned heavy-duty trucks after purchasing the defeat devices from two other defendants.

The purchases were "concealed in Rockwater's books and records by mislabeling them as exhaust systems," DOJ says. The men were also accused of taking the modified vehicles to state-approved inspection stations, including a garage owned by the fifth man, to falsely pass federally regulated commercial vehicle inspections.

The third criminal case, brought April 11 in California, has not yet been resolved. According to DOJ, two managers and a technician for Diamond Environmental Services LLP and two affiliated businesses are facing six counts related to conspiring to manipulate the electronic control module (ECM) on the company's heavy-duty truck fleet, disabling the monitoring system that would otherwise "cause the truck to effectively become non-operational if the diesel emissions filter became too dirty."

The indictment says the defendants reprogrammed the ECMs to avoid having to replace the filters, and that employees punched holes through the filters in order to allow the trucks to continue to operate, by allowing unfiltered air to flow through the system. Further, it says employees prepared false smog test results and that when the defendants learned about the investigation, they reprogrammed the ECM software to conceal the alterations.

24. Rivian Lands Amazon Order For 100,000 Delivery Vehicles

Rivian spokeswoman Amy Mast said the first Amazon delivery vehicles are expected to be on the road in 2021. She said work on developing a delivery vehicle based on Rivian's battery-electric powertrain and chassis has been underway for some time.

The vehicle – most likely a van — would use the same basic architecture and power electronics planned for the R1T electric pickup and the R1S electric SUV. But Mast said it will have a redesigned suspension system, a different interior and Amazon-specific application software.

Rivian has not built or sold its first vehicle yet, but the Plymouth, Michigan startup is backed by at least \$1.5 billion in recent investments from Amazon, Ford Motor Co. and Cox Automotive. Rivian is retooling the former Mitsubishi plant in Normal, Ill, and expects to start production of the pickup and SUV next year.

Amazon CEO Jeff Bezos, at a press event in Washington, said the Rivian order would help the giant online retailer meet its pledge to become net carbon neutral by 2040. Amazon's current delivery fleet uses internal combustion engines.

Mast said Rivian's goal is to have 10,000 of the electric delivery vehicles on the road by 2022. When all 100,000 vehicles are on the road it would prevent 4 million metric tons of carbon dioxide from entering the atmosphere each year.

ASIA PACIFIC

25. China CO2 Emissions To Peak In 2022, Ahead Of Schedule: Government Researcher

China's emissions of climate-warming greenhouse gases are likely to peak by 2022 even without the introduction of tougher policies, well ahead of an original target of "around" 2030, a senior government researcher said recently. China's pledge to bring emissions to a peak by "around 2030" was a key component of a global pact to tackle climate change drawn up in Paris in 2015.

Beijing has since promised to show "the highest possible ambition" when reviewing its targets, and a government think tank has urged Beijing to introduce stricter measures for its next 2021-2025 "five-year plan".

But Jiang Kejun, research professor with the Energy Research Institute, a unit of the National Development and Reform Commission (NDRC), China's top planning body, said he had "extreme confidence" in Beijing's ability to bring emissions to a peak by 2022 on just a "business as usual" trajectory.

"China already has very strong policies and for me, just continuing to do that could be enough," he told Reuters on the sidelines of the Fortune Sustainability Forum at the Fuxian Lake in the southwestern province of Yunnan.

Any change in the official targets of the world's biggest CO2 emitter is likely to have big implications for the global fight against climate change, but Chinese government officials have remained cautious about revising their forecasts.

Li Gao, head of the climate department at the environment ministry, warned last week that the 2030 target was already at risk from the trade war with the United States.

After slowing from 2014 to 2016, China's total carbon emissions are believed to have rebounded starting from 2017. According to estimates published by Lauri Myllyvirta, senior energy analyst with environmental group Greenpeace, emissions rose by as much as 4% in the first half of this year, driven by rising coal, steel and cement consumption.

One major concern has been the rebound in coal consumption and the possible approval of new coal-fired power projects, with officials now debating whether more capacity is required to meet future electricity shortages, said Yang Fuqiang, senior adviser with the Natural Resources Defense Council, a U.S.-based environmental group.

An industry group has forecast China's coal-fired capacity to peak at 1,300 gigawatts (GW), an increase of nearly 300 GW compared to the end of last year.

Eric Luo, chief executive of Chinese renewable energy manufacturer GCL, said it was unlikely another 300 GW would be necessary, adding that a 2022 peak in carbon emissions was plausible. "After 2022, coal emissions should slow down, with the number of new coal plants falling," he told Reuters. "Even if they have approved another 200GW... it doesn't make sense to build so much."

26. China Vehicle Sales Continue Slide; EV Deliveries Slip Again

China's new-vehicle sales contracted for the 14th consecutive month, slipping 6.9 percent from a year earlier to 1.96 million in August, as the nation's weakening economy and escalating tariff war with the U.S. continued to dampen demand.

New light-vehicle deliveries dropped 7.7 percent to around 1.65 million last month, according to the China Association of Automobile Manufacturers.

Sales of new commercial vehicles, including buses and trucks, decreased 8.6 percent to roughly 305,000.

For the first eight months, new-vehicle sales fell 11 percent from a year earlier to some 16.1 million. During the period, new light-vehicle deliveries declined 12 percent to around 13.3 million while new commercial-vehicle sales dipped 4.2 percent to approach 2.8 million.

Demand for electrified vehicles, which remained robust until June, declined for the second straight month. In August, combined sales of full-electric vehicles and plug-in hybrids slumped 16 percent to roughly 85,000.

The sharp fall was caused by a new round of subsidy cuts Beijing completed on June 25 for EVs and plug-in hybrids with the goal to end the subsidy program by the end of 2020. During the subsidy reductions, the government raised the technology bar for EVs eligible for subsidies and halved the subsidies for plug-in hybrids.

Through August, total sales of EVs and plug-in hybrids in China rose 32 percent to some 793,000.

27. China Mulls Goal Of 60% Of Auto Sales To Be Electric By 2035

China is exploring ambitious new plans for the future of its car industry, weighing a target for 60% of all automobiles sold in the country to run on electric motors by 2035, according to recent press reports.

China's Ministry of Industry and Information Technology reportedly is spearheading the government's latest auto industry plans for 2021 through 2035. The proposals are still under discussion and subject to change. The ministry said in July that it plans to disclose a draft of the targets by the end of the year.

China's last roadmap on the auto industry was announced in 2017, when the government said new energy vehicles -- all-electric, fuel-celled autos and plugin hybrids -- would account for more than 20% of the country's total vehicle sales by 2025. Under the latest proposal, the NEV target for 2030 is 40%, according, as the country looks to lead the world in the push away from combustion engines.

China's industry ministry said the plans are being made and related content studied, without elaborating.

The 2035 target would represent a 12-fold jump in the proportion of NEVs sold now, which stands at about 5%, and adds pressure for global carmakers to electrify their fleets to compete in the world's largest car market. China typically sets national-level goals for high-priority industries to help guide Beijing in setting measures such as subsidies and tax breaks.

Though exact comparisons weren't immediately available, BloombergNEF estimates that NEVs - - excluding commercial vehicles -- will account for 56% of total passenger vehicles in China by 2035.

The move could help allay growing concerns that China's commitment to electric cars is wavering for a burgeoning industry that's still heavily reliant on government support. The government has been gradually scaling back subsidies since 2017 -- most recently in June -- which have undermined industry growth and prompted the likes of top Chinese EV maker BYD Co. to warn last month that earnings will wane because of slowing demand. BYD shares rose 2.4% in Hong Kong.

