

Michael P. Walsh
3105 N. Dinwiddie Street
Arlington, Virginia 22207
USA
Phone: (703) 241 1297 Fax: (703) 241 1418
E-Mail mpwalsh@igc.org
Michael@theicct.org
<http://walshcarlines.com>



CAR LINES

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EUROPE

1. Excess NOx From Diesel Cars Leads To 5,000 Premature Deaths A Year

In a new study published in the journal *Environmental Research Letters*, researchers showed that in 2013, air pollution by diesel cars, vans, and light commercial vehicles contributed to roughly 10,000 premature deaths in 28 European Union countries plus Norway and Switzerland. About half of these deaths could have been avoided if these vehicles met the pollution limits set by countries.

There are more than 100 million diesel cars in Europe — twice as many as in the rest of the world. The shift from gasoline to diesel cars was a strategic choice for European countries and it was encouraged with tax incentives, since diesel engines were expected to emit less carbon dioxide than petrol engines. But diesel cars also emit more nitrogen oxides (NOx) which produce tiny soot particles and ozone. Breathing in these pollutants is linked to heart and lung diseases, which contribute to people dying prematurely.

Governments routinely test new diesel vehicles to check whether they meet pollution limits. The problem is that these laboratory tests fail to mimic real-life driving situations, and so they underestimate actual pollution levels. When driven on actual roads, diesel cars emit four to seven times more nitrogen oxide than in lab-based tests. In the case of car companies like Volkswagen, cars were intentionally sold with special software designed to defeat emissions testing. All the extra NOx has serious health consequences.

“The excess NOx emissions is not just a matter of complying or not with some obsolete regulation, it has public health consequences,” says study co-author Jens Borcken-Kleefeld, a senior research scholar at the Air Quality and Greenhouse Gases Program at the International Institute for Applied Systems Analysis.

Borcken-Kleefeld and his colleagues analyzed NOx emissions and concentration of air pollutants in 28 EU countries plus Norway and Switzerland in 2013, and then looked at the populations exposed. They found that roughly 10,000 premature deaths a year can be attributed to NOx emissions from diesel cars, vans, and light commercial vehicles. About half of those deaths are due to the excessive NOx emissions.

Italy, Germany, and France — the most populous European countries — were most impacted by the pollutants and faced the highest number of related deaths. But when the researchers looked at the number of premature deaths per 100,000 inhabitants, smaller countries like Switzerland, Slovenia, and Belgium popped up as well. “They live downstream in a way, and hence, they are affected by the pollution which they can’t control,” Borcken-Kleefeld tells *The Verge*.

The researchers also found that if diesel cars emitted as little NOx as gasoline cars, about 7,500 premature deaths in 2013 could have been avoided, the study says. Borcken-Kleefeld says that the original push for diesel cars in Europe is no longer valid. The introduction of more efficient gasoline engines and an influx of hybrid-powered cars means that gasoline cars now basically produce the same CO2 emissions as diesel cars, Borcken-Kleefeld says.

Country	Premature deaths 2013 with high on-road emissions	if diesel limits had been respected	if NOx emissions were as low as petrol cars	Premature deaths due to excess NOx emissions
Italy	2810	1560	890	1250
Germany	2070	1110	380	960
France	1430	750	260	680
United Kingdom	640	320	110	320
Netherlands	360	180	60	180
Poland	360	190	80	170
Spain	370	200	70	170
Belgium	290	150	50	140
Switzerland	250	130	50	120
Hungary	190	100	50	90
remaining 20 EUR	1060	580	230	460
EU-28	9575	5135	2180	4440
EU28 + NOR + SWI	9830	5270	2230	4560

Estimated premature deaths by country due to NOx from diesel cars, vans, and light commercial vehicles. Chart: Jonson et al 2017

The study's findings aren't too surprising. A study earlier this year showed that the extra pollution from diesel cars as well as trucks, has contributed to about 38,000 premature deaths worldwide in 2015. Today's study focuses only on Europe, and only on diesel cars.

2. Remote Sensing Is Demonstrating Diesel Particulate Filter Success

The impact that fine particles (PM_{2.5}) have on human health is well-established, based on research that has been refined over the last two decades. Estimates are that 29,000 early deaths occur each year in the UK due to fine particulates exposure. Diesel vehicles have long been known to be an important source of PM emissions. One of the most important changes to vehicle emissions control technologies in recent years has been the widespread adoption of *diesel particulate filters* (DPF).

For diesel passenger cars, the use of DPF effectively became mandatory for Euro 5 vehicles, which were introduced in 2010. However, some manufacturers fitted DPF to Euro 4 vehicles.



PM can be measured using optical absorption methods in both the infrared (IR) and ultra violet (UV) wavelengths. The IR region is not ideal for this purpose but does provide some indication of PM emissions from vehicles. A better measurement can be made in the UV region at about 250 nm where black carbon diesel exhaust PM (i.e. soot) has strong absorption, which is used in the analysis below.

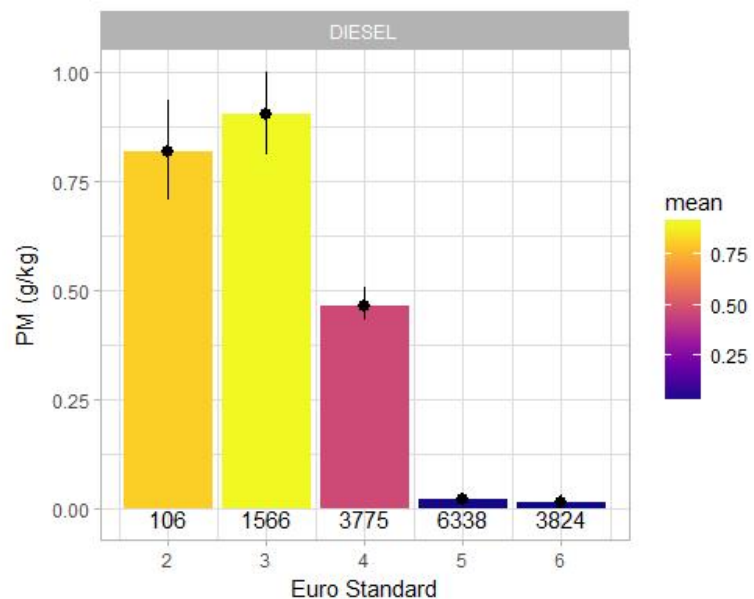
Ricardo is currently piloting remote sensing measurements around the UK. Its vehicle emissions database currently holds 50,000 real-world driving emission measurements from road vehicles and they anticipate that this number will exceed 100,000 by the end of 2017.

The database offers great insight into the behavior of vehicle emissions under real-world driving conditions including a window into the performance of DPF technologies.

The Figure below shows the change in PM emissions for diesel passenger cars by euro standard. These results show very clearly the dramatic reduction in PM emissions for Euro 5 and 6 diesel cars (which have DPF technology fitted) compared with the emissions from earlier Euro classes.

