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1. European New Car CO2 Emissions Highest Since 2014

An analysis by JATO Dynamics has found that average new vehicle CO2 emissions in Europe increased in 2018, with the total average increasing by 2.4 g/km to 120.5 g/km—the highest average of the last four years. The analysis covered 23 markets in Europe and found a direct correlation between diesel car registrations and average CO2 emissions.

With increased negative public perception towards diesels, combined with new government regulations such as WLTP and scrutiny of the fuel type, demand for diesel fell by 18% in 2018.

The introduction of WLTP in September 2018 has been a challenge for the market, as a large number of available vehicles had not yet been homologated. The increase in CO2 is certainly worrying and bad news for governments and most carmakers. Instead of moving forwards, the industry is regressing at a time when emissions targets are getting tougher.

Felipe Munoz, JATO’s global analyst saw the picture this way:

The total value of CO2 emissions was on a steady decline from 2007, but started to slowdown in 2016 as the reduction declined from -4.1 g/km in 2015 to -1.4 g/km. At the same time, the sales growth of diesel cars fell from +7% to +1%. This trend was confirmed in 2017 with the first average CO2 emission increase in years of 0.3 g/km, and an 8% drop in demand for diesel cars. Last year saw an even greater variation between demand for diesel (-18%) and an increase in CO2 emissions (+2.4 g/km).

JATO attributes the main cause of the emissions increase last year to the downturn in demand for diesel. The average emissions for diesel cars continued to be lower than their gasoline counterparts (3.2 g/km).

The positive effect of diesel cars on emissions has faded away as their demand has dropped dramatically during the last year. If this trend continues and the adoption of alternative fueled vehicles doesn’t accelerate, the industry will need to take more drastic measures in order to meet the short-term targets.

Felipe Munoz continued:

Although the demise of diesel has certainly had an impact on emissions, it wasn’t the sole cause. The arrival of new SUVs last year, including the launch of 16 new models, paired
with an increase in demand for the car type also contributed to the overall increase of average CO2 emissions in Europe.

The emissions averages for SUVs worsened by 1.4 g/km, and the SUV segment counted for 35% of passenger car registrations last year—the only segment to post a positive change in 2018.

The SUV average was the fourth highest and was only surpassed by small segments in terms of volume: sport cars, luxury sedans and vans. In contrast, the lowest emission segments (city-cars and subcompacts) posted a decline in registrations of 1.5%.

In other words, consumers in Europe are opting for the vehicles with the highest emissions, so the industry’s growth is taking place at the expense of higher emissions. The shift in fuel type from diesel to gasoline—combined with an increase in registrations in the SUV segment—is crucial to understanding the change in CO2 emissions.

The correlation between the decline in demand for diesel cars and the increase in CO2 emissions was most evident when analyzing the data by country. Only three countries saw improvements in CO2 emissions: Norway, Netherlands and Finland.

In Norway, the growing popularity of electric and hybrid cars (57% market share) was large enough to absorb the drop posted by diesel cars (-28%). In the Netherlands, the improvement was due to an increase in demand for AFVs (+74%) which counted for 11% of the total market. However, this market is still strongly dependent on gasoline cars, which make up 76% of the market.

The worst performance was seen in the UK, which has carried out one of the most aggressive campaigns against diesel.

At a brand level, Toyota was once again the leader among the top-sellers and posted an average below 100 g/km for the first time since tracking of the average CO2 emissions began. Last year, 60% of its registrations were within the hybrid range. Toyota was also one of only five brands that posted an improvement in comparison to 2017, with emissions falling by 1.4 g/km. This is mostly due to the good commercial performance of the Toyota C-HR and its fuel type mix.

Nissan saw the most improvement thanks to the strong performance of the LEAF, which became Europe’s top-selling electric car in 2018. At the same time, its top sellers (mostly SUVs) recorded registrations drops.
Volume-weighted average CO2 emissions are calculated by multiplying the CO2 emissions rating of each car version by the volumes achieved by that version in a given timescale, totaling this product for all versions, then dividing by the total volume of all versions. The data is NEDC-correlated and not WLTP.

2. European Parliament Adopts Blueprint For Clean Air

The EU should tighten its limits on particulate matter, sulfur oxides and ozone levels in line with World Health Organization recommendations and step up checks to ensure governments enforce rules on emissions from diesel vehicles, MEPs have agreed.

In a non-binding resolution adopted by 446 votes to 146 with 79 abstentions, the European Parliament set out a raft of recommendations to tackle air pollution, which focus largely on pollution from traffic, but also cover agriculture and energy production.

The WHO's recommended limit for fine particulate matter (PM 2.5, considered one of the forms of air pollution most damaging to health) is an annual average of 10 micrograms per cubic meter. The present EU limit is 25µg.

The European Environment Agency has described air pollution as the EU's main health risk, and a recent survey ranked a number of EU cities as among the world's worst in terms of premature deaths attributed to emissions from traffic.

However, rules on limiting pollution, notably the EU Ambient Air Quality (AAQ) Directive, have proved difficult to enforce. The European Commission resorted last year to sending six member states to court over persistent flouting of the rules, with 29 infringement cases ongoing in total.

MEPs also targeted pollution from agriculture in their resolution, noting it was responsible for 94% of ammonia pollution, as well as substantial amounts of methane and nitrous oxide (NO2). The parliament recognized efforts by some governments to phase out coal-fired power generation and called on all member states to do so by 2030.

The European Commission launched a review of the AAQ Directive in 2017, with conclusions and possible reform proposals due by the end of this year. The WHO is currently revising its air quality guidelines, with an update expected in 2020.

3. EU Commission Appeals Dieselgate Ruling

The European Commission will appeal a decision by the Court of Justice of the EU which said that a relaxing of car emissions standards was illegal, EU commissioner for industry Elzbieta Bienkowska told MEPs 20 February. At the same time, the commission will prepare new EU legislation that will have the same effect as the law declared illegal by the court.

"Our legal experts in the commission state there are legal grounds that justify an appeal," said Bienkowska. "But I do not want to be wrongly understood. My focus is to get new legislation in place in time. I want you, parliament, to have a say," she noted.

Bienkowska promised that if the new legislation is adopted in time, the commission would withdraw the appeal.
The court ruling involves a 2016 decision related to a new measure of testing dangerous nitrogen oxide (NOx) emissions. The new so-called real driving emissions test was able to more accurately measure the level of emissions - which were in reality much higher than the original test showed, leading to considerable damage to public health.

Carmakers successfully lobbied member states to accompany the introduction of the new test with a relaxing of the limits. While under the old test the limit was 80 milligrams NOx per kilometer, the limit under the new test became 168 mg/km during a transitional period until 2020.

The EU's highest court said in December that this decision was made illegally.

Bienkowska spoke in a public meeting with former members of the EU parliament's inquiry committee into the diesel emissions scandal known as Dieselgate. They were not happy with Bienkowska's announcement.

"I am disappointed," said Belgian center-left MEP Kathleen Van Brempt, the former chairwoman of the inquiry committee. Fellow Belgian MEP Mark Demesmaeker, of the European Conservatives and Reformists group, also said he was disappointed, and said the decision was a "bad signal".

There appeared to be a difference in interpretation of the court ruling between the commissioner and the MEPs - all of whom have dealt with the Dieselgate issue extensively over the past years. Bienkowska interpreted the ruling as being focused on the legal procedure which the commission had chosen - the so-called comitology method. Under comitology, the role of the EU parliament is much smaller than under the ordinary procedure to adopt bills.

But MEPs were not so sure that it was only the legal method chosen which the court found fault with. "In your remarks you said the court did not attack the principle of the conformity factor, but that is what they are ruling here, that the conformity factor is in effect not legal," said Labor MEP Seb Dance.

The conformity factor is the multiplication by which the original emissions standard has been stretched.

But Bienkowska was certain. "The ruling was about the process, not about the content," said Bienkowska. "I am 100 percent sure about this," she added.

What the commission, which has to avoid a legal vacuum, is doing by appealing, is buying time. If it had not appealed, a 12-month period to replace the annulled law would have started.

There are parliament elections in May, which will be followed by the end of this commission's mandate at the end of October.

Bienkowska said that she would send the EU parliament and the national governments the new legislative proposal soon. "I want to make one thing clear. I want and I will do my best to have the legislation in place in the course of this year," she said. "If the adoption of new legislation is in time then we can withdraw the appeal. This is my commitment. We can withdraw the appeal any time," she added.

But such a legislative proposal will need consent from both parliament and EU governments, and often takes longer than a year.
One could also argue that regardless of what test you use, that should not affect the emissions limits, agreed already in 2007. Dutch Green MEP Bas Eickhout did as much. "We don't need new laws. We just want to keep the current standards," he said.

He was supported by a colleague from the UK. "Do you honestly think that this parliament would then pass legislation to lower the emission targets, given everything we said about this issue?" asked Dance.

4. EU Executive Under Fire For Appealing Car Emissions Ruling

The European Commission is to challenge a recent ruling by the EU Court of Justice that ruled it had exceeded its power in giving car makers leeway to exceed emission limits for nitrogen oxides (NOx), a senior official has announced, prompting a backlash from MEPs and campaigners.

Commissioner for internal market and industry Elżbieta Bieńkowska informed the European Parliament environment committee of the decision while defending the EU executive's response to the dieselgate scandal. (see story above.)

The EU's General Court ruled in December that the Commission had no legal authority to increase permitted nitrogen oxides (NOx) emissions limits for cars and vans, fixed in Euro 6 standards, by introducing a 'conformity factor' through a delegated act.

Bieńkowska said the appeal would run parallel with the Commission tabling new legislation “a little bit longer” than a week from now which, under pressure from MEPs, she revealed would seek to insert the same relaxation of limits in an EU directive.

“We will reinstate the same conformity factors – 2.1 and 1.43 – nothing more, nothing less,” Bieńkowska said of the coefficients that mean cars can emit 168mg/km of NOx until 2020 and 120mg thereafter, despite the limit in the Euro 6 standards being just 80mg.

The measure was intended to 'correct' for the greater sensitivity of new real driving emission (RDE) tests introduced in the wake of the 2015 scandal where car makers were found to be cheating on lab-based emissions tests. It was promptly challenged by the cities of Paris, Brussels and Madrid.

Bieńkowska said the appeal was necessary in case the European Parliament and EU Council are unable to agree on new legislation within a year, as required. “I will do my best to have the legislation in place... If it is adopted in time, then we can withdraw the appeal,” she said.

“We don't need new laws, we just want to keep our current standards,” the Dutch Green MEP Bas Eickhout said, echoing the comments of several lawmakers who said the EU executive was sending out a “bad signal” ahead of critical European Parliament elections.

Belgian social democrat Kathleen Van Brenpt, who chaired a parliamentary committee into the Dieselgate affair said the legislation stood little chance of succeeding. “If you come up with a new directive installing the conformity factor as a fact in a new directive, then you will not have the support of this parliament,” Van Brenpt said.

The environmental lawyers' group Client Earth subsequently criticized the EU executive's decision to appeal. “Today’s decision to appeal is a mistake that will delay urgent action to protect the
health of all Europeans,” lawyer Ugo Taddei said. “The appeal will mean the conformity factors remain in force for a long time, despite the Court ruling them to be illegal,” Taddei said, accusing executive of listening to the car industry and not citizens’ concerns over air quality.

5. EU Takes Italy to Court Over Air Pollution Infractions

The European Commission said on March 7 that it was referring Italy to the ECJ for exceeding legal limits of nitrogen dioxide in 10 areas that are home to 7 million people. “The Commission is calling on Italy to respect agreed air quality limit values and take appropriate action to cut pollution levels,” it said in a statement.

The court will now decide whether Italy is in breach of Europe’s nitrogen dioxide limits and, if so, give the country time to comply. If Italy still fails to bring down the levels into the legal limit, the court could impose a fine in the tens of millions of euros.

Similar actions were taken in May 2018 against France, Germany, and the U.K. There still hasn’t been a ruling in those cases yet, Enrico Brivio, a spokesperson for the European Commission, said, so it could be another year before the court decides whether Italy is breaching Europe’s ambient air quality standards, which took effect in 2010.

Fourteen cases for breaching environmental law are now pending against member states under Europe’s ambient air quality standards, which took effect in 2010, the commission said.

Nitrogen dioxide, which is emitted by diesel vehicles, is linked to chronic diseases such as asthma, cardiovascular problems, and lung cancer. An estimated 20,500 Italians die prematurely each year from nitrogen dioxide air pollution exposure, according to the European Environmental Agency.

Italy also is facing a second referral for failing to collect and treat urban wastewater before discharge, the commission said in its statement. About 620 urban areas in 16 regions were found to be in breach of the EU’s rules.

The threat of a fine isn’t likely to change Italy’s environmental policies, Marco Percoco, a transportation researcher at the University of Bocconi in Milan, told reporters. “The fines are more symbolic even though they might be substantial,” Percoco said. “It happens every few years, but Italy has not done anything since the last time it was fined.”

For example, last year Italy was fined 25 million euros ($28 million) for failing to collect and treat urban waste water in compliance with EU law. The ECJ held that Italy would also be liable for an additional 30 million euros for every 6 months of continued noncompliance, which is still ongoing.

It’s easier for the state to pay the fine than to coordinate new policies across all levels of government, which is what it would take to comply with the EU standards, Percoco said.

Many cities in Italy are already trying to reduce nitrogen dioxide levels by reducing car use in urban areas. Last month, Milan expanded its limited-traffic zone to cover a larger area and include more types of vehicles. Rome and Turin also have programs to limit traffic in their city centers.

6. Air Pollution "Largest Environmental Risk To Public Health In UK": Report
Public Health England (PHE) has put forward a series of recommendations aimed at reducing the 28,000 to 36,000 deaths a year in Britain attributed to long-term exposure to polluted air. One recommendation in the PHE report is for town and city councils to be given powers to implement no-idling zones to stop people leaving their car engines running while waiting outside schools, hospitals and care homes.

Another proposal would see low-emission or clean air zones to discourage the most highly polluting vehicles from entering populated areas.

The 250-page report says air pollution is the biggest environmental threat to health in Britain, with strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease and lung cancer, and exacerbates asthma.

"The evidence is clear on the scale of harm from air pollution. It is the largest environmental risk to the public's health in the UK," warns the report.

It adds: "People are exposed to outdoor air pollution in the places where they live, work and spend their leisure time. Whilst there are opportunities for individuals to reduce their personal exposure, or that of their children, these are limited."

The report also says that public spaces should be redesigned so people aren't so close to highly polluting roads by making streets wider or using green hedges to screen against pollutants. There should also be more investment in clean public transport, footpaths and cycle paths.

The report says the inexorable increase in road, air and sea transport, industrialization of food production and many other factors mean that air quality remains a major public health issue.

"Walking, cycling and other forms of active travel are great for improving health and reducing air pollution, but too often people are put off by the risk of exposure to high concentrations of pollutants," it adds.

Professor Paul Cosford, PHE's medical director, said: "Action is needed at all levels to address this unacceptable, serious and avoidable source of harm to our health. We all have a role to play in helping to make sure that the air that we, and future generations, breathe is clean air."

Cosford said a key challenge is the commonly held view that actions to reduce air pollution run counter to economic growth and development. "In my view the evidence presented in this report highlights that this is not the case. None of us wish to put ourselves or our children at risk from the increasing number of conditions linked to poor air quality, but we do want to live, work, bring up our children and grow old in cleaner environments. This desire, coupled with the space for new technologies, is surely an opportunity for better air quality and economic prosperity to go hand in hand," he said.

In January, the British government announced a "Clean Air Strategy" setting out plans to meet ambitious legally binding international targets to reduce emission of the five most damaging air pollutants by 2030. It will be followed by a wider Environment Bill.

7. Lawmakers Agree Procurement Targets For ‘Green’ Vehicles
The number of electric and other low-emissions buses, delivery vans and trucks on Europe’s roads is set to rise after lawmakers agreed mandatory purchase targets for local authorities and state-owned enterprises.

A revised Clean Vehicles Directive agreed by the European Parliament and EU Council sets binding public procurement targets for 2025 and 2030, in a bid to cut transport emissions and support clean air policies.

The new rules will apply to public transport, refuse collection, postal deliveries and other services, with the most ambitious targets applied to buses.

Countries will have to ensure that by 2025, between 24% and 45% - depending on population and GDP - of buses procured by local authorities and public companies are clean. The target range will increase to between 33% and 66% by 2030.

But there has been some controversy over the definition of a “clean” bus. Green group Transport & Environment criticized the lawmaker’s agreement that only half of the target will have to be achieved by procuring zero-emission models.

The other half can be met with buses defined as ‘clean’ in line with the Alternative Fuels Infrastructure Directive, which includes liquified and compressed natural gas. T&E’s clean vehicles officer Yoann Le Petit said counting fossil-fueled buses as ‘clean’ was not in line with the Paris climate goals or the EU’s aim of decarbonizing by 2050.

“Public money should not be wasted subsidizing obsolete gas trucks and buses. By 2030, only zero-emission technologies should be supported with public funds,” Le Petit said.

The new directive also sets targets for procurement of heavy-duty vehicles such as refuse collection trucks, of which between 6% and 10% must be clean in 2025, and 7% to 15% in 2030. For cars and vans the procurement target varies by country from 18.7% to 38.5%, with the vehicles producing less than 50g of CO2 per kilometer in 2025 and zero emissions by 2030.

The European vehicle manufacturers association ACEA welcomed the legislative push for clean vehicle procurement but said it did not assuage concerns over finding a market if production quotas are included in separate legislation regulating CO2 emissions from heavy duty vehicles.

“The introduction of mandatory sales quotas under this regulation would be extremely risky for Europe’s truck industry, as it would effectively force manufacturers to provide a certain supply of zero-emission vehicles – despite the lack of charging/refueling infrastructure and other obstacles which are severely hampering customer demand,” according to a spokesman.

The provisional agreement on the Clean Vehicle Directive will be translated into binding legislation after formal endorsement by the European Parliament and EU Council.

8. Manufacturers Want An ‘Achievable’ Plan To Cut Truck Emissions

The automotive industry has urged policymakers to help them implement an “extremely ambitious” proposed EU cap on CO2 emissions from trucks and buses, while rejecting a production quota for clean vehicles.
MEPs and government delegates are due to meet to hammer out a compromise over a European Commission proposal to reduce average emissions of new heavy-duty vehicles by 30%, compared to 2019 levels, by the end of the next decade.

“What we are calling for as part of this regulation is an effective framework of supportive measures for both manufacturers and truck operators to ensure that the ambitious CO2 targets that are soon to be adopted will prove to be achievable in practice,” said Erik Jonnaert, secretary general of the industry association ACEA.

The group described the targets – including a half-way goal of a 15% reduction by 2025 – as “far too aggressive” when the EU executive proposed them in May last year and reacted with frank alarm when MEPs subsequently called for a five-percentage-point increase.

However, it is not only the headline targets that have manufacturers on the defensive: ACEA also rejected the European Parliament’s proposal to add a benchmark that is essentially a quota for zero-emission trucks and buses: 5% of production by 2025 and 20% by 2030.

“Dictating to manufacturers that they must produce a certain number of zero-emission vehicles will not guarantee that market uptake will follow, especially given the lack of infrastructure as well as other obstacles – such as loss of payload and limited range,” the lobby group said.

However, six multinationals – including Nestlé, freight firm DB Schenker and tram and train maker Alstom – have written to MEPs, Council officials and senior figure in the European Commission backing the call for ZEV sales quotas they say are “vital to the transport sector to reduce emissions and fuel costs”.

“As discussions continue, we stress the need to provide a strong level of market certainty regarding the sales level of zero emissions trucks sales by 2025,” they wrote in a recent letter.

An internal document suggests division within the EU Council will have to be overcome before any compromise with MEPs, although the presidency – currently Romanian – hopes to close the file soon.

The presidency has invited delegates to “indicate their flexibility” on raising the headline targets, strengthening incentives clean vehicles, including the ‘benchmark’ system, and the definition of a ‘low emission vehicle’, which the parliament says emit less than half current levels of CO2.

9. Germany To Invest €58 Billion In Electric, Autonomous Cars

Germany’s car industry association says billions will be spent on electromobility over the next three years to cement the future of the auto sector. Domestic car production is, however, expected to fall this year.

Germany’s automotive industry is planning an aggressive investment in electric and autonomous cars, along with digitization, the president of the Verband der Automobilindustrie (VDA) car industry association said. In a statement ahead of the opening of the Geneva Motor Show, Bernhard Mattes said more than €40 billion ($45.5 billion) will be spent over the next three years on e-mobility, and another €18 billion has been earmarked for digitization, alongside connected and autonomous driving.
Over the same period, German car makers plan to triple the number of electric and hybrid models to about 100.

Mattes said that without the move away from the combustion engine, the European Union's 2030 carbon dioxide (CO2) emission reduction targets will not be met. To achieve them, he said, the appropriate regulatory conditions must be met.

The VDA boss said Germany along with a few other large EU states would need to achieve a significantly higher proportion of new electric car registrations than the EU average to help meet the goal. He said a massive expansion of the charging infrastructure was also critical, along with better incentives for buyers of e-cars.

The VDA expects domestic car production to fall significantly this year, partly as a result of a slowing economy along with the lingering possibility of new US tariffs on foreign automakers. Around 4.8 million passenger vehicles are expected to roll off the production line at German plants, about 5 percent fewer than last year.

Foreign assembly, on the other hand, is expected to increase by 3 percent to 11.6 million cars, with the construction and expansion of plants in the USA, Mexico, and China.

Despite the drop in production at home, domestic employment in the auto sector should remain stable in 2019. Last year, the average number of employees in Germany increased by 14,400 to 834,400. "This is the highest level of employment since reunification," the VDA president said.

The association expects the European and Chinese car markets to remain stable, and forecasts only a slight decline in US demand, with the proviso that trade and economic tensions are resolved constructively.

According to Mattes, a hard Brexit — where Britain leaves the EU without a deal — must be avoided at all costs. He said a no-deal scenario would have serious consequences and pose considerable risks for businesses and workers in the EU's remaining 27 member states. Great Britain is Germany's largest car export partner by unit numbers. In 2018, new car exports from Germany to the UK fell by 13 percent to 666,000 vehicles.

Commenting on a US Commerce Department proposal to impose import duties on foreign vehicles, Mattes urged Brussels and Washington to "do everything in their power to achieve a constructive solution at the negotiating table".

The downturn in the US car market is already being felt by German manufacturers. Volkswagen, Audi and Daimler's Mercedes-Benz USA units have reported declining unit sales in February. Only BMW maintained its order book.

US President Donald Trump has three months to decide whether to impose a 25 percent tariff on vehicles imported from abroad after government officials apparently argued that the dominance of foreign auto players is a threat to national security.

10. Peugeot 208 To Electrify Europe's Small-Car Market

Peugeot will add a full-electric version of its new-generation 208 hatchback, while also making the small car more upscale by adding technology and materials more commonly found on the brand's higher-end models such as the 508 and 5008.
Peugeot released details and pictures of the 208 ahead of the car’s public unveiling at the Geneva auto show on March 5.

With the exception of the name, almost everything on the new Peugeot 208 is different than the previous generation. It is built on a new platform, PSA Group’s CMP architecture. It has more aggressive styling and new color and trim options.

The interior has a 3D instrument display, a first for Peugeot.

PSA Group says it has optimized the CMP architecture to accept both internal combustion and full-electric drivetrains.

The battery-powered 208 will have 340 km (211 miles) of range under Europe's new WLTP homologation (equivalent to 450 km under the old NEDC testing).

Peugeot says the 208 is ideal for full electrification rather than a hybrid powertrain because most trips will be short, and urban owners will have guaranteed access to city centers that could be restricted in the future to zero- or ultra-low-emissions vehicles.

The 208 electric variant will compete directly in Europe against the similar-sized Renault Zoe electric hatchback. Indirect rivals because they are crossovers would be the Hyundai Kona and Kia Soul.

The electric 208 will weigh about 250 kg (551 pounds) more than internal combustion versions, Peugeot says, with a 50-kilowatt hour lithium-ion battery pack located under the rear seats, where the gasoline tanks for gasoline or diesel models will be.

The 100 kilowatt (136 hp) electric motor will be supplied by Continental, while PSA Group prepares its own motors in a joint venture with the Japanese supplier NiDecember

The electric 208 is identified only by small "e" badges and composite inserts on the wheels, and there will be a sports-oriented GT trim level with special seat stitching and fabrics.

Yann Beurel, the design manager for the 208, said consumers in focus groups told Peugeot that they did not think an electric vehicle needed to be differentiated from an internal combustion version. They told us, 'We are not at the beginning of the electric vehicle era anymore,' " he said.

The current 208 was introduced in Europe in 2012 and has been a strong seller, if not a blockbuster, for Peugeot.

According to figures from JATO Dynamics, the 208 ranked fourth in the European small hatchback segment in 2018, with sales down 6 percent to 230,000, trailing the Ford Fiesta, Volkswagen Polo and its French rival, the Renault Clio. Renault will unveil a new generation Clio in Geneva, while VW and Ford updated their small cars in 2017.

Worldwide sales of the 208 last year were about 295,000, down 9.8 percent.

Overall European registrations in the small-car segment fell by 1.5 percent last year, to 2.97 million vehicles from 3.1 million in 2017, as buyers increasingly favor small SUVs and crossovers.
PSA plans to produce as many as 350,000 208 models worldwide by 2020 at its plants in Trnava, Slovakia and Kenitra, according to IHS Markit. A significant part of the expected sales increase will come from the electric version, which Peugeot expects will make up 10 percent of the volume. Diesels, mostly aimed at fleet buyers, will be 20 percent, and gasoline versions will make up the rest.

11. AIR Alliance Launches New Vehicle Emissions Ranking System

An alliance campaigning for the independent testing of cars has launched its own emissions ranking system to help drivers know how much pollution their vehicle produces. AIR (Allow Independent Road-Testing), a not-for-profit alliance of scientists, academics and economists looking to tackle air pollution caused by cars, has introduced their new AIR Index, an independent on-road vehicle emissions test and rating system.

The AIR Index is based on real-world testing in urban environments rather than tests made by car manufacturers themselves, which take place in laboratory settings.

It is hoped that the new system will force car makers to speed up in introducing cleaner vehicles while allowing urban policymakers to make more informed decisions when introducing clean air schemes.

Nick Molden, co-founder of AIR, said: ‘The transparent publication of independent, on-road emissions testing results is the most efficient way to improve air quality.

‘The AIR Index removes the confusion among car buyers and policy makers around petrol and diesel emissions, and around testing processes.’ Many cars emit more NO2 on the road than laboratory tests suggest, AIR claim.

The AIR Index rates vehicles on how many milligrams of nitrogen oxide (NO2) they emit per kilometer when driven in urban settings, grading vehicles from A to E with A being the best and E being the worst.

It is based on new EU standards and inspired by NCAP, the independent vehicle-safety rating system developed in the 1970s which is now an industry standard used across the world.

Nitrogen Oxide (NOx) emissions are currently a huge focus for cities looking to improve their air quality, with many European cities such as London now introducing charges for driving in city centers based on vehicles’ NOx emissions.

However, confusion continues to exist as car buyers and policy makers are forced to rely on information provided by car makers’ own in-house tests.

According to AIR, several Euro 6 cars emit significantly more NOx on the road than their laboratory tests suggest, and they say the AIR Index will help clarify which cars are genuinely the cleanest.

Massimo Fedeli, Co-founder and Operations Director, AIR, said: ‘For the first time policy makers have the ability to improve urban air quality, using the AIR Index to control vehicle access, without penalizing consumers unfairly because the vehicle that they bought in good faith is dirtier, on the road, than they were led to believe.’
Proponents of the AIR Index say it will be better than current alternative schemes such as WLTP (Worldwide Harmonized Light Vehicles Testing Procedure) and RDE (Real Driving Emissions), which are still conducted in the laboratory or only conducted on new vehicles.

AIR hope to encourage prospective car owners to check the car’s emissions rating using their index before purchasing and encourage car makers to sign up to have their cars independently tested.

12. German Prosecutors Start Penalty Proceedings Against Daimler In Diesel Probe

German prosecutors have launched a probe into Daimler for allegedly failing to prevent diesel emissions cheating, possibly resulting in a fine for the carmaker, as its legal woes mount up over the affair.

German carmakers, among the global leaders in diesel technology, have been caught in the crosshairs of courts and regulators around the globe after Volkswagen in 2015 admitted to using engine control devices to cheat U.S. diesel emission tests.

Germany’s transport ministry said last June that 774,000 Mercedes-Benz vehicles in Europe had been found to contain unauthorized defeat devices resulting in higher emissions. It ordered Daimler to recall more than 200,000 cars in Germany.

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) are also investigating emissions of Mercedes-Benz diesel vehicles.

Prosecutors in Stuttgart, where Daimler is headquartered, launched an investigation into individual employees of the company some two years ago, which is still ongoing. “We have now also initiated proceedings against Daimler as a company,” a prosecution spokesman said, adding the company may have neglected its supervisory duties.

Last June, the Stuttgart prosecutors said they were considering probes against Daimler, VW’s Porsche unit and automotive supplier Bosch over potential emissions cheating.

Earlier this month, they launched proceedings against auto supplier Robert Bosch for providing Volkswagen with engine management software that the carmaker used to cheat vehicle emissions tests in 2015.

It was unclear what level of fine Daimler could face. A spokeswoman for the company said Daimler was cooperating fully. Volkswagen in June was fined one billion euros ($1.13 billion) for diesel emissions cheating, one of the highest ever fines imposed by German authorities.

13. Bosch May Face VW-Related Diesel Cheating Fine In Germany

German prosecutors are looking into a possible fine for Robert Bosch for providing Volkswagen Group with engine management software that the automaker used to cheat vehicle emissions tests in 2015.

Volkswagen has paid out more than 27 billion euros ($31 billion) in penalties for using illegal software to disguise excessive levels of pollution from its diesel cars, triggering a global regulatory clampdown that has now reached Bosch.
In the U.S., VW and Bosch agreed to pay at least $1.6 billion to fix or buy back and compensate owners of VW, Audi and Porsche cars diesel engines rigged to cheat pollution tests.

Prosecutors in Bosch's home city of Stuttgart, Germany, have opened monetary fine proceedings against the supplier, Bosch said in a statement. "The proceedings relate to the investigations against employees of Robert Bosch GmbH in connection with the use of allegedly manipulated software in control units of diesel vehicles," Bosch said.

German prosecutors last year fined Volkswagen 1 billion euros and its sister brand Audi 800 million euros for management oversight lapses which allowed polluting cars to hit the road.

German weekly magazine Der Spiegel reported recently that Volkswagen was reviewing whether to seek damages of up to 1 billion euros from Bosch. Volkswagen declined to comment on the report.

Bosch said: "Relationships with customers are kept confidential. The automaker-supplier relationship between Bosch and Volkswagen goes back over decades. We cannot imagine such an action against Bosch."

14. Ministers Urge New Tax On Aviation,

Five member states have thrown their weight behind the prospect of new EU-wide taxes on aviation in order to address the sector’s growing greenhouse gas emissions. France, the Netherlands, Sweden and Luxembourg welcomed a report authored by the Belgian delegation to the Council of the EU that called for the “fair and correct pricing of air transport” as part of the bloc’s climate policies.

“A just EU pricing regime for air transport should take into account external costs, thereby applying the polluter pays principle and restoring fair competition with other modes of transport," the Belgian report states. It asked for a debate on the matter to be held at the next Environment Council, scheduled for June.