Given China's scale -- about half of the world's electric cars are sold there -- any slump is likely to ripple beyond its shores.

28. China Reports Greener Motor Vehicle Sector Over Past 5 Years

The environmental standards of motor vehicles in China have been greatly improved over the last five years, according to a report released by the Ministry of Ecology and Environment. From 2013 to 2018, the pollutant emissions in China declined by 11.1 percent, while the number of motor vehicles soared by 32.7 percent, the report said.

China was the world's largest vehicle maker and vehicle market for 10 years in a row, as pollutants from motor vehicles became the main sources of air pollution.

Preliminary calculations from the ministry showed that the total amount of pollutants in 2018 was 40.65 million tons, of which automobiles were the main contributors.

Since 2013, the country has increased efforts on controlling vehicle pollution, including upgrading emission standards, developing new energy vehicles (NEV) and adjusting transport structure.

In 2018, the number of motor vehicles climbed 5.5 percent year on year to 327 million, among which NEVs rose by 70 percent from the same period a year earlier.

29. China, Japan and South Korea Backing Hydrogen Fuel Cell Cars

China, Japan and South Korea have set ambitious targets to put millions of hydrogen-powered vehicles on their roads by the end of the next decade at a cost of billions of dollars. But to date, hydrogen fuel cell vehicles have been upstaged by electric vehicles, which are increasingly becoming a mainstream option due to the success of Tesla Inc.'s luxury vehicles as well as sales and production quotas set by China.

Critics argue fuel cell vehicles may never amount to more than a niche technology. But proponents counter hydrogen is the cleanest energy source for autos available and that with time and more refueling infrastructure, it will gain acceptance.

China, far and away the world's biggest auto market with some 28 million vehicles sold annually, is aiming for more than 1 million fuel cell vehicles in service by 2030. That compares with just 1,500 or so now, most of which are buses.

Japan, a market of more than 5 million vehicles annually, wants to have 800,000 fuel cell vehicles sold by that time from around 3,400 currently.

South Korea, which has a car market just one third the size of Japan, has set a target of 850,000 vehicles on the road by 2030. But as of end-2018, fewer than 900 have been sold.

Hydrogen's proponents point to how clean it is as an energy source as water and heat are the only byproducts and how it can be made from a number of sources, including methane, coal, water, even garbage. Resource-poor Japan sees hydrogen as a way to greater energy security.

They also argue that driving ranges and refueling times for fuel cell vehicles are comparable to gasoline cars, whereas EVs require hours to recharge and provide only a few hundred kilometers of range.

Many backers in China and Japan see fuel cell vehicles as complementing EVs rather than replacing them. In general, hydrogen is seen as the more efficient choice for heavier vehicles that drive longer distances, hence the current emphasis on city buses.

Only a handful of automakers have made fuel cell passenger cars commercially available. Toyota Motor Corp. launched the Mirai sedan at the end of 2014 but has sold fewer than 10,000 globally. Hyundai Motor Co. has offered the Nexo crossover since March last year and has sold just under 2,900 worldwide. It had sales of around 900 for its previous fuel cell model, the Tucson.

Honda Motor Co.'s Clarity Fuel Cell is available for lease, while Daimler's GLC F-CELL has been delivered to a handful of corporate and public sector clients.

Buses are seeing more demand. Both Toyota and Hyundai have offerings and have begun selling fuel cell components to bus makers, particularly in China. Several Chinese manufacturers have developed their own buses, notably state-owned SAIC Motor, the nation's biggest automaker, and Geely Auto Group, which also owns the Volvo Cars and Lotus brands.

A lack of refueling stations, which are costly to build, is usually cited as the biggest obstacle to widespread adoption of fuel cell vehicles. At the same time, the main reason cited for the lack of refueling infrastructure is that there are not enough fuel cell vehicles to make them profitable.

Consumer worries about the risk of explosions are also a big hurdle and residents in Japan and South Korea have protested against the construction of hydrogen stations. This year, a hydrogen tank explosion in South Korea killed two people, which was followed by a blast at a Norway hydrogen station.

Then there's the cost. Heavy subsidies are needed to bring prices down to levels of gasoline-powered cars. Toyota's Mirai costs consumers just over 5 million yen (\$46,200) after subsidies of 2.25 million yen. That's still about 50 percent more than a Camry.

Automakers contend that once sales volumes increase, economies of scale will make subsidies unnecessary.

30. New Leap Forward Of China's Oldest Auto Brand

Jiefang, the first auto brand to come from Changchun-based FAW, the cradle of China's automotive industry, has reversed the stereotype of high emissions, out-of-date passenger cabs, and gas-guzzling heavy-duty trucks with its latest J7 trucks.

Since its launch in late November last year, Jiefang J7 trucks have gained a reputation with its European-level performance and reliability and price advantage over imported trucks.

The Chinese truck maker has developed seven generations of truck products in six decades, with a combined production of over 7 million units.

The first home-grown Jiefang truck rolled off the assembly line three years after FAW broke ground on July 15, 1953, in Changchun, capital of northeast China's Jilin Province. It was the first motor vehicle produced by China. Jiefang CA10, the first-generation truck, soon became the main force in China's road transportation and had various civilian variants such as ambulances, refueling trucks, water tankers, dump trucks and lift trucks.

In its 30 years of production until 1986, CA10 trucks set an output record of 1.28 million units, which was almost half of China's total production during that period.

Industry insiders say Jiefang is like a totem to the Chinese automotive industry and has nurtured a great deal of management and engineering talent for the country.

Hu Hanjie, chairman of the FAW Jiefang Automotive Co., Ltd., said independent innovation never stops at Jiefang, which places a high priority on its technological strategy to ensure a market-leading position.

As some domestic truck manufacturers partner with established global brands to grab market share, Jiefang was all alone. However, it held its R&D forces, core technology and time-honored brand tightly in its hands, Hu added.

The company leads the industry in setting a world-class standard warranty of three years with no mileage limit and has amazed its industry peers with an extended oil drain interval as high as 100,000 km for engines, gearboxes and rear axles of its trucks.

Jiefang also developed many customized truck products to suit multiple road and weather conditions across the country and is exploring new frontiers like self-driving and smart logistics. It plans to put self-driving vehicles into commercial operation on expressway by 2023.

31. Volkswagen Reaches Multi-Million-Dollar Settlement In Australian 'Dieselgate' Scandal

The Volkswagen Group (VW) and Audi have settled two major Australian class actions relating to the global diesel emissions scandal.

While the details of the settlement are confidential and still to be rubber stamped by the Federal Court, the payout will be between \$87 million and \$127.1 million, or about \$1,400 per car.

The class actions allege that the affected vehicles were fitted with illegal defeat devices that were designed to cheat emissions tests and seek to recover compensation for affected motorists. Around 100,000 Volkswagen, Audi and Skoda vehicles in Australia were affected by the issue.

The class actions were brought by Bannister Law and Maurice Blackburn in November 2015, following multi-billion-dollar payouts over the issue in the United States and Canada.

In a statement, Volkswagen Group Australia described the settlement in the Sydney court as a "significant step towards fully resolving the diesel lawsuits in Australia". "The settlement, on a no-admissions basis, concerns five class-action lawsuits covering all affected vehicles in Australia," the company said. "Volkswagen expects the proceedings will be concluded in 2020."