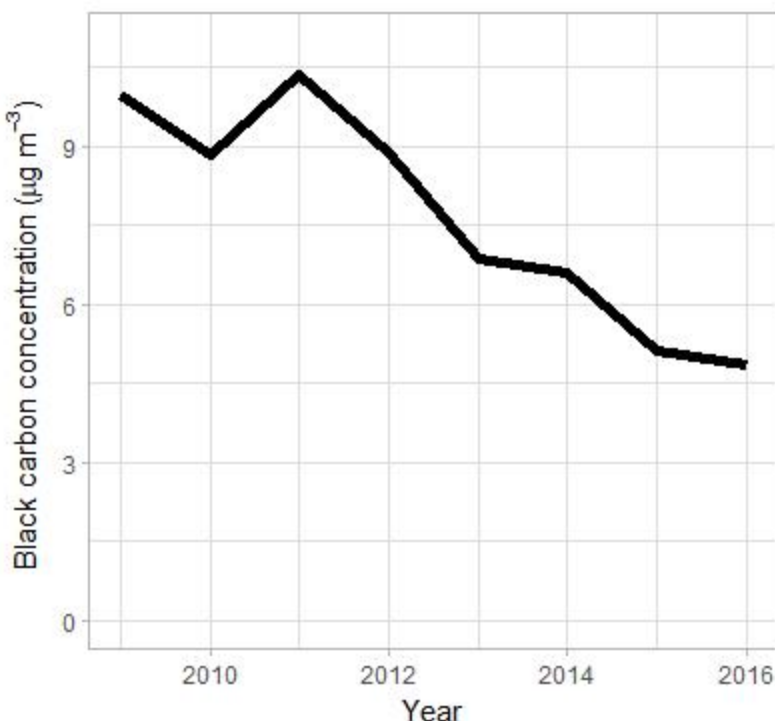
The approximate 50% reduction in PM for Euro 4 compared with Euro 3 shows that some Euro 4 vehicles were being fitted with DPF technology earlier than strictly necessary in anticipation of Euro 5. These results are entirely consistent with the changes expected due to the adoption of DPF in diesel passenger cars.

Mean emission of PM for diesel passenger cars split by Euro classification. The numbers below the bars show the number of valid measurements. Note the units are grams of PM per kg of fuel burnt and the error bars show the 95% confidence interval in the mean.



Emissions of PM have clearly fallen since Euro 4 standard vehicles were introduced. Indeed, cars produced in the last 5 years or so have PM emissions that are below the detection limit of the instrument. Such a trend is in fact a major success story for controlling PM emissions from vehicles.

It is also useful to consider the evidence from ambient measurements of PM. Given the 'sooty' characteristics of diesel PM, measurements of black carbon (BC) provides the strongest indicator of how diesel PM emissions have changed over time. The plot below shows how concentrations have changed since 2009 at the Marylebone Road site in London.



Trend in the annual mean black carbon concentration at the Marylebone Road site, 2009 to 2016.

BC concentrations at Marylebone Road have reduced by about a factor of two between 2009 and 2016; one of the largest changes in concentration observed for any pollutant measured at this location.

This trend is consistent with an increasing proportion of diesel vehicles in the fleet that have DPF fitted and operational. It is important to remember that the changes in BC concentrations at this site include emissions contributions from vehicles other

than diesel passenger cars fitted with DPF. Nevertheless, these trends in ambient BC concentration provide further strong evidence that DPFs are proving to be effective.

3. Friends of the Earth Netherlands Wins Preliminary Injunction For Clean Air

The court in The Hague has ruled in favor of clean air in a preliminary injunction brought by Milieudefensie [Friends of the Earth Netherlands] against the Dutch government. The court ruled in favor of Milieudefensie on all counts. This means that the Dutch government must now do everything in its power to urgently meet European air quality standards throughout the Netherlands.

Anne Knol, head of Milieudefensie's Sustainable Mobility Campaign, responded enthusiastically, stating, 'This is a complete breakthrough for clean air! We are delighted that the judge has obligated the State to better protect its citizens' health. Air pollution in the Netherlands must now be seriously addressed so that fewer people become ill or die as the result of air pollution. And this is very hopeful news for the one million respiratory disease sufferers in the Netherlands.'

The judge ordered in the ruling that within two weeks the State must submit a plan to comply with all European limit values in a 'foreseeable and demonstrable' manner. The judge also prohibited any measures which would lead to new violations of the law. 'This is an excellent verdict!'

responded Phon van den Biesen, Milieudedefensie's lawyer. 'It seldom happens that a judge rules completely in favor of the plaintiff. But it is also high time.'

The government had argued in court that it was already taking measures to clean up the air and is working with local authorities to tackle problem areas, which are mainly in large cities with heavy traffic and industry. Dutch Minister for the Environment Sharon Dijksma said she would intensify that cooperation to speed up moves to improve air quality.

This, however, does not mean that Milieudedefensie believes the problem has been solved. The World Health Organization (WHO) guidelines impose much stricter limit values than the European standards, and Milieudedefensie has called on the Dutch state to comply with these. These requirements are part of the main proceedings that Milieudedefensie has already initiated. In these main proceedings, Milieudedefensie has argued that the Dutch state has violated the human right to health, due to its failure to adequately address air quality. The court will take action on this issue during the main proceedings on 14 November.

4. Court Puts 'Health First' In Stuttgart's Car Ban Ruling

The health of local residents must prevail over the rights of the vehicle owners affected by the traffic ban, according to a recent judgment by the Stuttgart administrative court.

Restrictions on vehicles in the Stuttgart environment zone, due in force from 1 January 2018, would affect all petrol and gas fueled vehicles below Euro 3 standards, and diesel vehicles below Euro 6. The court judged this to be the only air pollution control measure that will ensure fastest possible compliance with nitrogen dioxide emissions limits. Limits have been exceeded in Stuttgart since 2010.

The state of Baden-Württemberg is to decide soon whether to accept the ruling, file an appeal with the higher administrative court in Mannheim or take the case directly to the highest responsible court, Leipzig's federal administrative court.

Measures proposed by Stuttgart's environment authority in its May 2017 draft revision of the city Air Pollution Control Plan — including vehicle bans according to vehicle number plates, a local traffic levy and a so-called retrofit solution — would not have equivalent impact, the court ruled. The retrofit solution would in any case be voluntary and unenforceable, it said.

This is the third traffic air pollution case, after Munich and Düsseldorf, to be won by environment NGO Deutsche Umwelthilfe (DUH). In all, DUH has launched similar legal proceedings in 62 German cities. The mayor of Munich announced restrictions to diesel vehicles in June.

5. Post-Dieselgate Test Overhaul Goes Into Effect

Starting 1 September, compliance with the new laboratory test known as World Harmonized Light Vehicle Test Procedure (WLTP) and its real-driving emissions (RDE) counterpart became mandatory for car and van models newly placed on the EU market. WLTP will measure emissions of both CO₂ and air pollutants such as nitrogen oxides (NO_x) and become compulsory for all other newly registered EU cars and vans by September 2018. It replaces its laboratory predecessor NEDC, first introduced in 1996 and widely thought to underestimate emissions.

Meanwhile, RDE, the EU's first on-road test, will cover air pollutant emissions but not CO₂. The European Commission may propose incorporating the greenhouse gas – a move backed by its own scientists – when it tables new car and van CO₂ standards this November.

Vehicles tested under RDE will be allowed to produce NO_x emissions of up to 168mg/km – 2.1 times the 80mg/km limit – to offset any measurement inaccuracies. This conformity factor will drop to 1.5 (120mg/km) between 2020 and 2021 and later could be phased out entirely by the Commission.

ICCT testing of Diesel cars along RDE-compliant journeys exceeded NO_x limits by factors of 5 to 16, rising to 26-40 when driven faster along high-altitude roads. (See story below.)

RDE-compliant diesel vehicles will produce “very low” pollutant emissions and help cities comply with EU air quality targets, according to European carmaker association ACEA.