The Dutch government had previously raised the prospect of new tax measures for the aviation sector at the Economic and Financial Affairs Council in February.

Speaking during the recent Environment Council, France’s junior ecology minister Brune Poirson noted that the sector’s participation in the EU emissions trading scheme (ETS) and ongoing work on the UN’s CORSIA offsetting scheme meant aviation was “not starting from zero”. Nevertheless, “we must go further so that the aviation sector falls in line with the Paris Agreement,” she said. “It is a question of coherence - and coherence is key in the acceptability of public environmental policy.”

Member state representatives called on the Commission to study a possible tax on kerosene or flight tickets, along with the prospect of revising the sector’s VAT exemption and strengthening EU ETS requirements for aviation.

Environment commissioner Karmenu Vella told ministers the Commission would have a “close look” at taxation on the aviation sector when it reviews the ETS and the energy taxation directives.

It comes as the International Civil Aviation Organization is meeting in Montreal, Canada, to finalize rules on the CORSIA scheme, with environment groups warning that an agreement could
undermine the EU ETS if it allows airlines to meet their offsetting obligations through low-quality carbon credits. “If CORSIA adopts weak rules and allows in bad offsets, the EU will come under pressure to accept these decisions,” said Baroness Bryony Worthington of the Environmental Defense Fund, a US-based NGO. “That would be terrible for our climate and for European leadership.”

15. Norway’s Oil and Gas Divestment Spares Biggest Producers

Norway took a partial step in divesting oil and gas stocks in its massive $1 trillion wealth fund, approving the sale of smaller exploration companies while sparing the biggest producers such as Royal Dutch Shell Plc and Exxon Mobil Corp.

After more than a year of deliberation, the government on March 8 approved excluding 134 companies classified as exploration and production companies by FTSE Russell. The proposal would see the fund sell about $7.5 billion in stocks.

“It reflects to a larger extent the risk we ourselves have—the bulk of the state’s exposure in Norway is upstream activity,” Finance Minister Siv Jensen said after the decision. “We’re reducing our vulnerability by choosing to withdraw the fund gradually from this segment.”

The government goes part of the way in meeting a 2017 proposal from the fund, which rattled global markets by calling for a full divestment of the oil and gas sector. That plan was then hailed as a potential huge step by climate activists. It has also been a hot-button issue in Norway, which is seeking to project an image as a responsible environmental steward while pumping oil and gas at a fast clip.

Jensen defended her decision to keep the big oil companies in the portfolio. “The integrated companies will most probably be the companies that will increase their investments in a much broader spectrum of the energy industry going forward,” she said. “These are the companies making the big investments now in renewables and so on.” Exiting from this “would in reality have constricted the fund’s chance to take part in this type of investments,” she said.

The partial move underscores the changing political climate in Norway, where opposition to oil and gas exploration is on the rise. Prime Minister Erna Solberg’s Conservative Party has been a long-time friend to the oil industry.

The $1 trillion fund has been built up over the past two decades from oil and gas revenue and Norway also uses large chunks of income from its offshore fields each year to pay for its welfare state.

The managers of the fund, which is overseen by the central bank, therefore argued in their proposal that it makes little sense for Norway to be doubly exposed to oil both in its revenue stream and through its investments.

Sony Kapoor, managing director at think tank Re-Define, said the limited divestment “represents a victory of Big Oil lobbying over financial prudence and common sense.”

16. EU Executive Mulls Compulsory Retrofits For Millions Of Diesel Cars

The European Commission is “seriously considering” proposing compulsory retrofitting of diesel cars in the EU to reduce dangerous air pollution from vehicles already on the road, an official told
MEPs recently. The deputy head of the internal market directorates automotive unit, Mehdi Hocine, made the announcement in response to questions from members of the European Parliament's environment committee as it debated a recent auditors' report on post-Dieselgate emissions testing.

“The only way to clean up the air in our cities is to get rid of the emissions from millions of fraudulent cars,” Dutch liberal Gerben-Jan Gerbandy said during the debate, referring to vehicles whose manufacturers had evaded EU pollution limits.

Italian lawmaker Eleonora Evi noted that the US had obliged Volkswagen to apply “hardware” updates to cars recalled after the firm was caught using on-board software to cheat lab-based emissions tests.

The matter is for the time being in the hands of national authorities, Hocine said. “The Commission has no role in deciding whether a software or a hardware fix, or retrofit, is the most appropriate,” he added. The Commission has already launched a million-euro project looking at the potential of retrofitting in response to the findings of a parliamentary investigation into the Dieselgate affair, the official said.

Lawmakers adopted a set of more rigorous testing protocols in response to the revelations of systematic cheating in emissions tests, but the European Court of Auditors reported this month that there remain loopholes that could be exploited by manufacturers.

In the aftermath of the Dieselgate affair, the average emissions of nitrogen oxides (NOx) from cars were found to be eight times higher than the Euro 6 limit of 168mg per kilometer, ECA member Samo Jereb recalled during the debate.

17. Denmark Kicking Out Polluting Vehicles From Cities In Coming Years

A new government proposal suggests that polluting trucks, buses and vans will be banned from several big cities in Denmark from the summer of 2020, as so-called environmental zones become more stringent. If approved by Parliament, the move will mean that older versions of these vehicles will not have access to the zones in Copenhagen, Frederiksberg, Aarhus, Odense and Aalborg unless they have particle filters mounted.

“We need cleaner air in our cities, and air pollution is a source of lost years of life, illness and a daily pest for many people – particularly in the big cities,” said the environment and food minister, Jakob Ellemann-Jensen.

“The environmental zones haven’t been updated in a decade and have thus little impact today. Now we will tighten the rules for which vehicles have access, and that will affect the air we breathe.”

The government estimates that the initiative will help reduce total emissions of soot particles generated by traffic by upwards of 25 percent in the cities.

The tightening of the environmental zones will take place gradually.

- From 1 July 2020, trucks and buses must have been manufactured in 2009 at the earliest, and vans in 2007, if they are to be permitted to drive in the zones without a mounted particle filter.
• From 1 July 2022, trucks and buses must have been registered on 1 January 2014 at the earliest, and 1 January 2012 for vans. From 1 July 2025, vans must have been registered on 1 September 2016 at the earliest.

Vehicles that fail to live up to the registration dates can not only avoid being banned from the zones by having a mounted particle filter, but vans with filters will also avoid the annual particle tax.

18. Toyota Warns Brexit Could Lead to Exit from Great Britain

Toyota has joined the list of carmakers, warning the government of Great Britain that it is prepared to phase out its operations in the United Kingdom without any kind of back-up plan that would protect the country’s vital links to the European Union. “If the business environment becomes very difficult to operate, of course those types of decisions should be on the agenda,” Johan van Zyl, the Japanese company’s head of Europe, told reporters at the Geneva Motor Show. “But hopefully we will be able to avoid” a withdrawal.

The carmaker remains hopeful the U.K. and EU will reach an agreement on Brexit terms, van Zyl said.

With the deadline of March 29 quickly approaching, the British have yet to put in place a plan for continuing trade with the European Union and minimize any kind of disruption. Brexit was sold to voters in 2016 with the promise that Britain’s economy would grow free of the shackles.

However, carmakers, one of the largest and most important parts of Great Britain’s remaining manufacturing base, have long warned that in order to survive, Britain’s car factories ultimately need and depend on the free movement of components and vehicles across the EU.

Executives from the auto industry have become increasingly vocal about the dangers from a chaotic Brexit but, so far, their warnings seem to have fallen on deaf ears in Parliament.

The Toyota warning comes on the heels of a decision last month by Nissan to shelve plans to build the X-Trail sport utility vehicle in England and Honda Motor Co.’s announcement to end production in the country in 2021. Ford Motor Co. and Jaguar Land Rover, the largest car company operating in Great Britain, also have announced plans to scale operations in Britain.

The move to cut production in the United Kingdom is also being driven by the slowdown in car sales across England that have gone into tailspin due to the economic uncertainty created by Brexit.

Britain has long been a Japanese hub for European auto production, with Honda, Nissan and Toyota owning three of the country’s six largest factories.

In 2017, Toyota announced plans for $316 million investment to produce the new version of the Corolla in England and upgrade its vehicle platform, and now produces about 180,000 of the cars a year at its plant in the town of Burnaston.

“If there is a bad Brexit, we will need to look at future investments,” he said. The carmaker may need to make decisions about the production of the next Corolla before the current version reaches the end of its model cycle in about 2023, Zyl said.
Among the carmakers' concerns about operating in Great Britain are the potential tariffs they could be forced to pay on parts imported from Europe, which would drive up costs of building cars in the British Isles while raising the price of any cars made in Britain that are sold in the European Union.

19. Automakers Denounce 'Unrealistic' EU Emissions Targets

The EU agreed in principle on December 17 to require new cars in 2030 to emit 37.5% less carbon dioxide on average compared to 2021 while van emissions will have to drop 31%. 
Agence France-Presse | Dec 18, 2018

German and other European automakers warned on December 17 that EU plans to slash carbon dioxide emissions from new cars and vans by 2030 are "totally unrealistic" without a network to recharge electric cars and more effort to retrain workers. European Union countries and the European Parliament agreed in principle on December 17 to require new cars in 2030 to emit 37.5% less carbon dioxide on average compared to 2021 while van emissions will have to drop 31%.

Ambassadors from EU countries endorsed the deal but carmakers in Europe, particularly in industry powerhouse Germany, complained the new curbs were not well thought through. "This new regulation demands too much and offers too little incentive," said Bernhard Mattes, head of the German carmakers' federation VDA.

With tougher measures than other parts of the world, he warned, "the European automobile industry will find itself heavily penalized in international competition."

Mattes argued that EU regulators failed to consider market conditions, saying ordinary motorists were not ready to switch to electric cars.

"EU member countries must also step up to their responsibilities and boost the vehicle recharging infrastructure," he said. Though the new curbs will apply throughout the bloc, he said, three-quarters of the recharging stations for electric cars are located in only four countries: Britain, Germany, France and the Netherlands.

Volkswagen boss Herbert Diess said the rules will "lead to a strong restructuring of production as well as extra factories and battery cells" as the firm switches to electric car production.

Germany's economy minister Peter Altmaier told newspapers in his country that the "compromise on CO2 curbs is at the limit of what is technically and economically possible."

Germany, backed by several eastern EU countries with auto plants, had sought an emissions cut of only 30%. The European Parliament had wanted a reduction of 40%, backed by countries like France, the Netherlands and Ireland.

Concerns were also heard from the European Automobile Manufacturers' Association (ACEA), which also represents firms in Sweden, France, Britain and other countries. The target "might sound plausible but is totally unrealistic based on where we stand today," ACEA said.
ACEA said the goals flowed from "political motives" that ignored hurdles to consumers buying more electric and other cleaner vehicles, including their high cost and a lack of recharging and refueling stations.

But it said the association's members will continue to invest in producing alternatively-powered vehicles.

ACEA called on the 28 EU countries and the European Commission, the EU's executive arm, to make "the much-needed investments in infrastructure."

The association warned that the emissions targets "will have a seismic impact on jobs" in an industry that employs some 13.3 million Europeans. It urged policymakers to "act swiftly" to present plans that will help workers learn new skills required for building cleaner cars.

Anca Paduraru, a Commission spokeswoman, said in response: "The EU is committed to a socially fair transition leaving no citizens and no regions behind."

The Commission added it has begun promoting the indigenous production of electric car batteries rather than have Europe import them from countries like China.

It is also looking at setting up a fund by 2027 to retrain workers for electric car production -- one drawing on proceeds from penalties.

The new rules call for an interim goal of a 15% reduction by 2025.

**20. Auditors Warn Of Loopholes In Post-Dieselgate Emissions Rules**

A raft of legislation put in place in the wake of the 2015 ‘dieselgate’ scandal might not be enough to prevent car makers from finding ways around more stringent emissions tests, EU auditors have warned. “Manufacturers might find loopholes in the new tests,” European Court of Auditors member Samo Jereb said in Brussels as he presented a detailed briefing paper to reporters.

Stricter tests were introduced in the wake of a 2015 scandal over automotive firms found using 'defeat devices' to game lab-based emissions tests. However, while recognizing improvements, the ECA said “challenges remain” in enforcing nitrogen oxide (NOx) limits and new CO2 emissions standards.

The EU agency suggested that manufacturers might again look for ways to optimize their test results, despite the introduction of a more accurate WLTP testing protocol for CO2 emissions and a real driving emissions (RDE) test for NOx.

“Although the legislation provides for better monitoring of the gap between laboratory figures and CO2/NOx emissions on the road, manufacturers may find ways to adapt their vehicle emissions during the tests,” the ECA said in a statement.

Moreover, the effectiveness of market surveillance measures – where cars are tested in-use and not just 'type tested' before introduction to the market – would largely depend on national authorities, who enjoy considerable leeway in their approach to enforcement.
Under new market surveillance rules, national authorities must test at least one in every 40,000 newly registered vehicles, but only 20% of those would have to be tested for exhaust emissions. Testing just three cars would be enough for the Netherlands to comply, the ECA calculated.

Even if governments choose to test more frequently, the effectiveness in persuading manufacturers to meet car emissions standards could depend on the extent to which governments are prepared to apply financial penalties for any breaches. Fines can be as high as €30,000 per vehicle, but there is no statutory minimum. “If the penalties are low, it doesn't matter if you have 200 or 2,000 tests,” Jereb said.

The court's briefing is an advisory document, rather than a formal audit of the impact of EU policy. An ECA official told ENDS that it may take several years after the post-2020 limits kick in before it will be possible to judge whether emissions figures accurately reflect reality.

NORTH AMERICA

21. EPA Report: Vehicle C02 Emissions Are at a Record Low

For new cars and trucks released in 2017, carbon dioxide emissions reached a record low, and mileage per gallon reached an all-time high, according an U.S. Environmental Protect Agency (EPA) report released Wednesday.

The findings are leading many environmental advocates to ask, if Obama-era fuel economy standards seem to be working, why roll them back, as Trump's EPA has proposed?

"The EPA's report demonstrates that standards are working to bring us cleaner, more efficient cars," Natural Resources Defense Council (NRDC) Clean Vehicles and Fuels Group Director Luke Tonachel wrote. "There's no reason to turn back. The Trump administration's plan to roll back the standards will cost Americans more at the pump and make us all suffer from increased vehicle pollution. We should keep the current strong standards and look forward to more positive progress reports in the future."

The EPA data shows that the average real world carbon dioxide emissions rate for new vehicles released in model year 2017 fell by 3 grams per mile (g/mi) to a record low of 357 g/mi. Fuel efficiency climbed 0.2 miles per gallon (mpg) to 24.9. Since 2004, both fuel economy and carbon dioxide emissions have improved in 11 out of 13 years.

Manufacturers expect to do even better in 2018, lowering emissions to 348 g/mi and raising fuel economy to 25.4 mpg.
Estimated emissions and fuel economy for model years since 1975. 2018 projections are shown with the red dots. EPA

The EPA’s data also acknowledged that both fuel economy and greenhouse gas emissions had improved significantly since tougher standards were put in place in 2012. In that five year period, the industry lowered emissions by 21 g/mi and improved fuel economy by 1.3 mpg. That amounts to saving customers more than $65 billion in gas money and keeping 325 million metric tons of climate-change causing carbon out of the atmosphere, NRDC reported.

EPA data also shows how individual manufacturers performed in that five year period. Subaru led the industry in reducing emissions and improving fuel efficiency over the entire five years, while Honda performed the best in most metrics in 2017.

Despite the apparent success of fuel efficiency standards, newly-confirmed EPA Administrator Andrew Wheeler still used the report to justify his plans to lower them. That is because most manufacturers used credits from over-complying in previous years, along with technological innovation, to comply with standards in 2017.

"Today's report shows that while the auto industry continues to increase fuel economy, there are legitimate concerns about the ability to cost-effectively achieve the Obama administration's standards in the near future," Wheeler said in a news release.

However, for Union of Concerned Scientists Senior Vehicles Analyst Dave Cooke, the use of credits sent a different message, as he explained:
How major car makers performed in terms of reducing emissions and improving fuel economy from 2012 to 2017. **EPA**

Automakers will be entering the 2018 model year with more than 249 million metric tons (MMT) of CO2 credits, thanks to doing better than required in previous years. While they've had to use some of these credits again this year, the industry used less than last year (18 MMT worth vs 30 MMT). That's because automakers improved their fleets in 2017 at a rate greater than required, which helps illustrate the year-to-year variance in model updates and the way in which banked credits are planned as a part of an overall compliance strategy.

To put that 249 MMT of banked credits in context, manufacturers could actually do **absolutely nothing** to improve the efficiency of their vehicles until 2020 and still continue to comply with the standards.

Both Cooke and Tonachel argued that lowering standards would hurt innovation. Cooke said that the report showed that most companies had only invested in a few of the possible technologies to improve their fuel efficiency, indicating that there was ample room for improvement. If fuel efficiency standards are maintained, gas-powered vehicles could reach an average of 36 mpg on by 2025 using existing technologies, Tonachel wrote.

"Rolling back the standards will only disrupt innovation and leave drivers with higher fuel bills," he said.

**22. Developments Regarding EPA/NHTSA GHG Rollback**

**Talks With California Scrapped**

U.S. federal officials have decided to end negotiations with California over the Trump administration's plans to roll back fuel economy rules designed to reduce greenhouse gas emissions.

California and 19 other states have demanded the Trump administration abandon a proposal made in August to freeze fuel efficiency standards after 2020 and strip California of the ability to impose stricter rules.

Aside from the threat of increased pollution, Detroit automakers have the greatest financial interests at stake.
General Motors, Ford Motor Co and Fiat Chrysler Automobiles generate most of their global profits from sales of fuel-thirsty large pickup trucks and sport utility vehicles in the United States. All three have discontinued or planned to drop small and medium-sized sedans from their lineups to focus on trucks and SUVs.

The rules to require automakers to roughly double average fuel efficiency by 2025 with a corresponding decline in carbon dioxide emissions were one of the Obama administrations most significant climate policy actions.

Since taking office, Trump has worked to roll back a broad range of Obama environmental policies that were opposed by the oil and coal industries.

As the 2020 election cycle heats up, the fight over automotive emissions promises to be a dividing line between Trump and Democrats, many of whom are embracing a platform of aggressive action to curb climate emissions in what they call the Green New Deal.

The California Air Resources Board (CARB), California’s top clean air regulator, has been meeting with officials from the White House, U.S. Environmental Protection Agency and Transportation Department over Trump administration efforts to stop California from tightening vehicle emissions rules in the state.

California officials already have filed suit to block the Trump administration proposal to roll back federal fuel economy targets for 2022-2025. It is not clear how the industry would respond to the formal adoption of Trumps proposed freeze, and likely litigation by California and other states.

CARB Chair Mary Nichols last year said the state was willing to give automakers more flexibility to comply with vehicle greenhouse gas limits.

EPA Administrator Andrew Wheeler and Nichols met recently ago in San Francisco but there were no substantive discussions, said CARB spokesman Stanley Young. "The administration broke off communications before Christmas and never responded to our suggested areas of compromise -- or offered any compromise proposal at all. We concluded at that point that they were never serious about negotiating," Young said.

Trump's EPA and the National Highway Traffic Safety Administration proposed a rule in August that would maintain emissions standards at 2020 levels rather than requiring that they improve.

Scientists have linked rising fossil fuel emissions to higher temperatures that have worsened drought conditions in California blamed for devastating fires. California officials and environmental groups have said the Trump administration proposal would deal a blow to efforts to contain that damage.

Ford Motor Co said it was "disappointed" the talks had fallen apart. "The auto industry needs regulatory certainty, not protracted litigation," Joe Hinrichs, Fords president of global operations said in a statement.

Fiat Chrysler declined comment. General Motors and the Alliance for Automobile Manufacturers did not respond.
Trump's proposed freeze would result in 500,000 barrels per day more oil consumption by the 2030s. The administration says it would reduce regulatory costs for automakers by more than $300 billion over the next decade.

The administration was supposed to finalize the new rules by the end of March in order for the softer requirements to take effect by the 2021 model year, but some automakers and officials have questioned if it will meet that deadline.

Most automakers oppose freezing the requirements but also want relief from standards approved during the Obama administration that called for a roughly 5 percent annual reduction in carbon emissions - targets that translate to fuel efficiency requirements for various classes of vehicles.

**White House Decision To End Talks Tees Up Long Legal Fight**

The White House's decision to break off talks with California on a potential deal over vehicle greenhouse gas and fuel economy rules is laying the groundwork for an aggressive final rollback of Obama-era limits followed by a high-profile, protracted legal battle with backers of strong rules.

The dynamic arguably puts automakers in a no-win situation, with the sector facing years of legal uncertainty despite its desire for regulatory relief.

While some reports suggest that auto companies are uneasy with the scope of the Trump administration's rollback plans, they have been reticent to push back too hard in public, out of concern that the industry could become embroiled in the broader political struggle between the Trump White House and the Golden State.

Automakers offered a largely tepid reaction to the White House's announcement that it has ended talks with California once touted as a way to avoid litigation over vehicle greenhouse gas standards, with some companies expressing “disappointment,” though there is little sign the industry can or will unite to prevent a years-long legal fight. The Alliance of Automobile Manufacturers said its members “support year-over-year improvements in fuel economy,” while reiterating general support for the idea of “one national program” with few specifics of how it would address state rules. “We encourage everyone to keep focusing on how we get there, because this is in the best interests of all parties, including consumers.”

Some companies -- such as Ford and Honda -- were more critical but still measured in tone. Ford, for instance, said it is “disappointed” that federal and state officials have been unable to reach an agreement on the rules, and it warned of the dangers of “protracted litigation.”

Trump officials argued that California regulators “failed to put forward a productive alternative” after EPA and the Transportation Department proposed in August to freeze standards at model year 2020 levels and preempt California’s vehicle GHG regulatory authority.

Board Chairwoman Mary Nichols told a February 20 state legislative hearing that the Trump administration plans to “proceed full steam ahead” on its rollback, and that such news is “not exactly a surprise.” At a separate air board meeting after the administration's announcement, Nichols signaled the state is ready for a legal battle.

“From our perspective, I think the important thing is that we're doing this not only for ourselves, but for other states and the people of all these states who follow our rules, and for the United States as a whole now -- because this is the single-most important climate protection measure
that we have at this stage as a country,” she said. “So, eliminating it, or drastically cutting back on it, would really be a very bad thing for the country as a whole.”

Courtroom skirmishes have already begun over the Trump EPA’s rollback, however, with one early suit focused on the agency’s threshold determination that it must weaken Obama-era GHG standards for model years 2021-2025.

Local air regulators in Southern California are claiming that the Trump EPA’s cursory analysis of the conventional emission co-benefits of Obama-era vehicle greenhouse gas standards is “illogical on its own terms,” amplifying legal arguments by states and environmentalists that the agency’s decision to weaken the standards was unlawful.

“As a matter of fundamental administrative law, EPA’s action must be invalidated for failing to consider an important aspect of the problem and showing a clear error of judgment,” the South Coast Air Quality Management District (SCAQMD) wrote in a recent brief. The case, State of California et al., v EPA in the United States Court of Appeals for the District of Columbia Circuit, challenges EPA’s April 2018 determination to weaken the GHG standards – a legal predicate for its rollback proposal.

It is not clear, however, how a ruling in favor of California could affect the main rulemaking if it were to come after the rollback rule goes final – which Nichols recently said could occur in May or June.

White House Presses Automakers To Back Fuel-Efficiency Rollback

Trump officials thought they were doing the auto industry a favor when they decided to freeze gas mileage standards. But automakers aren’t so sure.

To persuade them, White House officials have launched an intense lobbying campaign as they seek to line up support for a proposal, they hope to finalize this summer. The rule, which would undercut the most ambitious climate policy enacted during Barack Obama’s time in office, is sure to set up a legal clash with California and 13 other states that plan to press ahead with stricter tailpipe standards.

In two separate discussions in less than three weeks, according to several participants, the White House has urged major auto companies to endorse the administration’s plan to freeze fuel standards for cars and smaller pickup trucks between model years 2020 and 2026. But domestic and foreign automakers have continued to raise concerns about the proposal, dubbed the Safer Affordable Fuel Efficient (SAFE) Vehicles rule, because California and other states plan to require vehicles in their states to meet tighter emissions limits.

The White House issued an us-versus-them challenge to carmakers: back an administration plan to roll back fuel-economy standards or risk President Donald Trump’s wrath by siding with California’s stringent emissions requirements. That message was delivered during a tense conference call between Trump administration officials and auto executives in late February, according to five people familiar with the call who spoke to the press on the condition they not be identified discussing the private conversation.

The flurry of activity came after the White House broke off discussions with California on February 21: State officials said the administration never actually offered a compromise proposal that could serve as the basis of a real negotiation. California received an exemption under the Clean Air Act
to set its own emissions standards a half-century ago, but the Trump administration is poised to challenge its exemption as part of the package the Environmental Protection Agency and National Highway Traffic Safety Administration are racing to complete.

Joining the call for the White House were senior officials with the Environmental Protection Agency and the National Highway Traffic Safety Administration.

The industry officials on the call were told that auto companies should either proclaim their support for the Trump administration’s direction on the efficiency mandates, or back California’s tougher and more costly regulations.

The request has added to industry anxiety about getting caught in a conflict between Trump and the nation’s biggest auto market.

The president is also reviewing the findings of a Commerce Department inquiry into whether imported cars and parts threaten national security, which automakers worry could provide the basis for new tariffs.

A White House official, who refused to speak on the record, said the administration expects to get broad support for its rule once it is finalized. Administration officials say that the nation needs to readjust the emissions targets because consumers prefer bigger and less fuel-efficient vehicles than regulators initially envisioned and that keeping them in place will spur Americans to drive older, less safe vehicles.

Both the administration and its critics agree the rollback will lead to higher greenhouse gas emissions linked to climate change. In a draft environmental assessment of the proposal, NHTSA projected that it and other policies would keep the world on an emissions trajectory that could raise global temperatures by 7 degrees Fahrenheit by the end of the century. A new analysis by the State Energy and Environmental Impact Center at New York University School of Law projects that, if finalized, the administration’s proposal would yield between 16 million and 37 million metric tons of carbon dioxide by 2025, equivalent to the annual emissions of more than 9 million vehicles.

Auto companies asked Trump to reassess federal fuel efficiency standards within days of him taking office, a point administration officials raised during a February 21 conference call and a meeting at the White House with representatives from Fiat Chrysler, Ford and General Motors.

“We’re doing it for you, we’re deregulating the sector for you,” is the way one senior administration official, who spoke on the condition of anonymity to discuss private conversations, put it. “We hope you get behind us.”

Fiat Chrysler expressed support for the administration’s proposal at the Friday meeting, according to two individuals who spoke on the condition of anonymity because they were not authorized to talk on the record. GM and Ford officials were less committal.

 Asked about the ongoing discussions, Ford’s president of global operations, Joe Hinrichs, said in a statement that the company is “disappointed” that California and federal regulators have not been able to find a compromise on future fuel efficiency standards.

“A coordinated program with every stakeholder is in the best interest of Ford’s customers and is the best path forward to achieve reductions in carbon dioxide emissions and support critical
investments in new technologies,” the statement said. “The auto industry needs regulatory certainty, not protracted litigation.”

In a statement, a Fiat spokesman said the company supports mileage targets “based on market realities,” noting that gas prices are low and bigger vehicles remain popular with consumers.

A GM spokeswoman confirmed a representative attended the Friday meeting and said the company appreciated that White House contacted it.

The Auto Alliance, whose members produce more than 70 percent of cars and light-duty trucks in the United States, has continued to voice concerns about the administration’s approach. Auto Alliance spokeswoman Gloria Bergquist said in an interview Thursday that the group supports “year-over-year increases in fuel economy” and a nationwide standard that includes California and its affiliated states. Any regulation that fails to achieve that, she said, would lead to litigation and force firms to sell a different mix of vehicles in parts of the country.

“Years of litigation is not helpful. It’s going to be difficult for the industry, and it’s ultimately going to be bad for customers because it could increase the price of cars,” Bergquist said. “It’s still a negotiation going on, and it’s not done till it’s done.”

American Honda Motor — which, along with Ford, has publicly questioned the proposed rule issued in August — echoed those concerns. “Our position has not changed and we are still urging the parties to negotiate,” Robert Bienenfeld, an assistant vice president at Honda, said in an email.

The administration is exploring the idea of increasing fuel efficiency standards between 0.5 percent and 1 percent a year to address the industry’s call for annual increases, according to several people briefed on the plan. That would still fall short, however, of existing federal standards. The Obama rule would have boosted the fleetwide average to nearly 51 miles per gallon by 2025; it would reach 37 mpg by 2025 under the Trump proposal.

Mary D. Nichols, chairwoman of the California Air Resources Board, showed little sympathy for automakers in a recent interview. She said California regulators had been clear all along that they intended to stick with the steadily increasing fuel efficiency standards that the federal government and the auto industry agreed to during the Obama administration.

“They clearly intended to get some flexibilities built into the enforcement of the existing regulations, and maybe a little more time and ability to use some of the credits that they had built up over time,” she said of the automakers. “And now, at this point, they are facing years of litigation. It’s an unfortunate situation, but as I said, it’s not our problem.”

Sen. Thomas R. Carper of Delaware, the top Democrat on the Senate Environmental and Public Works Committee, said in a statement that auto companies should publicly disavow the administration’s proposal.

“The automobile industry should think twice — and then for a third or fourth time — before tying its future to a proposal that is so legally flawed that it will surely be overturned by the courts immediately,” Carper said. “Costly litigation and regulatory uncertainty are entirely avoidable. There is a clear deal to be had between the administration and the state of California, and the automobile industry should be up in arms until that deal is struck.”
Suit Over EPA Vehicle 'Finding' Exacerbates Uncertainty In GHG Rule Rollback

Ongoing litigation over EPA's determination that it must weaken Obama-era vehicle greenhouse gas rules could complicate the agency's broader plan to roll back the limits, though even an adverse ruling for EPA would not necessarily deal a fatal blow to the agency's rollback, some say.

It remains unclear how courts will manage the legal battle over EPA's April 2018 determination that the current vehicle standards are "not appropriate" under the Clean Air Act -- a legal predicate for the rollback itself.

One possibility is that the United States Court of Appeals for the District of Columbia Circuit issues a ruling in the determination case before wading into the thorny details of the still-pending rule to weaken the emissions limits themselves.

That could create hurdles for EPA, given that states, environmentalists and some industry groups in State of California, et al., v. EPA, are claiming EPA skipped required procedural and substantive requirements to conclude that vehicle standards through model year 2025 are no longer appropriate.

Any court ruling against the determination would almost certainly be cited by critics of the rollback in the separate litigation over the regulatory changes, harming EPA's defense of the rule.

The determination is a key precursor to the rollback plan. EPA's finding reversed a January 2017 determination that the rules should be retained as is.

However, the D.C. Circuit might also agree with EPA's claims that the issue is not "final agency action" ripe for court review, dealing states including California, and other backers of the current program, a loss in the case.

It might also decide to consolidate or coordinate the ongoing case with litigation challenging the rollback itself, once that suit begins. Such a move could depend at least partially on timing issues, including when EPA and the Transportation Department (DOT) issue a final rule, sources say. Another complicating factor is how long it might take to complete briefing in the rollback litigation.