The payout per vehicle pales in comparison to a deal reached in America in 2016, which cost VW a record \$US14.7 billion (\$19.22 billion). In that settlement, Volkswagen agreed to pay car owners the pre-scandal trade-in value of their vehicle, in some cases up to \$40,000, as well as \$US5,100 to \$US10,000 in additional compensation.

As of October last year, Volkswagen had paid more than \$42 billion in fines, settlements and recall costs, while a number of executives were sent to prison.

The Volkswagen Group is also currently the subject of court proceedings brought about by the Australian Competition and Consumer Commission (ACCC).

In the Federal Court in March last year, VW denied it had a case to answer in Australia, despite compensating customers in the North America. Volkswagen said it was close to a resolution on the ACCC case, but the court heard the consumer watchdog would continue its legal proceedings against the Volkswagen group.

Class action lawyers said anyone who owned one of the affected models on September 18, 2015, could register for a settlement claim. The class action lawyers argued the car companies misled

customers by selling affected diesel vehicles as environmentally friendly cars, knowing the defeat devices altered the emission test results. It is also argued the cars, powered by EA189 1.6- or 2.0-litre diesel engines, would not have been registered in Australia had the true emissions of the vehicles been known.

32. EU To Push Australia To Clean Up Petrol Standards As Part Of Free Trade Deal

As the EU and Australia prepare for the next round of FTA negotiations in October, press reports indicate that the issue of Australia's poor fuel quality, which prevents the sale of a range of European vehicles with higher standard engines, has already been raised at a bureaucratic level as a "technical barrier to trade".

Europe will also be using the EU-Australia free trade agreement to cement Australia's support for emissions reduction targets agreed to under the Paris accord, with Europe flagging it wants the "respect and full implementation of the Paris agreement" underscored in the text of the agreement.

The issue of fuel quality is one of a raft of industrial barriers that Europe is pushing Australia to consider as part of a wide-ranging new free trade agreement, along with the removal of a 5% industrial tariff and changes to Australia's luxury car tax, which overwhelmingly hits European vehicles.

Australia ranks 66th in the world for its fuel quality, the lowest of all developed countries, with an allowable sulfur content up to 15 times higher than countries like China.

Australia's most popular unleaded petrol – 91 unleaded – allows sulfur levels of up to 150 parts per million compared to the 10ppm allowed by the European Union, and the government has indicated this will not change until 2027.

This means some of the best and cleanest European cars cannot be exported to Australia, leaving some manufacturers to either export older generation engines on certain models, or to not export them at all.

The federal chamber of automotive industries (FCAI) has said that without Australia's fuel quality being brought into line with other developed countries, the "latest-technology, low-emission engines cannot be supported in the domestic market". The FCAI has also told a parliamentary hearing into electric vehicles that improving Australia's fuel quality would offer a "3% to 5%" improvement on CO2 performance "overnight".

In 2015, the Coalition set up a ministerial forum on vehicle emissions aimed at addressing three proposals for improving fuel standards that were outlined in a 2018 discussion paper. But the forum has been criticized over its inaction, and before the May election the government quietly postponed fuel standard improvements for Australian refiners until 1 July 2027, in line with the petroleum industry's demand.

The trade minister, Simon Birmingham, said the issue of Australia's fuel standards would be considered as part of the bilateral negotiations. "As part of the free trade negotiations we will consider everything that is put on the table. Whether we agree to it is a different matter," Birmingham told Guardian Australia.

"It is not Australian practice to simply adopt European standards – we urge and encourage common adoption of international standards where possible.

“But we will work through in a practical way any of these issues and see what may be possible in the Australian context, but ultimately we will only be doing any agreement if it is in the overall benefit of Australia.”

33. India Capital To Temporarily Restrict Cars To Curb Pollution

Indian authorities have announced a plan to restrict the movement of private cars in the capital for nearly two weeks after a major Hindu festival that features fireworks that cloak the area with toxic smog and dust. Private cars running on petrol and diesel will be allowed in New Delhi only on alternate days from Nov. 4 to 15 depending on whether they have even or odd numbered plates, said New Delhi state chief minister Arvind Kejriwal.

He told reporters that similar restrictions in 2016 reduced air pollution up to 13%.

Kejriwal also announced plans to sweep roads mechanically, plant trees and control pollution at 12 hotspots in the city. The state government will sell government-certified N-95 masks that filter out at least 95% of dust in the air.

Kejriwal appealed to people not to light firecrackers during the Diwali festival on Oct. 27 to prevent smoke from accumulating in air.

World Health Organization data released last year gave India the dubious distinction of having the world's 10 most polluted cities.

Air pollution generally peaks from Nov. 1 with toxic smoke from the burning of agricultural fields in the neighboring northern states of Haryana and Punjab blow in because of a change in wind direction.

Last year, the New Delhi government ordered firefighters to sprinkle water from high-rise buildings to settle dust, stopped garbage fires and ordered builders to cover construction sites to stop dust enveloping the area as hazardous air quality affected millions of people.

Air quality index of Delhi is generally moderate between January and September. It deteriorates to very poor and severe between October and December, according to the government-run Indian Institute of Tropical Meteorology.

34. Delhi Notifies First-Ever Parking Rules To Restrain Vehicle Use, Cut Air Pollution

Delhi has become the first city in India to notify parking rules as a vehicle restraint and pollution control measure. The notification of the Delhi Maintenance and Management of Parking Places Rules, 2019, makes all urban local bodies, including all land owning agencies liable to prepare and implement local area-specific integrated parking plans (area parking plans), according to the provisions of the Delhi Master Plan 2021. This notification was issued by the Government of National Capital Territory of Delhi under Section 212 of the Motor Vehicles Act, 1988.

This provides strong legal backing to a comprehensive approach to parking management — to reduce and manage demand. This rule is now consistent with the provision of the clause 2.5.3 of the Comprehensive Clean Air Plan (CAP) that was earlier notified in June 2018 to clean up the air.

In a nutshell, the new parking rules are a consensus document of all concerned departments. The rules and guidelines attached to them seek parking area management plans across wards to identify and demarcate legal parking areas (on- and off-street) without encroaching upon green areas, footpaths, bus stops or intersections and keep lanes free for emergency vehicles.

It proposed a penalty for illegal parking and variable parking pricing to manage peak parking demand. It asked for sharing of available parking facilities — both off- and on-street — for optimal use between different peak users in the area.

Parking revenue will be earmarked for local area improvement or the larger public good. While parking pricing is about moderating and influencing demand for parking usage and change in behavior, it cannot be imposed in isolation and unrelated to overall parking management strategy for an area.

The most significant is the provision of area parking plans that are not narrowly confined to only supply of parking lots and structures. Rather it provides for complete street and area management approaches to address the need of all users in the priority order of pedestrians, cyclists, public transport related to multi-modal integration, paratransit, pick up and drop of requirements.

It also addressed provisions for hawking zones, resting areas, pricing schemes for short duration and overnight parking and more. All these interests will have to be balanced equitably while providing for parking.

Parking area plans will include both residential and commercial areas. Residential area parking plan will be done in consultation with the local resident welfare associations. If needed new parking lots will be created on a payment basis.

Residential parking area plans will have to ensure that one lane in the colony and any road is set aside for unhindered movement of emergency vehicles, including ambulances, fire tenders, police vehicles, etc.

At the same time, green areas, parks, footpaths will have to be kept parking and encroachment-free. On-street parking is not allowed at least up to 25 meters from intersections on each arm of a road. It has even sought special attention to school timing so as to be able to manage temporal peak demand during the day.