Green group T&E hailed the tests as a “big step forward” in the fight against cheating with vehicle emissions but warned they cannot be seen as a “panacea”. Stricter emission limits and the upcoming reform of how vehicles are approved in the bloc will also be key, the organization said.

The Commission, set to have greater powers to control national type-approval authorities under the new Regulation, has launched legal actions against eight countries to date over their poor response to defeat devices.

The Vice-President for Jobs, Growth, Investment and Competitiveness, Jyrki Katainen said: "The new emissions tests are a milestone in our ongoing work for cleaner and more sustainable cars over the coming years. But more remains to be done. The emissions scandal has shown that we need more independence in car testing, stronger market surveillance and the possibility for the Commission to intervene in case of wrongdoing. The Commission presented a proposal in January 2016 to achieve just that. It has been on the table since and it is high time that the European Parliament and Council adopt it. And we need to decisively pursue EU-wide efforts to foster low emissions mobility."

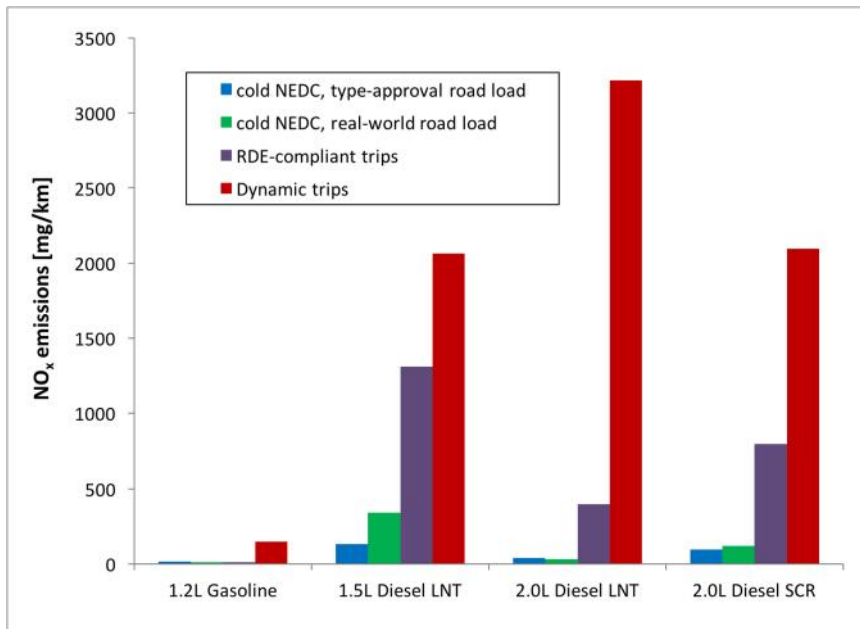
Commissioner Elbieta Biedkowska, responsible for Internal Market, Industry, Entrepreneurship and SMEs, added: "A quick shift to zero emissions vehicles is in all our interest given the public health and environmental risks at stake. And it's crucial for the car industry if it wants to remain internationally competitive. But for the time being, diesel cars remain part of our lives and we must rebuild confidence in this technology. That is why having new and more reliable tests for new cars is essential. And for cars already on the road, Member States must do their job, enforce the law and take additional steps, together with all stakeholders, to bring down emissions of the existing fleet."

6. ICCT Reports On Real-World Emissions Testing On Four Euro 6 Vehicles

ICCT commissioned the Laboratory of Applied Thermodynamics, of the Aristotle University of Thessaloniki, and its spin-off company, Emisia, to investigate real-world emissions of four Euro 6 passenger cars. One gasoline and three diesel vehicles with different aftertreatment technologies were tested under variable conditions.

First, the laboratory testing reiterated the NEDC type-approval test using two different estimation of on-road frictions for the different vehicles (road-load settings). The first used the car manufacturer's original parameters, and the second ICCT's own independent measurements.

Another series of tests completed the laboratory investigation and measured emissions on different vehicle speed profiles (i.e., ARTEMIS, WLTC) at ambient conditions varying from 18°C to 25°C.



Second, the four vehicles were tested on the road following the RDE regulation protocol, which includes defined limits for dynamic driving conditions (e.g., exclusion based on vehicle's speed and acceleration, and cumulative positive altitude). For the last series of on-road tests, the four vehicles were driven more dynamically on a hilly road to investigate emission levels outside the scope covered by the regulation.

Main findings of the investigation revealed that:

- Every tested vehicle exceeded their carbon dioxide (CO₂) certification levels in a range varying from 21% to 37% under the laboratory type-approval test using real-world road-load settings.
- Two of the three diesel vehicles exceeded the nitrogen-oxides (NO_x) limit by 19% and 66% while tested under the laboratory type-approval test.
- Under RDE-compliant on-road trips, NO_x emissions from diesel vehicles showed average levels varying from 5 to 16 times the Euro 6 limit.
- NO_x emissions of diesel vehicles driven in more dynamic driving conditions increased further to reach a range from 26 to 40 times the Euro 6 limit.
- NO_x and carbon monoxide (CO) emissions from the gasoline vehicle remained below the Euro 6 limit under any of the laboratory tests and RDE-compliant trips. While tested in more dynamic on-road conditions, emissions exceeded the laboratory type-approval limit by a factor of 2.5 for NO_x and by a factor of 2.4 for CO.

7. Recent Developments in Europe Regarding Zero Emissions Vehicles

VW CEO Vows to Offer Electric Version of All Models by 2030

Volkswagen AG Chief Executive Officer Matthias Mueller announced sweeping plans to build electric versions of all models in the group's lineup as the world's largest automaker accelerates the shift away from combustion engines and tries to draw a line under the emissions-cheating scandal. Speaking on the eve of the Frankfurt auto show, the CEO laid out the enormity of the task ahead, vowing to spend 20 billion euros (\$24 billion) to develop and bring the models to market by 2030 and promising to plow another 50 billion euros into the batteries needed to power the cars.

Catching up in electric vehicles is key to the German manufacturer's effort to move beyond its diesel-emissions crisis that erupted two years ago and meet tightening emission rules across the

globe. China recently became the latest country to announce plans to phase-out fossil-fuel powered vehicles, following the lead of the U.K. and France. The move by China, the world's biggest auto market, is expected to accelerate a global shift to electrics.

VW, Daimler AG, and BMW AG, are all accelerating electric-vehicle plans to react to slumping sales of diesel models amid the fallout from VW's cheating scandal. With their big cars, German automakers are particularly reliant on diesel in their home market of Europe and had been banking on the fuel-efficient engines to help meet ever tougher emissions rules that will tighten further early next decade.

Underscoring the enormity of the shift taking place in the industry, Mueller said VW will need the equivalent of at least four gigafactories for battery cells by 2025 just to meet its own vehicle production. At 50 billion euros, the CEO announced one of the largest tenders in the industry's history for the procurement of batteries.

By 2025, VW aims to have 50 purely battery-powered vehicles and 30 hybrid models in its lineup, with a goal of selling as many as 3 million purely battery-powered cars by then. The transformation will pick up speed after that to reach the 2030 goal as economies of scale and better infrastructure help bring down prices and accelerate sales.

Sales Of Diesel Cars Have Crashed in UK As Drivers Look To Go Electric.