The D.C Circuit is well into the briefing phase in California, with plaintiffs arguing that the Trump EPA determination sidestepped substantive and procedural requirements in the agency's 2012 rule that outlined a "mid-term review" of MY17-25 standards.

The government's response to such initial arguments is due April 8, and automakers supporting the agency must file their brief by April 15. States and their supporters are set to file reply briefs May 6, and briefing is slated to conclude May 28.

EPA and DOT have yet to finalize their proposed regulatory freeze, which will be coupled with provisions preempting California and other states from enforcing their own vehicle GHG rules.

While agency officials have previously hoped to issue the final rule by the end of March or early April, multiple sources tracking the issue expect the timeline to slip significantly due to a range of factors, including the need to respond to a large number of comments on the plan and address errors or gaps in the proposal.
EPA Administration Andrew Wheeler said March 11 that the timeline has “delayed a little bit,” according to E&E News, adding that EPA hopes to finish the rule in the spring, but that it could even slip to “early summer.”

In that vein, David Hayes of New York University's State Energy & Environmental Impact Center said during a March 5 event that it is “very possible” the D.C Circuit could side with states' argument that EPA had no basis to reopen the Obama-era rules -- even before “you ever get to” the legal issues surrounding the rollback and preemption rule.

Hayes also suggested that if the court decides instead to examine the rollback rule before ruling on the determination, a weak administrative record for the rollback will benefit challengers.

An adverse ruling for EPA on the 2018 determination -- before a ruling on the merits of the rollback -- would appear to be a best case scenario for states and others defending the current rules, a scenario that could result in the cancellation of the determination.

Such a ruling might not immediately derail the rollback but it could put the agency on a “bad course” to defend its regulation by calling into question its initial decision to reopen the rules.

EPA would then likely be in the awkward position of needing to downplay the determination ruling by arguing any deficiencies amount to “harmless error” and that the rollback rule itself contains an adequate administrative record.

But the court could also decide that the lawsuit over the determination is not ripe for review, giving the Trump EPA an initial victory. That could make it more likely that the dispute over the determination is consolidated or coordinated with litigation over the broader regulation.

A consolidation scenario could still happen anyway, however, with the outcome dependent on the timing of various developments at the agencies and in the court.

With final briefs in California due at the end of May, oral argument may not occur until around September, after the court's summer break. A court ruling would be expected several weeks or months later.

However, there is a good chance that several milestones related to the main rollback rule and subsequent litigation will be occurring in summer or fall.

Many expect, for example, that defenders of the current GHG standards will quickly seek a court stay of the rollback once it goes final. That battle could thus be underway before the D.C. Circuit holds oral argument in the determination case.

Further complicating matters is the high likelihood that parties will file administrative petitions for the agencies to reconsider elements of the joint final rule.

“That can slow down judicial review [of the rollback] somewhere between a little and a lot,” one observer says.

To the extent that process drags out, that might make it more likely that the D.C. Circuit issues a ruling on the merits of the determination before the court is fully engaged in the rollback litigation.
In general, the Trump administration will be seeking a relatively speedy court review, while environmentalist and state critics would appear to gain from slowing down the process. If litigation stretches beyond the end of President Donald Trump's current term -- and Democrats re-take the White House in 2020 -- the new administration likely would seek to reverse course on the policy.

“There probably will be legal action. We can't stop that from happening. We hope it will be wrapped up rather quickly,” Wheeler said March 11 at an energy conference in Houston.

Wheeler also confirmed widespread expectations that the agency will finalize its plan to preempt California's vehicle GHG authority, a move that will underscore the scope and stakes of the court fight.

The various court scenarios add to the broader uncertainty facing automakers, including whether they believe the rollback and preemption will be durable.

“The industry clearly can't plan future vehicle models on the assumption that the rollback will be held valid,” University of California-Berkeley law professor Dan Farber wrote in a March 10 blog post, predicting that the “odds are good that the rule will not survive litigation.”

Farber outlines one scenario in which the D.C. Circuit “might uphold the rollback of federal standards but not the effort to eliminate California's” regulatory authority, suggesting California could try to impose “penalties” on automakers if they fail to comply with the current standards.

He also outlines one scenario for how quickly the rollback litigation could play out, “if the administration is lucky.” This scenario began with an assumption that the final rule was issued later this month or April -- though Wheeler's remarks subsequently rendered this assumption moot.

Under that prior assumption, August or September oral argument in the D.C Circuit, for example, might have been possible. But this “may be optimistic,” he says.

Farber then initially suggested a D.C. Circuit ruling on the merits of the rollback is possible by December 2019 or January 2020, before countering that this is “very likely an underestimate. . . . This will be a complex case with lots of technical disputes and a large record.”

He then suggests that a final decision could come as late as September 2022, given that it is “not uncommon for 1-3 years to go by between a major EPA decision and the opinion in the D.C. Circuit.” However, other observers have said a final D.C. Circuit ruling could come as soon as spring or summer 2020.

Farber also notes that the agencies and other stakeholders must factor in the timelines for possible review of the case by the full D.C. Circuit, as well as a potential appeal to the Supreme Court.

**23. S.E.C. Accuses Volkswagen of Fraud in Diesel Scandal**

The top securities agency in the United States has accused Volkswagen of undertaking a “massive fraud” and lying to investors, the latest in an ongoing diesel emissions scandal that has beleaguered the German carmaker. The Securities and Exchange Commission said late on March 14th that it was suing Volkswagen and Martin Winterkorn, its former chief executive, in a
case related to a decade-long scheme undertaken by one of the world’s biggest carmakers to
fudge its diesel emissions testing.

The agency is seeking to bar Mr. Winterkorn from being an executive director of any publicly listed
company in the United States. It is also seeking to recover what it called “ill-gotten gains” from
Volkswagen. Federal prosecutors criminally charged Mr. Winterkorn in 2018 with conspiring to
hide the emissions cheating, elevating the scandal at the automaker to the very top of its
management.

Mr. Winterkorn has denied wrongdoing in the past, including in testimony in front of the German
Parliament. Steven Molo, Mr. Winterkorn’s lawyer, did not immediately respond to a request for
comment.

Martin Winterkorn resigned as Volkswagen’s chief executive after the emissions deception was
exposed.

While it cheated on those tests, it raised money from American investors. Between April 2014 and
May 2015, Volkswagen raised more than $13 billion from American investors in the bond and
securities markets, even as top management knew that hundreds of thousands of its diesel
vehicles exceeded vehicle emissions limits by a large margin, the S.E.C. said in its complaint,
which was filed in San Francisco.

Mr. Winterkorn and other Volkswagen executives were told about devices that were being used
to conceal emissions problems as early as November 2007, at a meeting with engineers about
problems with the carmakers “clean diesel” cars, the regulator said in its complaint.

“Although at least one meeting participant warned that putting the existing vehicles on the road in
the U.S. would damage VW’s reputation if the vehicles’ high emissions were later discovered,
those concerns were ignored,” the S.E.C. said in its complaint.

By lying, Volkswagen was about to reap hundreds of millions of dollars from investors on more
favorable terms for the company, it said.

Volkswagen made “false and misleading statements to investors and underwriters about vehicle
quality, environmental compliance, and VW’s financial standing,” the S.E.C. said on Thursday.

Here is Volkswagen’s full statement:

The SEC's complaint is legally and factually flawed, and Volkswagen will contest it vigorously.
The SEC has brought an unprecedented complaint over securities sold only to sophisticated
investors who were not harmed and received all payments of interest and principal in full and on
time. The SEC does not charge that any person involved in the bond issuance knew that
Volkswagen diesel vehicles did not comply with U.S. emissions rules when these securities were
sold, but simply repeats unproven claims about Volkswagen AG’s former CEO, who played no
part in the sales. Regrettably, more than two years after Volkswagen entered into landmark,
multibillion-dollar settlements in the United States with the Department of Justice, almost every
state and nearly 600,000 consumers, the SEC is now piling on to try to extract more from the
company.

24. Some VW Diesel-Cheat Cases Sent to State Court
Volkswagen Group of America Inc. must go to California state court to fight 184 cases brought by owners of diesel vehicles with emissions-cheating software who opted out of a class settlement. The cases against VW and California dealerships don’t raise a substantial, disputed federal issue that can give federal courts jurisdiction, the U.S. District Court for the Northern District of California said March 8.

VW faces the individual cases as it winds down litigation over software devices that kept diesel emissions to low levels in testing situations. It resolved about 575,000 diesel vehicle owners' claims in a $10 billion class settlement.

Some 4,000 individuals opted out of the settlement, the court said.

Many of those have since settled, the court said last month. Fifteen individual opt-out suits by consumers in Texas and Minnesota must remain in federal court under diversity-jurisdiction guidelines, the court ruled then.

But here, VW sought to keep 184 cases in federal court by arguing that substantial issues of federal law would necessarily arise. "While it is possible that a federal issue will arise in the cases, one very well may not," Judge Charles R. Breyer wrote for the court. The plaintiffs didn’t rely on allegations that the vehicles were advertised as meeting federal emissions standards, he said.

The plaintiffs allege that the cars were unlawful to sell or drive under federal law, Volkswagen said. So, they are likely to argue they bought “worthless” cars at the damages phase, the company argued. But “the damages phase could proceed in a variety of ways,” Breyer said. The possibility of a federal issue isn’t enough for federal jurisdiction, he said.

25. Fiat Chrysler Pays $77 Million for Missing Fuel Economy Target

Fiat Chrysler Automobiles NV paid a $77 million civil penalty after its U.S.-assembled passenger car fleet fell short of required fuel economy targets in the 2016 model year, the company said February 7.

The Italian-American automaker was the only automaker to pay a penalty in the 2016 model year under Corporate Average Fuel Economy (CAFE) requirements set by the National Highway Traffic Safety Administration, according to a document released by NHTSA in December.

The penalty, which was paid in the fourth quarter of 2018 according to Fiat Chrysler, was the largest such fine assessed to a single company in at least five years, according to NHTSA figures.

Fiat Chrysler and some other automakers have lobbied the Trump administration to ease fuel economy and greenhouse gas emissions standards, in part because low gas prices and the surging popularity of sport-utility vehicles weren’t accounted for when the rules were enacted in 2012.

“We at FCA are committed to improving the fuel efficiency of our fleet and expanding our U.S. manufacturing footprint,” Shane Karr, head of external affairs at Fiat Chrysler for North America, said in a statement. “Ultimately, both goals are better served by a CAFE program more closely aligned to the U.S. market, than by requiring companies to make large compliance payments because assumptions made in 2011 turned out to be wrong.”
NHTSA and the Environmental Protection Agency have proposed capping mileage requirements at roughly 37 miles per gallon after 2020 instead of raising them to about 47 mpg by 2025 under standards enacted during the Obama administration.

Environmental groups and several U.S. states oppose the proposal and have threatened a court challenge.


U.S. greenhouse gases inched lower in 2017, with transportation continuing its reign as the leading source of emissions, new EPA data showed.

Greenhouse gases dipped 0.3 percent from 2016 to 2017, the Environmental Protection Agency found in its latest annual greenhouse gas inventory. The agency released the draft of new inventory, which looks at greenhouse gas emissions in the U.S. from 1990 to 2017, for public comment February 12.

The dip in emissions resulted largely from the continued move toward cleaner burning fuels—such as natural gas and renewable energy—to produce electricity, and away from carbon-intensive coal, the report said.

But the drop in emissions isn’t as large as prior years’ emissions cuts. For example, greenhouse gas emissions nationwide declined nearly 2 percent between 2015 and 2016, according to the EPA’s prior inventory, released in April 2018.

The smaller decline in 2017 could signal a departure from the downward trend in U.S. emissions. The Rhodium Group, an independent provider of research, estimated in a January report that U.S. emissions in 2018 increased by more than 3 percent.

EPA air chief Bill Wehrum, however, dismissed concerns that emissions were dropping at a slower rate. He referenced emissions cuts in the power sector driven in large part by market forces such as low-cost natural gas.

The power sector has “been a great success story the last few years largely because of the shift from coal to natural gas,” Wehrum told reporters February 12 on the sidelines of the National Association of Regulatory Utility Commissioners winter policy meeting in Washington.

“That’s had some detrimental effects on certain aspects of the industry, but from a greenhouse gas emissions standpoint, it’s resulted in significant and steady emissions reductions from that sector,” Wehrum added.

Critics say it isn’t enough to rely on market forces to cut emissions.

The EPA’s inventory shows U.S. emissions are continuing to drop, but the annual dips are microscopic compared to what is needed to stay on track to meet global climate goals, Joseph Goffman, former senior counsel in the EPA’s air office during the Obama administration, told reporters.

“The year-to-year changes are just barely even in the noise,” Goffman, now executive director at Harvard University’s Environmental and Energy Law Program, said. “This is what the current commitment to inaction looks like.”
The Trump EPA is also pushing policies that would try to reverse or hinder market forces leading the power sector away from coal, Goffman added, citing the EPA’s plans to replace Obama-era carbon controls for existing power plants.

Goffman also noted in other sectors, such as the transportation and industrial sectors, market forces are pushing emissions increases instead of decline.

“In the transportation sector, market forces are diametrically opposed to accomplishing the kind of results that we need to accomplish in terms of climate change,” Goffman said.

The EPA report found that transportation again topped the electric power sector in 2017 in emitting greenhouse gases, accounting for 36.5 percent of the total from fossil fuel combustion. Electricity generation, by comparison, accounted for 35 percent, the EPA report said.

The EPA will take public comment on the inventory through March 14 and will publish the final version in April.

27. New York Plans to Sue EPA Over Smog From Upwind States

New York plans to sue the EPA after waiting months for a response to a March petition seeking a crackdown on ozone pollution from nine upwind states. The lawsuit plan, announced February 8 by the New York Department of Environmental Conservation, would open up another legal front in East Coast states’ efforts to prevent air pollution from out of state that contributes to elevated ozone levels in places like New York.

The upwind states cited by New York are Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia, and West Virginia.

The lawsuit would seek to force the EPA to respond to New York’s request for more pollution controls in upwind states. The EPA has denied other similar requests and recently said an existing pollution trading program for power plants would improve air quality to healthy levels.

New York’s March petition, unlike similar actions by other East Coast states, named more than 350 power plants, factories, and oil and gas operations in the upwind states as major emitters of pollution that contribute to ozone formation.

New York’s petition targeted several industrial and energy companies, including AEP, Alcoa, ArcelorMittal, Archer Daniels Midland, Duke Energy, ExxonMobil, Honeywell, and U.S. Steel.

The EPA didn’t respond to the March petition within the 60 days required in the Clean Air Act, and then failed to meet its own extended deadline of Nov. 9, the state said.

New York Attorney General Letitia James, in a February 7 letter, gave the EPA 60 days’ notice of the state’s intent to sue if it doesn’t act on the petition.

28. Batteries Help Solar Break into Market Long Seen as Off Limits

Solar is breaking into a power market that’s long been the domain of big, conventional generators. A key reason: batteries.
New England just approved 145 megawatts of solar systems to provide capacity to the local grid, according to a statement February 7, including some from Sunrun Inc. that are paired with batteries that store electricity to use after sundown. It’s the first time sunshine has been a significant participant in ISO New England Inc.’s annual forward capacity auction.

The auction has typically been dominated by plants that burn natural gas and coal, as well as hydroelectric dams and nuclear reactors—big generation facilities that can guarantee power at any moment. With prices for batteries coming down quickly, pairing them with solar panels and wind turbines is becoming more common. That addresses one of the big knocks on clean energy—that it’s not always available—and is helping it compete with conventional power plants.

“Climate change concerns are driving regulators and governments to create ways to accommodate greater penetration of renewables into the electric grid,” Swami Venkataraman, a New York-based analyst at Moody’s Investors Service, said in a February 7 email. “This may only be the beginning of a storage revolution in both the electric and transportation sectors.”

Sunrun, the largest U.S. residential-solar company, won contracts to provide 20 megawatts of capacity to the regional power grid in mid-2022. It plans to store solar power in thousands of battery systems across the region, saving the power until it’s needed on the grid. Capacity auctions help grid operators and power-plant developers make plans for future supplies by guaranteeing a minimum payment to keep existing supplies in operation and attracting new ones.

“It’s moving control and power from the large-scale centralized power plants way off in this distance to the grid edge—to communities, to families,” Chris Rauscher, Sunrun’s director of policy and storage strategy, said in a phone interview February 7.

The auction closed with commitments for a total of 34,893 megawatts of capacity that will be available starting in three years. The price dropped to a six-year low of $3.80 per kilowatt-month, according to the ISO New England, which operates the region’s power grid. The operator didn’t identify the winners or provide a detailed breakdown of what types of power plants won contracts.

Vineyard Wind, an offshore wind developer, was barred from the auction because the project it’s planning off the Massachusetts coast isn’t technically within state borders, as required. It unsuccessfully sought a waiver to participate.

The joint venture of Copenhagen Infrastructure Partners K/S and Avangrid Inc. was able to win a contract through a separate “substitution auction” process to supply 54 megawatts starting in mid-2022, taking over from an existing plant that’s slated for retirement, according to the statement.

29. Trump Sends Budget Proposal to Congress

Seeks Cuts To Climate Research And Renewable Energy Programs

The 2020 Trump administration budget overview document doesn’t even bring up the subject of climate change in laying out the president’s major priorities. Yet it telegraphs what the U.S. government thinks of climate change -- mostly by proposing, in the fine print released individually by separate agencies, numerous cuts to climate research, adaptation, and renewable energy programs.
At a time when climate scientists globally say there’s barely a decade to slash emissions, and when the administration’s own scientists say effects within the United States are getting worse, the Trump administration is barely even shrugging at mounting concern over climate change.

The proposed plans for the Environmental Protection Agency are instructive. The 31 percent, $2.8 billion proposed cut is in line with the previous deep reductions that the administration has sought each year under President Trump. So far, fortunately, Congress has been unwilling to go along, keeping the EPA’s budget largely stable.

The administration would cut the EPA’s Global Change Research office, which exists to provide scientific information to policymakers about the threats posed by climate change. Employees of the office worked on the National Climate Assessment released last fall, which warned of growing impacts of climate change, and which Trump dismissed. The office, which has a current budget of more than $19 million and nearly 50 employees, would be eliminated in order to prioritize “activities that support decision-making related to core environmental statutory requirements,” the administration wrote.

The agency said it would still be involved in the National Climate Assessment process, as one of 13 agencies that participates. “Under the proposed budget, EPA would continue to have input into the NCA scope, review the document, and provide agency concurrence per EPA’s role as a member of the Subcommittee on Global Change Research,” the agency said in a statement.

Then there are proposed numerous eliminations of entire environmental programs, such as funding for state radon-detection initiatives; to work on improving water quality in the Gulf of Mexico, Lake Champlain, Puget Sound and other water bodies around the country; and a program that offers communities grants for lead-reduction projects.

In a statement, EPA Administrator Andrew Wheeler called the document “a common-sense proposal” that would “support the agency as it continues to work with states, tribes and local governments to protect human health and the environment.”

Under the proposed budget, funding for the Interior Department’s Climate Adaptation Science Center would be cut nearly in half, to $23,900. Climate research and development and science that helps tribes adapt to climate change would also be slashed. Funding for Tribal Climate Resilience would be eliminated.

The Interior Department’s priority in the budget proposal is to continue “the administration’s strong commitment to promoting economic security and energy dominance by developing domestic energy resources.” In other words, it will expand its robust effort to mine and drill for fossil fuels on land and at sea despite calls to lower their use.

The administration plans to sell federal oil and gas leases in an area that was previously untouched, the Arctic National Wildlife Refuge. In addition, the Interior Department is considering a plan to offer leases off the Atlantic coast for the first time in half a century. The Bureau of Ocean Energy Management is considering whether to issue permits that would allow five companies to map the Atlantic floor for oil and gas using seismic air guns, instruments that could harm megafauna such as whales and smaller marine animals.

According to the budget, the agency will set aside areas to develop renewable energy on and off the shore, saying it would prioritize “permitting consistent with industry demand.”
At NASA, the budget eliminates two planned Earth science missions aimed at understanding climate systems:

- the Plankton, Aerosol, Cloud, Ocean Ecosystem mission, a satellite that would seek to understand ocean health and its influence on air quality and climate; and
- the Climate Absolute Radiance and Refractivity Observatory (CLARREO), which would have studied energy from the sun reflected back by Earth. The latter was one of the highest-priority projects in the National Academies of Science, Engineering and Medicine’s 10-year survey of the nation’s science goals. Its measurements of reflected sunlight are important for testing climate models and predicting future warming.

At NOAA, meanwhile, the budget proposes to eliminate three environmental programs. That includes Sea Grant, which supports environmental research on the coasts and in the Great Lakes, including considerable climate change research.

Elsewhere in Trump’s budget are more cuts to science funding, including a 13 percent cut to the National Science Foundation, which funds about a fourth of all federally supported basic science and engineering research in the country.

Seeks 31 Percent Cut to EPA Funding Levels

The Trump White House is again seeking to sharply reduce the EPA’s budget, an opening offer that Congress isn’t likely to follow but signals the administration’s continued desire to shrink the agency. The administration’s request, the broad strokes of which were released March 11, would seek $6.1 billion for the Environmental Protection Agency in fiscal year 2020, a cut of more than $2 billion or 31 percent, compared with the estimated $8.8 billion in fiscal year 2019.

That estimate doesn’t reflect the recent budget bill enacted by Congress in February to end the partial government shutdown, which closed the EPA for several weeks.

Congress hasn’t matched steep cuts to the EPA, and it’s unlikely to do so this year. The fiscal year 2020 budget is the first the Trump administration is putting forth before a divided Congress.

Nonetheless, the numbers in the budget proposal matter because they show what the Trump administration isn’t prioritizing, critics of the administration and former EPA staff said. “It is a very cogent, focused, and powerful policy statement,” David Coursen, who served in the EPA’s general counsel’s office for more than 20 years, told reporters. And it frames the terms of the conversation around whether or not Congress will implement the proposed cuts, rather than how the EPA could use its resources better and more effectively, Coursen added.

The proposal is broadly consistent with the Trump administration’s prior budget requests for the EPA. For its request for the prior fiscal year, the White House proposed a similar funding level for the EPA, of $6.15 billion.

The requested cut for fiscal year 2020 isn’t quite as large when compared to enacted fiscal year 2019 levels. The EPA received $8.058 billion under the appropriations bill Congress passed in February, according to a conference report for the legislation. The Trump budget proposal would cut the EPA’s budget roughly 24 percent below that funding level.

The administration is also again proposing sharp cuts to the EPA’s staffing levels. The budget request would provide for 12,415 full-time equivalent staff, a cut of nearly 2,000 staffers from the
EPA’s estimated 14,376 employees, according to the EPA’s budget in brief. That number, however, is slightly higher than the 12,250 full-time equivalent staff the White House included in its fiscal year 2019 budget request.

The White House would expect to prompt some of those staff cuts through buyouts. The fiscal year 2020 request proposes just over $30 million for “workforce reshaping,” which refers to buyouts. That funding level is roughly consistent with what the administration proposed last year, though Congress rejected that request.

The budget proposal also includes a more than 6 percent cut to the EPA’s various enforcement programs across the agency. The proposal would fund these programs at a total of about $397 million, compared to $424 million that Congress gave the EPA for enforcement in the current fiscal year.

The EPA’s Office of Environmental Justice would see one of the biggest hits under the proposal. The office, which works on environmental issues that disproportionately affect minority and low-income communities, would see its budget cut by more than half of its estimated fiscal year 2019 levels.

Several climate programs would again be on the chopping block—including voluntary climate change programs such as Natural Gas STAR and climate science research under the U.S. Global Change Research Program.

The EPA budget proposal would again seek to eliminate the majority of the agency’s geographic environmental cleanup programs, maintaining only sharply reduced funding for the Great Lakes and Chesapeake Bay programs.

Not every program would see cuts, though. The proposed budget holds the Superfund program at $1 billion, about the same amount Congress appropriated for the program for fiscal year 2019.

The budget proposal also asks for new user fees to fund the EPA’s Energy Star program, which helps consumers save energy through efficient appliances, saving the government $460 million over the next decade.

It also would request establishing voluntary compliance assistance fees for chemical and oil facilities. The White House budget office estimated the EPA would secure $20 million from chemical companies and $10 million from oil facilities to help companies prevent accidents.

Seeks Deep Cuts in Renewable Energy Funding

The Trump administration is again seeking severe cuts to the U.S. Energy Department division charged with renewable energy and energy efficiency research, according to a department official familiar with the plan. The official, who spoke to the press on the condition of anonymity, said the Office of Energy Efficiency and Renewable Energy would see its $2.3 billion budget slashed by about 70 percent, to $700 million, under President Donald Trump’s fiscal 2020 budget request, which is set to be released on March 11.

The request is unlikely to be granted by Congress, especially with Democrats in charge of the House, but the figure represents an opening bargaining position for negotiations by the White House.
“It’s a shutdown budget,” said Mike Carr, who served as the No. 2 official within the division under President Barack Obama. “That’s apparently what they want to signal to their base—they still want to shut these programs down.”

The Office of Energy Efficiency and Renewable Energy, which provides hundreds of millions of dollars a year in grants and other financial assistance for clean energy, has financed research into technologies ranging from electric vehicles to energy projects powered by ocean waves. It has been credited with financing research to help make the cost of wind power competitive with coal and cutting the costs of LED lighting.

The Trump administration has tried to gut the program before, only to be rebuffed by Congress. Last year, the White House proposed cutting the agency’s funding by nearly two-thirds, but Congress instead provided $2.3 billion for the agency, more than three times the White House’s request.

Wheeler Confirmed As EPA Head; Says Funds Sufficient But Staff Retention a Concern

The EPA has enough funding to get its job done, but it is facing challenges to hire and keep staff on board, the agency’s acting chief Andrew Wheeler said. Wheeler, who has recently been confirmed to be the permanent Environmental Protection Agency administrator, dismissed the notion the EPA lacks funding.

He also said he is working to resolve concerns about the agency’s ability to attract and retain career staff, including hiring a new human resources director, who begins work in March.

“We have to figure out a way of attracting the best talent and keeping the best talent. That’s my bigger concern right now” rather than funding, Wheeler said February 8 at the Environmental Law 2019 conference held by American Law Institute Continuing Legal Education. “We have to figure out creative ways of retaining the workforce.”

Wheeler’s comments stand in stark contrast to sentiments expressed by his predecessor, Scott Pruitt, who frequently said the EPA under his tenure was at its lowest staffing levels since the Reagan era.

Wheeler took the helm of the EPA in July 2018 after the scandal-plagued Pruitt resigned. His nomination to be EPA administrator cleared the Senate environment committee February 5.

The EPA has just under 14,000 employees, according to agency documents. Of those, 40 percent are eligible to retire in the next five years, according to Wheeler. “It would be a huge hit to the agency” if all of those eligible retired, he said.

He also noted concerns with retaining younger staff. The EPA has a long history of staffers working at the agency for 30 or 40 years, but millennial workers—people born after 1980—don’t stay in the same job for that long, he added.

Nonetheless, Wheeler didn’t say the EPA would look to increase its number of staff.

Critics of the Trump administration have slammed the EPA’s political leaders for low staffing levels and the White House’s shots at the agency’s budget.
In its prior two annual budget requests to Congress, the administration has proposed sharp cuts to the EPA’s budget—though lawmakers from both parties have refused to grant that request, keeping the agency’s budget around $8 billion.

Wheeler, however, said the EPA has the funding it needs to do its work.

“I think we have to learn to work with tighter budgets across the entire federal government,” he said. “We have to be smarter with the resources we have.”

30. Utilities Could Recover Charging Station Costs Under Colorado Bill

Colorado’s two investor-owned utilities would be able to own and operate electric vehicle charging stations as regulated services, allowing them to recover their costs under legislation the state’s Senate narrowly approved.

The bill (S.B. 77), which the Senate approved March 8 in an 18-17 vote and forwarded to the House, would allow Xcel Energy Inc. and Black Hills Corp. to apply to the state’s Public Utilities Commission to provide charging stations as regulated services. Under current law the companies can only provide them as unregulated services.

The change would allow the utilities to receive a return on their investment for the electric vehicle charging stations and recover costs associated with setting up and operating them, the measure said. The commission would have to approve rate increases to use the stations.

Sen. Angela Williams (D), chief sponsor of the bill, called it a common-sense solution that would ensure Colorado continues to be a leader in environmental protection and economic development. The prospects for the bill are good given that Democrats hold a larger majority in the House than in the Senate, and Gov. Jared Polis (D) is a strong supporter of building out the state’s EV infrastructure.

Proponents said the change would encourage greater use of electric vehicles and benefit the state’s economy and environment. Opponents said it would increase electric rates for consumers and unfairly dedicate more government subsidies to the benefit of well-heeled electric vehicle owners.

“This is a redistribution of wealth,” said Sen. John Cooke (R), urging a no vote on the bill. About two-thirds of electric vehicle owners make six figures or more, he said. “It takes $50 to $75 a year out of the hands of people on fixed income and gives it to people who make over $100,000 year. We subsidize EVs already,” Cooke said. “Let’s let the EV owners pay their own way.”

During committee debate on the bill, the AARP said it opposes the bill for the negative impact it would have on senior citizens and other ratepayers. The association backs development of electric vehicles and supports the growth of the EV market—including charging stations—it said.

“We just don’t think it is fair to give Xcel and Black Hills an unfair leg up against charging station competitors or charge their 1.6 million monopoly customers, the vast majority of whom don’t have electric vehicles, for charging stations,” it said.

The House on March 8 approved another EV bill, this one to modify the existing state law governing the use of the electric vehicle grant fund so the money could be used to install charging
stations, among other changes. The House approved the bill (H.B. 1198) on a third reading vote of 39-23 and sent it to the Senate.

Rep. Alex Valdez (D), chief sponsor of the measure in the House, said the bill is designed to encourage more people to buy electric cars by increasing their travel range. It aims at addressing climate change by cutting carbon emissions, he said.

### 31. Developments in Congress

**New Climate Panel’s First Hearing Expected by Early April**

Leaders of a newly formed House committee to address climate change expect to hold their first hearing later this month or in early April, Rep. Kathy Castor (D-Fla.) said March 5.

Castor and Garret Graves (R-La.), the chairwoman and ranking member of the House Select Committee on the Climate Crisis, are set to meet this week to discuss the scope, budget and other details before they hold their first hearing.

The committee, which House Speaker Nancy Pelosi (D-Calif.) revived in January, has no legislative or subpoena power like a standing committee. It will provide a springboard for ideas on reducing greenhouse gas emissions and adapting to sea-level rise and extreme weather events.

The spectrum of views on the committees ranges widely. Democrats include Reps. Jared Huffman (Calif.) and Joe Neguse (Colo.), who have endorsed the Green New Deal, an ambitious blueprint to phase out fossil fuels from the economy.

Republican members such as Reps. Gary Palmer (Ala.) and Buddy Carter (Ga.) have questioned that rising carbon emissions from burning fossil fuels exacerbate climate change.

But Republicans, including top members of the House Energy and Commerce Committee, have begun proposing policies to curb climate change that include increasing nuclear and hydropower capacity, and investing in carbon capture and storage technology.

“I’ve noticed a change in the rhetoric from the Republican side of the aisle this Congress,” Castor told reporters. “They’re not questioning if it’s happening.”

Graves said he hoped to “redefine the narrative” on the issue. “I said years ago that I think that flat-out science denial is an unsustainable policy position,” he said. He said he will promote ideas that will reduce energy costs while lowering emissions and aggressively pursuing adaptation measures.