While preparing the parking plans the relevant guidelines of the Indian Road Congress, an apex body of highway engineers, and street design guidelines of Delhi Development Authority and Unified Traffic and Transportation Infrastructure (Planning & Engineering) Centre will have to be adhered to.

The new rules provided for extensive formulas for fixing the variable and dynamic parking charges. It categorically asked to maintain a differential between off- and on-street parking lots — on-street needs to be twice as much as off-street parking. This will be complemented by enforcement of no-parking zones and penalty for violation to improve utilization of structured parking lots.

These rules represent a dramatic shift away from the traditional approach of only augmenting parking supply without any integrated management plan to reduce parking demand and vehicle usage.

The Supreme Court directive has already given the final push to the much-awaited parking rules and guidelines by seeking its notification and implementation.

The SC has given specific directives to implement three area parking area plans in: Lajpat Nagar III under South Delhi Municipal Corporation (SDMC), Kamla Nagar under North Delhi Municipal Corporation and Krishna Nagar under East Delhi Municipal Corporation. Based on these completed pilots by December, the approach will be taken forward across the city.

This initiative has already spurred local action in Lajpat Nagar, a prominent commercial center in Delhi, where SDMC and the local shopkeepers' association and others have started to organize parking.

But for this action to gather momentum and follow right design and principles for parking area management plans, the draft rules will have to be notified immediately.

The pilot projects are expected to demonstrate how the current parking demand will be accommodated in the local area after adhering to all legal requirements and also find spaces for excess cars. The excess demand will have to be reapportioned in the surrounding facilities. But this also exposes the inevitability of using pricing mechanism to moderate the demand.

Unfortunately, some of the clauses that have specifically dealt with the pricing provisions in residential areas have been excluded from the final notification. This weakens the provisions for residential areas where maximum parking crisis is experienced.

It is hoped that after area parking plans are prepared and implemented, these crucial clauses will also be brought back to amend the rules to manage parking demand.

The review of area plan of Lajpat Nagar III carried out by the Environment Protection (Prevention and Control) Authority [EPCA] has illustrated this stark reality. The colony has 448 housing plots and 3,510 cars.

Through area parking plan and after adhering to the provisions of the rules (e.g.: keeping at least one lane free from encroachment, protecting green areas and intersections, etc.) about 1,830 cars can be accommodated within the colony while leaving a gap of 1,680 cars.

The plan, therefore, found alternative sites outside the limit of this area to accommodate them in other public parking lots. This still gets stretched to the limit. Without the additional strategy of pricing and residential parking permits parking crisis cannot be managed beyond a point.

The SC has already directed the EPCA to oversee implementation of the three pilot projects in residential areas by December and also plan parking strategies for multi-modal integration of key metro stations along with last mile connectivity to improve public transport ridership.

The new rules are a good starting point and a big step forward. This must be implemented with utmost urgency to restrain parking demand and personal vehicle usage to control congestion and pollution.

35. General Motors And Tata Consultancy Services Announce Partnership

Tata Consultancy Services (TCS), one of the giants in the IT industry and General Motors (GM), one of the biggest car manufacturers in the world have announced the partnership in future global

vehicle engineering. Both companies have been working with each other for 16 years now. GM and TCS have signed an agreement which outlines that TCS will be acquiring certain assets at the GM Technical Centre in Bengaluru and will partner GM in its global vehicle program with engineering design services over the next five years.

GM will transfer over 1,300 employees from its Bengaluru Technical Centre to TCS which will include personnel working on propulsion systems, vehicle engineering, control development, creative design and special projects. The transaction and handover are expected to be completed by the end of September.

GM Vice President, Electrification, controls, software & electronics, Dan Nicholson said, "TCS has been an outstanding partner for 16 years. We are pleased to evolve our partnership even further, as we work to deliver on our commitment to create a world with zero crashes, zero emissions and zero congestion."

The GM Technical Centre in Bengaluru houses a design studio and an engineering center with state-of-the-art, in-house electronics hardware and software testing and validation infrastructure. GM says that its Bengaluru facility has contributed to a number of innovations in GM's global vehicle portfolio over the years.

36. Delhi EV Move May Help Save Rs 6,000 Cr In Fuel Imports

As part of the Delhi's draft electric vehicle (EV) policy, the city will need around 500,000 new EVs in the next five years and it will help save Rs 6,000 crore⁴ in oil and liquid natural gas imports and 4.8 million tons of carbon dioxide emissions. The report, prepared by the Dialogue and Development Commission (DDC) of Delhi and the Rocky Mountain Institute, submitted to Delhi Transport Minister Kailash Gahlot, identifies the economic and environmental benefits of the national capital's electric mobility future.

The report, titled "Accelerating Delhi's Mobility Transition: Insights from the Delhi Urban Mobility Lab", says to meet the draft EV policy target of the 25 per cent share in new registrations of EVs by 2024, Delhi will need to register 500,000 EVs in five years.

These vehicles will also help avoid about 159 tons of PM2.5 (fine particulate matter) tailpipe emissions, a known cause of respiratory diseases and premature deaths.

The report proposes 10 actionable solutions to accelerate Delhi's mobility transition by summarizing discussions and suggestions of a 200-people workshop, held on June 26-27, to develop sustainable mobility solutions for the city.

On the report, Gahlot said, "As Delhi looks to take steps towards inducting large number of electric buses and taking leadership in fighting air pollution, this report will become an important reference point for all our agencies on various reforms needed to ensure a successful transition to EVs."

The report proposes steps on policy, institutional, technical and financial interventions that can help support rapid adoption of EVs and other urban mobility solutions in Delhi. "One proposed solution is the creation of a single-window clearance system for clearer and simpler processes for both registering and permitting EVs as well as commissioning charging and battery swapping infrastructure. Another is a more attractive financing for EVs through a government-led interest

⁴ 10 million

rate subvention scheme. Others include data solutions, awareness campaigns and capacity-building Programs," the government said in a statement.

The draft EV policy, released in November 2018, is awaiting notification.

37. Govt To Announce Scrappage Policy Shortly: Nitin Gadkari

Road Transport Minister Nitin Gadkari said that the government is working on a vehicle scrapping policy and will announce it shortly. Gadkari said, "The policy is in the works. It has to be cleared by the Finance Minister. There are some issues which have to be resolved with state government, stakeholders. It will be announced soon."

The Minister said he has already taken up the matter of a GST rate cut on vehicles with Finance Minister Nirmala Sitharaman. "Whatever the Finance Minister does will have to be by taking into confidence state governments which are also members in the GST Council," Gadkari informed.

Gadkari was speaking at the launch of Honda Motorcycle & Scooter India's Activa 125 BSVI priced between Rs 67,490 and Rs 74,490 (ex-showroom, Delhi). Yadvinder Singh Guleria, senior vice-President (sales and marketing), HMSI, said, "Honda is committed to the government's policies in encouraging a pollution free environment."

38. Singapore Suffers Serious Pollution From Indonesia Fires

The Air Pollution Index (API) readings for Sri Aman, Sarawak hit 367 – considered “hazardous” – at 10am on Tuesday (Sept 17). The Department of Environment's hourly API table shows that the API reading for Sri Aman steadily climbed overnight from a “very unhealthy” (237) at 12am to 290 at 2am, before the “hazardous” level of 311 at 3am.