They slumped 21.3 per cent last month compared with August 2016. And the year to date sales are down 11.5 per cent as pollution fears grow, according to the Society of Motor Manufacturers and Traders (SMMT). Meanwhile, demand for petrol hybrid and electric battery-powered vehicles jumped in August, up 74.9 per cent and 62.5 per cent respectively.

The SMMT figures show the new motors market suffered its fifth consecutive month of decline in August. Registrations were 6.4 per cent down on the record August of 2016. Sales of conventional petrol cars grew by just 3.8 per cent. However, with more than 76,000 new vehicles registered, it still represented the third biggest August in a decade.

Sales for plug-in hybrids are up 38.5 per cent

Demand for alternatively fueled motors was up 58.3 per cent. They now account for more than one in 20 of new cars sold in Britain, up from fewer than one in 30 last year.

Manufacturers Blamed For Poor Electric Car Sales

A lack of options for consumers and low marketing spend are the reasons for poor European sales of electric vehicles, according to an analysis by Transport & Environment (T&E). Based on public announcements by manufacturers, T&E estimated in a new report that battery electric vehicles (BEVs), including hybrid models, were expected to make up an average 3.6% of sales last year. The actual figure came in at just 1.7%.

The proportion of marketing budgets allocated to zero-emissions vehicles was 2.1%, while the figure for hybrid cars was 1.6%. The report authors infer that the spend in EU countries was even lower, as manufacturers concentrate on existing markets.

“In Norway, where more than 1 in 3 new cars sold is now electric, marketing spend on electric cars as a proportion was much higher, indicating companies tend to follow demand rather than create a new market,” the report concludes.

The report argues that the European market is constrained by limited availability, with only 20 BEV models on offer, compared with 417 conventional models. “The reality is that if car makers provided more choice, and marketed and sold the vehicles more aggressively, they could meet their own goals and clean up emissions,” T&E’s e-mobility specialist Julia Hildermeier said.

T&E’s analysis comes just weeks ahead of new EU legislation that could have a huge impact on the sector, with the European Commission due to publish soon updated regulations for car and van emissions. “If the Commission sets annual emission reduction targets of 7% and a zero-emission vehicle sales target of 15-20% for 2025, this bold policy will effectively trigger a significant shift in the market,” Hildemaier said.

Currently new cars sold in the EU are restricted to 130g of CO₂ per kilometer, with the limit set to tighten to 95g/km from 2020. MEPs demanded in June that the limit for cars be tightened to 68-78g/km from 2025. A Commission official said the new regulation would be published by the end of the year, probably in November.

Sweden Plans to Raise Subsidies for Vehicles with Low Emissions

Sweden has proposed increasing subsidies for new light vehicles with low carbon dioxide emissions and raising taxes on high-emission vehicles, in a bid to increase the number of environmentally friendly cars on the road.

Subsidies would be raised to as much as 60,000 kronor (\$7,500) from 40,000 kronor previously, the government said in a statement about the proposal, which is part of the 2018 draft budget. Taxes would be increased on high-emission vehicles during their first three years on the road. The government wants to introduce the program on July 1, 2018.

The proposal is seen adding 1.1 billion kronor (\$138 million) to government coffers through 2020. The government also proposed requiring fuel distributors to mix more biofuels in their petrol and diesel, with the aim of reducing emissions by 40 percent by 2030.

Norway Boosts Hydrogen Cars with Refueling Station Subsidies

Hydrogen refueling station operators in Norway are eligible for up to 1 million kronor (\$158,900) annually in subsidies after a plan to boost the industry was approved by European regulators. Under the plan, hydrogen fueling station operators will be offered subsidies to construct roadside stations in Akershus County, which surrounds Oslo, the country’s capital city. As the operating costs of such stations cannot be covered by sales income, prospective operators are currently deterred from entering the market, according to the plan.

The plan allows new and existing operators to receive aid from a pot of NOK 25 million (\$3.2 million) over five years, which will cover the portion of their operating costs that are not covered by profits. Any profit exceeding 10 percent that is gained within the subsidy period must be paid back. The maximum subsidy will be 1 million kronor per station annually for up to three years.

The European Free Trade Association Surveillance Authority, the body that ensures European Economic Area members comply with European Union state aid rules, approved the subsidy plan July 25.

Oystein Lunde, an adviser to the Akershus County Council, told reporters in an August 1 statement that to his knowledge this was the first time that an EU body had approved a state aid scheme to encourage the construction of hydrogen refueling stations. The subsidies are not limited to companies located in Norway and the EU, he added.

“We hope that both Norwegian and international companies will invest in stations in our regions,” he said. Currently, there are just three hydrogen refueling stations in the Oslo region that cater to private vehicles, with one more under construction, he said.

The Norwegian authorities have already granted several tax breaks to hydrogen vehicles including an exemption from vehicle registration taxes, reduced road taxes, and a VAT exemption. Toyota and Hyundai are among the companies offering hydrogen powered fuel cell electric vehicles in Scandinavia.

European Union Envisions Deep Green Future for Cars

European Union lawmakers are calling for a seismic shift toward low-carbon mobility in the auto sector, including requiring manufacturers to meet a 25% minimum fleet quota for electric vehicles by 2025 and banning sales of cars emitting carbon dioxide by 2035. But ACEA, the group representing European automakers, is skeptical of the demands from the European Parliament that will be voted upon ahead of proposals that the European Commission, the EU’s executive branch, is to release in November.

Under the EU’s complex lawmaking system, the Commission proposes legislation, which usually must be approved by the parliament and the EU Council of Ministers representing member states. But the parliament often makes formal suggestions to the Commission about laws it could propose, and lawmakers are setting out their demands on green cars in a report written by Bas Eickhout, a Green Party parliament member from the Netherlands.

The parliament will vote on the demands, included in Eickhout’s report called “European Strategy for Low-Emission Mobility,” during a full House session this fall. Before that, the parliament’s transport and tourism committee will vote September 25 on what should go into the Eickhout report.

It currently demands the Commission propose tough new standards for carbon-dioxide emissions from cars and vans based on a minimum 6%-8% annual reduction. This would lead to manufacturers being given a fleet-average CO2 limit of 70 g/km in 2025, dropping to 50 g/km in 2030, with both measured by on-vehicle tailpipe emission boxes under both the New European Driving Cycle and Worldwide Harmonized Light Vehicles Test Procedure (WLTP).

However, an ACEA spokesperson told reporters: “The level of CO2 reduction is closely linked to the market uptake of low-emission-vehicle technologies. A realistic time horizon is needed that allows for both the development of these type of vehicles and, more importantly, the realization of the type of infrastructure needed to support these vehicles.”

Eickhout further wants car labeling revised with information “based on a comparative CO2 footprint.” But the ACEA spokesperson points out: “Work is currently ongoing for defining a

harmonized methodology to calculate the lifecycle CO2 emissions of vehicles. It is therefore premature to include this criteria within a labeling scheme.”

Another key European Parliament committee, the environment committee, already has adopted its position on the subject, with its proposals written by Italian Socialist parliament member Damiano Zoffoli, and voted upon and approved June 29th. Any suggestions approved by this committee on the environment, including emissions limits, will be included in the final report from Eickhout that is presented to the full parliament.

Zoffoli has criticized the WLTP procedure, pointing to research showing its results will “still diverge by around 20% from real-world emissions and will remain open to test optimization and manipulation.”

Zoffoli’s proposals argue: “A targeted ex-post real-driving-emissions (RDE) methodology for CO2 emissions should be developed to complement the WLTP,” possibly based on measuring devices already present in vehicles, such as fuel-consumption meters.