**House Oversight Plans Probe of Trump Environmental Policies**

House Oversight and Reform Committee Democrats are gearing up to investigate Trump environment and climate policies in the months ahead, the panel's chairman said March 6. Rep. Elijah Cummings (D-Md.) said he is considering a range of environmental issues from water contamination to climate change. He said he's biding his time to see what other chairmen do on the issues before diving in himself.

“We will probably get to it maybe in June or July,” Cummings told reporters.
Cummings said he wants to “make sure we are not duplicating effort,” particularly on climate change, by the leaders of two other committees: Energy and Commerce, chaired by Rep. Frank Pallone (D-N.J.) and a new House select climate panel, led by Rep. Kathy Castor (D-Fla.).

“There’s a lot going on at EPA that ought to concern us,” said Rep. Gerald Connolly (D-Va.), who chairs Oversight’s Government Operations Subcommittee. He cited rollbacks of climate regulations and water protection requirements for coal ash, as well as the president’s 2017 decision to pull the U.S. out of the Paris climate pact.

The Oversight panel held a March 6 oversight hearing on the Government Accountability Office’s latest “high-risk” report that highlighted climate change as an issue deserving far more attention from Congress and the executive branch. It also held a separate hearing that day on a class of nonstick chemicals that have contaminated drinking water.

Funding Infrastructure Plan With Fuel Tax Hike Not ‘Easy Lift’

Getting lawmakers to agree on funding an infrastructure package through a fuel tax increase won’t be easy, said staff on the House and Senate tax-writing panels.

An infrastructure plan is a priority for both congressional Democrats and Republicans and the White House, though there isn’t consensus yet on how to pay for it. A fuel tax hike has been floated as an option and it came up at a House Ways and Means Committee hearing recently. But there are lawmakers on both sides of the aisle that have misgivings about that approach, aides said March 8 at a tax law conference hosted by the Federal Bar Association in Washington.

There are some House Democrats who “vehemently don’t want a fuel tax” increase to be the tool that pays for rebuilding the nation’s roads and bridges, said Andrew Grossman, chief tax counsel for the Ways and Means Democrats.

At least 19 states are considering a gas tax increase to pay for infrastructure. The Republican-controlled Ohio House passed a hike March 7.

Witnesses, including leaders of the Chamber of Commerce and American Trucking Associations, told Ways and Means members in the March 6 hearing that they endorse raising the gas tax by 20 to 25 cents over the next five years to pay for infrastructure.

Some lawmakers see the fuel tax as being regressive for poor residents of rural states. Others say it is right that those states should be hit hardest, because they tend to have more highways and get more money as a result of new infrastructure spending, Grossman said.

The tax is based off an old model where everyone was driving cars that relied pretty evenly on the same type and amount of fuel, said Mark Warren, chief tax counsel for Senate Finance Republicans, who added that Senate Republicans aren’t in agreement.

“We’ve added to that a very significant amount of alternative fuel vehicles, and the way that tax is applied differs,” he said.

Bipartisan Carbon Capture Bills Come On Heels Of Green New Deal

The Green New Deal resolution wasn’t the only climate item unveiled February 7: A group of senators introduced two bipartisan bills to boost carbon capture and storage technology.
The bills aim to boost incentives for carbon capture technologies, as well as remove barriers to their widespread deployment. Both bills build on bipartisan support for carbon capture shown by the passage of extended and expanded tax credits for the technology last year.

Carbon capture separates the greenhouse gas carbon dioxide from emissions of power plants and other facilities so it can be permanently stored or used, rather than released into the atmosphere, where it accumulates and drives global warming. The process has struggled to commercialize in the power sector because it is costly.

The introduction of the two carbon capture bills comes as work on the Green New Deal ignites a debate about what should be included in any comprehensive climate policy.

Several climate-hawk Democratic senators are supporting the carbon capture bills.

Sen. Sheldon Whitehouse (D-R.I.) has long backed the technology. He co-sponsored the extended tax credits passed last year with Sens. John Barrasso (R-Wyo.), Shelley Moore Capito (R-W.Va.), and then-Sen. Heidi Heitkamp (D-N.D.), and he is leading a second a bipartisan bill with Barrasso to boost carbon capture research and development, including in the space of direct air capture, and build out carbon dioxide pipeline infrastructure.

The latter bill, known as the Utilizing Significant Emissions with Innovative Technologies (USE IT) Act, was reintroduced February 7.

“The science from the world’s top experts, including our own National Academies, shows that we ought to be reversing the carbon pollution driving climate change. If we don’t, it will be nearly impossible to avoid the worst of climate change,” Whitehouse said in a statement. “That’s why I’ve been working across the aisle on ways to boost promising new technologies like direct air capture. We’ve proven we can pass sensible bills like this with broad bipartisan support. Now let’s do it again.”

Barrasso, who in a statement earlier in the day slammed the Green New Deal, praised the carbon-capture bill as a climate solution.

“This bill supports groundbreaking innovation to address climate change,” Barrasso, who chairs the Senate environment committee, said in a statement. “Carbon capture and utilization technologies hold the key to major emissions reductions.”

Sen. Tom Carper (D-Del.), the top Democrat on the Senate environment committee, is also a co-sponsor of the bill, as well as Democratic Sens. Tammy Duckworth (Ill.), Tina Smith (Minn.), and Joe Manchin (W.Va.). Other Republican co-sponsors include Capito, Kevin Cramer (N.D.), and Mike Enzi (Wyo.).

A bipartisan group of senators also introduced February 7 the Carbon Capture Modernization Act, which would amend advanced coal tax credits to make it easier for carbon capture retrofits on existing coal plants to receive the funds.

The legislation, led by Smith and Sen. John Hoeven (R-N.D.), is similar to a bill introduced by Smith, Heitkamp, and Manchin last year. It would amend the so-called 48A tax credit for clean coal investments to lower an energy efficiency requirement for new or retrofitted coal-fired plants that have carbon capture installed.
The bill has the support of major coal producers such as Cloud Peak Energy and Peabody Energy, labor groups, and some clean energy groups. Other co-sponsors of the bill include Barrasso, Cramer, Jon Tester (D-Mont.), Lindsey Graham (R-S.C.), and Steve Daines (R-Mont.).

Republicans Who Couldn’t Beat Climate Debate Now Seek to Join It

Rep. John Shimkus once issued a forceful rejection of climate science at a congressional hearing, invoking the Bible and declaring that “Earth will end only when God declares it’s time to be over.” Last month, in a turnabout, the Illinois Republican signed a letter with the top Republican of the House Energy and Commerce Committee that said, “Prudent steps should be taken to address current and future climate risks.”

“It’s just not worth the fight anymore,” Shimkus said when asked about his changing stance on climate change. “Let’s just see what we can do to address it and not hurt the economy.”

Shimkus is among a number of Republicans who—after years of sowing doubt about climate change or ignoring it altogether—are scrambling to confront the science they once rejected. They are planning hearings on the issue, pledging to invest in technologies to mitigate its impact, and openly talking about the need for acting.

The shift in posture follows the public’s growing anxiety after catastrophic hurricanes, flooding, and wildfires linked to global warming. Fully 74 percent of registered voters think global warming is happening and 67 percent said they are worried about it, according to polling conducted by Yale Program on Climate Change Communication.

Among conservative Republicans, only 42 percent think global warming is happening but that is up 5 percentage points since a poll taken in 2017.

Moreover, Democrats have seized the issue with populist fever, even proposing a sweeping plan to phase out climate-warming gas emissions through a Green New Deal.

“Members are openly using the term climate change,” Republican Sen. Lisa Murkowski, from oil-rich Alaska, said of her GOP colleagues. “You are not seeing this kind of dismissive attitude but more open conversations about some of the challenges, some of the technologies we can look to, some of the solutions.”

To be sure, the party hasn’t gone completely green. It hasn’t passed any major proposals to combat climate change and generally supports Trump administration policies to roll back environmental regulation.

“It’s a baby step forward,” said Tiernan Sittenfeld, a senior vice president with the League of Conservation Voters. “It remains to be seen whether they are sincere or whether they are just starting to engage in deceitful rhetoric.”

Murkowski, who chairs the Senate Energy and Natural Resources Committee and has long acknowledged climate change, has scheduled the panel’s first hearing on the topic in years, focused on electricity generation.

Additional GOP controlled-committees plan to follow with a focus on greenhouse gas emissions, according to Murkowski. “It is very much a multicommitee effort,” she said.
In addition to Murkowski, other Republicans have been meeting in small groups to come up with a strategy on the issue: Sens. John Cornyn of Texas, Cory Gardner of Colorado, Susan Collins of Maine, Bill Cassidy of Louisiana, Thom Tillis of North Carolina, Rob Portman of Ohio, Lindsey Graham of South Carolina, and former 2012 presidential nominee Mitt Romney, now a senator representing Utah.

“There is a growing consensus on our side that man-made emissions are contributing to global warming, that the Green Deal is absurd, and we should be able to find a more appropriate solution to the problem,” Graham said in an interview, adding he had recently been discussing the issue with Romney, who has called climate change a critical issue.

Cassidy said he is in talks with Republican senators about climate legislation centered around increasing the use of use of natural gas abundant in his state of Louisiana. The fuel source has about 50 percent less carbon dioxide emissions than coal but is opposed by some environmentalists because of the hydraulic fracturing process used to develop it and associated leaks of methane, a powerful greenhouse gas.

Other policies under discussion among Republicans include expanding the use of nuclear energy and research on technology to capture carbon emissions from smokestacks and the development of renewable energy.

Critics say those ideas don’t go far enough to address the problem. “The window for moderate action has completely closed,” said Lukas Ross, a senior policy analyst with Friends of the Earth. “A small minority of Republicans don’t deserve a pat on the back for acknowledging 40 years of scientific consensus. “

Some Republicans, too, aren’t happy with the shift. “Eventually, the right thinkers in the caucus will reassert themselves,” GOP energy strategist Mike McKenna said. “Or lots of members will find themselves on the business end of a primary.”

President Donald Trump has rejected a landmark report by experts from 13 of his own agencies and studded the administration with skeptics. The White House is currently considering establishing a panel of scientists to re-evaluate the scientific consensus around climate change—to be led by a man who has hypothesized that more carbon in the air is good.

Tillis, who noted the North Carolina state legislature passed renewable portfolio standards and credits for renewable energy while he was a member, said his discussions have focused on “things that are still more or less driven by free-markets but stimulating innovation.”

In 2015, Cornyn, the senior Republican from the oil state of Texas, joined with most of his Republican colleagues to vote against an amendment that stated climate change was real and caused by human activities. Nowadays, the senator, who is seen as an eventual candidate to become Senate majority leader, is talking behind the scenes with his Republican colleagues about the phenomenon. “We are having conversations about how to address the problem, which is emissions,” Cornyn said in an interview, adding his goal is to “to do it in a way that continues to let the economy flourish and come up with solutions.”

Some in the GOP may still be trying to find ways to address climate change that fall within their party’s ideology. “I think the Republicans are being very genuine about recognizing this is a problem, but they are at the beginning of trying to identify policy responses that are consistent
with their values," Alex Flint, executive director of Alliance for Market Solutions, a conservative carbon tax group, said in an interview. “They are struggling to identify what policy responses to support and the politics on engaging on climate change.”

House Democrats Float Bill To Preserve Obama-Era Vehicle GHG Rules

A group of almost two dozen House Democrats is floating legislation that would codify strict Obama-era vehicle greenhouse gas and fuel economy standards through model year 2025, even as the Trump administration hopes to finalize an aggressive rollback of the rules in the coming weeks.

The bill, known as the Clean and Efficient Cars Act, was introduced February 5 by Rep. Doris Matsui (D-CA) and co-sponsored by 19 other Democrats on the House Energy & Commerce Committee, according to a press release from Matsui’s office.

The legislation would codify EPA and Transportation Department rules that the Obama administration issued in 2012 covering MY21-25. It would also prohibit the agencies from “creating new loopholes” that would “effectively reduce the stringency” of the rules.

The bill is a response to the agencies’ pending proposal that would freeze standards at MY20 levels through MY26, while also scrapping California’s waiver of federal preemption that would allow it and a dozen other states to continue enforcing the Obama-era rules.

While the legislation faces an uphill battle in the GOP-controlled Senate and the White House, it could underscore Democratic criticism of the rollback proposal and potentially serve as leverage in future appropriations negotiations if House Democrats decide to include it in a spending bill rider.

Acting EPA chief Andrew Wheeler is signaling the agency intends to push forward with its aggressive rollback, adding that the administration does not view California as an equal partner in setting the standards. “This is not a two-way negotiation,” Wheeler said at a February 4 mobility conference in San Francisco.

Wheeler briefly met with California’s top air regulator, Mary Nichols, on the sidelines of the event, though he separately told reporters that the two sides remain “pretty far apart” on the issue.

Democrats' Unsuccessful In Conditions For Wheeler Vote; Reveal Top Priorities

Senate Democrats floated a list of five EPA policies where they want concessions on rule changes in exchange for speeding a floor vote on the confirmation of Acting EPA Administrator Andrew Wheeler to be the agency’s permanent head, detailing the minority party’s top priorities for pushing back on EPA’s deregulatory agenda despite weakened Senate leverage. (Note, Wheeler was confirmed rapidly in spite of this effort.)

Senate Environment & Public Works Committee (EPW) Ranking Member Tom Carper (D-DE) set out his conditions for a deal on not slowing Wheeler’s confirmation ahead of a February 5 party-line vote on the committee that sent his nomination to the full Senate by a 11-10 margin.

Carper is calling on EPA to set drinking water limits on perflourinated chemicals within two years; walk back proposals that would weaken Obama-era standards for power plants’ air toxics and vehicle efficiency; and finalize a long-pending proposal to ban the paint stripper methylene
chloride (MCl). He also asked the White House to submit for Senate ratification the Kigali Amendment to the Montreal Protocol, which would enable new controls on hydrofluorocarbons (HFCs).

“There is a pretty solid roadmap that we could follow that would lead to a vote on the floor sooner rather than later,” Carper told the panel's GOP leadership:

Following the midterm elections Democrats have only 47 seats in the Senate, down from 49 last year, weakening their leverage and ability to block nominees. Nevertheless, they hope to win enough crossover support from a handful of Republicans to help win their EPA concessions before agreeing to a quick full floor vote on Wheeler's nomination.

Carper during the Senate environment panel hearing claimed bipartisan support for each of the five items on his list. “We're not asking for crazy stuff.”

On air toxics, the minority is trying to capitalize on recent criticism of EPA’s proposal to withdraw its finding that the Obama-era mercury and air toxics standards (MATS) are “appropriate and necessary.” Doing so would leave the standards in place but legally vulnerable, despite their being widely implemented and enjoying broad support from industry as well as environmentalists:

Perhaps least likely for an eventual confirmation deal is the vehicle policy. The Trump administration's proposal to freeze Obama-era emissions limits with model year 2020 has become a flashpoint for partisan debate, and while Wheeler has continued talks with California leaders on a path forward, he is not backing down from the proposal, signaling a likely legal battle:

32. Feds Reverse Progress in Addressing Climate Risks, GAO Says

The federal government isn't doing nearly enough to address the risks it faces from climate change, exposing itself and American taxpayers to potentially billions of dollars in damages, the Government Accountability Office said in a new report.

Federal management of damage from climate change is one of just three areas—out of the 35 the government watchdog identified in its 2019 High Risks List—where the government has retreated rather than made progress, according to the March 6 report.

The regression is driven in large part by Trump administration moves to undo Obama-era directives requiring federal agencies to incorporate climate risks into their planning, according to the GAO, the nonpartisan investigative arm of Congress.

On climate change, the federal government faces substantial fiscal risk due to increasing disaster costs, the GAO found. “We’ve had very costly storms, but the federal government’s cost to respond to this since 2005 is approaching half a trillion dollars to be able to handle this area,” Gene L. Dodaro, comptroller general of the GAO, told senators at a March 6 hearing. “There’s a lot of exposure the federal government has” to climate risks, he added.

The High-Risk List, which the GAO updates every two years, assesses economic, efficiency, security, and other challenges the government faces.

The GAO report identified a lack of leadership from the White House on managing climate risks. The report points to President Donald Trump’s revocation of Obama-era executive orders meant to prepare federal agencies for climate change.
Dodaro in the hearing expressed particular concern about Trump’s withdrawal of the federal standard for flood hazard mitigation. That standard, set in a 2015 executive order from former President Barack Obama, required buildings and other infrastructure that received federal funding to be built to withstand increased flooding due to rising sea levels and other climate change impacts.

“It seems to me that investing some money upfront in mitigation and planning to have more resiliency with our infrastructure is critically important,” Sen. Gary Peters (D-Mich.), ranking member on the Senate Homeland Security and Governmental Affairs Committee, said.

Peters said Trump’s withdrawal of the flood standard “makes no sense whatsoever.”

In its report, the GAO doubled down on recommendations that the federal government develop a comprehensive plan to manage climate change risk. But it isn’t clear the Trump administration would listen. For example, the report noted the White House budget office rejected an April 2018 recommendation from GAO to provide Congress with information about what federal programs are exposed to climate change risks.

The White House is also exploring plans offered by William Happer, a National Security Council technology adviser who rejects mainstream climate science and the risks of global warming, to re-evaluate whether and how climate change poses risks to national security.

“Leadership at the national level is vital and can encourage progress at state and local levels,” Rachel Cleetus, policy director and lead economist for the Union of Concerned Scientists Climate and Energy Program, said in a statement. “Continuing in the wrong direction will not only impose mounting costs on taxpayers, but could also jeopardize the health, safety and livelihoods of people around the country.”

“The federal government must invest ahead of time to help communities prepare instead of just picking up the pieces after disasters strike,” Cleetus added.

Dodaro, the GAO head, praised steps by Congress to ensure the Defense Department plans for climate risks and to make federal funds available for communities to build up resilience before natural disasters. Congress, in the 2018 National Defense Authorization Act, required the Defense Department to submit a report detailing the damages military installations could face from climate change.

The Defense Department needs to have climate resilience policies and procedures in place as it builds out and modernizes its infrastructure, Dodaro said. He stressed the Defense Department’s plan must extend beyond U.S. borders because “we have a lot of facilities around the world that are at risk.”

Dodaro noted the department is working to redo the plan required by Congress after some lawmakers raised concerns it wasn’t sufficient. The GAO will look at that plan once it is submitted and have additional recommendations, he said.

33. Green New Deal Puts Climate on Top Of Agenda

Green New Deal Would Cut U.S. Emissions & More
The U.S. would achieve net-zero greenhouse gas emissions within 10 years under a nonbinding resolution released by Rep. Alexandria Ocasio-Cortez (D-N.Y.) and Sen. Ed Markey (D-Mass.).

The resolution outlines what proponents are calling a “Green New Deal,” referencing the resolution’s focus on climate change and the post-Depression policies of President Franklin Delano Roosevelt.

The resolution’s preamble credits federal efforts during World War II and the New Deal with creating “the greatest middle class that the United States has ever seen,” but says that many communities were excluded from those benefits.

“This resolution sets out a non-exhaustive list of several major projects that need to be completed fast,” according to an FAQ from Ocasio-Cortez’s office. “These include upgrading virtually every home and building for energy efficiency, building 100% greenhouse gas neutral power generation systems, removing greenhouse gases from industry and agriculture and more.”

The resolution would set out five core goals:

- Achieve net-zero greenhouse gas emissions through a transition fair to all.
- “Create millions of good, high-wage jobs” and ensure economic security for all.
- Invest in sustainable industry and infrastructure.
- Secure clean air and water, climate resiliency, healthy food, access to nature, and a sustainable environment for future generations.
- Promote justice and equity by ending and undoing the effects of discrimination against marginalized groups, including indigenous peoples, communities of color, deindustrialized and depopulated communities, the poor, women, the elderly and the young, persons experiencing homelessness, and those with disabilities.

The resolution would lay out several policies to achieve the goals, including by meeting all U.S. demand for electricity with “clean, renewable, and zero-emission” sources. Other policies include:

- Investments to build resiliency against climate change.
- Rebuilding infrastructure to eliminate pollution and guarantee access to clean water.
- Upgrading the energy and water efficiency of every building in the country and promoting distributed and “smart” power grids.
- Collaborating with farmers and ranchers to decarbonize the agricultural sector.
- Overhauling the transportation sector through investments in public transit, high-speed rail, and zero-emission infrastructure and manufacturing.
- Enforcing labor and environmental protections in trade rules, procurement standards, and border adjustments to keep jobs in the U.S.
- Removing greenhouse gases already in the atmosphere through “proven low-tech solutions” such as land preservation and creating new forests on treeless land.
- Promoting international adoption of similar policies through exchange of technology, expertise, and funding.

The resolution would also call for providing everyone in the U.S. with health care, housing, and economic security.

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1 Frequently Asked Questions
It includes provisions to support the creation of a jobs guarantee with “family-sustaining” wages and benefits, strengthened collective bargaining rights, and increased protections against “unfair competition and domination by domestic or international monopolies.”

The largest focus of the resolution is preventing and counteracting climate change, which it calls a direct threat to U.S. national security.

The resolution’s preamble cites conclusions from an October 2018 United Nations report and a November 2018 federal climate assessment that human activity is the dominant cause of climate change. The reports said that major reductions in greenhouse gas emissions and achieving global net-zero emissions by 2050 will be required to prevent global warming rising by 1.5 degrees Celsius from preindustrial levels, which scientists say would have devastating effects.

The resolution calls for “massive growth in clean manufacturing in the United States and removing pollution and greenhouse gas emissions from manufacturing and industry as much as technologically feasible.”

The resolution doesn’t include an outright ban on fossil fuels like coal and natural gas, which remain the largest source of electric power generation, though it would call for deriving 100 percent of U.S. power from “clean, renewable and zero-emission energy sources.”

Omitting a fossil-fuel ban could make the proposal more acceptable to labor unions and Democratic presidential candidates.

The resolution doesn’t call for any additional investment in nuclear power, which is currently the largest carbon-free source of electricity in the country, though it leaves the door open for continued operation of existing plants.

Previous strategies to regulate emissions through a cap-and-trade regime or a carbon tax aren’t mentioned in the resolution. Those policies could be a “small part” of the Green New Deal, according to the Ocasio-Cortez FAQ, but the primary focus would be rolling out replacement technologies. “We cannot simply tax gas and expect workers to figure out another way to get to work unless we’ve first created a better, more affordable option,” the FAQ says.

House Speaker Nancy Pelosi (D-Calif.) said the cap-and-trade bill the House passed in 2009 (H.R. 2454 in the 111th Congress), when Democrats last controlled the chamber, would be the starting point for climate legislation this year. Under that framework, limits on greenhouse gas emissions would be imposed and a market for permits to exceed them would be created.

Rep. Ted Deutch (D-Fla.) introduced a bill (H.R. 763) this year to impose a price on carbon emissions, which would be paid to the government and rebated to households. That measure had eight Democrats and one Republican as cosponsors as of February 6. Fee-and-dividend, also called tax-and-dividend, programs are widely supported by economists as a means to reduce greenhouse gas emissions.

The resolution’s preamble describes several “related crises” in the U.S., including declining life expectancy, wage stagnation, erosion of workers’ bargaining power, and income inequality. It states that climate change and other environmental degradation has exacerbated existing “systemic injustices” that have disproportionately affected vulnerable and marginalized groups.
The resolution’s jobs, health care, and housing guarantees would require an expansion of welfare programs. The transition to a carbon-free economy “will require a strong social safety net so that every U.S. person can make this transition comfortably and nobody falls through the cracks in the process,” according to the FAQ.

The resolution wouldn’t define specific programs that would achieve its goals. For instance, it doesn’t specify the means by which Congress should ensure all Americans have health care coverage -- whether through expansion of the Affordable Care Act or through a variant of “Medicare for All.” Several Democrats have discussed proposals under that name, though there isn’t agreement on a particular plan or definition. Some proposals would expand Medicare coverage to include anyone 55 or older or allow anyone under 65 to enroll in the program by paying a premium, while others would create a single-payer healthcare system similar to Canada or the United Kingdom.

Climate advocacy and progressive groups including Sierra Club, the Sunrise Movement, Center for American Progress, and Indivisible SUPPORT pursuing a Green New Deal.

Several declared and potential Democratic candidates for the 2020 presidential election are SUPPORTING the resolution, such as Sens. Cory Booker (D-N.J.), Kirsten Gillibrand (D-N.Y.), Kamala Harris (D-Calif.), Jeff Merkley (D-Ore.), Bernie Sanders (I-Vt.), and Elizabeth Warren (D-Mass.).

Those OPPOSED to increasing federal investment to counter climate change and pursue other goals in the resolution include the American Enterprise Institute.

Some Climate-Hawk Democrats Cool on Green New Deal

Many Democrats who have been active on climate change aren’t rushing to embrace the Green New Deal resolution, saying Congress is too far from a consensus on what to do about the issue.

The Green New Deal’s ambitious approach has the backing of some of the Senate’s heavy hitters. They include several vying to be the 2020 Democratic presidential nominee, such as Sens. Kamala Harris (D-Calif.), Cory Booker (D-N.J.), and Kirsten Gillibrand (D-N.Y.).

But a split exists among Democratic backers of climate action on the Senate Environment and Public Works Committee, a panel that includes Gillibrand and Booker, that would have to do the heavy lifting on any climate legislation.

Sens. Sheldon Whitehouse (D-R.I.), Ben Cardin (D-Md), and Chris Van Hollen (D-Md.) all told reporters they aren’t ready to endorse the resolution. The same is true for some other usually reliable backers of climate action who aren’t on the committee, including Sen. Brian Schatz (D-Hawaii) and Maine Sen. Angus King, an independent who caucuses with Democrats.

Rallying behind the green deal now, Whitehouse said, risks making it an easy target for powerful opponents, including the fossil fuel industry and Republicans who still control the Senate.

“I fear that those forces that vehemently oppose climate action and are constantly up to no good around here will take every opportunity to try and use something like this to divide us—when in fact there’s enormous agreement that something big needs to be done on climate,” Whitehouse said. “But we’re more likely to do it and win and be effective if we stay united and work with each other rather than get into the usual Democratic circular firing squad.”
Whitehouse is perhaps the most vocal Senate climate activist, who since 2012 has delivered hundreds of weekly “time to wake up” speeches urging Congress to act on the issue.

Markey spokeswoman Giselle Barry said February 7 that as many as 10 Senate Democrats are expected to endorse the resolution by day’s end.

Sen. Jeff Merkley (D-Ore.), became a cosponsor, saying in a statement that he welcomes “seizing the opportunity to transform our economy to generate millions of good-paying jobs, more opportunities for communities, and a more just and more prosperous nation that gives everyone a chance to thrive.”

Similarly, fellow Oregon Democrat Sen. Ron Wyden, the ranking Democrat on the Senate Finance Committee, said he hopes to use his position on the finance panel to target incentives for fossil fuel energy.

“What’s appealing to me is that there’s a process for reform on several fronts,” Wyden said.

“I’m going to work with all those good folks to throw the many dirty energy relics, the dirty energy tax relics of yesteryear, into the garbage can and put front and center clean energy, from sea to shining sea,” Wyden said.

Friends of the Earth president Erich Pica complained that the resolution had abandoned an earlier call for an end to fossil fuels, though he backed other parts.

According to a fact sheet on the plan distributed by Ocasio-Cortez’s office, the resolution isn’t a bill containing specific legislative proposals, but rather is meant to define the scope, scale, and purpose of the Green New Deal.

At least for now, Markey’s backing hasn’t registered with the chairman of the Senate Environment and Public Works Committee, including Sen. Tom Carper (D-Del.), the panel’s top Democrat. He says it’s far too early to endorse one approach.

The resolution is useful in that it can “start a conversation and articulate a vision,” Carper said in a February 7 statement. He urged his committee colleagues to examine the measure “and consider the ways in which we may be able to incorporate its ideas within our work this Congress.”

Maryland’s Van Hollen, who is revising a carbon tax bill from the last Congress that would refund the proceeds to U.S. households, said he supports “a major investment in clean energy and addressing climate change,” but isn’t ready yet to endorse the resolution.

Schatz, of Hawaii, said he will wait for the legislative process to begin. Sen. Maria Cantwell (D-Wash.), the former ranking Democrat on the Senate Energy and Natural Resources Committee, said she is still mulling over the resolution.

But California’s Harris, who hopes to make climate change a key issue in her 2020 campaign, said the resolution calls for the kind of ambitious action needed to tackle climate change.

“It’s an existential threat,” said Harris, who endorsed the concept of a Green New Deal in January. “If we don’t address it with a smart and efficient and immediate response, we are going to look at the deterioration of this planet.”
In the House, more than 40 Democrats endorsed the Green New Deal, including House Rules Committee Chairman Jim McGovern (D-Mass.), who said he signed on earlier this week. But the chairman stressed that it will be up to House committees, including the Energy and Commerce panel, with input from the new House select climate panel, to determine what specific legislation to move.

“We have a select committee, we have chairs of jurisdiction, and they are all agreed they are going to put their heads together and come up with a road map on how we will move forward,” McGovern said. “But I can’t tell you where the majority of them are going to be, or where they’re at now, on policy.”

House Speaker Nancy Pelosi (D-Calif.) didn’t throw her support behind the package but lauded the backers’ “enthusiasm.”

How the Green New Deal Almost Went Nuclear on Its First Day

As Democrats unveiled their ambitious Green New Deal to fight climate change February 7, a controversy erupted over the role of nuclear power that threatened to undermine the entire effort. A fact sheet distributed by the office of progressive newcomer Alexandria Ocasio-Cortez said there was no room in the nation’s all renewable-energy future for nuclear plants.

But the reference caught many off guard and back-peddling ensued.

Giselle Barry, a spokeswoman for Sen. Ed Markey, a Massachusetts Democrat who is the Green New Deal’s lead Senate backer, disowned the fact sheet and said Markey’s office wasn’t consulted before it was sent out. “We did not draft that fact sheet,” she said.

Markey sought to do damage control at a midday press conference, emphasizing the proposed resolution doesn’t address specific energy technologies. Language on nuclear power “is not part of this legislation,” he said. “The resolution is silent on any individual technology that can move us to a solution.”

The stumble irked potential supporters. It also illustrated the political challenges ahead as supporters of the Green New Deal struggle to build consensus on issues that divide environmentalists as well as lawmakers.

The plan, in the form of a nonbinding resolution, weaves together what was a hodgepodge of progressive proposals and aspirations into a single initiative. It sets a goal of shifting the nation to 100 percent “clean, renewable, and zero-emission energy sources,” within 10 years “to achieve net-zero greenhouse gas emissions through a fair and just transition for all communities and workers.”

The proposal has gathered 60 co-sponsors in the House but has little chance of gaining support in the Republican-controlled Senate, let alone being signed into law by President Donald Trump.

House Speaker Nancy Pelosi, who hasn’t explicitly thrown her support behind the Green New Deal, didn’t appear at the unveiling. She described the plan at another event as “one among many” ways to address climate change.
Some of the biggest climate champions in the Senate, including Sheldon Whitehouse, a Democrat from Rhode Island who delivers frequent floor speeches on the urgent need to act, were notably absent from the news conference unveiling the Green New Deal. For any effort to succeed, it will need support from long-time environmental policy advocates in Congress, as well as the ardent activists that have rallied behind Ocasio-Cortez’s vision.