Sarawak is situated near the border with Indonesia's Kalimantan, where forest fires have been rampant for weeks, sending thick smoke haze into the Malaysian town.

The haze in other parts of the nation has hardly gotten better from Monday's (Sept 16) readings as four areas were still in the “very unhealthy” range, while 28 were in the “unhealthy” range at 10am on Tuesday.

API readings of 0 to 50 represent “good” air quality, while 51 to 100 is considered “moderate”, 101-200 is classified as “unhealthy”, 201-300 is “very unhealthy”, and above 300 is deemed “hazardous”.

As a result of the pollution, the Education Ministry has ordered hundreds of schools in Malaysia to close. According to The Star, 298 schools in Sarawak, 138 schools in Selangor and 65 schools in Port Dickinson have been ordered shut. 25 schools in Putrajaya have also been ordered to close, as reported by Bernama.

Malaysia was fourth on the World Air Quality Index's list of countries with the worst air quality, while Indonesia was third. Singapore was ranked 16th with an air quality reading of 154, which falls in the “unhealthy” range.

Meanwhile, Kuching and Kuala Lumpur maintained their first and third spots on air pollution app's AirVisual ranking of major cities worldwide from the day before. Singapore, which was not in the top 10 on Monday morning, was at sixth place on Tuesday morning.

The situation in Indonesia has gotten so bad that a baby girl and an elderly man in south Sumatra, Indonesia, have reportedly died due to the worsening haze crisis. According to The Straits Times, the four-month-old was rushed to the hospital for a severe respiratory problem, while the 59-year-old man was found dead against a tree in his own plantation.

In Singapore, the National Environment Agency (NEA) said in a statement that the Government had set up a Haze Task Force (HTF) comprising 28 government agencies to implement measures “for the protection of the health and well-being of the public”. This includes issuing advisories for different population segments such as motorists and students.

It will meet annually in May, which is typically the start of the dry season, to update its plans.

GENERAL

39. ICCT Update: Global Progress Toward Soot-Free Diesel Vehicles In 2019

The ICCT update assesses global progress in 2019 toward reducing black carbon emissions from diesel on-road light-duty and heavy-duty vehicles. As of July 2019, 39 countries have implemented “soot-free” standards for new heavy-duty diesel engines that achieve a 99% or greater reduction in black carbon emissions compared with older-technology diesel engines. Five countries have adopted such standards for implementation before 2025, and at least six countries are planning to complete the transition to ultralow-sulfur diesel. The authors estimate that currently adopted policies will reduce global on-road diesel black carbon emissions to 40% below 2010 levels by 2030. A 75% reduction in global on-road diesel black carbon emissions is achievable by 2030, but only if virtually all countries implement soot-free standards in the 2020 to 2025 time frame. Adhering to this timeline could avoid roughly \$1 trillion (U.S.) in cumulative societal costs over the next decade.

There remains substantial heterogeneity in progress toward soot-free vehicles and fuels among G20 economies and Climate and Clean Air Coalition member countries. In countries that have recently adopted soot-free standards, the main challenges are to ensure effective compliance and avoid delays in implementation. In countries that have ultralow-sulfur diesel available, we recommend adopting soot-free vehicle and engine standards and scheduling their implementation as soon as possible. The experiences of some countries, such as India, demonstrate the feasibility and greater net benefits of leapfrogging to soot-free standards as opposed to making incremental advances. In countries with higher-sulfur diesel, securing ultralow-sulfur diesel should be prioritized to enable the introduction of soot-free vehicle and engine standards. In countries with multiple fuel grades, ensuring nationwide availability of an ultralow-sulfur diesel grade can enable the introduction of soot-free vehicle and engine standards several years ahead of the transition for all fuels nationwide; in such cases, differential taxes can provide a financial incentive for refiners, importers, and consumers to transition to ultralow-sulfur fuels.

In many regions, progress toward soot-free standards can be accelerated through cooperation among countries. In some regions, these activities have already resulted in joint technical work plans that lay out the steps to adopting and implementing soot-free standards. For these regions, the next logical step is to implement these joint technical work plans; in other regions, we recommend adapting these work plans to reflect the circumstances of participating countries. In both cases, the findings of this assessment stress the urgency for action and the societal benefits of rising to the challenge.

40. BC Particles Can Reach The Placenta Around A Developing Baby

Samples of placenta collected after women in Belgium gave birth revealed soot, or black carbon, embedded within the tissue on the side that faces the baby, researchers report online September 17 in *Nature Communications*⁵. The amount of black carbon in the placenta correlated with a woman's air pollution exposure, estimated based on emissions of black carbon near her home.

"There's no doubt that air pollution harms a developing baby," says Amy Kalkbrenner, an environmental epidemiologist at the University of Wisconsin–Milwaukee who was not involved in the new work. Mothers who encounter air pollution regularly may have babies born prematurely or with low birth weight. These developmental problems have been tied to an inflammatory response to air pollution in a mother's body, including inflammation within the uterus. But the new study, Kalkbrenner says, suggests that "air pollution itself is getting into the developing baby."

The study looked particularly at black carbon, a pollutant emitted in the burning of fossil fuels such as gasoline, diesel and coal. Researchers in Belgium at Hasselt University in Diepenbeek and Katholieke Universiteit Leuven used femtosecond pulsed laser illumination to test the tissue for soot. The technique involves using extremely fast laser bursts — each one-quadrillionth of a second — to excite electrons within the tissue, which then emits light. Different tissues are known to generate certain colors, such as red for collagen and green for placental cells. The black carbon was distinct and released white light.

Black carbon particles embedded in placental tissue released white light after a laser illumination technique. Collagen appears as red and placental tissue as green.

"The black carbon particles truly stand out uniquely" from the rest of the tissue, says Bryan Spring, a biomedical physicist from Northeastern University in Boston who was not involved in the work.

The researchers also looked at whether the amount of black carbon detected in 20 placental samples matched a woman's air pollution exposure, estimated based on where she lived in the northeast of Belgium. More soot was found in the samples from 10 women who experienced higher pollution levels in their residential areas than the 10 who had lower levels. An average of 9,500 particles per cubic millimeter of placental tissue was found in the women exposed to less pollution and 20,900 particles per cubic millimeter in the more exposed group.

Kalkbrenner finds it reassuring "that they're getting an actual correlation where higher measures of the air pollution ... went along with higher measures of black carbon particles." The study suggests it might be possible to test for a person's exposure to pollution from tissue samples or even blood, she says. Currently, scientists primarily estimate pollution exposure based on where a person lives, which can leave out other sources such as those encountered at work.

41. UN Report on Oceans Warns That Climate Change Is Accelerating

Days after millions of climate protesters called for international action and global leaders convened at the United Nations Climate Action Summit, the world's top climate-science body now warns that intergovernmental collaboration on a global scale is required to cope with an onslaught of change that has already begun.

⁵ H. Bové et al. Ambient black carbon particles reach the fetal side of human placenta. *Nature Communications*. Published online September 17, 2019. doi: 10.1038/s41467-019-11654-3.

That's the conclusion from a 42-page summary of a new report⁶ on human-induced changes in the world's oceans and icy regions, which was published by the UN-backed Intergovernmental Panel on Climate Change. Drawing from disciplines as diverse as ice-sheet dynamics to fisheries management, the report is snapshot of a world at 1 degree Celsius of warming.

Humanity is to blame for the “widespread shrinking” of previously icy areas, the IPCC reports, with melting glaciers, diminished snow cover, disappearing Arctic sea ice and rising permafrost temperatures. Some of those changes may be irreversible on human time scales.