But the ACEA spokesperson counters: “RDE it is not suitable to monitor the achievement of a manufacturer’s CO2 fleet target in EU legislation. A variable test like RDE does not give legislators or manufacturers any legal certainty and is not compatible with the current approach of setting an EU fleet target and manufacturer-specific fleet targets.

“Only the new, standardized WLTP laboratory test that will be mandatory from September 2017 will provide the necessary accuracy, clarity and repeatability for measuring new-car CO2 emissions as the basis for monitoring compliance with future CO2 legislation.”

Zoffoli further wants the Commission to review the EU’s clean power for transport directive, changing its terms to include a push toward zero- and ultra-low emission vehicles through a stepwise increase in fleet averages from 2025 “with the aim of phasing out new CO2-emitting cars by 2035.”

While ACEA acknowledges all its members have “a responsibility to provide a wide range of vehicles with alternative powertrains,” the spokesperson points out “both market penetration, as well as consumer acceptance of these vehicles in the EU, are still very low.”

All alternatively powered vehicles together accounted for just 4.2% of registrations in 2016, with electrically chargeable vehicles (ECVs) alone only 1.1%. There also are very different market shares across the 28-nation EU: 0.1% to 0.2% in southern and eastern member states, 6% in the Netherlands, 1.4% in the U.K. and France, and 0.8% in Germany.

ECVs’ market share is 0.5% or lower in 13 member states, the spokesperson notes, adding: “Even more striking is the fact that an ECV market share of 1% or higher only occurs in western European countries with a GDP per capita of more than €30,000 (\$34,595). In countries including the new EU member states in Eastern Europe and the Baltic States, as well as crisis-torn Greece with a GDP per capita below €17,000 (\$19,600), the market share remains close to zero.”

As far as targets go, the spokesperson stresses “there are widely diverging predictions for the future ECV market uptake from different organizations and research institutes, highlighting the uncertainty in which the industry operates.”

To encourage electric-vehicle uptake, the Zoffoli proposal says member states should offer tax breaks for zero- and low-emission vehicle purchases and develop widespread charging facilities.

The ACEA agrees, with the spokesperson saying a higher market uptake of alternatively powered vehicles is only possible if three key conditions are met: both member states and infrastructure providers make the necessary investments in recharging and refueling infrastructure; there are support schemes to stimulate sales, and consumers accept “all technical parameters of these vehicles.”

German Minister: EU Automakers May Be Required to Produce Electric Vehicles

Making electric cars may become a regulatory requirement rather than a strategic choice for vehicle makers in the European Union as the bloc seeks to underpin a shift away from polluting combustion engines. The EC is considering bringing forward targets this autumn for the number of electric cars automakers and importers should sell in the bloc, bolstering climate targets and pollution limits, Germany's Deputy Environment Minister Jochen Flasbarth told reporters in Berlin on August 16th.

Pollution from vehicles has risen in Germany even as emissions from industry and utilities have fallen, adding to pressure on the government to tighten up rules applying to carmakers. An EU move would add to ambitions the U.K., Germany and France have set out to limit the number of cars using gasoline in the coming decades.

“I'm convinced a quota is coming even though the commission has diplomatically denied it,” said Flasbarth. “In terms of meeting the EU's climate goals we're in the realm of legal obligation here.” Any EU quota might be lower than Germany's target to expand emissions-free car sales by 25 percent by 2025, he said.

Chancellor Angela Merkel is struggling to grapple with a diesel scandal and rising carbon dioxide emitted by the transport sector and may find it hard to help the EC push stricter regulations on the entire 28-nation bloc. She's already had to back off a goal of having 1 million electric cars on the road by 2020.

The minister's comments are an indication that Merkel may be prepared to water down her administration's support for the car industry's slant toward diesel engine technology where Germany is a leader.

France and the U.K. have already moved to set 2040 deadline as a deadline to phase out new gasoline and diesel cars. Merkel said in Germany's Super Illu magazine that's the “right approach. “I can't right now name a precise year” for a ban, she is cited as saying in the interview.

All-electric and hybrid cars made up less than 1 percent of the 46 million passenger cars on German roads at the end of January.

The chancellor of Europe's biggest polluter is also struggling to explain how it will cope with an increase in greenhouse gas emissions, led primarily by vehicle pollution. Carbon dioxide from vehicle exhausts accounted for about 18 percent of output last year. Merkel said in a July 17 ARD television interview she would double down action to meet national climate goals after the vote. Germans identify climate protection as their biggest concern, ahead of terrorism and unemployment, according to a survey conducted by Emnid this month.

Climate Experts Criticize Scotland's GHG Strategy – Needs Transportation Focus

Climate experts have warned the Scottish government its ambitious plans to cut greenhouse gas emissions lack credibility and risk stalling unless its strategies improve dramatically. The Committee on Climate Change (CCC) said the devolved government had so far led the UK in its efforts to cut emissions, reducing its actual CO₂ emissions by 38% by 2015 compared with 35% at UK level. Scotland is now on the brink of meeting its 2020 target to cut emissions by 42% several years early.

Nicola Sturgeon's government is consulting on plans to set a fresh target of cutting emissions by 90% by 2050 but faces heavy criticism from anti-poverty charities and the Scottish Green party, who have urged the first minister to take faster, tougher action.

The CCC, the UK's government-funded advisory committee, said the policies needed to hit that target were too weak and ill thought out, singling out proposals in a draft plan to heavily cut emissions by sharply increasing low carbon home heating to 80% by 2032. Those were "very unlikely to be feasible", it warned.

The committee said ministers needed instead to put far greater emphasis on cutting the country's rising transport emissions – an area largely neglected by the Scottish government until now.

So Sturgeon's proposals to dramatically increase the use of electric and ultra-low emission vehicles by helping phase out sales of new petrol and diesel-powered vans and cars by 2032, outlined in her new program for government earlier this month, were a significant step forward, it added.

In an unusually critical progress report for the Scottish parliament, the CCC said: "Without firm new policies, reductions in Scottish emissions are unlikely to continue in the 2020s. The final version of Scotland's plan should also build as fully as possible on the UK government's clean growth plan, which will set out how UK emissions targets to 2032 will be met.

"Greater ambition will be required to reduce emissions in the transport sector, as announced in the recent program for government, with less reliance on rapid deployment of low-carbon heating. The plan as it stands lacks credibility in meeting the emissions targets to 2032 and fails to prepare properly for deeper decarbonization in the longer term."

Roseanna Cunningham, the Scottish environment secretary, said her government was now putting action on climate at the heart of its policymaking. Its final plan, due to be published in 2018, would reflect the committee's advice. "We acknowledge that there are areas where more needs to be done in order to continue meeting our ambitious targets and to prepare for even greater future ambition under our proposed climate change bill," she said.

Scotland's emissions reduction had been driven largely by sharp increases in renewable electricity, funded by UK consumers, and deep cuts in coal-fired power, bolstered by forestry acting as a carbon sink.

Scotland's last coal powered station, Longannet, closed down in 2016 and electrification of the country's rail network is increasing, but the committee said Scottish ministers could no longer rely on renewable electricity investment to hit future targets.

That switch to renewables was driven by Alex Salmond, Sturgeon's predecessor as first minister, but the Scottish government has been accused of pursuing contradictory policies on climate. Salmond championed North Sea oil exports to fund Scottish independence, while investing billions on new road projects, and Sturgeon plans to phase out air passenger duty to boost aviation.