The scale and ambition of the initiative also presents problems. Ocasio-Cortez has pitched it not just as an environmental solution but also a World-War II-style “mobilization” against income inequality and social injustice.

That invites criticism that the whole gambit is socialism run amok. The Chamber of Commerce slammed the proposal in a statement that invoked “failed socialist policies.”

Opposition on the left emerged over the plan’s failure to eventually ban fossil fuels, the leading source of the carbon dioxide emissions linked to global warming.

Friends of the Earth President Erich Pica praised the resolution as “a good first step,” but said it was incomplete. “By failing to expressly call for an end of the fossil fuel era, the resolution misses an opportunity to define the scope of the challenge,” Pica said.

The Green Party faulted the omission: “We cannot begin from a position of compromise.”

After the dustup on nuclear power, Corbin Trent, a spokesman for Ocasio-Cortez, said a new fact sheet was being prepared.

But the damage was already done. Environmental pragmatists who see nuclear power as an essential ingredient to decarbonization—and said the U.S. can’t do it with solar, wind, and hydropower alone—blasted the move.

“I’m sure it has some co-sponsors scratching their heads,” said Jeff Navin, who served as acting chief of staff for Ernest Moniz, President Barack Obama’s energy secretary. Moniz himself said it may be impossible to achieve zero-carbon emissions in 10 years, as the plan calls for.

“It’s just impracticable,” Moniz told National Public Radio. “And what concerns me about that is if we start putting out impracticable targets, we may lose a lot of key constituencies that we need to bring along.”

He cited labor unions as an example.

“We cannot strand too many assets and frankly strand too many workers with impracticable unrealizable objectives,” Moniz said. “We will jeopardize what I think has been the very significant movement of the large energy companies toward developing their new business models to function in a low carbon world.”

The episode also underscores the rift among U.S. environmentalists on nuclear power. Legions of environmentalists recall the near meltdown in 1979 at the Three Mile Island nuclear plant in Pennsylvania, an episode that made opposition to nuclear power a mainstay of the movement for decades.
But nuclear power provides more than 50 percent of the country’s carbon-free electricity, according to the Nuclear Energy Institute, a trade group that represents companies such as Westinghouse Electric Co. and Exelon Corp.

“Any approach to eliminating greenhouse-gas emissions requires all clean energy technologies, including nuclear, to work together to address that urgent problem,” Maria Korsnick, the group’s president said in a statement issued after the Green New Deal was unveiled.

“These are ideological documents, not legislative blueprints,” said Paul Bledsoe, strategic adviser at the Progressive Policy Institute. It will get even tougher “when you actually have to create legislative language.”

Green New Deal Would Reshape Blue-Collar Jobs, Training

A Democratic blueprint for helping to reverse the impacts of global warming could reshape construction work and other blue-collar jobs, as well as the training required for them, lawmakers and observers said.

The Green New Deal (H. Res. 109, S. Res. 59) draws up a 10-year plan with trillions in estimated government funding to help shift the U.S. to 100 percent renewable and zero-emission energy sources.

The nonbinding resolution wouldn’t set policy but proponents hope it can fuel multiple bills on clean energy, green jobs, and climate change that would move in the 116th Congress.

Democratic backers of the green deal still face major obstacles with Republicans in control of the Senate and the White House, but also with the resolution splitting support from some influential unions.

Its ambition aside, the deal’s call for a massive shift toward wind and solar energy as well as rail lines for expanding mass transit and high-speed rail suggests a potential windfall for construction workers and the green energy sector.

Republican Senate leaders want to force a vote now on the resolution, hoping it will highlight what opponents say is an unworkable and unrealistic effort.

The resolution highlights the importance and challenges of retraining the nation’s workforce to help with massive cuts in carbon emissions from major sectors of the U.S. economy, said Todd Vachon, a researcher at Rutgers School of Management and Labor Relations. “This means the jobs in the old sector have to go away for the new jobs, and that’s the battle,” Vachon told reporters, adding that the threat to long-term high-paying jobs could fuel resistance to the plan. “When it comes to moving from jobs in natural gas to the building of wind turbines that’s when you have a rift,” he said.

The resolution comes as some state governments are shaping their own policies to lower dependency on fossil fuels through greener energy sources. The governors of North Carolina and New Jersey, for example, recently signed executive orders to encourage expansion of clean energy. That could offer lessons for federal lawmakers.

State-level experimentation with specific policies, such as fair transition plans or job guarantees, could provide the data to inform federal measures, Vachon said. The experiments could offer
some insight into “best and maybe worse practices when it comes to solving the climate problem,” he said.

Some federal lawmakers, such as Sen. John Boozman (R-Ark.), don’t think state workforces are prepared for green jobs. But there’s movement in the right direction, Boozman, a member of the Senate Environment and Public Works Committee, told the press. “The good news is we are working, my state and most states and the federal government,” he said. “Incentives truly are starting to work.” Training is starting earlier, with even some high school students earning certificates, and community colleges are developing the curriculum to create a much nimble workforce, he said.

Freshman Rep. Alexandria Ocasio-Cortez (D-N.Y.), one of the most prominent voices touting the Green New Deal, said job training will be crucial to implementing the ambitious clean energy agenda. “This is precisely one of the major reasons why we advocate for tuition-free colleges and universities and vocational schools. And I think we need to expand” that support, she said in a press interview. “That’s why this resolution is really about investment, the broad-scale investment that’s required in our workforce,” she said. “Is there a 100 percent workforce ready to deploy? No, but that is what the resolution is for,” she said, with passage to be a guidepost for an array of policies Congress would need to transform the U.S. workforce.

That would include technical training needed to meet what would be a huge demand for renewable energy jobs if the U.S. made the leap to 100 percent wind, solar, and other renewable energy from what today is just a 17 percent clean energy mix in the U.S. electricity sector.

Another crease comes from unions and workers, some of whom would be forced to give up on industries like coal and natural gas. That's all about pay of the green jobs, Vachon said.

“The construction jobs are predominantly good-paying, unionized jobs on the commercial side,” Vachon said. “However, much of the residential work would initially be lower-paying, lacking strong wage floor protections and the right to unionize. Local hiring provisions would also increase the number of local jobs created.”

The green resolution could pass the Democratic-led House, with early support from Ocasio-Cortez and nearly 90 other House members. The proposal has gotten a different reception in the Senate, however.

Senate Majority Leader Mitch McConnell (R-Ky.) has been pushing for a vote to highlight what many Republicans argue is a costly and completely unrealistic dash away from fossil fuels.

Among the dozen Senate backers are many Democratic presidential aspirants: Sens. Amy Klobuchar (Minn.), Kamala Harris (Calif.), Elizabeth Warren (Mass.), Kirsten Gillibrand (N.Y.), Cory Booker (N.J.), and Vermont Independent Bernie Sanders.

### 34. California Politicians Push Declaration of Climate Emergency

State Sens. Henry Stern (D) and Nancy Skinner (D), and several California assembly members are pushing for a statewide declaration of a climate emergency in what’s considered the fifth largest economy in the world.
Stern—who represents Ventura and Los Angeles counties—plans to file a nonbinding resolution this week that calls for the state to adopt its own Green New Deal and to mobilize over the next 12 years to fight climate change.

That would include investing $100 billion in green innovation efforts, infrastructure projects, and workforce development to speed up California’s efforts to have 100 percent clean energy, a zero-emission transportation system, and a carbon neutral economy by 2030.

“Climate change is an emergency,” Stern said. “It’s burning down our hometowns, undermining our state’s public safety, driving alarming rates of childhood asthma, and other new disease vectors.”

Stern and others spoke on the steps of the state Capitol March 4 and were joined by about 100 students from the California Public Interest Research Group.

“Climate consequences are happening now and our poorest communities are being hit the hardest,” Assembly member Eduardo Garcia (D) said in a news release. “This is a public health crisis impacting the quality of air we breathe and the water we drink.”

Skinner said they had identified about $8.5 billion in annual existing funds that could be dedicated to further the climate goals.

“It’s really about a strategic alignment of capital over the next decade,” Stern said. Greenhouse gas emission reduction money, clean air funds, and other accounts would be utilized without adding additional taxes, the senators said.

“This is doable, achievable, economically wise, and absolutely essential,” Skinner said. “The climate crisis is real, is undeniable, and we have a 12-year window to act in a responsible way.”

California already has some climate goals. A bill passed last year calls for the electric grid to draw 100 percent clean energy by 2045. The state has also committed to reducing greenhouse gas emissions to 40 percent less than 1990 levels by 2030.

The transportation sector is the largest source of greenhouse gas emissions in California, and officials said focusing on electric vehicles and charging infrastructure is one way to help meet that goal.

California has about 25 million cars on the road and in 2018, 10 percent of sales were for hybrid or electric vehicles, said Gil Tal, director of the Plug-in Hybrid & Electric Vehicle Research Center at the University of California, Davis.

“I think it’s a great goal but it’s a very, very tall order because transportation systems change slowly,” he said. “Even if tomorrow we start selling only zero-emission vehicles we will still have a lot of old vehicles on the road by 2030.”

35. EPA Lacks Authority to Undo Mercury Power Rule, Top Lawyer Says

The EPA can’t legally withdraw Obama-era toxic air pollution standards for power plants, even as it rewrites the cost justification for those limits, the agency’s top lawyer said February 7. “We don’t believe we have the legal authority to do that,” EPA General Counsel Matthew Z. Leopold said at
the Environmental Law 2019 conference. He cited a 2008 decision issued by the U.S. Court of Appeals for the District of Columbia Circuit in New Jersey v. EPA that “closed that door.”

In that decision, the D.C. Circuit struck down the Bush administration’s Clean Air Mercury rule, which had sought to use a market-based mechanism to control mercury from power plants. The EPA under the Obama administration issued new requirements in 2012 for controlling mercury from power plants, but those standards and their cost justification were also challenged in court.

The Trump administration proposed February 7 to reconsider how the cost justification was reached. The proposal would eliminate calculation of the rule’s indirect benefits—reductions of particulate pollution—and show that they are outweighed by the power industry’s compliance costs reducing mercury. Environmental advocates have raised the alarm that the move is a predicate to undoing the 2012 limits.

But Leopold said the D.C. Circuit was very specific in the 2008 case that the Clean Air Act does not allow the EPA to delist the electric power sector from toxic air pollution standards, which he added would be “a predicate to any kind of getting rid of emissions standards.”

The agency, he said, has to meet a health-based standard articulated in the Clean Air Act.

Leopold’s comments come as EPA officials, including acting head Andrew Wheeler and air chief Bill Wehrum, have repeatedly sought to reassure the numerous electric power industry groups, Democratic lawmakers, and environmental groups that the EPA’s proposed reconsideration of the costs wasn’t a prelude to getting rid of the 2012 standards.

Leopold also suggested the EPA might not be able to adjust or weaken the 2012 standards due to prior case law. “The standards are very specific in terms of setting the maximum achievable control technology, or MACT,” Leopold said. “The recipe, if you will, for MACT is very specific, as well, so again we’re controlled by our setting of MACT and the specific statutory requirements.”

But environmentalists point out the EPA asked for comment in its proposal on how to approach the 2012 standards. “There was no need for this proposal,” said Vicki Patton, general counsel for the Environmental Defense Fund.

Leopold, though said the agency’s asking for comment on its proposed rulemaking “is a way to make the standards more defensible.” The agency will be accepting comments on its proposal until April 7.

36. EPA Weighing Cost-Benefit, Legal Changes To Revive 'Glider' Truck Relief

EPA has not dropped its efforts to ease rules on manufacturers of “glider” trucks that combine a new chassis with a used drivetrain despite having appeared to put the issue on the back burner, with acting chief Andrew Wheeler telling senators that officials are mulling tweaks to its legal justification and its cost-benefit approach to justify some type of softer limits.

Wheeler is not offering a clear timeline for the agency’s efforts, but he is seeking “an emissions standard that is not predicated on the industry going out of business or substantially reducing economic growth potential,” he wrote in a recent statement to Sen. Joni Ernst (R-IA), who has met with Wheeler on the issue.
Wheeler's comment comes as part of a broader set of responses to multiple senators' queries, in advance of an expected Senate Environment & Public Works Committee vote on his nomination to head the agency on a permanent basis. (Note Wheeler has since been confirmed. See above.)

Even so, some observers say they cannot yet conclude the effort is a high priority given that the rulemaking has faced significant opposition from states, part of the trucking industry and environmentalists. EPA also has described the rule as a “long-term action” unlikely to see near-term development.

In addition, both environmentalists and one industry source say the continued push to ease burdens on gliders appears at odds with EPA's Cleaner Trucks Initiative, which is one of the few instances in which the Trump EPA appears to be advancing a new, affirmative environmental regulation.

“I don't know how you can have a cleaner truck initiative and a dirty truck initiative at the same time,” says an industry source opposed to scrapping the current glider restrictions.

Even though Ernst sought an “approximate date” for a revised proposal to ease Obama-era production limits on high-emitting gliders, Wheeler declined to provide a firm schedule for a new rulemaking.

“We continue our work to formulate an effective solution,” Wheeler writes. “We plan to move ahead as expeditiously as practicable.” While that reply might be interpreted as noncommittal, Ernst references “several recent meetings” with Wheeler in which the senator says he “committed to proposing” relief for glider manufacturers.

Ernst's home state of Iowa is home to glider manufacturer Harrison Truck Centers, though Tennessee-based Fitzgerald Glider Kits has been the most high-profile supporter of efforts to scrap the agency's 2016 production limits.

Wheeler's response also offers additional insight into how the agency might tweak its long-stalled November 2017 proposal to address criticism of the plan's legal foundation and cost-benefit justification.

EPA is interested in “using the appropriate source of authority, such as authority for re-manufactured engines under the Clean Air Act,” to issue its rule, Wheeler says.

“We are also assessing the most appropriate means for analyzing costs and benefits associated with a future rulemaking, including comparing re-manufactured glider trucks to used trucks as gliders tend to be bought in lieu of used and not new trucks,” he adds.

Such a comparison might attempt to show that the plan's resulting emissions are not as bad as critics claim, given that it would have a higher baseline emissions assumption due to a focus on used trucks and not new, cleaner vehicles.

The dispute focuses on provisions in the Obama EPA's broader heavy-duty truck greenhouse gas rule, which regulated gliders as “new” vehicles.

The provisions, which took effect in 2018, generally limit manufacturers to producing 300 gliders that lack modern emissions controls annually, with the exemption phasing out entirely in 2021.
Those rules were an effort to respond to significant pollution concerns raised by the glider sector's growth as a cheaper alternative to new trucks, with the vehicles initially used more narrowly as a solution for wrecked vehicles with still usable drivetrains.

A contributing factor to gliders' growth was a transition to modern emissions controls that has played out in a series of EPA regulatory efforts dating to at least the George W. Bush administration.

But former EPA Administrator Scott Pruitt, in response to a request from Fitzgerald and other glider companies, proposed to repeal the restrictions on the grounds they improperly regulated gliders as new vehicles.

That move sparked unusually broad opposition from state air officials, environmentalists, much of the trucking sector, and even former Republican EPA Administrators who cited it as a retreat from years of efforts to clean up diesel vehicles.

The issue has also split Republican lawmakers, with Ernst joining several lawmakers in both chambers in support of EPA's proposed repeal. However, others have voiced reservations, including GOP Sens. Todd Young (IN), Shelley Moore Capito (WV), Thom Tillis (NC) and Richard Burr (NC).

Further complicating the repeal effort is EPA's own testing showing that glider vehicles can emit on the order of 40 times more pollution than new trucks; the lack of a cost-benefit analysis that could clear Office of Management & Budget review; and the discrediting of a Tennessee Tech University report, cited in the repeal plan, purporting to show gliders could be as clean as new vehicles.

Wheeler's remarks on cost-benefit analysis appear to be the agency's most specific comment on the issue to date, particularly regarding the notion that EPA might compare glider emissions with those from used trucks rather than new vehicles.

Wheeler's reference to using air act authority for regulating re-manufactured engines appears consistent with that effort and with the Pruitt proposal's argument against regulating gliders as "new" vehicles.

One source tracking the glider issue, however, says such an approach raises unanswered questions about potential regulatory effects beyond gliders, such as engine rebuilds.

One environmentalist blasts Wheeler's response as a "clear acknowledgment" that EPA failed to provide a cost-benefit analysis on its repeal plan in the first place, and that scrapping the glider production limits is "not supported by the facts or the statute."

And the industry source opposed to the repeal expresses concern at Wheeler's comments but questions whether the effort is serious. This source suggests Wheeler's responses may have been drafted during the month-long government shutdown and may have lacked significant input from career staff.

37. Trump Agencies Bicker Over Ethanol Plan as Higher Fuel Use Looms

President Donald Trump's pledge to his rural agricultural base to allow year-round sales of higher blends of ethanol is spurring differing opinions between two federal agencies.
U.S. Agriculture Secretary Sonny Perdue told lawmakers in a House hearing Feb. 27 that a final rule to allow widespread sales of those higher blends "won't happen" by the summer-driving season, following delays from the 35-day partial government shutdown. That sparked a swift response from the Environmental Protection Agency, which is writing the regulation and insists the measure is on track.

"EPA is planning on releasing its RVP/RIN market reform proposal in March and working expeditiously to propose and finalize the rule consistent with the president's direction before the start of the summer driving season," agency spokesman Michael Abboud said in a statement.

Rural Midwest voters want the Trump administration to move quickly on year-round sales of so-called E15, a blend of gasoline comprised of 15 percent ethanol. That ratio currently is restricted on fuel in some areas during the summer months. Trump told Iowa voters in the autumn that he had signed a memo telling EPA to lift summertime restrictions on the fuel.

The government shutdown halted work at the EPA, stoking skepticism in the Midwest Corn Belt that the administration will have the measure in place this summer to meet peak fuel demand. The slumping farm economy has struggled during the U.S. trade war with China that has damped exports of ethanol, soybeans and other agricultural goods.

The EPA's acting chief, Andrew Wheeler, has tried to assuage lawmaker concerns on biofuel policy. Perdue said that he's pushing EPA to make an announcement "soon" on "discretionary enforcement" for gasoline stations that sell the higher blends, signaling they won't face penalties for offering E15 this summer even if the rule isn't finalized.

The ethanol debate pits blue collar oil workers against farmers producing the crops used to make biofuel, spurring a ruckus between two of Trump's main constituencies.

Biofuel advocates on Feb. 27 blasted the possible delay. Renewable Fuels Association President Geoff Cooper called it a "gut punch," if true. "The year-round E15 provisions are straightforward, and there is no reason they could not be promulgated by this summer," Cooper said. The group has asked the EPA to separate out more complicated provisions in the plan targeting biofuel compliance credits.

"We appreciate EPA's clarification on the E15 rule-making timing," Leigh Claffey, a spokeswoman at Growth Energy, an industry trade group, said. "However, it is imperative that EPA follow through on its commitment to allow year-round E15 in time for the summer driving season. American farmers and biofuel producers are counting on it."

38. EPA, California Levy Nearly $2M in Fines for Car Emission Cheats

California air officials and the U.S. Environmental Protection Agency have leveled nearly $2 million in fines and penalties against four companies that sold thousands of illegal aftermarket vehicle parts that could cheat emissions tests.

Unapproved car parts can reduce fuel economy and increase emissions of smog-forming pollutants that lead to respiratory problems and other ill health effects, the California Air Resources Board said in a news release March 7.
AZAA Investment Inc., formerly known as AutoAnything Inc., paid $1 million into the California Air Pollution Control Fund to settle 4,000 violations between 2012 and 2015, including the sale of nonexempt or illegal engine programmers, air intake systems, and catalytic converters, the agency said.

Separately, EPA also announced that three California-headquartered automotive parts manufacturers will pay $891,349 to settle Clean Air Act violations related to the sale of more than 6,200 defeat devices, which bypass or disable emissions controls.

“We will continue to investigate and bring companies into compliance,” EPA Region 9 Administrator Mike Stoker said in a news release. “These important actions will help reduce pollution and protect public health.”

Car Sound Exhaust System, Inc., of Oceanside will pay a $612,849 fine, Flowmaster, Inc. of Santa Rosa will pay $270,000, and Weistec Engineering, Inc. of Anaheim will pay $8,500, EPA said.

California law prohibits the advertising, sale, distribution, and delivery of parts that alter emissions control systems of vehicles unless these parts have first been exempted by CARB and are proven not to increase smog-forming emissions. These laws apply to all manufacturers, distributors, dealers, installers, and retailers, even if they do not manufacture the products themselves, or are located outside of California.

Illegal parts sold by the former AutoAnything, Inc. included engine programmers, air intake systems and catalytic converters that were not approved by CARB for use on highway vehicles. These products can reduce fuel economy and increase emissions.

California law does allow marketing and sale of an aftermarket performance part after an evaluation by CARB to ensure the part does not raise emissions. Once CARB approves the part, it is granted an executive order that allows the sale and installation of the part on pollution-controlled vehicles. State law also requires manufacturers, retailers, and distributors to take steps to ensure that consumers understand the legality of parts offered for sale and to discourage illegal modifications to vehicles.

AZAA Investments, Inc. paid $1,006,250 to the California Air Pollution Control Fund which supports air pollution research and education. In addition, during the settlement process, AutoAnything was sold along with its online retail platform to a new owner. Along with the financial penalties imposed by the settlement, AZAA Investment Inc. is subject to a permanent injunction barring the sales of automotive parts and must notify CARB prior to resuming any related business activity.

39. Diesel Trucks Would Be Nearly Eliminated In California Under Proposed Law

A proposed law that would phase out most diesel trucks in California was introduced recently in an ongoing effort by state legislators to control pollution and greenhouse gas emissions, but it will likely face major opposition from trucking companies and other businesses that transport products in big rigs.

The bill, by state Sen. Nancy Skinner, D-Berkeley, would direct the California Air Resources Board to require a 40 percent reduction in diesel emissions by 2030 and an 80 percent reduction by 2050, cuts that experts say would not be possible without a major overhaul of the trucking industry.
Heavy- and medium-duty buses and trucks make up 7 percent of the vehicles on California’s roads but contribute 20 percent of the heat-trapping carbon emissions spewed into the atmosphere, according to the Union of Concerned Scientists. They also produce 33 percent of the state’s nitrogen oxides, a major ingredient in particulate matter, or smog, Skinner said.

“While California is a leader in climate protection, we still have very dirty air,” said Skinner, pointing out high rates of asthma, lung and heart disease and other respiratory problems in low-income communities like Oakland and Richmond, which are near freeways and the Port of Oakland. “We’ve got rising rates of asthma, which is caused by smog and particulate matter, which primarily comes from diesel.”

SB44 would also designate an unspecified amount of money from the state’s Greenhouse Gas Reduction Fund for the development of alternate fuels and technology.

It is the latest move by California to seize control of its own greenhouse gas emissions as the Trump administration pushes for lower fuel efficiency standards and promotes the oil and gas industries.

The proposed law would join other recent moves designed to help the state meet its goal to cut carbon emissions to 1990 levels. Former Gov. Jerry Brown signed legislation last year requiring all of California’s electricity to be from clean sources, such as solar, wind and hydropower, by 2045. The San Francisco Municipal Transportation Agency recently committed to replacing its diesel- and gas-powered buses with an all-electric transit fleet by 2035.

Skinner’s bill follows a ruling in December by the California Air Resources Board requiring all transit agencies to make their fleets entirely emission-free within two decades. The rules prohibit the purchase of any new gas- or diesel-powered public transit buses by 2029 and require all buses to be emission-free by 2040. It means some 14,000 gas-guzzling public buses will be taken off the streets as they get old and replaced with battery and fuel-cell electric vehicles.

Skinner’s proposal falls in line with the California Global Warming Solutions Act of 2006, which designated the state Air Resources Board as the agency that would monitor and regulate emissions of greenhouse gases. The Air Resources Board already requires truck owners to install diesel exhaust retrofits that capture pollutants and replace engines older than the 2010 model year by 2022. Skinner’s bill would require the board to develop a market-based strategy by Jan. 1, 2021, to bring the trucking industry into compliance with federal ambient air quality standards.

40. Groups Ask Court for Permission to Help Defend Colorado Clean Car Standards

Environmental Defense Fund, the Natural Resources Defense Council and Sierra Club hope to go to court to support the state of Colorado in its decision to adopt protective state clean car standards. The groups filed a motion in Denver District Court asking to intervene in defense of those standards.

In November, the state’s Air Quality Control Commission unanimously voted to adopt Colorado clean car standards that will reduce pollution from passenger cars and trucks and will save families money at the gas pump. Colorado joined a coalition of 13 other states that are already implementing clean car standards, at a time when the Trump administration is trying to roll back our popular and successful national clean cars program.
The Colorado state standards are known as Regulation Number 20, or the Colorado Low Emission Automobile Regulation. The standards are widely supported by Colorado businesses and local governments. They will reduce climate pollution by more than two million metric tons annually in 2030, and by more than twice that by 2040. They will significantly decrease other types of air pollution that cause serious heart and lung diseases. They will also reduce fuel consumption in new cars, which will save Coloradans money – under the state standards, the average Colorado family will see a net savings of almost $2,400 over the six years they own a new car.

The Colorado Automobile Dealers Association filed a lawsuit challenging the state clean car standards in January. EDF, NRDC and Sierra Club filed a motion today to intervene in that suit to defend the standards.

“The legal challenge filed by the car dealers is without merit, rehashing the same arguments already unanimously rejected by the Colorado Air Quality Control Commission. The air commission acted in a thoughtful and deliberate way in adopting these rules,” said Tom Bloomfield at Kaplan Kirsch & Rockwell, which is representing the groups in this case.

ASIA PACIFIC

41. China Says Air Pollution Improved In 2018

China's air quality improved substantially last year, the environment ministry said, following a government crackdown on pollution and a weakening economy.

Thick smog clouds have plagued China's cities for years and represent the dark side of rapid development that has lifted hundreds of millions out of poverty. The country's economic miracle has rested firmly on the output of goods like steel, coal and cement, the production of which are all heavily polluting.

But last year the average level of microscopic airborne PM2.5 particles—which penetrate deep into the lungs—in 338 cities stood at 39 micrograms per cubic meter, a 9.3 percent year-on-year fall, according to a ministry report.

It was an even greater improvement in air quality than 2017, which saw the average concentration of PM2.5 particles fall 6.5 percent from a year earlier, the report said.

Ecology and environment ministry chief Li Ganjie said Beijing would maintain its commitment to fight pollution, even as the country faces an economic slowdown. "We resolutely oppose relaxing or being more lenient with environmental supervision and regulation," he said at a press conference on the sidelines of China's annual parliamentary meeting.

We cannot "sacrifice the environment in exchange for economic growth," he added.

China's economy grew at its slowest pace in almost three decades last year, with 6.4 percent annualized growth in the last three months of 2018.

But Beijing has been forced to balance its concern over an economic slowdown with fears of a public backlash over environmental pollution.
Government authorities also ramped up enforcement of environmental regulations last year, levying a total of 15.28 billion yuan ($2.27 billion) in administrative penalties, a year-on-year boost of 32 percent, according to the ministry's report.

42. China’s Sales Slump May Not Be As Scary As It Seems

The latest sales figures from the China Association of Automobile Manufacturers are grim: New light-vehicle demand fell 18 percent year over year to 2.02 million in January. It was the seventh consecutive decline and the steepest monthly dip since July 2018.

But there are solid reasons to believe the world’s largest vehicle market is not doing as badly as the raw numbers indicate:

1. First, what the association releases each month are wholesale numbers. The decrease in new-vehicle sales at the retail level last month was much milder. Retail sales of new light vehicles dipped 4 percent to 2.16 million, according to the China Passenger Car Alliance, a consultancy affiliated with the China Automobile Dealers Association. The reason behind the wide gap between the decline in wholesale numbers and retail sales: Carmakers stopped dumping excess inventories on dealerships in January. That helps to explain why average stockpiles at dealerships dropped to a 42-day supply last month from 52 days in December.

2. Another piece of important information, which is encouraging, is that while new-vehicle sales have dropped every month since July, used-vehicle deliveries remain robust. In 2018, used-vehicle sales across China posted double-digit gains for the third straight year, advancing 11 percent from 2017 to top 13.8 million behind demand for crossovers and SUVs, according to the China Automobile Dealers Association.

3. More importantly, despite the extended slump in new-car sales, vehicle demand in China is far from saturated. At the end of November, there were 40 vehicles for every 100 Chinese households, well below the average in developed countries, according to the Ministry of Public Security. The Chinese government is also launching a scrappage program for light trucks and passenger vehicles with engine sizes of up to 1.6 liters for rural residents. In rural China -- home to more than half of China’s 1.39 billion residents, there are just 19.3 vehicles for every 100 households.

4. While slowing, the Chinese economy is still widely expected to grow around 6 percent in 2019. As long as the economy keeps growing and potential vehicle demand remains huge, it won’t take long for the Chinese new-car market to stabilize, if not resume growth.

43. EVs Shine As Market’s Lone Bright Spot

Electric cars are holding their own in China, even as the industry has seen a slump in overall sales for seven straight months. Deliveries of new-energy passenger vehicles, which include full-electric, plug-in hybrid and fuel cell vehicles, more than doubled to 85,000 in January, fueled by a rush before the government scales back subsidies for the zero- and low-emission automobiles by 2020. By contrast, total passenger car sales tumbled almost 18 percent to 2.02 million units in the month, according to data this week from the China Association of Automobile Manufacturers.

While China has decided to phase out incentives to those buying new-energy cars over the years, it has yet to unveil a new subsidy plan for 2019 that would cut the discounts. At present, buyers can get as much as 75,000 yuan ($11,130) from both the central and local governments for a pure-electric e5 sedan made by BYD Co., which offers a driving range of 450 kilometers (280 miles) per charge. That would save the customer a third of the cost.
Restrictions on car ownership in some mega-cities such as Beijing and Shanghai to ease congestion and pollution are also playing a significant role in improving EV sales, said Bill Russo, founder and CEO of Shanghai-based consultancy Automobility Ltd. Most of the EVs are used by ride-hailing and car-sharing services, he said.

The rising demand is prompting automakers to boost production and add new models. Tesla Inc. is accelerating its push in China with a planned manufacturing presence, and the U.S. company will compete against electric cars by global brands such as Volkswagen AG and BMW AG as well as dozens of local manufacturers seeking a piece of the pie.

44. China To Ensure New Energy Car Growth In Post-Subsidy Era

China will prevent roller-coastering in its booming new energy vehicle market as the country is slated to cut its subsidies again in 2019 and stop them by the end of 2020, said Miao Wei, minister of industry and information technology. "Departments concerned are working on the subsidy scheme for 2019 and the overall guiding principle is to prevent the withdrawal of subsidies from causing turbulence in the sector," said Miao when addressing the annual China EV100 Forum held in Beijing.

China started to finance its new energy vehicle industry from 2009 and tens of billions yuan have been given to carmakers. After 10 years of development, the industry has become less reliant on financial stimuli as new energy vehicles are starting to gain momentum in the private market.

Last year, 1.25 million new energy vehicles were sold in China, up 61.7 percent year-on-year, and the figure is expected to reach 1.6 million this year. This is despite the overall vehicle market remaining flat, according to the China Association of Automobile Manufacturers.

Miao said the prospects have attracted almost all carmakers to increase their electric plans in the country, with investment along the whole industry chain reaching 2 trillion yuan ($296 billion).

"As competition intensifies, it will be a challenge for some time to protect the hard-won results over the past years after the subsidies are phased out by the end of 2020," he said.