Oceans have warmed continuously since 1970, the new IPCC report found, absorbing more than 90% of the extra heat trapped in the atmosphere. The speed of that warming has more than doubled since 1993. Oceans are becoming more acidic and losing oxygen, which could threaten marine ecosystems. Marine animals and plants are shifting their ranges as temperature, acidity and saltiness fluctuate, upsetting communities and economies reliant on marine protein for sustenance and trade.

That additional heat is fueling even more powerful storms. Hurricanes are moving further from the equators, and more of these already massive storms are the most powerful varieties, Category 4 or 5.

Sea levels are a major concern. Oceans have risen about 16 centimeters since the beginning of the 20th century, and the rate of increase since 1990 is more than double what it was the previous 100 years. The IPCC last addressed rising oceans in 2013, estimating global average sea levels would rise less than 1 meter by 2100. The new report finds instead that oceans may rise beyond that threshold, due to the increased melting of ice sheets in Greenland and Antarctica.

Many topics in Earth science, like sea-level rise or permafrost melt, are difficult to project because they're dependent on feedbacks from other things going haywire—or not—in the system.

“The picture isn't perfectly clear,” said IPCC Vice Chair Ko Barrett, at a press conference in Monaco. “But our best projection is that we'll see even bigger impacts in the future.”

Governments are struggling to plan and pay for those larger impacts. In some cases, adapting to our new climate reality is simply not possible, the IPCC authors contend. There are “adaptation limits,” or situations where human ingenuity is simply incapable of matching natural wrath. In these regions, such as low-lying Pacific island atolls, retreat may eventually be the only solution.

The document begins with an attempt to explain the importance of water and ice. Life on Earth is dependent on healthy oceans and frozen water in the right places, the group says, a palpable attempt by scientists to establish the immediacy of their work to an audience of 7.5 billion people who are typically consumed with individual daily drama.

More than 100 authors from 36 countries contributed to the report summary, which catalogs all of this science only to leave its audience by underscoring the centrality of human-decision-making to whatever happens next. The report was approved by 195 governments who belong to the IPCC.

It adds yet another scientific warning that inaction is having far-reaching impacts on ecosystems and humanity's future, and comes as at least one IPCC leader is explicitly calling for

⁶ “Special Report on the Ocean and Cryosphere in a Changing Climate”

“unprecedented” changes to worldwide energy, land use and infrastructure systems as a way to fight climate change -- in line with American progressives’ arguments for the Green New Deal.

“We will only be able to keep global warming to well below 2 [degrees] C above pre-industrial levels if we effect unprecedented transitions in all aspects of society, including energy, land and ecosystems, urban and infrastructure as well as industry,” including through “ambitious climate policies and emissions reductions required to deliver the Paris Agreement,” Debra Roberts, co-chair of IPCC Working Group II that assesses the vulnerability of socio-economic and natural systems to climate change, says in an IPCC press release announcing the report.

Environmentalists already are citing the IPCC report as a call to action. The executive director of the Environmental and Energy Study Institute, Carol Werner, said in a release: “Global warming of 1 degree Celsius has already taken place, and the impacts are already being felt: rising sea levels, disappearing glaciers, more extreme weather, marine heatwaves. . . . Already severe, these impacts will only get worse as we continue to release greenhouse gases into the atmosphere.”

Describing the report as “a bleak read,” the World Resources Institute in a September 25 blog post called attention to “4 Things to Know About the IPCC Special Report on the Ocean and Cryosphere,” including the finding that “Things are poised to get worse -- a lot worse.”

In its press release, the IPCC says that the new report “reveals the benefits of ambitious and effective adaptation for sustainable development and, conversely, the escalating costs and risks of delayed action.” The release quotes IPCC chair Hoesung Lee saying, “If we reduce emissions sharply, consequences for people and their livelihoods will still be challenging, but potentially more manageable for those who are most vulnerable.”

42. Ocean Holds Solutions To Help Tackle Climate Change, Report Finds

Scaling up renewables, greening the shipping industry and eating more seaweed are among the ocean-based solutions that could help to meet global targets to cut greenhouse gas emissions, according to a landmark report⁷. In the first analysis of its kind, scientists and policymakers found that the ocean can play a much bigger role in climate mitigation than previously thought.

It has the potential to deliver more than one-fifth (21%) of the emission cuts needed by 2050 in order to keep global average temperature rise to the Paris Agreement target of 1.5C – the equivalent of closing all of the world’s coal-fired power plants.

It shows that the ocean is much more than a victim of climate change. It is also a powerful source of solutions. “Given political will, appropriate policy and investment in technology, the ocean could be a new ally in the fight,” the authors write in the report

“Our future health and prosperity are closely linked to the state of the ocean,” said Erna Solberg, co-chair of the panel and the prime minister of Norway. “This report signals an exciting new pathway to a low-carbon, climate-resilient future. Coupled with land-based emissions cuts, it shows that ocean-climate action could provide a lifeline for the economies, food sources, coastal communities and sea life at the frontline of climate disruption.”

⁷ “The ocean as a solution for climate change: Five opportunities for action”

It was released in New York at the UN Climate Action Summit, two days ahead of the UN climate panel (IPCC)'s special report on the ocean and cryosphere (See story above.), which highlighted the devastating impacts that climate change is having on the ocean and human wellbeing.

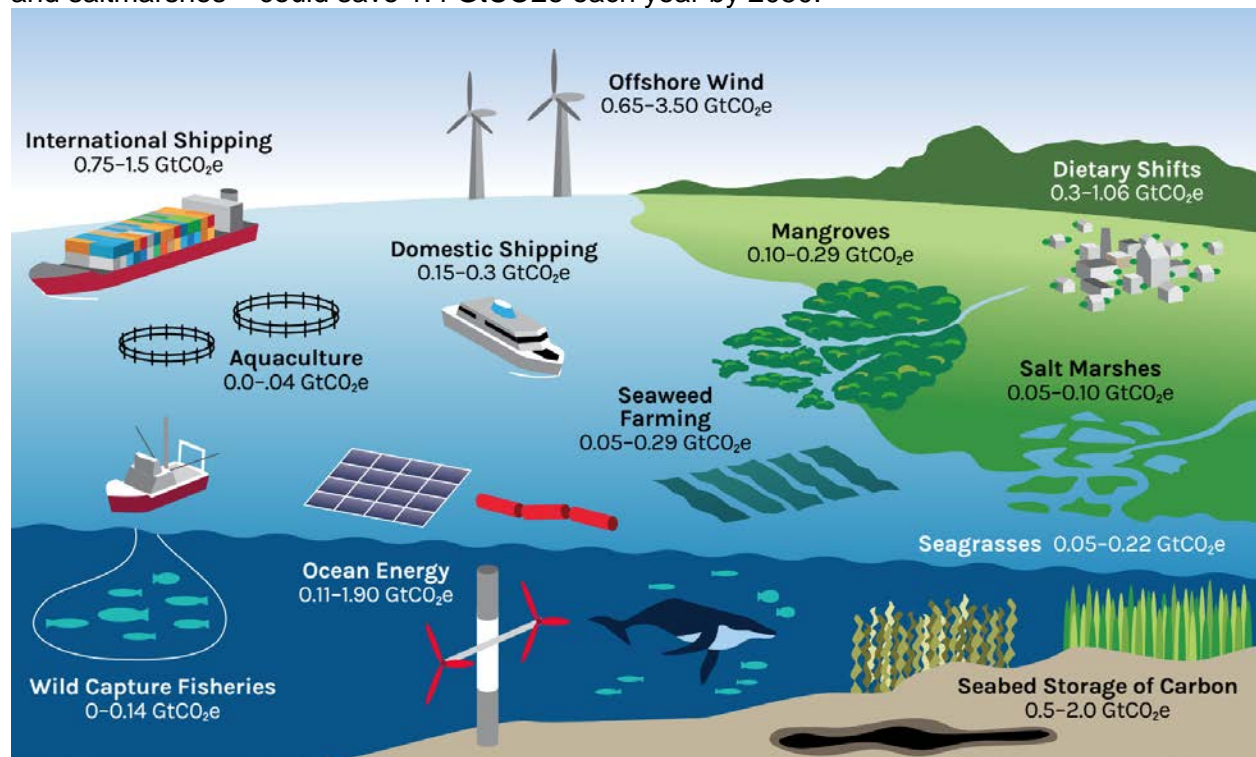
“For far too long the ocean has not seriously been on the radar screen of the climate change policy community,” said Jane Lubchenco, former administrator of NOAA (National Oceanic and Atmospheric Administration) and co-chair of the expert group which advised on the report. “As a result of this report, it needs to be squarely on the radar screen. These options are going to give us some powerful new tools in the toolbox.”