While the Scottish government has no direct say over vehicle emissions standards and little influence over manufacturers, committee officials said it could boost electric vehicle use by greatly increasing charging infrastructure and having tougher planning and parking policies.

The committee said the 2032 policy would lead to the complete phasing out of all petrol and diesel powered cars by 2050. Ministers are also introducing new low emission zones in Scotland's four largest cities, to control pollution and inefficient vehicles.

8. Iceland Eyes Earlier Shipping Emissions Curbs

Restrictions on cruise ships' emissions are being fast-tracked in Iceland after high concentrations of ultrafine particles and black carbon were detected in Reykjavik recently. Scientists took samples following a request from NGOs belonging to the Clean Arctic Alliance. Cruise ships typically change over from low-sulfur oil to heavy fuel oil when leaving one of the Emission Control Areas (ECAs) as designated under Annex 6 of the Marpol Convention for the prevention of pollution from ships.

Iceland's environment minister is looking to create its own ECA, possibly with neighboring countries, once it has ratified Annex 6 of the Marpol Convention next month. Ratification was originally meant to take place later this year.

The environment agency has said it will monitor cruise ships' emissions in ports. The city of Reykjavik is considering a ban on cruise ships that lack cleaning equipment for removing black carbon.

Earlier this year, MEPs urged the EU to push for a UN-level ban on heavy fuel oil in the Arctic.

9. Helcom's Green Team Zooms in on Sustainable Shipping

Helcom is an intergovernmental body focused on the protection of the Baltic Sea. Meeting recently, Helcom's Green Technology and Alternative Fuels Platform called for wider use of financial instruments to support technological improvements, especially around sewage treatment systems and scrubbers.

Lower dues on port access and differentiated taxation on marine fuels already exist in some countries, but a broader incentive scheme would achieve better results, the green team said. It also urged greater use of environmental indices to assess ships' impact on the sea.

More than 50 such indices are in existence, including the Environmental Ship Index (ESI), which is primarily focused on air emissions, and the wider-ranging Clean Shipping Index (CSI).

The meeting called for ferry traffic and cruise ships to be included in ongoing work on a new trans-European transport policy, as they are responsible for emissions in ports. Iceland is currently considering further restrictions on cruise ships. (See earlier story.)

Funding from the EU's Horizon 2020 program will support over the next three years enforcement, autonomous vessels, retrofits such as fuel cells, and emissions control. Other funds could come from the EU's Bonus Baltic Sea program and the Trans-European Transport Network (TEN-T).

10. French Probe Alleges 2 Million PSA Cars Had Emissions-Cheating Software

The French investigation into alleged emissions cheating by PSA Group found that suspect software had been used on almost 2 million vehicles sold by the automaker, Le Monde has reported. PSA denies any use of fraudulent engine software, a spokesman said in response to the newspaper report.

So-called "defeat devices" restrict exhaust output of toxic nitrogen oxides (NOx) under regulatory test conditions while letting emissions far exceed legal limits in real-world driving.

In February, PSA became the fourth carmaker to be referred to French prosecutors by the country's DGCCRF watchdog over suspected emissions test-cheating, after Volkswagen Group, Renault and Fiat Chrysler Automobiles. PSA's engineering chief acknowledged at the time that emissions treatment in the group's diesels was deliberately reduced at higher temperatures to improve fuel efficiency and carbon dioxide (CO₂) emissions in out-of-town driving, where NOx output is considered less critical.

According to Le Monde, an internal PSA document obtained by DGCCRF investigators includes discussion of the need to "make the 'defeat device' aspect less obvious and visible." However PSA insists there is nothing fraudulent or illegal about its engine calibrations. "PSA denies any fraud," the company said.

PSA said its strategy on engine settings favors low NOx emissions in cities while ensuring the best NOx/CO₂ balance on open roads. It said it complies with regulations in every country where it operates and its vehicles "have never been equipped with software or systems making it possible to detect compliance tests and to activate a pollutant treatment device that would be inactive during customer use."

PSA's statement pointed out that it is the only automaker to publish real world CO₂ emissions, an approach that will be extended to NOx emissions by the end of the year.

11. As Europe Sours on Diesel, Germany Fights to Save It

Britain and France want to end the sale of diesel cars. Madrid and Athens are banning them entirely. Automakers like Volvo are switching to electric engines. In Germany, those developments have created something akin to a national emergency, threatening an industry that employs hundreds of thousands of people.

As others have increased investment in electric cars and pushed tougher rules threatening diesel German auto executives and political leaders meeting in Berlin recently appeared determined to rescue the technology. After a meeting described as a "diesel summit" — they announced plans to update the software in 5 million cars to reduce emissions of nitrogen oxides, the byproduct of diesel most harmful to human health.

The German manufacturers also said they would contribute to a fund worth 500 million euros, or \$590 million, to finance measures to reduce urban pollution, for example by modernizing bus fleets or building bike paths.

Most of the software upgrades had already been announced by the German manufacturers, while politicians and automotive executives alike rejected calls by environmental groups to force carmakers to add antipollution hardware like better catalytic converters. And they were unanimous in opposing plans by some cities to ban diesels from downtown areas.

“The government’s chumminess with the auto industry continues,” Oliver Krischer, a leader of the opposition Green Party, said in a statement. “While China, California, Norway and many others are tackling electro mobility, the government is turning Germany into a diesel museum.”

In fact, as far as auto industry leaders were concerned, diesel remained central to their ambitions. “Future mobility will definitely depend on state-of-the-art diesels as well,” Harald Krüger, the chief executive of BMW, said in a statement. The carmaker said it would offer a bonus of up to €2,000 to anyone who traded in an older diesel vehicle for a new BMW electric or hybrid car — or a diesel that met the latest emissions standards. Volkswagen and other carmakers said they would offer similar incentives.

Wednesday’s meeting between ministers, state leaders and car company chiefs was an attempt to contain a crisis of confidence that threatens Germany’s most important industry, and perhaps even its national identity, ahead of September elections.

Volkswagen, Daimler and BMW confront growing public outrage domestically and overseas for underplaying the health effects of diesel fumes and, in at least some cases, misleading customers about how much harmful nitrogen oxides their cars produce in everyday use.

Leaders of both major political parties, meanwhile, face criticism that they have been too cozy with carmakers, blocking stricter European Union regulation of diesel emissions while providing tax breaks on diesel fuel.

Despite the announcements, there were hints of conflict among the participants at the meeting. Horst Seehofer, prime minister of the state of Bavaria, called for the government to provide financial incentives for Germans to trade in old vehicles. But Barbara Hendricks, the German environment minister, blamed automakers for the diesel crisis and said they should not expect government help.

Foreign manufacturers, including Ford of Europe, which is based in Cologne, drew sharp criticism after they declined to participate in the €500 million fund to improve urban air quality. Ford said it would take other measures to reduce emissions, including incentives for people to trade in older cars.

Vehicles are Germany’s single most important export product and, in many parts of the world, the most visible symbol of German engineering prowess. Within the country, BMWs, Mercedes-Benzes and Porsches are a source of considerable pride and an essential part of the postwar national self-image.

NORTH AMERICA

12. California Mulls Combustion-Engine Car Ban

The internal combustion engine’s days may be numbered in California, where officials are mulling whether a ban on sales of polluting autos is needed to achieve long-term targets for cleaner air.