He added China will announce a number of measures to ensure the sector's future development, ranging from building charging infrastructure to encouraging outsourcing and international cooperation to build competitive products.

Wan Gang, vice-chairman of the National Committee of the Chinese People's Political Consultative Conference, said the authorities should summarize the experience of the past decade and work out a development plan for 2035 as soon as possible.

"The primary goal is to enable the industry and society to have clear, long-term expectations," he said at the China EV100 Forum. "Our supportive policies should not be limited to financial stimuli; there should be other policies as well," said Wan, former minister of science and technology and a leading expert in the country's new energy vehicle program.

He said China's dual-credit policy, which consists of gasoline cars' fuel consumption and new energy vehicle production, will become a driving force in the industry. The policy, which will be put in place this year, requires carmakers in China to produce a certain number of new energy
vehicles to amass credits. If they don't meet the goal, they either have to buy credits from others or get fined.

In terms of stimulating sales, Wan said the country should offer new energy vehicle users more road rights and make license plates for such vehicles easier to obtain than gasoline ones. He also suggested that some regions should ban non-electrified vehicles, especially those for public use, including buses, taxis and rental cars.

The authorities in Hainan province announced in April 2018 that it will forbid sales of non-electrified vehicles starting from 2030.

BYD Co, one of the largest new energy carmakers in the world, said all buses and taxis in Shenzhen, Guangdong province are now electric ones. Wang Chuanfu, BYD chairman, called on other cities to follow suit, saying that it is possible to have a wholly electrified market in China by 2030.

He said new energy vehicles will beat gasoline cars in terms of prices and range by around 2025.

Ouyang Minggao, a member of the Chinese Academy of Sciences and a senior expert in new energy vehicles, agreed that the year 2025 will be a crucial point in the development of new energy vehicles. "By then, technologies about lithium batteries and fuel cells will become mature and the prices of new energy resources and renewable resources will see their turning point, as will new energy vehicles," said Ouyang.

He expects China to have around 50-80 million new energy vehicles by 2025. "It is very likely and we should be well prepared."

45. China's Carbon Emissions Rose At Least 3 Percent In 2018

Despite an economic slowdown, China’s carbon emissions rose by at least 3 percent in 2018 over the previous year, and possibly more, according to analysis of data from an annual statistical report released on Feb. 28. The report by the National Bureau of Statistics for 2018 didn’t give an overall total of greenhouse gas emissions. Greenpeace Global Air Pollution Unit and other analysts in China figured the increase based on data for fossil fuel consumption.

China is the world’s leading carbon emitter, accounting for around 27 percent of global emissions of carbon dioxide, the gas primarily driving climate change.

While estimates of the increase in emissions vary, it’s clear that China’s carbon emissions have grown for two years in a row after plateauing between 2013 and mid-2016.

Coal consumption grew in China for the second year in a row at an official rate of 1 percent over 2017, China's Statistical Communique on National Economic and Social Development in 2018 said.

Crude oil consumption increased by 6.5 percent, natural gas consumption increased by 17.7 percent, and total power consumption increased by 8.5 percent.

“Going by the reported increase in coal, oil and gas consumption, CO2 emissions increased by around 3 percent,” Lauri Myllyvirta, senior analyst at the Greenpeace Global Air Pollution Unit, told reporters. “There is major uncertainty around the coal consumption numbers, however,”
Myllyvirta said. “Reported coal production increased by 8 percent from 2016 to 2018, and thermal power generation increased 12 percent, yet reported coal consumption only increased by 1.4 percent [in those two years].”

If the coal consumption increase for the year was around 3 percent, as reported in the first three quarters of 2018, the likely rate for carbon dioxide increases from coal-fired power sources would be around 4.4 percent, Myllyvirta said.

According to estimates from the Global Carbon Project and University of East Anglia released last December, China’s carbon emissions were around 4.7 percent higher in 2018 than the year before.

“There’s so little data on coal and gas use by sector that it’s very hard to estimate emissions from industrial output the way they did,” Myllyvirta said. “[Yet] it’s clear that a lot of the increase in power demand is replacing direct coal use with electricity, which shows as an increase in power sector coal demand.”

The government of Xi Jinping has officially set 2030 as the year it expects those emissions to peak under agreements through the United Nations Framework Convention on Climate Change.

Recent bureaucratic challenges have frozen climate policy. The responsibility for climate policy shifted as of November from the National Development and Reform Commission to the Ministry of Ecology and Environment.

At the provincial and local level, where much of the National Development and Reform Commission’s work on initiatives such as carbon trading pilot programs, low carbon cities, and other efforts for reducing carbon emissions were occurring, efforts have been reduced to bare bones due to difficulties related to switching staff.

The transition has been tough, Li Shuo, senior climate and energy policy officer at Greenpeace East Asia, told the press. “As a result of that [change], in many provinces the climate capacity needs to be rebuilt.”

National carbon emissions trading in particular has had a setback, Li said. China since 2013 said that the national carbon emissions trading program would be its main way to curtail rising industrial carbon emissions. The system initially was to start in 2016.

Yet when officially launched at the end of 2017, it was cut back to only cover the power sector and not the eight sectors that were expected to be included. A phase-in plan put official trading off to around 2020.

“As the largest developing country, China has always assumed its own environmental responsibilities and obligations based on national conditions and abides by its commitment to coping with global climate change,” ministry spokesman Liu Youbin said at a monthly press conference on Feb. 28 in Beijing, adding that China would work to meet its international commitments.

Coal as part of total energy consumption dropped by 1.4 percent, with coal use now comprising 59 percent of the total energy mix largely due to increases in renewables and natural gas use.
Carbon intensity, or the amount of carbon emissions released to make up one unit of gross domestic product, dropped by 4 percent year over year.

“Despite the comparatively large slowdown of the economy in 2018, fast growth in secondary industry lead to an increase in energy consumption and a sizable increase in coal consumption in terms of both production and consumption,” Zhou Dadi, former head of the Energy Research Institute under the National Development and Reform Commission, said in a statement.

“This shows us that in order to sustain economic growth, China is not paying enough attention to improving energy efficiency and cutting emissions,” Zhou said. “Data shows that China is on track to realize its carbon intensity reduction targets, but as the world’s largest emitter, China’s carbon reduction ambition still lags.”

**46. Diesel Trucks, Ozone Depleters Get Focus in China’s New Air Plan**

Reducing air pollution from motor vehicles and eliminating chemicals that deplete the Earth’s ozone layer will get increased attention in China’s latest air pollution plan, released March 6. The updated air pollution plan called for winter air pollution work, including efforts to reduce the use of small coal-fired heaters in rural homes and increased access to cleaner natural gas.

It also provides for traffic and industrial production restrictions during heavy pollution periods in the main control areas, including the regions around Beijing, Shanghai, and the coal-belt provinces of Shanxi and Shaanxi.

Liu Bingjiang, head of air pollution control at the Ministry of Ecology and Environment, said reducing pollution from motor vehicles in particular “is still very difficult,” according to his remarks released March 6 at the National People’s Congress, the annual legislative meeting.

About 45 percent of air pollution in Beijing is from mobile sources, Liu said. “It is no longer [just] a coal management [issue] and has been transferred to mobile source management.”

Checks will continue to increase on heavy-duty diesel trucks coming through the Beijing region, he said. More than 2 million were inspected for emissions compliance in 2018.

All public buses in Beijing will be electric by the end of 2020, the top air pollution official added. The municipal bus fleet already is all electric in the south China city of Shenzhen.

The air pollution plan also noted efforts by environmental authorities to crack down on illegal production of ozone-depleting substances such as the banned chemical trichlorofluoromethane, or CFC-11, used in polyurethane foam insulation. China came under international pressure last year after illegal production of CFC-11 was discovered during on-the-ground investigations by a U.K.-based environment group, the Environmental Investigation Agency.

A May 2018 report published in the scientific journal Nature showed a 23 percent increase in CFC-11 between 2012 and 2015 in the region, though the source of the increase wasn’t known at the time. In response, and ahead of the 30th Meeting of the Parties to the Montreal Protocol on ozone-depleting substances in November, the Ministry of Ecology and Environment launched inspections of at least 1,000 companies and made several arrests related to illegal production.
Some cities in China’s most heavily polluted regions have been given more leeway about when they place curbs on production and traffic compared to two years ago, after complaints followed inspections, production halts and shutdowns.

Air pollution control in the Beijing-Tianjin-Hebei province region had “great results” in the past few years, but air pollution there increased from January into March, said Li Wei, minister of the Development Research Center of the State Council, China’s top decision making body, in remarks at a legislative meeting.

The results made officials take note that “management of air pollution in the autumn and winter is still the most important task.” Winter air pollution controls would be extended through March 2020, the updated plan said.

47. China’s Premier Says Maintain Strong Enforcement Amid Slowdown

During his March 5 presentation of a report outlining government priorities at the opening of annual meetings of the National People’s Congress Chinese Premier Li Keqiang said environmental enforcement needed “reform and innovation.” Regulators must follow the law “but also attach importance to reasonable appeals, strengthen assistance and guidance, give a reasonable transition period [for meeting the standards], and should not resort to simple and rude measures to close.”

Li mentioned the War for Blue Sky many times in his report, e.g., “Strengthen the enforcement of ecological and environmental protection supervision”, “pollution prevention and control should focus on key tasks such as winning the battle for blue sky...continuously improve the quality of ecological environment”, “continue to promote pollution prevention and control....continue to carry out air pollution control in key regions...strengthen the management of three major pollution sources of industry, coal burning and motor vehicle”.

He seemed to be encouraging continued strong enforcement but cautioning against heavy handed factory shutdowns as the first course of action.

China’s campaign against air pollution has had some success, particularly in the capital of Beijing in the north. At the same time, it has led to thousands of factories and other businesses being closed during nationwide inspections. Industries complained of a “one-size-fits-all” enforcement pattern.

The premier emphasized that efforts will be made to further reduce sulfur dioxide and nitrogen oxide emissions, and that average daily intensity of PM 2.5—fine particulate matter that can damage lung tissue—would be a priority in key air pollution control areas around Beijing, Shanghai, and in China’s coal belt provinces of Shanxi and Shaanxi.

48. China’s War On Smog Targets Coal-Fired Power And Diesel Trucks

China will extend winter anti-smog measures such as production cuts and traffic restrictions for a third winter in a row, the environment ministry said in a pollution battle plan for 2019 published recently. The Ministry of Ecology and Environment (MEE) also vowed to speed up the elimination of small coal-fired heating boilers in major regions. It will step up the elimination of outdated and excessive production capacity in polluting sectors such as steel, coal and coal-fired power.
China is in the sixth year of a “war on pollution” aimed at reversing the damage done by more than three decades of breakneck economic growth, and it has acted to eliminate outdated vehicles and production technology, cut industrial emissions and ease its dependence on coal.

However, according to Reuters analysis, only six of 39 smog-prone northern Chinese cities have managed to cut concentrations of hazardous airborne particles known as PM2.5 during the latest winter anti-smog campaign beginning last October. Average PM2.5 concentrations actually rose 13 per cent over the period.

That will mean the cities have to make further cuts this year. The MEE’s new plan said cities that failed to meet air quality standards this winter would have to cut PM2.5 by at least 2 per cent in 2019.

Liu Bingjiang, a senior MEE official, said that while the rebound was partly caused by weather anomalies, some local governments believed they deserved “a rest after years of hardship” to meet the anti-smog measures. He added that those governments would face punishment.

The 2019 action plan outlined further steps this year to control coal consumption. The ministry said it would help draw up new measures aimed at encouraging the use of cleaner-burning replacement fuels and speed up efforts to eliminate small and inefficient coal-fired heating boilers in smog-prone regions.

It said it would further promote the implementation of ultra-low-emission coal-fired power in western regions and encourage steel mills to install ultra-low-emission technology.

The ministry vowed to crack down harder on the production, import and use of substandard diesel vehicles, encourage bulk commodity deliveries by trains rather than trucks, and make use of satellite technology to monitor rural air pollution sources.

49. Future Of Volkswagen Lies With China, Says Executive

Volkswagen AG expects China, which accounts for around 40 percent of its annual sales, to play an even more important role as cars are becoming smart, electric and connected, saying the country will replace Europe as the source of its technologies.

"The future of Volkswagen will be decided and determined here in China," CEO Herbert Diess said recently in Beijing. "As cars are becoming more internet devices, you need a totally new set of skills, which are not really present in Germany. We don't have a big software ecosystem," said Diess, who has also taken the helm of the carmaker's operations in China.

Volkswagen has been the best-selling brand in the country. Last year, Volkswagen, together with its Audi, Skoda and Porsche brands, delivered 4.21 million cars to Chinese customers, up 0.5 percent year-on-year.

But Diess said its approach in the past of taking automotive technologies and standards from Europe into China must now change into co-developing them for the rest of the world.

China is the world’s largest automotive market, with room for further growth and prospects of a technological rise in terms of mobility unseen in other parts of the globe, he said, adding that more importantly, the Chinese government has a clear roadmap for its automotive industry. "President
Xi has stated his clear vision, which focuses on emission-free fully electric cars, and also focuses on autonomous driving," Diess said.

"Moreover, President Xi also drives the automotive industry to further opening-up, which means new investment possibilities and bigger stakes for foreign companies, which are very much motivating for us." China announced plans last year to phase out the equity cap on foreign ownership in automotive joint ventures by 2022.

Diess said Volkswagen will work out details in coming months with Chinese joint venture partners - FAW, SAIC Motor and JAC Motor - over plans for technological development with them and Chinese internet companies. He said conclusions will be reached this year, which will be crucial for Volkswagen's development in the next decade or two in China.

Volkswagen has already made moves in trend-setting technologies, including electro-mobility and autonomous driving. It will invest more than 4 billion euros ($4.51 billion) this year in terms of e-mobility, connectivity and mobility services, said Jochem Heizmann, then-president and CEO of Volkswagen Group China, at the Guangzhou auto show in November. He said the company will offer 30 new energy vehicle models under different brands in the market by the end of the decade, and half of them will be locally produced at its three joint ventures.

The company has set a target of selling 400,000 new energy vehicles in China in 2020 and 1.5 million in 2025.

Late last year, Volkswagen joined hands with Baidu to develop autonomous driving solutions in the country. In 2017, Baidu opened the Apollo consortium, which uses an open-source approach, to third parties to accelerate development of autonomous vehicles. Apollo has brought in more than 130 partners, including BMW and Volvo.

Volkswagen has also set up a technology company in China called Mobility Asia, which is aimed at offering a large portfolio of connectivity services that will make the car a home or office on wheels, according to the carmaker.

50. Toyota Is Growing In China As Its Global Rivals Stumble

The biggest global automakers are having a terrible time in the world's largest market with one notable exception: Toyota. Car sales in China fell last year for the first time in about two decades. GM was down 10%, Ford plunged 37% while Volkswagen just about held its ground. Sales of Toyota vehicles, however, surged 14% to almost 1.5 million.

The Japanese company's strength in China has helped offset a poor performance in the United States, where its sales are declining. And it's predicting further growth in China this year.

The Chinese market is crucial for the auto industry. Global car brands have come to depend on blockbuster sales to millions of Chinese consumers who are using their growing wealth to buy a first car or upgrade. But the removal of subsidies, an economic slowdown and a trade war with the United States dragged down demand last year.

Toyota has bucked the trend thanks to a combination of factors, analysts say, including the company's intensified focus on the Chinese market, new tariffs that have hurt some of its rivals, and its stable of hybrid vehicles.
As the trade war erupted last year, China hiked tariffs on vehicles made in America, while cutting them on those imported from Japan and Europe. BMW and Daimler, the owner of Mercedes Benz, which ship high-end vehicles to China from their US plants, warned last year that the new Chinese tariffs were hitting their profits.

China has since lowered tariffs on US-made vehicles while it tries to negotiate a deal with the United States, but experts say that the uncertainty from the trade war has already boosted Toyota. Sales of the company's premium Lexus cars, which are built in Japan, have been gaining momentum in China.

"Consumers need some alternative, of which Toyota is one of the more attractive options," said Mio Kato, founder of Tokyo-based equity research firm Lightstream Research.

Toyota did better last year than other Japanese carmakers. Nissan's sales in China rose just 3%, while Honda's slipped 1%, according to data provider Marklines.

That's partly because Toyota is playing catchup in the world's number two economy, Kato said. It sells about half as many cars in China as GM. The Japanese company has historically prioritized the United States, its biggest international market, according to analysts.

Toyota now appears to be stepping up its game in China. It was reported last year that Toyota is aiming to triple its car production in the country in the coming decade, a target the company hasn't confirmed publicly.

The Chinese government's big push to get more electric vehicles on its roads as it battles air pollution and carbon emissions has helped Toyota, according to analysts. China is the world's biggest market for electric vehicles, accounting for about half of global sales. Toyota has been pushing sales of its hybrid-engine vehicles, which are proving popular with Chinese drivers who can't yet afford to switch to a fully electric car.

The Chinese government has also realized that in order to meet its vehicle emissions targets, it can't rely on electric vehicles that run purely on batteries, analysts say. Hybrids are generally cheaper to buy than battery-only cars and don't face the same worries from consumers about their driving range.

"Government backing for hybrid vehicles in China is likely to make things much easier for Toyota and give the company a significant leg up on the competition," Kato said.

51. Beijing Solicits Comments on Sixth Phase of Motor Vehicle Emission Standards

According to the Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution, in accordance with the "Opinions on Strengthening Ecological Environment Protection and Resolutely Fighting Beijing's Pollution Prevention and Control" issued by the Municipal Party Committee and Municipal Government (Jingfa [2018] No. 16) and "Beijing wins The relevant requirements of the Three-Year Action Plan for the Blue Sky Defense War (Beijing Zhengfa [2018] No. 22), the city plans to implement the sixth-stage motor vehicle emission standards in advance. To this end, the Office drafted the "Notice on the Implementation of the Sixth Phase of Motor Vehicle Emission Standards in Beijing (Consultation Draft)" (Annex 1) and its preparation instructions (Annex 2) and are now seeking your opinion.
In order to further increase the prevention and control of motor vehicle pollution, and continuously improve the city's ambient air quality, in accordance with the "Law of the People's Republic of China on Air Pollution Prevention and Control", in accordance with the "Promotion of Strengthening Ecological Environment Protection in an All-round Way to Resolutely Fight Beijing's Pollution Prevention and Control" The Opinions (Jingfa [2018] No. 16) and the "Three-Year Action Plan for Beijing to Win the Blue Sky Defense War" (Jing Zheng Fa [2018] No. 22), the city will implement the sixth phase of motor vehicle emissions Standard, in which light gasoline vehicles implement the "Light Vehicle Pollutant Emission Limits and Measurement Methods (China Stage 6)" (GB 18352.6-2016), heavy-duty gas and diesel vehicles implement "heavy diesel vehicle pollutant emission limits and measurement methods (China's sixth phase)" (GB 17691-2018). The relevant matters are hereby notified as follows:

1. Since July 1, 2019, heavy-duty gas vehicles sold and registered in this city, as well as heavy-duty diesel vehicles in the public transportation and sanitation industry, must meet the requirements of the national six-stage b standard. Since January 1, 2020, the light-duty gasoline vehicles sold and registered in this city and the heavy-duty diesel vehicles in other industries must meet the requirements of the national six-stage b standard. The specific time node requirements for the implementation of light-duty gasoline vehicles are listed in the annex.

2. Those who have purchased before the date of implementation of the standards stipulated in this notice (subject to the date of purchase of the vehicle) and those who have transferred from other provinces and cities to the city (subject to the date of transfer registration of the motor vehicle registration certificate) Vehicles required by the fifth stage emission standards may continue to apply for vehicle registration within one month after the date of implementation of the standards specified in this notice, and will not be processed after the deadline.

3. All motor vehicle sales units are required to organize and arrange sales plans in advance, conscientiously implement the requirements of the sixth phase of motor vehicle pollutant discharge standards, implement the main responsibility of sales, express the relevant contents of this notice in the business premises, and inform the car buyers of relevant regulations. For those vehicles that do not meet the national six b emission standards after the date of implementation of the standards stipulated in this notice, the market supervision department shall pursue legal liabilities according to law.

4. In order to ensure the smooth implementation of the sixth-stage motor vehicle emission standards, the relevant departments of this Municipality shall strictly control the vehicles. The Public Security Traffic Management Bureau of the Beijing Public Security Bureau shall not handle the registration procedures for vehicles that do not meet the requirements of this Notice.

(The above is a google translation of part of the notice.)

In early January this year, China's Ministry of Ecology and Environment, the National Development and Reform Commission and nine other government bodies published an Action Plan for Battle against Diesel Truck Pollution. Detailed tasks are classified in four programs: Clean Diesel Vehicles, Clean Engines, Clean Transportation and Clean Fuels. Beyond Beijing, the Action Plan calls for early adoption of China VI emission standard in key regions, PRD, Sichuan and Chongqing by July 1, 2019, 2 years earlier than the national schedule.

52. NGT Slaps Rs 500 Crore Fine on Volkswagen
The National Green Tribunal has slapped a fine of Rs 500 crore\(^2\) on German auto major Volkswagen for damaging the environment through the use of "cheat device" in its diesel cars in India. A bench headed by NGT chairperson Justice Adarsh Kumar Goel directed Volkswagen to deposit the amount within two months.

The tribunal enhanced the compensation amount of Rs 171.34 crore, which was recommended by an NGT-appointed committee, as a means of "creating deterrence".

The automaker, however, said that it did not violate the BS-IV norms and that the test results were based on "on road testings" for which there were no prescribed standards. The bench said, "Sustainable development is the main guiding factor... We are unable to accept the manufacturer's objections to the report."

It said that the apex pollution monitoring body may consider utilizing the money towards improving air quality in the National Capital Region and other highly polluted areas.

The green panel on November 16, 2018 had said that use of ‘cheat device’ by Volkswagen in diesel cars in India leads to inference of environmental damage and had directed it to deposit an interim amount of Rs 100 crore with the Central Pollution Control Board (CPCB).

It had also constituted a joint team of representatives of the CPCB, Ministry of Heavy Industries, Automotive Research Association of India (ARAI) and National Environmental Engineering Research Institute, which had recommended Rs 171.34-crore fine on Volkswagen as “health damages” for causing air pollution in Delhi due to excess nitrogen oxide (NOx) emissions.

The expert committee in its report has estimated that Volkswagen cars released approximately 48,678 tons of NOx in 2016 in the national capital.

“Estimated cost of health damage due to additional NOx emissions from the Volkswagen group vehicles is approximately Rs 171.34 crore using a metro city i.e. Delhi as base. The value may be considered conservative due to lack of methodologies for calculating the overall impact of nitrogen oxide on the environment in India and hence only health damages are valued.

“Further, the valuation is for Delhi considering that the value of NOx is 435 tons released in the city. This is assumed because lack of data on the geographical locations and plying regions of Volkswagen vehicles which have caused the damage and for all the years which have been considered for damage,” the committee has said in its report.

The panel was formed by the NGT on November 16 last year to give its opinion whether the manufacturer has exceeded the prescribed environmental norms and fair estimate of the damage caused to the environment.

The committee has told the NGT that automobiles are a major source of nitrogen oxide. The green panel had said the use of ‘cheat device’ by Volkswagen in diesel cars in India leads to inference of environmental damage and asked the German car maker to deposit an interim amount of Rs 100 crore with the Central Pollution Control Board.

The tribunal was hearing pleas filed by Ailawadi, a school teacher, and a few others seeking ban on the sale of Volkswagen vehicles for alleged violation of emission norms.

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\(^2\) 10 million
A ‘cheat’ or ‘defeat device’ is a software in diesel engines to manipulate emission tests by changing the performance of the cars globally.

Volkswagen India had in December 2015 announced the recall of 3,23,700 lakh\(^3\) vehicles in India to fix the emission software after ARAI conducted tests on some models and found that their on-road emissions were 1.1 times to 2.6 times higher than the applicable BS-IV norms.

The automobile giant had admitted to the use of ‘defeat device’ in 11 million diesel engine cars sold in the US, Europe and other global markets to manipulate emission test results.

After the tests by ARAI, Volkswagen India had undertaken to rejig the software by recalling around 3.23 lakh vehicles fitted with EA 189 diesel engines which were in alleged violation of emission norms. The company, however, had said that the recall in India was purely voluntary in nature as it did not face any charges regarding violating emission norms in India, unlike in the US.

53. India Jump-Starts Homegrown Electric Vehicle Industry

India Prime Minister Narendra Modi approved a 100 billion rupee ($1.4 billion) package to boost the production and sale of electric vehicles and components over the next three years. India will offer incentives to customers switching to electric cars, buses, and motorbikes and support the creation of a close-knit charging network countrywide, the government said. The incentives are targeted to vehicles where at least 40 percent of its components are manufactured in the country.

“We are thankful to the government for accepting our demands for a long term scheme with substantial fund support, which would encourage associated industry players to invest in the sector,” said Sohinder Singh Gill, chief executive officer of manufacturer Hero Electric and director general of the industry group Society of Manufacturers of Electric Vehicles.

The incentives announced recently are the second phase of the FAME program (Faster Adoption and Manufacturing of [Hybrid and] Electric Vehicles in India), following a much smaller rollout in 2015. The program emphasizes electrifying public transportation, such as buses or taxis, which have the potential to pull more cars off the roads and streets by carrying multiple passengers. But it also includes incentives for private vehicles, such as motorbikes and registered rickshaws and cars.

And it also proposes deploying 2,700 charging stations in large and midsize cities by 2022, stretching the network to the country’s hilly states.

Anup Bandivadekar, India lead with the International Council on Clean Transportation in San Francisco, said the program is long overdue. “These incentives are necessary, but not sufficient to drive large scale adoption of EVs in India,” he said. “Specifically, the government should require vehicle manufacturers to meet a certain fraction of their sales through EVs.”

India has such a measure to encourage a long-term growth trajectory in the power sector with the renewable purchase obligation. An equivalent zero-emissions vehicle mandate is necessary to ensure that a range of EV models are available on the market, Bandivadekar said.

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3 One hundred thousand
“California and China, two of the largest EV markets in the world, already have such a program in place,” he added.

India’s electric vehicle sales and manufacturing still lag behind other major economies and about 70 percent of the lithium batteries and other components are imported from China, Taiwan, and Korea, according to industry sources.

54. PM Narendra Modi Pushes Green Mobility in India:

According to a study from the World Health Organization, 9 out of every 10 people in the world breathe air that contains high levels of pollutants and kills 7 million people each year. Vehicular pollution has been a major source of air pollution and efforts are being made on a global scale to reduce the vehicular pollution as much as we can in the shortest possible time span. Electric vehicles are one such way to tackle the rising pollution level.

However, replacing the conventionally fueled vehicles (gasoline/ diesel/ CNG) with electric vehicles needs a lot of R&D effort, infrastructure cost and willingness of consumers to spend extra on vehicles. In a market like India, all three possibilities will take years of hard work and effort from governments. What can be done, though, is implementing the EV policy on commercial vehicles like intra-city buses.

Prime Minister Narendra Modi’s led Government of India is giving a serious push to the clean mobility initiative in the country. Recently, PM Modi flagged off a one-off electric locomotive that has been converted from a diesel engine. The Government is also pushing for electric vehicles in the country and announced that they are planning to install electric chargers every 25 km on the road.

Here’s all the efforts taken by the Government of India to promote electric vehicles in India, including electric trains, electric buses and electric cars!

- In response to a question in the Rajya Sabha, the Ministry of Road Transport and Highways led by Union Minister Nitin Gadkari listed all the steps taken by the government to promote the use of electric vehicles in the country. Here are a few of them –

- Government had notified for retro-fitment of the hybrid electric system or electric kit to vehicles

- To provide EVs with a distinct identification, the registration mark for battery operated vehicles is to be on a plate with green background

- To encourage the usage of electric two-wheelers of up to 4.0KW motor, the ministry has allowed granting license to age group of 16-18 years to drive gearless e-scooters and bikes

- Indian Space Research Organization (ISRO) has commercialized the indigenously developed lithium-ion battery technology and has already selected 14 companies for transfer of technology, which will promote localization of the technology, thus lowering the TCO for EVs.
A bus has to run a limited kilometers a day (~200km) and can be charged by a charging station in the depot itself. The Government of India has realized the potential of electric buses and is pushing for more and more e-buses to ply on roads. The Ministry of Urban Development of the country recently launched the Green Urban Transport Scheme (GUTS) with the aim to reduce carbon emissions from the public transport vehicles in the country. The ministry proposed an INR 250 billion grant for developing electric vehicles for public transport.

And a lot of state governments are also supporting the cause. Electric bus manufacturers like Ashok Leyland, Goldstone Infratech, Tata Motors, JBM Auto, Solaris, BYD are all working with various state governments to electrify our public transport. Cities like Lucknow, Delhi, Sabarimala, Hyderabad have started the electric buses on trial basis or have started full-fledged commercial operations.

The government's premier think-tank body, NITI Aayog has taken an initiative to provide a Model Concessionaire Agreement (MCA) document for introducing electric-bus fleet in cities for public transportation on Public-Private Partnership (PPP) mode on operational expenditure (per km basis) model rather than paying the upfront capital cost. This move is said to enable manufacturers as service providers, thus leading to lower capital expenditure for the government.

For promoting the adoption of electric mobility in the country, the government had launched the Phase-I of FAME India Scheme [Faster Adoption of Electric (& Hybrid) Vehicles in India] with effect from April 1, 2015. This was initially for a period of two years and has subsequently been extended till March 31, 2019. All electric and hybrid vehicles, including public transport, registered under the scheme are being incentivized under the demand-creation focus area of this scheme.

The Union Cabinet is likely to consider approval of the second phase of FAME India scheme this month to boost clean mobility, with an outlay of Rs 5,500 crore spanning five years, officials said. The scheme in its second phase will offer a bouquet of incentives, such as exemption from paying road tax, registration fee and parking charges for various categories of electric and strong hybrid vehicles.

The second phase of the scheme will be rolled out through verticals including demand incentives, a network of charging stations, pilot projects for innovative proposals, technology platform for e-mobility, and its administration.

In a first, the Indian Railways has converted a diesel locomotive into an electric one, as part of efforts to completely electrify the broad gauge network. Prime Minister Narendra Modi also flagged off an electric locomotive converted from a diesel engine at the Diesel Locomotives Works (DLW) in his constituency of Varanasi.

The work on the project began on December 22, 2017, and from concept to execution of the conversion of the diesel locomotive to electric was carried out in just 69 days, railway officials said. In keeping with the Indian Railways' Mission 100 per cent electrification and de-carbonization agenda, DLW has developed a new prototype electric locomotive converted from diesel locomotive.

55. Some Cities in India Have Electric Bus Service Already

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4 10 million
The Government of India has realized the potential of electric buses and is pushing for more and more e-buses to ply on roads. The Ministry of Urban Development of the country recently launched the Green Urban Transport Scheme (GUTS) with the aim to reduce carbon emissions from the public transport vehicles in the country. The ministry proposed an INR 250 billion grant for developing electric vehicles for public transport.

And a lot of state governments are also supporting the cause. Electric bus manufacturers like Ashok Leyland, Goldstone Infratech, Tata Motors, JBM Auto, Solaris, BYD are all working with various state governments to electrify public transport. Here’s a list of the cities where the electric buses are already running on a trial basis or have started the full-fledged commercial operations.