The report, commissioned for the High Level Panel for a Sustainable Ocean Economy, a group of heads of government, explored five scenarios in which a healthy ocean could help mitigate climate change, develop a sustainable ocean economy, protect coastal communities from storms, provide jobs and improve food security:

Scaling up ocean-based renewable energy, including offshore wind and other energy sources such as wave and tidal power, could save up to 5.4 gigatons of CO₂ equivalent (GtCO₂e) annually by 2050, equivalent to taking more than 1 billion cars off the road each year.

Decarbonizing freight and passenger shipping could keep 1.8 GtCO₂e out of the atmosphere annually by 2050.

Increasing the protection and restoration of “blue carbon” ecosystems – mangroves, seagrasses and saltmarshes – could save 1.4 GtCO₂e each year by 2050.



Ocean climate solutions and their potential annual greenhouse gas reductions in 2050 (Source: The ocean as a solution for climate change)

Changing fishing and fish farming methods, coupled with shifting diets away from intensive land-based protein sources such as red meat and towards low-carbon ocean-based proteins like fish and seaweed, would help sustainably feed future populations while enabling emission reductions of up to 1.24 GtCO₂e each year by 2050

The fifth option explores carbon-based storage options such as injecting CO₂ into the seabed or fertilizing the ocean with nutrients to stimulate the growth of carbon-locking biomass. But such geoengineering methods have not been factored into emission reduction potential because of the uncertainty and risks that surrounds them.

“The first four opportunities are ones for which we have sufficient information that there are good mitigation benefits but also strong co-benefits to other parts of the social-environmental-economic nexus. These should be acted on immediately,” said Ove Hoegh-Guldberg, lead coordinating author, director of the Global Change Institute, and professor of marine science at the University of Queensland, Australia. “[For] the fifth category, additional research and consideration is needed before it is ready to be adopted at the scale that would make a difference from a climate standpoint.”

The High Level Panel was brought together last year by the prime minister of Norway to find workable solutions on ocean health. With 14 serving heads of government from Australia, Canada, Chile, Fiji, Ghana, Indonesia, Jamaica, Japan, Kenya, Mexico, Namibia, Norway, Palau and Portugal, it represents around 30% of the world’s coastlines, 30% of exclusive economic zones, 20% of ocean catch and 20% of the global shipping fleet.

In addition to releasing its report, leaders also issued an urgent “call to action” on a number of ocean-based issues they say would meet both the Paris Agreement and the UN’s Sustainable Development Goals, including investment in the nature-based solutions that already exist and expanding ocean observation and research.

Ahead of a key UN ocean summit in Lisbon next June, several members of the panel have also announced pledges on ocean action. Among them, Norway has committed to halving its shipping emissions by 2030; Fiji has promised to make its shipping sector 100% carbon-free by 2050; Kenya will incorporate “blue carbon” ecosystems into its nationally determined contributions; and Mexico will declare an additional 31 areas as fish refuges.

The UN secretary-general’s special envoy for the ocean, Peter Thomson, said: “The world already has the technologies it needs to put ocean-based climate solutions into motion. To stay true to the Paris climate agreement and hold warming at 1.5C, we urge all states to include ocean-based climate solutions in their revised nationally determined contributions next year.”

43. UN Agency Calls For 'Global Green New Deal'

World leaders must find the political will to “change the rules of the international economic game” to tackle the environmental and climate emergency effectively, the United Nations Conference on Trade and Development has said in a new report. Achieving the UN’s sustainable development goals for 2030 will require “rebuilding multilateralism” around such a pact and “pursuing a financial future very different from the recent past”, UNCTAD secretary general Mukhisa Kituyi wrote in a foreword.

Presenting the report, subtitled 'Financing a Global Green New Deal', in Brussels ahead of publication, UNCTAD senior economist Stephanie Blankenburg said something akin to the US

multi-billion dollar Marshall Plan to rebuild western Europe after the Second World War could be needed to drive a global shift to low-carbon technology.

“We need to think in these dimensions again,” Blankenburg said, stressing the need to fund technology transfer to developing countries and set up specific adaptation funds.

In addition, the report calls for a properly funded global climate bank to support green transitions all over the world, but particularly in the global south, the economist noted.

UNCTAD published its analysis at a time when the incoming president and vice-president of the EU executive are preparing to launch the EU’s own European Green Deal within 100 days of taking office in November, possibly involving a partial conversion of the European Investment Bank into a ‘climate bank’.

The policies recommended in the report include restructuring unsustainable national debt, especially for developing countries. The report identifies inequality as a barrier to achieving sustainability goals.

Other ideas posited include a global agreement on a minimum corporate tax rate of 20-25% for multinational enterprises; measures to prevent tax avoidance, including a clampdown on the off-shoring of corporate profits and private capital; and a new role for central banks beyond their ‘narrow focus’ on price stability and inflation.

Amid a global environmental emergency, such measures should not be considered radical, Blankenburg said, and should rather be looked at in the context of previous global endeavors such as the postwar Bretton Woods agreement.

44. Maritime Regulator Says Shipping Environmental Efforts ‘Set to Go’

The maritime industry is moving full steam ahead toward overhauling how ships get their power despite dissent from some vessel owners over the impact to their operations and concerns from shipping customers over how costs will be shared across supply chains.

“We are all set to go,” said Kitack Lim, secretary-general of global shipping regulator the International Maritime Organization. “Compliant fuel will be available and it’s working very well in trial voyages.”

Mr. Lim’s assurance in an interview came as a major step in maritime environmental efforts nears with the implementation of a mandate starting Jan. 1, 2020, to sharply reduce maritime sulfur emissions. Ships will have to use cleaner fuels that are still under development and may cost up to 50% more than traditional fuel known as bunker, or they will have to be fitted with sulfur-trapping exhaust systems called scrubbers that go for as much as \$10 million per ship.

“The impact on shipping in terms of cost to protect the environment will be the biggest in history,” Mr. Lim said on the sidelines of the International Shipping Week conference here. “It’s a huge change.”