Gov. Jerry Brown (D) has expressed an interest in barring the sale of vehicles powered by internal-combustion engines, Mary Nichols, chairman of the California Air Resources Board, said in an interview Friday at Bloomberg headquarters in New York. Brown, one of the most outspoken elected officials in the U.S. about the need for policies to combat climate change, would be replicating similar moves by China, France and the U.K. (See story below.)

“I’ve gotten messages from the governor asking, ‘Why haven’t we done something already?’” Nichols said, referring to China’s planned phase-out of fossil-fuel vehicle sales. “The governor has certainly indicated an interest in why China can do this and not California.”

Embracing such a policy would send shockwaves through the global car industry due to the heft of California’s auto market. More than 2 million new passenger vehicles were registered in the state last year, topping France, Italy or Spain. If a ban were implemented, automakers from General Motors Co. to Toyota Motor Corp. would be under new pressure to make electric vehicles the standard for personal transportation in the most populous U.S. state, casting fresh doubts on the future of gasoline- and diesel-powered autos elsewhere.

California has set a goal to cut carbon dioxide emissions by 80 percent from 1990 levels by 2050. “To reach the ambitious levels of reduction in greenhouse gas emissions, we have to pretty much replace all combustion with some form of renewable energy by 2040 or 2050,” Nichols said. “We’re looking at that as a method of moving this discussion forward.”

California has the authority to write its own pollution rules, which dates back to the 1970 Clean Air Act. Those rules are underpinned by waivers granted by the U.S. EPA. Nichols said the state would likely take a different legal route to enable a possible ban rather than use an EPA waiver, since the Trump administration would be unlikely to approve one. For example, California could use vehicle registration rules or control the vehicles that can access state highways, she said.

A ban for California could also still be decades away from implementation, and just how far out remains to be seen, Nichols said. “There are people who believe, including who work for me, that you could stop all sales of new internal-combustion cars by 2030. Some people say 2035, some people say 2040,” she said. “It’s awfully hard to predict any of that with precision, but it doesn’t appear to be out of the question.”

13. Recent Developments Regarding the 2022-25 GHG Standards

California, Others Take Hard Line As EPA Re-Opens Vehicle Review

California, consumer advocates and other defenders of vehicle greenhouse gas limits are pouncing on EPA’s formal re-opening of light-duty vehicle GHG standards -- including its move to expand the scope to possible changes in model year 2021 standards -- suggesting it could signal an unnecessary retreat from the standards that could cost consumers money and retard innovation in the sector while allowing higher GHG emissions.

The arguments signal the intensifying battle over the vehicle GHG standards, with some experts suggesting consideration of possible MY21 changes could provide a significant avenue to achieve a real-world loosening of the standards in subsequent years.

And the reaction also further highlights the potential for a major political and legal fight between the Trump administration and California over the standards, with the state’s top air regulator

already accusing EPA of “abandoning” its responsibilities to fuel economy regulators at the Department of Transportation.

The National Highway Traffic Safety Administration (NHTSA) was the first to float potential review of the MY21 limits in a July 26 notice. EPA’s August 10 notice requesting comment on its restart of the mid-term review for MY22-25 standards then followed suit.

“EPA appears to be abandoning efforts to protect Americans and the environment against global warming by handing over clean car rules to much weaker fuel economy regulators at NHTSA,” California Air Resources Board’s (CARB) Mary Nichols said in a statement reacting to EPA’s notice.

A CARB spokesman adds, “We are willing to listen but don’t see a reason to loosen our requirements.” California wants to “keep the terms of the deal we’ve already met with federal agencies and automakers” on the MY17-25 limits.

EPA’s August 10 notice formally re-opened its mid-term review for MY22-25 standards, reversing a January determination by the outgoing Obama EPA to maintain current standard levels for those model years. The recent notice does not explicitly lay out an intent to weaken the rules, but it states intentions to weigh a number of factors, including consumer preferences, that could set the stage for the auto industry to ramp up arguments for more flexible limits.

In the notice, the agency also suggested that it is weighing the “separate question” of potential MY21 changes, in line with a similar recent NHTSA notice.

Some observers had suggested prior to the notice’s release that California’s focus on post-2025 standards -- and automakers’ desire for relief in the years leading up to 2025 -- could be the basis for some kind of a compromise, giving more flexibility in the near term for automakers in exchange for a program that establishes GHG goals out to 2030. That construct had been explored in a draft bipartisan Senate letter that has never come to fruition.

Underscoring California’s push to get beyond pre-2025 emissions limits, CARB emissions division chief Annette Hebert recently told the Detroit Free Press, “We have to talk about 2030, and we have to maintain the state’s commitments to air quality.”

But the re-opened mid-term review -- including the discussion of potential MY21 changes -- is being cast by some observers as an indication that confrontation could prevail, with one source suggesting even before EPA released its notice that the move could signal a “declaration of war” with California.

And early reaction to EPA’s notice includes pointed criticism of the agency’s re-opened process by state and other defenders who argue it is a threat to strong standards and regulatory certainty.

“Regulatory certainty is extremely important for suppliers and the employees and communities that depend on them,” the climate change investor group Ceres said in press release accompanying a new analysis released in anticipation of the EPA notice. Ceres touted strong emissions and fuel economy standards as key to maintaining the competitiveness of both automakers and suppliers.

The group also noted that automotive suppliers “employ two and a half times more Americans than auto manufacturers,” and that such suppliers have made the “bulk of investments in research, development and production of fuel-saving technologies.”

Consumer and investor groups are also charging that any rollback of the vehicle GHG standards would increase costs to consumers. “Redoing this mid-term review is a colossal waste of money,” said Consumer Federation of America’s Jack Gillis on an August 10 press call, noting that any weakening the limits could force Americans to spend “thousands of dollars more on gasoline.”

Consumers Union energy and environment policy counsel Shannon Baker-Branstetter on the same call claimed that “EPA is bringing back questions that have already been asked and answered,” arguing that the current rules remain reasonable and achievable.

EPA’s regulatory notice was light on the rationale for re-examining the MY21 standards, except to note that it is consistent with efforts to harmonize with NHTSA’s notice. And Baker-Branstetter said that the extent that any MY21 changes would occur as part of the mid-term review -- or instead in a separate rule -- is a “little bit of an unknown right now.”

But, in response to a query, she also suggested that consideration of MY21 changes may have less to do with easing compliance for MY21 vehicles and may instead be an approach to generate additional compliance credits automakers could use to comply with MY22-25 limits.

Automotive analyst Alan Baum during the call depicted the re-opened review as a particular opportunity for the auto sector to ease requirements for light-duty trucks covered under the standards, given that the increasing stringency of the GHG requirements for those trucks were “back loaded” under the MY22-25 timeframe compared to prior years.

This means that any move that makes requirements for MY22-25 less stringent could particularly ease the rules for those light trucks, a term applicable to many sport utility vehicles or crossovers. “That change would have a strong impact on the fuel economy standards,” Baum said.

Environmental Defense Fund in a press statement argued that re-opening the standards “will create uncertainty, slow innovation and hurt U.S. economic leadership.” It noted that the vehicle standards as currently written would save consumers who bought a new vehicle in 2025 \$1 trillion, and that the “threat” of weaker standards comes with both U.S. and world markets moving in the opposite direction -- including pledges in multiple nations to push toward electrification of vehicles.

In a similar release, Sierra Club stated, “A new administration is not reason to shift progress [into] reverse.” Environment America in its statement said, “We hope today’s action by the administration considered the science and importance of these standards, and doesn’t serve as a road map to rolling back progress.”