**New Delhi, Delhi**  
**Bus Supplier – Olectra-BYD, JBM-Solaris**

In a move to combat the increasing pollution levels in the capital city of India, the State Government of Delhi initiated the trials of Olectra-BYD’s 12 Meter electric bus – eBuzz K9 with a 35+1 (Driver) seating capacity. The ‘Make in India’ eBuzz K9 from Olectra-BYD will run on route number 534 between Anand Vihar ISBT to Mehrauli Terminal. These trials, which will be conducted for 3 months, will enable the authorities to evaluate the efficiency and competency of the buses in the standard road conditions of Delhi.

Also, JBM Solaris Electric Vehicles Ltd’s, 100% electric bus Eco-Life is on a trial run in Delhi. The company claims that Eco-Life, a Zero Emission Vehicle can save 1000 tons of carbon dioxide and 350,000 liters of diesel over 10 years of operation. Powered by fast charging lithium batteries, the bus can run 150-200 kms in 10-15 hours of city bus operation, depending on the city’s traffic conditions.

**Lucknow, Uttar Pradesh**  
**Bus Supplier – Tata Motors**

Tata Motors will be supplying 40 units of the Ultra 9m AC Electric buses to the Lucknow City Transport Services Ltd (LCTSL) in a phased manner, within the next four months. The first Ultra 9/9m AC Electric bus was flagged off in Lucknow by the Minister of Urban Development, Suresh Kumar Khanna along with dignitaries from LCTSL and Tata Motors recently. The new bus will begin its journey from Alambagh depot. Manufactured at Tata Motors and Tata Marcopolo Dharwad plants, the Ultra Electric buses will have a travelling range of up to 150 kilometers on a single charge. The company has installed a charging station at the Alambagh depot for fast charging of buses.

**Sabarimala, Kerala**  
**Supplier - Olectra-BYD**

In a first of its kind move, the pilgrims of Sabarimala can now travel in zero emission electric buses from Olectra – BYD. The company started the service with eBuzz K7 model, under Kerala State Road Transport Corporation (KSRTC). These Buses are manufactured in India by Olectra Greentech (Formerly Goldstone Infratech) in a strategic tie-up with BYD Auto Industry Co. Ltd. The 9-meter air-conditioned low floor buses have a capacity of 32+1 (driver) and has a range of 250 kms in a single charge. The high-power AC charging system enables the battery to get fully recharged in between 2-3 hours.

**Manali, Himachal Pradesh**
Goldstone Infratech Limited’s Zero Emission electric bus has officially started running under Himachal Pradesh Transport Corporation. The 25+1 seater Goldstone eBuzz K7 will ply between the Kullu-Manali-Rohtang Pass. This bus from Goldstone Infratech has the distinction of successfully completing trials at a steep gradient and over 13,000 feet altitude for the first time in the country. The bus which has been Made in India by Goldstone Infratech Ltd. has been certified by Automotive Research Association of India (ARAI), after extensive testing at part level and vehicle level at various testing facilities.

**Dehradun, Uttrakhand**  
Supplier - Olectra-BYD

Electric vehicle manufacturer Olectra-BYD has said it has signed an agreement with Uttrakhand government to deploy 500 AC Electric Buses in the state with an investment of Rs 700 crore. As per the pact, Hyderabad based Olectra Greentech in a strategic tie-up with China's BYD Auto Industry will deploy the Made in India eBuzz K7 (9 meter) and eBuzz K9 (12 meter) electric buses in the state. Olectra-BYD has started trial run for one month between Dehradun to Mussoorie and the charging infrastructure has been installed at Dehradun. The bus offers state-of-the-art technologies like CCTV camera, GPS navigation, panic button and many more to ensure the safety of passengers.

**Hyderabad, Telangana**  
Supplier - Olectra-BYD

Olectra-BYD has begun commercial operations of eBuzz K9 eBus under the Telangana State Road Transport Corporation (TSRTC). These buses are part of a contract for deployment of 40 AC electric buses which TSRTC awarded on Gross Cost Contract basis to Olectra-BYD. The Department of Heavy Industry, under the Faster Adoption and Manufacturing of Hybrid and Electric vehicles in India (FAME-I) scheme has provided a subsidy of Rs 1 crore for each bus to Telangana. The 12-meter air-conditioned low floor buses having a capacity of 39+1 seats will ply from different locations in Hyderabad to Hyderabad International Airport.

56. India Hopes Electric Car Tax Breaks Boost Demand

India is considering cutting the goods and services tax rate (GST) on electric vehicles to 5 percent from 12 percent, creating a 300 percent tax break on investment in research and development, and increasing customs duties on certain battery pack parts and battery management systems, according to a government document. A government-appointed committee will oversee the details of the scheme.

On March 7th, Prime Minister Narendra Modi’s cabinet approved a broad program to stimulate domestic manufacturing of electric vehicle batteries and other components, an effort to help the country achieve its ambitious target of making 30 percent of vehicle sales electric by 2030.

Limited manufacturing capacity means companies import batteries and other parts from places like China at a high cost, putting off India’s price-sensitive consumers. Indian electric vehicle sales currently number around 56,000 a year, a fraction of the millions sold in neighboring China.

Sohinder Singh Gill, chief executive of Hero Electric and director general of the Society of Manufacturers of Electric Vehicles, told analysts that cutting the GST rate to 5 percent has been
a key demand of the fledgling industry as it seeks to attract more buyers. “That’s what we have been pushing for,” he said.

Similar programs have worked for other industries like mobile manufacturing, helping attract major producers including Foxconn Technology Group. The program “can also provide an impetus to foreign investments by encouraging multinationals to set up their manufacturing facilities in India,” said Harpreet Singh, an indirect tax partner at KPMG.

Electric vehicles are still too expensive for the mass market, industry participants said. An electric scooter in India, for example, typically costs more than 100,000 rupees ($1,428), whereas buyers can get a petrol model for almost half that price. Sales of electric cars fell 40 percent in the 2017-18 fiscal year, according to the government document.

Indian firms like Hero Electric Pvt. Ltd. and Mahindra Electric Mobility Ltd. currently lead in domestic sales of electric vehicles. The market has attracted attention from global car giants like Ford Motor Co. and Suzuki Motor Corp.

**57. India Electric Two-Wheeler Market Is Expected To Grow Rapidly**

Air pollution concerns among the public is specifically forcing the automotive industry to decrease its carbon footprint which is supporting the necessity of the vehicle with alternative fuel. According to a new market report published by BlueWeave Consulting, The India Electric Two-Wheeler Market is expected to expand at a CAGR of over 40% from 2018 to 2025, end of the forecast period.

The electric two-wheeler market is mainly driven by strict emission norms and regulations, government incentives, and increasing environmental awareness. The emissions from conventional gasoline based vehicles cause environmental degradation. The government has started various measures for regulating carbon emissions, thereby indirectly driving the sales of electric scooters and motorcycles in the country. Moreover, the government also prolongs its support for these vehicles in the form of subsidies, thus, encouraging the adoption of these vehicles, as ‘good replacement’ of old conventional ones.

The Indian Electric Two-Wheeler market is growing significantly on account of government support and several subsidies under its “FAME India” schemes, which support faster adoption of electric two-wheelers in the country. Market anticipation about the more favorable environment for the development of electric two-wheelers industry under “FAME-II” is also expected to aid the electric two-wheeler market in India in the coming years. The increasing number of electric two-wheeler manufacturers in India and their escalating focus on research & development to manufacturing technologically advanced and affordable electric two-wheelers is further expected to drive the Indian electric two-wheeler market over the forecast period.

The India Electric Two-Wheeler market is segmented on the basis of Vehicle type, Battery type, Technology, and Voltage capacity. On the basis of Vehicle type, the market is segmented into Scooter and Motorcycle. On the basis of battery type, the market is segmented into Lead Acid Battery and Lithium-ion Battery. Based on Voltage the market is segmented in 36V, 48V, 60V and 72V. Based on Technology, the market is further segmented into Battery Electric Vehicle and Plug-In Electric Vehicle.

Companies, such as Hero Electric Vehicles Pvt. Ltd., Lohia Auto Industries, Electrotherm (India) Ltd., Avon Cycles Ltd., Okinawa Autotech Pvt. Ltd., NDS Eco Motors Private Limited, Ampere
Vehicles Pvt Ltd, Tunwal E-Bike India PVT. LTD, Ather Energy Pvt. Ltd., Tork Motors Private Limited, etc. are the key players in manufacturing Electric Two-Wheelers in India.

**58. The World’s Dirtiest Air Is in India Where Pollution Costs Lives**

Seven of the top 10 most polluted cities in the world are in India, according to a new study showing South Asia’s battle with deteriorating air quality and the economic toll it’s expected to take worldwide. Gurugram, located southwest of India’s capital New Delhi, led all cities in pollution levels in 2018, even as its score improved from the previous year, according to data released by IQAir AirVisual and Greenpeace. Three other Indian cities joined Faisalabad, Pakistan, in the top five.

The index measures the presence of fine particulate matter known as PM2.5, a pollutant that can fester deep in the lungs and bloodstream of human beings.

“This has enormous impacts, on our health and on our wallets,” Yeb Sano, executive director of Greenpeace Southeast Asia, said in a statement released with the figures. “In addition to human lives lost, there’s an estimated cost of $225 billion in lost labor, and trillions in medical costs.”

India, the world’s fastest-growing major economy, makes up 22 of the top 30 most polluted cities, with five in China, two in Pakistan and one in Bangladesh. India racks up health-care costs and productivity losses from pollution of as much as 8.5 percent of gross domestic product, according to the World Bank.

China made marked progress in its usually dismal pollution levels, with average concentrations falling by 12 percent in 2018 from the previous year, according to the data. That should help the message President Xi Jinping will share with political party leaders on progress across three so-called “critical battles” during the National People’s Congress meetings.

Sano traced much of the problematic readings back to climate change. He noted that burning fossil fuels is both the key driver of climate change and of air pollution worldwide, and that shifting atmospheric conditions have worsened air quality and amplified forest fires.

**59. Two Thirds Of Air Pollution Deaths In India Linked To Diesel Exhaust**
As much as two thirds of deaths from air pollution in India can be attributed to exhaust emissions from diesel vehicles, which were responsible for nearly 385,000 deaths in 2015, a study has found. On-road diesel vehicles were responsible for nearly half of the health impacts of air pollution from vehicles worldwide in 2015.

The global cost of these transportation-attributable health impacts in 2010 and 2015 was approximately USD one trillion.

Exhaust from vehicles is a major source of outdoor air pollution worldwide. The health impacts are immense but unevenly distributed, both geographically and among various segments of the transportation sector, such as light-duty and heavy-duty vehicles, shipping, and off-road machinery.

The study, by researchers from the International Council on Clean Transportation (ICCT), George Washington University, and the University of Colorado Boulder in the US, links state-of-the-art vehicle emissions, air pollution, and epidemiological models to estimate health impacts at the global, regional, national, and local levels in 2010 and 2015.

It provides the most detailed picture available to date of the global, regional, and local health impacts attributable to emissions from four transportation subsectors: on-road diesel vehicles, other on-road vehicles, shipping, and non-road mobile engines such as agricultural and construction equipment.

The research estimates that vehicle tailpipe emissions were linked to about 361,000 premature deaths from ambient PM2.5 and ozone worldwide in 2010 and about 385,000 in 2015.

An estimated 70 per cent of these impacts occurred in the four largest vehicle markets in 2015: China, India, the European Union, and the US.

Exhaust from on-road diesel vehicles was responsible for nearly half of the impacts—about 181,000 premature deaths—worldwide, and fully two-thirds in India, France, Germany, and Italy.

The global health burden of on-road diesel vehicles, including the PM2.5 and ozone impacts of all tailpipe emissions, is 68 per cent higher than previously estimated for diesel emissions.

The distribution of health impacts and air pollution from transportation is influenced by policy, demographic, economic, and technological changes.

"Transportation-attributable health impacts declined in the US, European Union, and Japan as vehicle emission standards have been implemented, but these reductions have been offset by growing impacts in China, India, and other parts of the world," said Susan Afterburner, an associate professor at the George Washington.

"Unless the pace of transportation emission reductions is accelerated, these health impacts are likely to increase in the future as the population grows, ages, and becomes more urbanized," said Afterburner.

"The high public health burden of diesel vehicles in Europe underscores the need for world-class emissions standards to be accompanied by robust compliance and enforcement," said Joshua Miller, a senior researcher at the ICCT.
"The long lifetime of vehicles and equipment and the increasing health burden in regions without adequate protections stress the urgency to introduce world-class standards, develop compliance programs, and adopt in-use measures that accelerate the replacement of high-emitting vehicles," said Miller.

60. Vehicle Sharing – The Solution To Hazardous Air Pollution In India?

Vehicle sharing for long has been suggested as an efficient tool to combat the increasing pollution in cities across the world. In India, the problem of air pollution is even more acute. That makes it more important to explore any option that can lower air pollution.

Air pollution is the most lethal environmental threat to the world today. A recent study by the World Health Organization (WHO) shows that breathing polluted air kills 7 million people each year, with India alone accounting for more than a million deaths. Over the past decade, pollution in India has reached catastrophic dimensions. Transportation accounts for about 11% of India’s carbon emissions and is a major source of pollution in several cities nationwide. As many as, 14 of 20 most polluted cities in the world, 14 are in India, according to the WHO. In fact, the gravity of the situation has prompted the Indian government to directly leapfrog to the much cleaner Bharat Stage VI (BS VI) emission norms from the current Bharat Stage IV (BS IV) standards.

India is the world’s 5th largest automobile market, adding more than 25 million vehicles to its streets each year. It doesn’t matter what new evidence is produced, the fact that adding more petrol- and diesel-powered vehicles on the road desecrates our air is undisputed. As traffic congestions rise, so do the emissions. The constant acceleration and braking of stop-and-go traffic burns more gas, and therefore pumps more pollutants into the air. Road traffic congestion and the subsequent air pollution are two of the most persistent, insurmountable transportation roadblocks of the modern urban city and its growing by the day. As cities come to a grinding halt every morning, policymakers are forced to think of permanent solutions that can cater to this catastrophic problem that has rid India for decades.

Given the current predicament, it would not be wrong to assume that, shared mobility, can build a better, smarter and environment-friendly tomorrow. In a wider understanding, shared mobility are alternatives that aim to maximize the utilization of automobiles by providing users short-term access to a fleet of shared cars, bikes and scooters. In the last five years, the vehicle sharing juggernaut has taken many Indian cities by storm, especially due to its advantages over outright vehicle ownership. Sharing significantly reduce per-capita vehicle ownership, as each vehicle is utilized by multiple users. As more and more people begin to share, lesser would be the need of adding new vehicles on-road. The lesser the number of automobiles plying on the road, lower would be the emissions.

When combined with mass public transport, shared mobility becomes a powerful tool that could help cities alleviate massive road congestion and improve air quality. The urban travel landscape is now evolving with a host of mobility services like carsharing, carpooling, ride-hailing and bike sharing that are combining the benefits of both public and private transport. Cities like Delhi, Bangalore and Hyderabad already foster a host of shared mobility options around public transport transit points like metro stations, bus stops and airports. These services act as feeder systems, driving more commuters to adopt public transport by simplifying the “first and last mile” of the journey.
An “integrated transportation system”, where we can seamlessly switch between transport options can create a paradigm shift in urban commute. We get much less traffic, reduced pollution, more effective transport and better cities with less space dedicated to roads and more to citizens.

61. Toyota Looking At Self-Charging EVs As Future Of Mobility In India

Toyota Kirloskar Motor, the Indian subsidiary of Toyota Motor Corporation, is banking on self-charging electric vehicles to meet the demand for cleaner vehicular emissions in the future. Considered worldwide as one of the early starters for such a technology, Toyota has been working on technologies like hybrids for several years.

Its cooperation agreement with Suzuki Motor Corporation for the sharing of vehicles and joint development of technologies is a step towards introducing the self-charging electric vehicle in India.

Shekhar Viswanathan, Vice Chairman and Whole-Time Director, Toyota Kirloskar Motor said, “Powertrain solution like self-charging electric vehicles will offer a more viable option, being a relevant technology from the emission point of view with Euro 6 (BS-VI) norm coming up by 2020.”

Both Toyota and Suzuki are working towards bringing out affordable solutions in areas of electric and hybrid vehicles. To this effect, newer areas within the existing technology such as self-charging and range extender are also being explored in addition to the traditional hybrid and fully electric versions.

Toyota currently offers one hybrid model in India with the Camry luxury sedan. Priced at Rs 37 lakh, the Camry hybrid electric vehicle comes powered by dual sources of power – a 2.5 liter, petrol engine and a 245V electric motor.

“The electrified Camry is so sophisticated that using the currently available Bharat Stage IV fuels, it meets the applicable emission levels set for the Bharat Stage VI which are due to be introduced in 2020,” added Viswanathan.

The Japanese company is also all set to upgrade its entire product portfolio to BS-VI much before the deadline of April 1, 2020. Models like the Corolla, Yaris, Etios and Etios Liva have been laggards for several months. Yet, the company has decided to upgrade them all.

“Our products will be upgraded ahead of the scheduled date. When we built our engine plant in 2016, we had planned to make it BS 6 ready with minimal incremental investment and that approach is helping us now,” added Viswanathan.

Toyota will start selling a rebadged Baleno supplied by car market leader Maruti Suzuki later in the year. This will be followed by a rebadged Brezza in later months.

Toyota has said that it wants to progressively move to battery-powered cars from 2020. It plans to launch mass-market battery electric vehicles (BEV) in China. These will then be introduced in India and other big markets.

62. 5 Big Changes Are Set To Happen In The Indian Auto Industry In The Next Few Years

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5 100,000
The global automotive industry is rapidly changing and the impact can be seen directly in India as well. In order to keep the Indian auto industry in-line with global markets, the Union Government has taken some harsh and necessary steps that are likely to completely change the Indian auto market. Here are 5 big changes likely to happen in the country in the next few years

1. **BSVI emission norms will be phased in**

Union government has decided to adopt BSVI emission norms directly from the BSIV emission norms. The government has decided to skip the existing BSV emission standards, which will result in increases in prices of engines as well as cars and bikes. Roughly estimated is that the gap between petrol and diesel cars will increase to Rs 2.5 – 3 lakh from the current 1 lakh.

2. **Push for eco-friendly cars**

Keeping challenges from global warming in mind, Union Government has announced plans to go all-electric by 2030. In fact, the government is giving tax breaks on electric cars and promoting local development of lithium-ion batteries to keep curb cost low.

3. **New crash test norms**

The number of deaths due to road accidents in India is around 3 to 4 times that of European nations. In order to reduce road fatalities, Union Government has decided to introduce the Bharat New Vehicle Safety Assessment Program (BNVSAP). Cars to be sold in India from October 2019 will be assigned by star ratings based on their safety performance. The car testing protocols to follow in the crash test includes front offset testing, side impact testing, pedestrian protection testing, rear impact testing and child dummy dynamic crash testing.

4. **SUVs will lead the car sales**

In recent times, the SUVs are gaining huge popularity in the market. Buyers are now ready to shed extra to drive home SUVs instead of sedans and hatchbacks. In fact, automakers are now planning to launch even micro SUVs based on the small car. India’s favorite hatchback, In the next 2 years, India is reportedly expected to receive over 20 new SUVs.

5. **Diesel losing grip**

The narrowing gap between the petrol and diesel prices result into the rising demand for petrol cars in India. With BSVI emission norms coming in, the price gap between the petrol and diesel cars will further widen post April 2020. This clearly suggests that the petrol and eco-friendly cars will rule the Indian auto industry.

63. **‘Brown Carbon’ Jolts South Asia’s Climate, Farms, Study Says**

Focusing on a little-studied organic carbon compound could help unlock how air pollution affects South Asia’s unique climate patterns and agriculture, scientists say. An international research team studied a heat-trapping aerosol known as brown carbon and discovered that in regions that
are already polluted—such as the Indian subcontinent—its impacts are proportionally much greater than in areas where the air is cleaner, such as in the U.S.\textsuperscript{6}

Brown carbon—which most climate models don't capture in their analysis—could play a part in disrupting the monsoon cycles that regulate agricultural and food processing sectors across India and beyond, the researchers found. It is emitted from burning biomass such as wood, plants, and farmers' fields—a practice often seen in India.

An estimated billion people in the Indian subcontinent still depend on their ability to plan on seasonal access to water for crops and livestock, something that may be likely to change as rising air pollution tampers with the climate.

Environmental scientists and climatologists have been studying how black carbon—a main component of the particulate matter belched out by cars, thermal power plants, and factories—affects the climate on the global scale. But not much is known about the impacts of brown carbon, particularly on South Asian ecosystems.

“These light-absorbing compounds trap solar energy, converting it to heat,” explained lead author Sanjeev Dasari, a doctoral candidate at Stockholm University in Sweden. “By blanketing the heat released from the Earth’s surface into the atmosphere, these particles create a global warming effect.”

Until recently, scientists have believed carbon to have a consistent heating effect, regardless of where it’s released. But the researchers observed that brown carbon behaves differently when released in areas that are already heavily polluted.

“Its capacity to absorb light lasts much longer in polluted areas,” Dasari said, “up to 3.6 days against 9 hours in cleaner environments.” After this, Dasari explained, the particles bleach and lose their heat-trapping qualities.

The team collected air samples in Delhi, Bhola Island in Bangladesh, and in the Northern Indian Ocean. They used quartz fiber filters to capture the air’s carbon signature and then inspected the samples.

“This study would not be particularly relevant in regions such as Europe where the concentration of brown carbon is generally low,” said Paolo Laj, physics professor at the University of Helsinki in Finland, who specializes in atmospheric pollution. “But this is not the case in India, where a serious pollution problem makes this study particularly relevant.”

He added that the global scientific community cannot ignore regional climates and India is a key region when it comes to studying both climate and air quality at the planetary scale. “We need more region-specific research, you can’t take results obtained in Europe and apply them to the Indian context,” Laj said. “This study is an example, it highlights a region’s unique climatic and environmental features.”

Ramesh Singh, professor with the School of Life and Environmental Sciences at Chapman University in California, said “I am very happy that such measurements have been done” because they take a transnational approach to the study of air pollution.

“Land has boundaries, the ocean has boundaries, but the atmosphere has no boundaries and we should study it as such” he added.

However, Singh said, nobody yet knows for sure how the monsoons are being affected by aerosols. “Only one thing is clear,” he said. “The main source of air pollution is thermal power plants. But as a country we need the power. I believe a key step would be to implement stricter rules on power plants’ filtering systems.”

64. IIT Delhi To Propose Measures To Control Air Pollution In City To Centre

The Indian Institute of Technology Delhi (IIT Delhi) is working for the central government to devise a plan detailing what action should be taken and at what time for controlling air pollution in the city.

IIT Delhi, which has a Centre of Excellence for Research on Clean Air, meant for research to study air pollution issues in Delhi-NCR region, is working closely with the Central Pollution Control Board on the issue.

"Round the year, several initiatives are taken to deal with the problem of air pollution, including ban on construction activities, burning of crackers and restriction of outdoor activities in schools, to name a few," Mukesh Khare, Professor of Environmental Engineering at IIT Delhi, told news agency PTI.

"However, what is not realized is that suddenly suspending construction activities when air quality has already deteriorated to a certain level does not help much," he added. "So, it is more advisable to implement the measures beforehand. We are evaluating what should be the timing of what action regarding dealing with air pollution so there is a calendar sort of for the entire year," said Mr Khare, who is leading the evaluation team.

According to Mr Khare, the need for evaluating the timing of the actions was felt few weeks after the launch of the National Clean Air Program (NCAP) last year. NCAP is a mid-term, five-year action plan that includes collaborative, multi-scale and cross-sectoral coordination between relevant central ministries, state governments and local bodies.

"The overall objective of initiatives to combat air pollution is comprehensive mitigation actions for prevention, control and abatement of air pollution, besides augmenting the air quality monitoring network across the country and strengthening the awareness and capacity-building activities," Mr Khare said.

65. Emerging Asia's Jeepney Buses And Tuk-Tuks Go Green

The face of transportation in Asia's biggest cities -- jeepsneys, tuk-tuks and auto rickshaws -- are getting a makeover as the region electrifies these unique vehicles in a push to reduce pollution.

The jeepney buses of Manila are known for their flamboyancy -- and their age. Even though one was waiting for passengers, a 27-year-old worker headed home instead boarded a minibus traveling on the same route that charges 11 pesos (21 cents), 1 peso more than a traditional
They are so comfortable with air conditioning -- I don't want to take the old ones anymore," she said.

Jeepneys are refurbished American military vehicles left over from World War II that have become a staple of Filipino public transportation. They provide cheap rides while allowing passengers to hop on and off anywhere. In their current form, the vehicles are often more than 15 years old with aging engines that spew black smoke.

Philippine President Rodrigo Duterte singled out the vehicles in a 2017 speech. "You are poisoning the people," Duterte said then in comments directed at jeepney operators. His government plans to introduce Euro 4 emissions standards that will force the country's roughly 200,000 jeepneys to upgrade to new vehicles by 2022.

Two Japanese companies have already developed compliant models. Hino Motors has received 430 orders and can make two vehicles per day at a local bus factory. "I want to quintuple production by constructing a specialized building at the plant," said Mitsuharu Tabata, president of Hino Motors Philippines.

Isuzu Motors has received about 150 orders and will begin local production of transmissions for the vehicles soon.

Aiming to cultivate the local auto industry, the Philippine government is introducing tax incentives for automakers that produce more than 200,000 vehicles in the country over six years. Toyota Motor and Mitsubishi Motors have already qualified. Manila hopes that policies meant to boost local production of a new breed of jeepneys will help develop the domestic industry as well.

India's Mahindra & Mahindra has also begun selling these vehicles, and South Korea's Hyundai Motor aims to make shipments the middle of this year.

Auto rickshaws, the three-wheeled taxis popular in Indian cities, are also being forced to evolve. Mahindra started selling an electric rickshaw in 2017 and began mass production in Bangalore last year.

Tokyo-based Terra Motors is producing an electric three-wheeler in the country aimed at rickshaw drivers. Bajaj Auto, a local maker of two-wheeled vehicles, is reportedly planning to release an electric three-wheeler as early as this year.

Bajaj is also going to release a four-wheeled vehicle in Indonesia that runs on natural gas, designed as a replacement for three-wheeled ones.

Meanwhile, Thailand will electrify 22,000 tuk-tuks by 2025. Government officials have said they will support local battery production to reduce the nation's reliance on imports.

Southeast Asian nations are upgrading these forms of public transport as environmental measures become a pressing concern due to the proliferation of cars in the region.

New-car sales in Southeast Asia's six largest countries surged 70% in the decade through 2018, reaching 3.57 million. There are now more than 84 million cars in Thailand, Indonesia and India combined, a 160% increase in the last decade. Traffic and pollution have become severe in major urban areas as a result. There is concern that the rising concentration of particulate matter in Bangkok's air will keep tourists away, for example.
India will raise emissions standards for all cars to Euro 6 from Euro 4 in 2020, generating backlash from local industries that must shoulder the replacement costs.

**South America**

66. Brazil PROCONVE P-8 Emission Standards: Policy Update

Brazil’s new PROCONVE P-8 standards will apply to all new on-road passenger and freight vehicles equipped with compression-ignition or spark-ignition engines and weighing at least 3,856 kg. These vehicle categories currently account for an outsized contribution to on-road vehicle emissions in Brazil.

The P-8 standards will go into effect for new type approvals on January 1, 2022, and for all new sales and registrations on January 1, 2023. The standards apply to domestically produced and imported vehicles. The maximum emission limits and durability requirements of the standards are equivalent to Euro VI for all fuel types, pollutants, and test cycles. The standards also require an on-road PEMS test to be performed for at least one vehicle in each engine family to demonstrate compliance with emission limits.

The introduction of P-8 standards in Brazil will have far-reaching benefits for controlling harmful emissions from HDVs and reducing the associated impacts on air quality and public health. Compared with the P-7 baseline, the introduction of P-8 would yield an estimated US$11 in health benefits for every dollar invested in improved vehicle emission-control technologies.

**GENERAL**

67. A Warming World Increases Air Pollution

Climate change is warming the ocean, but it's warming land faster and that's really bad news for air quality all over the world, says a new University of California, Riverside study. The study, published February 4 in Nature Climate Change, shows that the contrast in warming between the continents and sea, called the land-sea warming contrast, drives an increased concentration of aerosols in the atmosphere that cause air pollution.

Aerosols are tiny solid particles or liquid droplets suspended in the atmosphere. They can come from natural sources, like dust or wildfires, or human-made sources such as vehicle and industrial emissions. Aerosols affect the climate system, including disturbances to the water cycle, as well as human health. They also cause smog and other kinds of air pollution that can lead to health problems for people, animals, and plants.

"A robust response to an increase in greenhouse gases is that the land is going to warm faster than the ocean. This enhanced land warming is also associated with increased continental aridity," explained first author Robert Allen, an associate professor of earth sciences at UC Riverside.

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7 The paper, "Enhanced land-sea warming contrast elevates aerosol pollution in a warmer world," was co-authored by Allen and Taufiq Hassan, a doctoral student at UC Riverside, Cynthia A. Randles, a researcher with Exxon Mobil, and Hui Su, a researcher at NASA's Jet Propulsion Laboratory.
The increase in aridity leads to decreased low cloud cover and less rain, which is the main way that aerosols are removed from the atmosphere.

To determine this, the researchers ran simulations of climate change under two scenarios. The first assumed a business-as-usual warming model, in which warming proceeds at a constant, upward rate. The second model probed a scenario in which the land warmed less than expected.

In the business-as-usual scenario, enhanced land warming increased continental aridity and, subsequently, the concentration of aerosols that leads to more air pollution. However, the second model—which is identical to the business-as-usual model except the land warming is weakened—leads to a muted increase in continental aridity and air pollution. Thus, the increase in air pollution is a direct consequence of enhanced land warming and continental drying.

The results show that the hotter Earth gets, the harder it's going to be to keep air pollution down to a certain level without strict control over the sources of aerosols.

Because the researchers wanted to understand how greenhouse gas warming affects air pollution, they assumed no change to human-made, or anthropogenic, aerosol emissions. "That's probably not going to be true because there's a strong desire to reduce air pollution, which involves reducing anthropogenic aerosol emissions," cautioned Allen. "So, this result represents an upper bound." But it also suggests that if the planet keeps warming, larger reductions in anthropogenic aerosol emissions will be required to improve air quality.

"The question is what level of air quality are we going to accept," said Allen. "Even though California has some of the strictest environmental laws in the country we still have relatively poor air quality, and it's much worse in many countries."

Unless anthropogenic emission reductions occur, a warmer world will be associated with more aerosol pollution.

68. Critics Attack Secrecy At UN Body Seeking To Cut Global Airline Emissions

The environment committee of the International Civil Aviation Organization (ICAO) met recently in Montreal behind closed doors to discuss measures to reduce emissions from international aircraft. Domestic and international flights emitted 895m tons of CO2 last year – 2.4% of global energy-related CO2 emissions, according to Carbon Brief. In terms of emissions, if aviation were a country it would be the sixth largest in the world.

But the body in charge of reducing the carbon footprint of international aviation has little or no public scrutiny. Its agenda and discussion documents are not released to the public or the international press, and the meetings are not open to the media.

Anyone who leaks documents being discussed faces "unlimited liability for confidentiality breaches", according to ICAO rules.