The change begins on Jan. 1, when some 60,000 ocean-going vessels will have to cut their sulfur emissions by more than 80%. That will be the first in a series of steps the global maritime industry will take in the coming years that will push carriers into uncharted waters in terms of operating costs and fundamental questions such as what will power the vessels of the future.

To comply with the 2016 Paris climate accord, IMO members have also agreed to slash greenhouse-gas emissions by half by 2050, compared with 2008 levels. Ships now contribute up to 3% of the world's global pollution, an amount comparable to that of major emitting countries.

Shipping executives say the low-sulfur directive, mandated by the IMO, the United Nations' shipping regulator, alone will add around \$50 billion in new fuel costs over the next three to four years.

Vessel operators have warned cargo owners to expect substantially higher freight rates, and that part of the cost will likely be passed on to consumers that buy products from retail giants like Walmart Inc., Amazon.com Inc. and Target Corp.

The sulfur directive has been in the works for more than a decade. With just months to go before it takes effect, however, big owners from some of the world's top shipping countries such as Greece have been pushing for extensions, arguing that low-sulfur fuels developed by refiners like Exxon Mobil Corp. and Royal Dutch Shell PLC, won't be available in many ports and haven't been tested enough to demonstrate that they will work with contemporary ship engines.

Mr. Lim said new fuels may not be available from day one in some ports in Africa, the South Pacific and the Caribbean. But he said he expects no shortage of low-sulfur fuel on major trade routes between Asia and Europe and Asia to the U.S.

Some owners that charter their ships say privately that they expect to use an exemption allowing vessels to use the cheaper, high-sulfur bunker oil if the new fuel blends are not available. That may lead to attempts to abuse the exemption, Mr. Lim said, but he insists enforcement around the world will be strict.

"There are always good guys and bad guys," Mr. Lim said. "But if an operator can't prove beyond doubt that it can't get cleaner fuel, ports are mandated to impose severe penalties. There will be high fines and the non-compliant fuel will be unloaded. You can't get away by breaking the law."

He said he also expects the use of scrubbers, which some environmental groups view as a tool to sidestep the regulations, will likely run out over time. Ships have a 20- to 25-year lifespan so any new orders over the next decade will have to be for vessels with new designs that will almost certainly have to rely on alternative fuels or other means of propulsion.

"The International Energy Agency estimates that by 2025 there will be some 5,000 ships using scrubbers—around 30% of total tonnage—but it will stop there," he said.

Fuel represents up to a quarter of a ship's operating expenses, and Mr. Lim said the cost of turning to new fuels will have to be absorbed throughout supply chains.

"If shipping companies take on all the cost, they will collapse," Mr. Lim said. "But compared to the value of the cargo, price increases to consumers will be very small."

The U.K.-based Energy Transitions Commission said in a report at the London maritime event that shipping's entire decarbonization process would likely add less than 1% to the cost of a \$60 pair of jeans.

45. UN Body To Vote On Cutting Aviation Greenhouse Gases

A United Nations body inched closer to establishing a long-term goal for cutting greenhouse gas emissions from international aviation and expanding its response to climate change September 29.

The International Civil Aviation Organization's executive committee agreed on a handful of resolutions to send to the organization's plenary for a vote as the global aviation industry undergoes increased scrutiny for its impact on global warming.

The committee approved resolutions to agree on a long-term greenhouse gas emissions goal by 2022; declare its offsetting scheme for emissions the only global plan to avoid duplication by regional and national schemes; examine the life-cycle impacts of biofuels for aviation; and wait for a technical committee to wrap up its studies before looking into global rules for the re-introduction of supersonic commercial jets.

The Montreal-based ICAO is holding its 181-nation assembly until Oct. 4, setting the organization's policy direction for the next three years.

China, Russia, and India raised extensive concerns on the resolutions dealing with long-term emissions goals and the offsetting scheme during the meeting, which had to be moved to a Sunday after climate change marches led by Swedish teen activist Greta Thunberg forced the organization to cancel meetings Friday.

"Up to now, we find no scientific support for this long-term goal, so we are very, very cautious about it," said Guo Xiaofeng, a first secretary with China's delegation at the organization, in an interview September 29.

The resolutions enjoyed broad support from most countries at the executive committee, but nations can still change their minds before a meeting of all assembly delegations Oct. 2 that will seek to make them official ICAO policy.

Environmental groups have pointed out that other branches of the U.N. have criticized the global aviation industry for lagging behind other sectors in embracing changes that would cut greenhouse gas emissions. International aviation was not included in the U.N.'s 2015 Paris Agreement on climate change.

The airline industry predicts major growth over the next decades that would double the number of annual passengers to 8.2 billion in 2037 compared to last year.

The sector has pushed nations to enter ICAO's greenhouse gas cutting plan—called the carbon offsetting and reduction for international aviation or CORSIA—in the hopes of weakening calls to curb flying.

Eighty-one countries have agreed to join a pilot phase of CORSIA beginning in 2021, but China, India, and Russia oppose key pillars of the plan, and some countries have created their own charges on plane emissions that companies say is undermining support for CORSIA.

"This success is in danger because several states are piling so-called green taxes, measures, levies on travelers," International Air Transport Association director and CEO Alexandre de Juniac said before the meetings.

Chief among those other charges is the European Union's aviation emissions trading system, which has applied to flights within Europe since 2012.

European Union countries did not raise concerns at the executive council meeting September 29 about a resolution that declares CORSIA the only global offsetting plan for international flights, which some attendees said could one day result in the U.N. plan covering emissions from flights between EU countries instead of the EU plan.

Since key elements of CORSIA are still being decided by a technical body of ICAO, it's too early to tell how the EU issue will be resolved, Kevin Welsh, a top official in the U.S. delegation, said in an interview September 29. "That's certainly still an outstanding issue that's on everybody's mind," said Welsh, executive director at the office of environment and energy at the U.S. Federal Aviation Administration.

Finland, which is leading the EU delegation at the two-week assembly, declined comment on the issue because of its sensitivity, senior specialist with the Ministry of Transport and Communications Janne Manttari wrote in an email September 29.

The resolution's effect would be increased regulatory uncertainty for airlines as they wait and see what emissions scheme will cover international flights in Europe less than two years from now, said Brad Schallert, a deputy director at the World Wildlife Fund, in an interview September 29.

Removing airline permits from the European carbon market could also result in a 14% drop in the price of European emission allowances by 2021, according to a BloombergNEF analysis.

The executive committee passed a resolution endorsing the use of sustainability criteria for aviation biofuels, which ICAO envisions accounting for the vast majority of emissions cuts from flights by 2035.

The organization estimates production of the fuels could rise from 6.45 million liters per year in the 2016-2018 period to around 8 billion liters by 2032, but state subsidies for the fuels currently favor ground transport over air.

The resolution would allow for a better determination of whether the fuels are actually reducing environmental impacts, since they can affect other things like land use, said Annie Peterson, international counsel at the Environmental Defense Fund.

The executive council also recommended ICAO wait for a technical body to finish research on the noise and environmental impacts of commercial supersonic jets before tackling global rules for the planes. Three companies in the U.S. are leading the push to bring supersonics back to the market within the next five to 10 years.

The U.S. opposes using the same environmental rules used for traditional planes on supersonics, which European countries say must be done to keep standards from going backward.

The FAA is preparing some domestic U.S. regulations, but international rules are necessary to help manufacturers and operators work abroad, said Welsh, the U.S. delegate.

The International Air Transport Association, the world's top airplane industry group, declined comment on the resolutions before the assembly concludes.