Key observers at Monday’s meeting of the committee on aviation and environmental protection (CAEP) are a number of industry bodies. They include the International Business Aviation Council, the International Federation of Air Line Pilots' Associations, the Arab Civil Aviation Commission, the International Coordinating Council of Aerospace Industries Associations, the Airports Council International and the International Air Transport Association. The only non-
governmental body not linked to the airline industry allowed into the meeting is the International Coalition for Sustainable Aviation, made up of a small group of international environmental NGOs.

Nadja Kostka, climate project coordinator at Transparency International, said: “Agencies which set common global standards for large, international industries have to be transparent in order to prevent capture by corporate interests, or even the appearance of undue influence.

“The ICAO currently meets behind closed doors, including for discussion about emissions, which affect the entire planet. We’ve seen similar situations at other UN agencies … we strongly believe that all UN bodies need to commit to transparent ways of working in order to gain the public’s trust.”

The key discussions on reducing emissions come amid growing pressure from some countries – and their airlines – to open the doors to all types of biofuels, including those which cause environmental destruction, such as palm oil-based fuels.

Indonesia, one of the largest palm oil producers in the world, is one of 24 member states whose representatives will be deciding in secret to recommend whether future new airline fuels have to be sustainable. Malaysia, which is not a member of CAEP, is pushing a campaign – Love my Palm Oil – to extend it to non-food use, supported by its three main airlines.

Twenty-four countries, including the UK, France, Canada, Singapore, Russia and the US, have representatives at this week’s meeting.

This year international aircraft will for the first time have to start monitoring their emissions as part of ICAO measures to reduce emissions with a market-based system of purchasing emissions offsets – rather than by directly reducing aircraft emissions. They can reduce the amount of carbon emissions they have to offset by using biofuels, but as yet there has been no agreement by member countries on restricting the new fuels to those which are sustainable.

The scheme was agreed in 2016 by the ICAO countries. But few believe it will have the required impact on cutting emissions in a growing aviation industry in which passenger numbers are predicted to double to 8.2 billion in 2037.

The International Council on Clean Transportation (ICCT) said it could only be expected to “modestly reduce” the net climate impact of international aviation up to 2035.

Andrew Murphy of the NGO Transport and Environment, said the lack of transparency gave little confidence that the ICAO would tackle emissions, adding: “Media are free, and in fact encouraged, to cover similar meetings in other UN agencies …

“It’s well past time that ICAO brought its media practices into line with the rest of the UN family, a move which would help raise confidence in its decision-making.”

Last year Saudi Arabia – with the backing of the US – secured a new definition at the ICAO of alternative fuels to include “clean oil” because the refinery producing the oil was run on renewable electricity – something Murphy said amounted to “greenwash oil” and was “an awful deal for the climate”.

The environmental NGOs are calling for the ICAO and all its committees to open to the public and remove threats of “unlimited liability” for members who release documents.
“At present, state and observer submissions to CAEP remain unavailable to those outside of CAEP,” they said.

“When such submissions contain commercially sensitive information, such secrecy may be acceptable. However, this justification oftentimes deserves to be challenged, as information from manufacturers which is submitted to CAEP is, as a matter of course, available to other manufactures, and therefore no harm can be identified from making it available to a broader range of actors.

“Such a level of secrecy stands in contrast to other UN agencies.”

Under the Paris climate change agreement, emissions from international aviation are not specifically included in national climate targets required by countries to pursue efforts to limit global temperature increases to 1.5C. This leaves ICAO as the primary body for reducing airline emissions.

A spokesman for ICAO provided the Guardian with a list of attendees to the meeting and said the meeting results would be made available, but not the discussion papers. “Only the CAEP members and recognized observers are permitted in the room for said discussions,” he said.

69. ICAO Postpones Decision On ‘Vintage’ Climate Credits

The International Civil Aviation Organization (ICAO) has adopted criteria to decide which offsets are allowed into its global emissions scheme but postponed a crucial decision on whether to ban old offsets that experts say could undermine the entire scheme. Scientists and campaigners have warned that letting in credits from the UN’s Clean Development Mechanism (CDM) would kill prospects for new emission reduction projects. Existing CDM projects would more than cover all the demand for offsetting emissions under the CORSIA scheme until 2035, they calculate.

However, ICAO did not decide to adopt a “vintage restriction”, or exclude offsets created before a certain date, at its recent meeting in Montreal.

It did adopt rules on additionality, baselines and how to avoid double counting, and set up a technical advisory body that will recommend on the eligibility of individual offset programs, including the CDM.

While the international aviation body announced that the process to implement CORSIA remains “on course”, green groups warned that failing to agree a vintage restriction on offsets would jeopardize the scheme.

Gilles Dufrasne at Brussels-based NGO Carbon Market Watch said, “it could mean a giant setback for climate action”, adding that only offsetting projects begun after 2020 should be eligible.

The Environmental Defense Fund, a US-based group, called for “detailed rules to ensure only genuine effort is eligible” and warned that the new criteria “could be worthless without full transparency”. It noted that there is still no clarity on how CORSIA’s technical advisory body will handle possible conflicts of interest. “Most worrying is the possibility that the board’s recommendations would remain confidential – a near total departure from normal UN practice,” the group added. “There is as of yet no guarantee that CORSIA overall will result in genuine carbon offsets.”
ICAO has said that the application process for offset programs to join CORSIA will be public.

The next opportunity to discuss the vintage restriction will be at ICAO’s next council meeting from 21 May to 21 June. Airlines will have to start buying offsets to compensate for their emissions from 2021.

70. Measuring Pollution: The Tiny Nanoparticles Causing Big Health Problems

The air we breathe is poisoned by tiny particles emitted by car engines. Every year, almost half a million people in the EU die prematurely due to air pollution. In Greece and across Europe, scientists are working on innovative solutions to try to solve the problem given that many European cities suffer high levels of pollution due to heavy traffic.

Toxic particles emitted by car engines are part of the problem. While new fuel-efficient vehicles produce less CO2, they also pump out more nanoparticles that are too tiny to count.

“Some of these cars, such as those equipped with gasoline direct injection engines, and some motorcycles, are very heavy polluters. They can emit very large quantities of extremely tiny particles — so tiny that they cannot be measured with existing tools and methods, so, for this reason, they aren’t covered by the current regulations.”

Particles below 23 nanometers in diameter can get deep inside the lungs and enter the bloodstream. In the air these particles react with other compounds. Harmful substances can attach themselves to the nanoparticles aggravating heart and lung conditions.

A European research project called DOWNTOTEN seeks to recreate this process in the lab.

“As living creatures, we’re suffering from the consequences of these chain of reaction. So, what we’re working on here is to try to better understand it. We are collecting the necessary data to assess the technologies and the fuels we use, as well as their effects on human, and non-human, health,” says Professor Samaras, Director of the Lab of Applied Thermodynamics, Aristotle University of Thessaloniki and DOWNTOTEN project coordinator

For their experiments, researchers connect the test car's exhaust pipe to instruments which measure ultrafine particles. The same process that takes hours and days in the atmosphere is accelerated inside this system. In parallel, the reactions are simulated in computer models.

“The knowledge obtained from the experiments is quite limited. But the digital models provide much higher precision in terms of measurements. We can use that to further improve the experiments and to better understand the process,” says Ananias Tomboulides, Professor of mechanical engineering, Aristotle University of Thessaloniki

On-board emission testing provides a better insight of real-life car emissions compared to the laboratory, so the system has been designed to fit inside a car. The test vehicle can leave the research facility and drive around the city, recording emissions in traffic.

The next step is to bring the technology to the market. Researchers hope car manufacturers will use their device to develop better engines which emit fewer nanoparticles. It will also go a long way to preparing the motor industry ahead of anticipated, much tighter, EU regulations.
"The goal is, for the internal combustion engine to become a zero-emission machine. That's the only possibility for them to keep playing the role they're playing now... Otherwise, we'll have to get rid of them completely — we'll have to replace internal combustion engines with other engine types," Professor Samaras says.

71. How Shipping Company Maersk Plans to Go Carbon Neutral

Maritime shipping makes up more than 90 percent of the world's trading, according to the International Maritime Organization. So, the fact that the enormous Danish shipping company Maersk is currently working to make its expansive shipping process sustainable is very good news, as the move could significantly help reduce the industry's carbon footprint. As reported by Good News Network, Maersk plans to replace all of its ships' fossil fuels with renewable fuel sources by next year in order to comply with the new maritime law. Additionally, the brand intends to become completely carbon neutral by 2050.

According to a press release on Maersk's website, on Jan. 1, 2020, the company will institute "a fuel switch of a magnitude never seen before," by switching all of their ships to low-sulfur fuel. Maersk owns 750 ships, each of which will be fully equipped to run on clean fuel by 2020.

“The only possible way to achieve the so-much-needed decarbonization in our industry is by fully transforming to new carbon neutral fuels and supply chains,” Maersk's Chief Operating Officer Søren Toft said, according to Good News Network. “The next five to 10 years are going to be crucial. We will invest significant resources for innovation and fleet technology to improve the technical and financial viability of decarbonized solutions. Over the last four years, we have invested around $1 billion and engaged over 50 engineers each year in developing and deploying energy efficient solutions. Going forward we cannot do this alone.”

In October 2016, the United Nations' International Maritime Organization established worldwide regulations to restrict ships' sulfur emissions, Reuters reported at the time. "This decision reduces the contribution of shipping to the world’s air pollution impact from about 5 percent down to 1.5 percent and will save millions of lives in the coming decades," Bill Hemmings of the organization Transport & Environment told Reuters.

Currently, ships are allowed to use fuel with 3.5 percent sulfur content; once the new laws go into effect in January 2020, fuel will not be allowed to have more than 0.5 percent sulfur content. Any ships that do not adhere to the new rules may be fined, lose their insurance, or get banned from sailing. The new law is expected to cut sulfur emissions from the shipping industry by 80 percent.

To comply with the new law, Maersk will be taking on some hefty new expenses, according to Maersk's Chief Commercial Officer Vincent Clerc. "At Maersk, the extra fuel costs could add up to more than USD 2 billion per year. We have already initiated dialogue with our customers about how this will impact their supply chains," Clerc said in a statement in Maersk's press release. "We have revised our fuel adjustment surcharge towards a simpler, more fair and predictable mechanism that ensures clarity for our customers in planning ahead for 2020."

As the biggest container shipping company on the planet, Maersk holds a lot of influence in the industry. Hopefully other shipping companies will take after Maersk and strive to make their practices more eco-friendly beyond the new 2020 regulations.

72. ICCT Study Finds Nearly 50% of Transportation Pollution Deaths Linked to Diesel
Some 385,000 people worldwide died prematurely in 2015 from air pollution caused by vehicle exhaust emissions, according to a study released on February 27. Diesel vehicles were responsible for 47% of the deaths, but the figure jumped as high as 66% in France, Germany, Italy and India where diesels make up a large proportion of cars on the road.

The study was carried out by researchers from the International Council on Clean Transportation (ICCT) and two U.S. universities.

"The high public health burden of diesel vehicles in Europe underscores the need for world-class emissions standards to be accompanied by robust compliance and enforcement," said ICCT co-author Joshua Miller, calling for urgent action to replace high-emissions vehicles.

In the wide-ranging study, researchers looked at the emissions from diesel and non-diesel cars, trucks, buses, the shipping industry as well as agricultural and construction machinery and their impact on our health.

They found that the global transportation sector was responsible for 11% of the 3.4 million premature deaths annually attributed to pollution from fine particles (PM2.5) and ground-level ozone exposure.

The cost of the health burden caused by transport pollution, which has been linked to lung and heart diseases, strokes and diabetes, added up to $1 trillion in 2015.

The United States saw 22,000 deaths from transport pollution, of which 43% were linked to diesels. In China, some 114,000 people were killed by vehicle exhausts that year, but that still only accounted for just over 10% of all deaths linked to air pollution there. India meanwhile recorded 74,000 premature deaths from vehicle exhausts, compared with 13,000 in Germany, 7,800 in Italy and 6,400 in France.

Relatively speaking, however, the picture was worst in Germany with 17 premature deaths blamed on transport pollution per 100,000 residents -- three times higher than the global average.

Milan, Turin, Stuttgart, Kiev, Cologne, Berlin and London were among the deadliest cities in terms of transport pollution, the researchers noted.

The authors cautioned that their estimates were "conservative" as their study did not consider all types of harmful emissions or pollution-linked diseases. "Consideration of these impacts would likely increase the estimate of health impacts from vehicle exhaust emissions," they warned.

In addition to estimated health effects on global, regional, and national scales, the study also evaluated the impacts in 100 major urban areas worldwide. The number of transportation-attributable deaths per 100,000 population in London and Paris are approximately 2 to 3 times higher than the global average.

Ambient air pollution is the leading environmental health risk factor worldwide, contributing to 3.4 million premature deaths annually from heart and lung diseases and diabetes, according to the Global Burden of Disease (GBD) study 2017.

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8 "A Global Snapshot of the Air Pollution-Related Health Impacts of Transportation Sector Emissions in 2010 and 2015" was undertaken by a team from the International Council on Clean Transportation (ICCT), George Washington University Milken Institute School of Public Health, and the University of Colorado, Boulder.
The ICCT study finds that emissions including particulate matter (2.5) and ozone from international shipping contributed to 38% of transport emission-related deaths in the United Kingdom in 2015 – just behind Japan, where the shipping sub-sector accounted for 41% of such deaths.

The research highlighted that the majority of transportation emissions-related health impacts occurred in the top global vehicle markets. In 2015, 84% of global transportation-attributable deaths occurred in G20 countries, and 70% occurred in the four largest vehicle markets: China, India, the European Union (EU), and the United States.

As noted, international shipping accounted for a particularly high share of transportation health damage in Japan and the United Kingdom. In the study ‘international shipping’ was defined as containerships, bulk carriers, cargo ships, tankers, cruise ships, fishing vessels, ferries, and other service vessels. Following behind Japan and the United Kingdom was Indonesia, where shipping emissions were said to have accounted for 27% of all transportation emission-related deaths in 2015, and then Australia, Brazil and Turkey (25% respectively).

The study found that international shipping emissions contributed 15.4% of global transportation-attributable mortalities in 2015, reflecting an 8.5% increase in premature deaths from shipping emissions between 2010 and 2015.

The researchers noted that black carbon (BC) emissions from shipping are emitted primarily near coastal areas and in 2015, 89% of BC emissions from international shipping were from vessels whose main fuel type is residual fuel. Looking at the findings of the report, it should be noted that the three top national 'culprits' in terms of shipping emission-related deaths are island nations.

In its conclusion, the report’s authors note that: ‘Our estimates of the health impacts associated with global shipping emissions—valued at $150 billion (2015 US$) in 2015—highlight the importance of considering such new policies to control emissions of BC from shipping in addition to further reducing NOx and sulfur oxide (SOx) emissions.

73. Nissan Leaf Crosses 400,000 Cumulative Global Sales

With Tesla looming in its rearview mirrors, the little Nissan Leaf is chuffing ahead in the global electric-car sales race. The company that built the original modern electric car announced recently that it sold its 400,000th copy of the Leaf worldwide, just as the longer-range Leaf Plus version goes on sale to spar with Tesla's new Short Range Model 3. (The Leaf Plus is rated at 226 miles of range from its 62-kwh battery.)

Over its now seven-year lifespan, the Model S has sold more than 260,000 globally. (The Model X doesn't come close, at a little less than 90,000 sales since 2015.)

Although the Tesla Model 3 sells almost twice as many cars per month as the Leaf globally, it may take a long time for it to catch up with the Leaf's six-year head start.

Bloomberg estimates that Tesla has sold 215,000 Model 3s so far.

It's a different story in the U.S., where Nissan sells only a small fraction of the number of Model 3s that Tesla sells every month. In the U.S., Tesla sold 77,000 Model 3s to the Leaf's 19,455.
Even with the Leaf's head start, going on sale in 2011, Tesla sold more model 3s last year than the 129,000 plus Leafs that Nissan has sold in the U.S. since the car went on sale.

74. In the Middle of Winter, Bering Strait Sea Ice Is Disappearing

The ice cover in the Bering Sea is at its lowest on record for this time of year after losing an area about the size of Montana at the height of winter. It's the second consecutive year that the ice extent in the area has retreated at record pace. It shrank from 566,000 square kilometers (219,000 square miles) to 193,000 square kilometers between Jan. 27 and March 3, according to scientists at the National Snow and Ice Data Center in Colorado.

Low ice levels impact local communities who rely on the ice to hunt for walrus and other wildlife during the winter, and the unprecedented change could also impact feeding habits of Arctic animals.

And while that’s alarming to environmentalists concerned about global warming, ship owners carrying liquefied natural gas and other goods see it as an opportunity.

The Bering Sea is more susceptible to temperature fluctuations during the winter when thin ice moves further south and melts, but this year has been “extreme,” the scientists said.

“A major cause of the ice loss is the strong low pressure in the Bering Sea and the high pressure over northwestern Canada,” the researchers said. “Strong winds between these pressure centers drew warm air into the region from the south, inhibiting ice growth in the Bering Sea while also pushing ice to the north.”

Elsewhere in the Arctic, sea-ice extent during February was at the seventh lowest on record and on a par with 2015 levels. But the scientists in Colorado aren't ready yet to call the end of the growing season.

Thinner ice allows Russia’s Novatek PJSC to transport LNG cargoes from its Yamal plant directly to Asia, the biggest consumer of the fuel, rather than sell or transfer them in western Europe. “

Every month of the year is tracking below average right now,” said Julienne Stroeve, Professor of Polar Observation and Modelling at University College London. “The decline in the Bering Sea is quite precipitous, we haven’t seen this before.”

It’s too early to tell if this year’s melt can be attributed to global warming, but there is the “longer reflection that sea ice cover is getting thinner,” she said.

75. Oil Industry Told to Increase Green Investments to Survive

Oil and gas companies under pressure by investors to curtail investment in fossil fuels should loosen their purse strings for green energy, according to Accenture. Managers of traditional energy businesses need to spend in areas that attract new customers, such as batteries, auto charging and renewable electricity, said Andrew Smart, the managing director of global energy
industry at the consulting group. Otherwise, they risk the “dirty” part of their companies strangling growth opportunities, he said.

“The old has a habit of killing the new,” Smart said in an interview at the IP Week energy conference in London.

The pressure on conventional fossil-fuel providers is increasing. Shareholders have formed groups such as Climate Action 100+ to prod companies to reduce emissions. Companies that have yielded to investor pressure include Glencore Plc, which announced a cap on coal mining this month, as well as oil giants BP Plc and Royal Dutch Shell Plc.

BP cut its annual growth outlook for oil product demand in 2020-2025 by more than a quarter from its estimate a year ago. Meantime, electric vehicles are boosting their share of the transport sector, while utility-scale batteries are expected to account for well over half of the world’s energy storage installations in the next six years.

“There’s a lot of potential disruption,” Smart said. “As demand for the core product comes down, so does the price.”

Smart declined to name companies doing a good job in the transition. Shell’s Mark Gainsborough, executive vice president for New Energies, estimates that the company will be able to generate returns from non-regulated electricity of between 8 percent and 12 percent at some point, though he wouldn’t specify when.

The industry faces a “crisis of perception” and there’s a growing risk the financial community will turn against fossil fuels, the chief executive officer of Saudi Aramco said Feb. 26 at the conference, as the world’s largest oil producer prepares for its first foray into capital markets.

The trick to navigating the environment will be to adopt a more generous approach when building businesses with direct access to customers, Smart said. For example, revamping roadside filling stations is one strategy to beat the new competition and thwart the capital squeeze from investors deterred by fossil-fuel companies, he said. Nearly 90 percent of fuel-retail executives surveyed by Accenture expect electric-vehicle usage will impact their businesses within five years.

The world’s biggest oil companies probably have a better chance to build a charging network for electric cars because of their sheer size and the number of sites they control through existing gas stations. That view, set out in a report by S&P Global Ratings, would be a blow to Europe’s largest utilities, which are banking on new revenue from powering electric cars.

76. No Signs Global Fossil Fuel Demand Will Wane, IEA Chief Says

The coming end of the fossil fuel age globally is very much exaggerated, International Energy Agency chief Fatih Birol told a Senate panel Feb. 28. Globally, the oil market is growing “strongly,” and any notion that oil, in addition to coal and natural gas, will wane in global economic importance anytime soon is mistaken, despite growing interest in electric vehicles, Birol said, speaking before the Senate Energy and Natural Resources Committee.

“Global oil demand growth is not driven by the cars. It is driven by trucks, aviation, and the petrochemical industry,” Birol said.

The U.S. will supply 70 percent of the growth in global oil production through 2025, Birol said.
The IEA’s projections for the long-term growth in fossil fuels come as scientists and many Democrats call for cutting carbon emissions to address global warming. A United Nations report published in October said global carbon emissions must peak and fall dramatically by 2030 to avoid the worst consequences of climate change. But Birol suggested the globe is not on that path.

The IEA has raised its expectation for global oil demand by 2 million barrels per day because of the “strong dynamism” of oil demand in petrochemicals and aviation, Birol said. “The efficiency measures currently implemented only slow down the growth of oil demand, which we expect to reach 106 million barrels/day by 2040,” Birol said in written testimony.

Oil demand reached 99.79 million barrels per day in 2018, according to IEA data.

Coal will be a major player in global electricity generation for decades to come even as demand for coal plateaus and solar and wind power represent about 50 percent of the growth in electricity generation worldwide over the next 20 years, Birol said.

Carbon capture and storage technologies will be important to decarbonizing the electric power sector, and it should be a focus of U.S. research and development, Birol said. Energy Secretary Rick Perry, speaking alongside Birol at a press conference earlier in the day, called carbon capture an Energy Department research focus.

Birol said solar and wind power production are growing as they become cheaper, but the U.S. will face challenges integrating wind and solar into its power grids. He said renewables growth in the U.S. will require power grids to become more flexible by relying on coal, natural gas, and nuclear power plants, and electricity storage technology, as backup for when wind and solar power cannot be produced.

Birol, speaking with Perry, hailed Texas as a renewable energy success story, where wind power generation tripled over the past decade. Energy policy there has allowed the state to effectively integrate wind onto its grid better than other regions, he said.

“I also believe that nuclear should be seen as a key asset in the United States,” Birol said, warning that China will eclipse the U.S. as the global leader in nuclear power generation within 10 years. Nuclear energy is expected to fall from 20 percent of the U.S. supply of electricity today to about 7 percent in 2040, keeping U.S. carbon emissions higher than they could be if nuclear power were a greater share of the country’s energy supply, he said.

Global oil markets are going through a period of extraordinary change, according to the International Energy Agency’s annual oil market forecast, Oil 2019.

The ability of the US to turn itself into a major exporter in less than a decade is unprecedented, IEA said. By 2024, US oil exports will overtake Russia and close in on Saudi Arabia. This brings greater diversity of supply to markets.

“Greater US exports to global markets strengthen oil security around the world. Buyers of crude oil, particularly in Asia, where demand is growing fastest, have a wider choice of suppliers. This gives them more operational and trading flexibility, reducing their reliance on traditional, long-term supply contracts,” IEA said.
Significant growth also will be seen among other nonmember producers of the Organization of the Petroleum Exporting Countries, including Brazil, Canada, a resurgent Norway, and newcomer Guyana, which together add another 2.6 million b/d in the next 5 years. In total, non-OPEC production is set to increase by 6.1 million b/d through to 2024.

The Oil 2019 report also forecasts that the second-largest increase in crude exports comes from Brazil, which ships an extra 800,000 b/d of oil by 2024. Following Brazil, Norway is enjoying a renaissance and will overtake Kazakhstan and Kuwait in the next 5 years a remarkable achievement.

Among OPEC countries, only Iraq and the UAE have significant plans to increase capacity. These gains have to offset steep losses from Iran and Venezuela, which are subject to sanctions and political or economic turmoil. As a result, OPEC’s effective production capacity falls by 400,000 b/d by 2024.

Iraq reinforces its position as one of the world’s top producers. As the world’s third-largest source of new supply, it also drives growth within OPEC to 2024. The increase will have to compensate for steep losses from Iran and Venezuela, as well as a still-fragile situation in Libya.

The implications of these developments on energy security are significant and could have lasting consequences.

IEA forecasts that 2019 upstream investment is set to rise for the third straight year, according to preliminary plans announced by key oil and gas companies. For the first time since the downturn in 2015, investment in conventional assets could increase faster than for the shale industry.

“While US production growth has exceeded expectations, we cannot be complacent about investment levels towards the end of our forecast period and beyond,” IEA said.

While global oil demand growth is set to ease, in particular as China’s demand slows, it still increases an annual average of 1.2 million b/d to 2024, according to the Oil 2019 report.

Still, IEA continues to see no peak in oil demand, as petrochemicals and jet fuel remain the key drivers of growth, particularly in the US and Asia, more than offsetting a slowdown in gasoline due to efficiency gains and electric cars.

“Despite efforts to curb plastics use and encourage recycling, demand for plastics and petrochemicals is growing strongly. Led by the US and China, we have identified more than 50 major projects due to come onstream through 2024. These are expected to add 2.2 million b/d in oil consumption over the forecast period, accounting for 30% of global growth,” IEA said.

In recent years, the air travel industry also has witnessed a spectacular expansion thanks to rising passenger numbers. Demand will continue to grow strongly, supported by rising incomes in developing countries, more airports being built, and growing airline fleets. Asia accounts for 75% of this increase over our forecast period. In absolute terms, while China sees the largest jump in demand, India posts the fastest rate of growth, at an impressive 8.2%/year.

Downstream, product markets are on the eve of one of the biggest shakeups ever, with the implementation of the International Maritime Organization’s new rules governing bunker fuel quality in 2020. Although the shipping and refining industries have had several years notice, there
have been fears of shortfalls when the rules come into effect. IEA’s updated analysis, however, shows that industry players are in a strong position to comply in the medium term.

As for the first year, the situation will be tight. Prices for gas oil could rise as demand from the marine sector increases. The industry is adjusting, with the largest incremental volumes coming from the US, the Middle East, and China.

Meanwhile, the refining industry is facing a wave of new capacity additions in the period to 2024, with a net growth of about 9 million b/d. China will overtake US to become the global leader in installed capacity.

Given that these new additions far exceed the increase in demand for refined products, plant closures might be necessary to rebalance the market, though questions remain as to where and when that will happen.

While the global average crude oil barrel produced remains predominantly a medium-gravity sour grade, the availability of heavier crude from several countries is in doubt due to production cutbacks and geopolitical challenges.

At the same time, the average global product barrel is getting lighter as fuel oil demand falls and petrochemicals grow in importance. As a result, the US will be in prime position as a supplier of light types of crude oil that are in growing demand. Shale oil also will help meet the new IMO requirements and provide the quantities of naphtha required for the petrochemicals industry, IEA said.

77. Hyundai, Toyota Join Forces for Hydrogen Bus, Truck Technology

South Korea’s Hyundai Motor Co. and Japan’s Toyota Motor Corp. are partnering with Royal Dutch Shell Plc, Air Liquide SA, Nel Hydrogen AS and Nikola Motor Co. to improve fuel-cell technology. They’ve given themselves a fun nickname — the Majestic 13—from the site of their first meeting with 13 people at the Las Vegas Stratosphere Hotel’s Majestic Room.

Hydrogen vehicles don’t produce greenhouse gases. About 95 percent of transportation energy worldwide now is thought to come from fossil fuels, mainly gasoline and diesel, according to the U.S. Environmental Protection Agency. Fossil fuels for transportation and other uses are the main source of the greenhouse gas carbon dioxide.

Hyundai already has come up with hydrogen refueling technology for its 2019 Nexo SUV. Larger commercial vehicles, however, face some unresolved technological hurdles. Hydrogen trucks and buses demand high-pressure fueling technology and bigger storage tanks, for example. It also takes a long time for commercial fuel cell electric vehicles to fill up at hydrogen stations designed for passenger vehicles.

“Just like combustion engine-powered vehicles, the aim of fuel cell electric vehicles is to have access to hydrogen fueling stations and refuel safely and quickly,” a spokesperson at Hyundai Motor Co. said March 8. “This is possible for passenger FCEVs, [but] challenges still remain for commercial FCEVs.”

The Majestic 13 plan to swap research and develop parts needed to refuel large-size commercial hydrogen vehicles. That includes items like gas storage receptacles, hoses, and nozzles.
“We decided to go the collaboration route with the goal of a common standard nozzle for fueling, as we would like others to fuel at our station and we would like to be able to fuel at theirs,” said Jesse Schneider, executive vice president of technology, hydrogen and fuel cells at Nikola. “The faster we can get both the fuel cell truck and accompany hydrogen infrastructure technology standardized and commercialized across the board, the better.”

Other companies in the Majestic 13 partnership also are making waves in the hydrogen market.

Shell is setting up hydrogen fueling stations across California. Shell last year opened its first hydrogen station in Vancouver, British Columbia, and announced plans to build four hydrogen stations in the Netherlands.

Air Liquide announced in November that it will invest more than $150 million to build a liquid hydrogen plant somewhere in the western U.S. Meanwhile, Nikola has been working on its Nikola Two semitruck, which boasts zero emissions, faster braking times on the road, and better speeds uphill than typical diesel-powered equivalents.

78. Ocean Decline, Climate Change Threaten Life: Former EPA Chief

Rising ocean temperatures and sea levels, biodiversity loss, and other effects of climate change on the oceans threaten life on earth, former Environmental Protection Agency administrator Carol Browner told a House Natural Resources subcommittee February 7. “We are running out of time” to address climate change, Browner said at the hearing. “When it comes to climate change, we have more science than we have ever had on any environmental or economic crisis—more science than any decision made by the EPA to protect our air or our water.”

Browner served as EPA administrator for all eight years of the Clinton administration and was a climate change adviser to President Barack Obama.

The hearing, focusing on the effects of climate change on the oceans, was among the first subcommittee hearings on climate change in the House since Democrats took control of the body in January.

Browner called for a “high seas regeneration zone,” which would ban industrial fishing, impose stricter oil and gas extraction standards, and boost biodiversity in U.S. waters to help the oceans withstand the ravages of climate change.

The call to draw attention to the impacts of global warming on the oceans follows scientific research published in January showing that 2018 was the warmest year on record for the world’s oceans.

Said Rep. Mike Levin (D-Calif.), who represents coastal San Diego County, Calif.: “My constituents are dealing with impacts of climate change every day. It’s not some theoretical concept for them.”

And Deborah Bronk, an oceanographer and CEO of Bigelow Laboratory for Ocean Sciences in Maine, said the economic consequences of climate change on oceans will be “devastating.”

“If this were a medical epidemic and the medical community spoke with the same urgency, every one of us in this room would have taken the medication prescribed by now,” Bronk said.
But committee Republicans rejected that urgency. “No one denies the planet is warming,” Rep. Tom McClintock (R-Calif.) said at the hearing. “Before we run screaming into the night, let’s also do a quick reality check. The sky isn’t falling.”

The hearing at points swerved into a debate on the legitimacy of established climate science, with Heritage Foundation statistician Kevin Dayaratna and University of Delaware climatologist David Legates sparring with Democratic lawmakers.

Legates, co-author of several reports published by the Heartland Institute that deny widely accepted climate science, said efforts to halt climate change “will do far more harm than good,” denied that carbon dioxide emissions are contributing to climate change, and said clean energy sources such as solar panels are as polluting as fossil fuels.

Dayaratna said policies to cut greenhouse gas emissions will not have a meaningful impact on the climate and will not affect rising seas.