The Alliance of Automobile Manufacturers in an August 10 statement said that with the EPA announcement, “the Administration is fulfilling its commitment to reinstate the midterm evaluation of future vehicle fuel economy and greenhouse gas standards.” The statement thanks EPA and NHTSA for “working closely together to harmonize a review driven by the most current data, consumer preferences and marketplace realities. We look forward to joining in with other stakeholders, including California, to ensure this program remains a success.”

At the Environmental Protection Agency public hearing on the GHG rules, California air resources board official Annette Hebert warned that the state could withdraw from a nationwide vehicle

emissions program if the EPA weakens the regulations or ignores the technical record. New York State also urged the administration not to weaken the rules.

Automakers want the White House and California to reach agreement on revisions because a legal battle over the rules could result in lengthy uncertainty for the industry. They also want changes in the rules to address lower gas prices and a shift in U.S. consumer preferences to larger, less fuel-efficient vehicles.

Federal law prohibits states from setting their own vehicle emissions rules, except for California, which can seek waivers to federal policy under the Clean Air Act. Other states can choose to adopt California's rules.

Julia Rege of Global Automakers, a group representing automakers including Toyota Motor Corp and Hyundai Motor Co, said at the hearing that automakers need national rules, and urged U.S. regulators and California to "be as actively involved in the process as before, and work to keep the national program intact."

With just over six months before the 2025 rules must be finalized, there have been no vehicle emission talks between California, automakers and U.S. officials. The White House has held talks with automakers about the review in recent months.

United Auto Workers legislative director Josh Nassar said at the hearing that the national program should be continued to "prevent chaos, lawsuits, uncertainty."

A number of environmental advocates and retired military leaders at the hearing urged U.S. regulators not to weaken the standards.

"To keep costs reasonable for buyers and maximize future production levels and fleet turnover, it is vital to clearly focus on consumer preferences and market realities," said Chris Nevers, an official with the Alliance of Automobile Manufacturers, a trade group representing General Motors Co, Toyota, Volkswagen AG and others.

That puts automakers at odds with the Motor & Equipment Manufacturers Association, which represents manufacturers and suppliers of auto equipment. The suppliers group warns that any relaxation of the model year 2021 standards would hurt manufacturing jobs in the U.S.

Ann Wilson, senior vice president of government affairs for the group, told reporters that motor vehicle suppliers are the "largest employer of manufacturing jobs in the United States." Many of those jobs "have been contingent on compliance with the new" National Highway Traffic Safety Administration and EPA vehicle standards, she said, and suppliers already have dedicated millions of dollars in research and development.

California Sets Conditions for Auto-Emission Talks with Trump

California may re-open discussions on its greenhouse gas limits for cars and trucks for 2025, so long as automakers and the Trump administration embrace significantly tougher targets the state is seeking for later years.

Automakers have "a whole laundry list of things they've asked for" to ease the state's standards leading up to 2025, and California is willing to at least discuss reviving talks, Mary Nichols, chair of the California Air Resources Board, said in a press interview. Michael Catanzaro, a White

House special assistant, called her recently to get conversations with the administration started, she said.

“The price of getting us to the table is talking about post-2025,” she said. “California remains convinced that there was no need to initiate this new review of the review and that the technical work was fully adequate to justify going ahead with the existing program, but we’re willing to talk about specific areas if there were legitimate concerns the companies raised -- in the context of a bigger discussion about where we’re going post-2025.”

California could choose to keep its rules unchanged even if the federal targets are loosened. But doing so would create headaches for carmakers dealing with a patchwork of legislation, and it would risk raising the ire of Trump and the industry as California tries to push through tougher targets for 2030.

Catanzaro indicated in his phone call that the administration is at least willing to consider the idea of tougher emissions targets for 2030, Nichols said. In an August speech, Mitch Bainwol, president of the Alliance of Automobile Manufacturers, said his group -- which includes General Motors Co., Volkswagen AG and Toyota Motor Corp. -- would consider the idea, too.

“We want to collaborate on a data-driven review with California, the administration and other stakeholders to find a good path forward,” Bainwol said in reacting to Nichols’ comments.

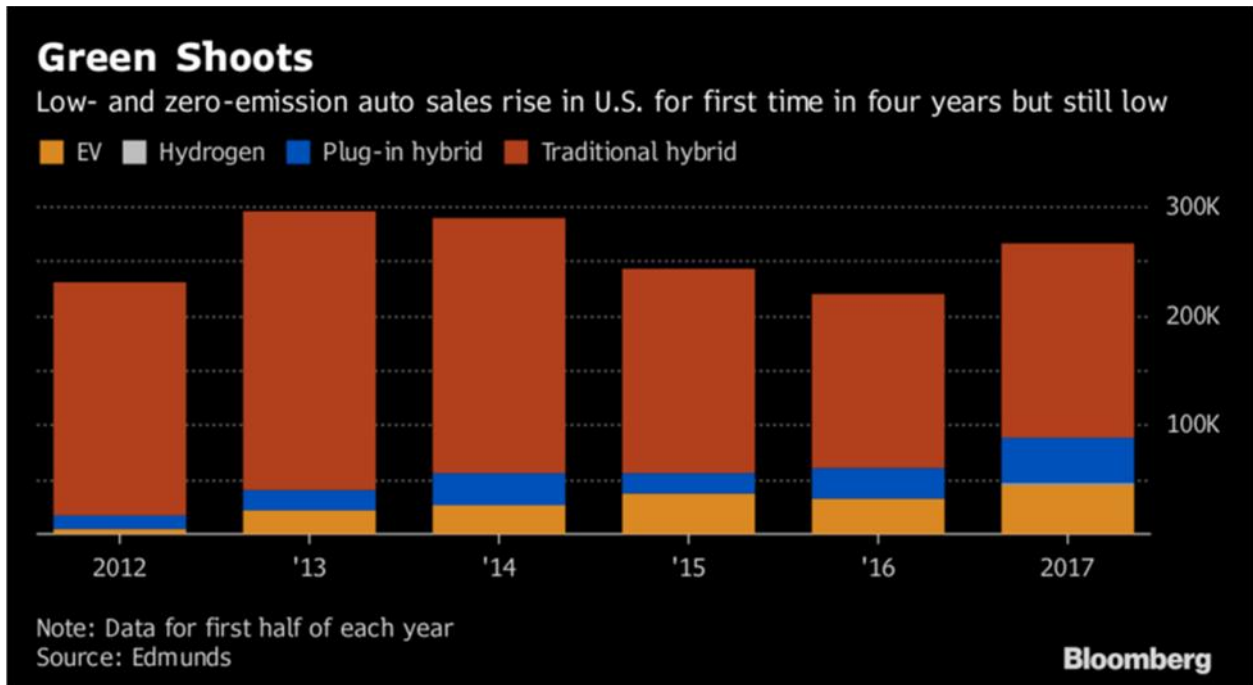
In response to a request for comment, the White House press office provided a statement saying the administration “has been, and remains, open to engaging all relevant stakeholders in this process, with the goal of finding a solution that supports job creation, consumers, energy security, and manufacturing in the U.S.”

In the interview, Nichols said she would want the Environmental Protection Agency, and not just the National Highway Traffic Safety Administration, to participate, since this would ensure that the talks focus on greenhouse gases and not just fuel economy. She said she has some sympathy for automakers’ request to scrap an Obama-era rule that, starting in 2022, would hold them accountable for emissions that occur when the electricity for their battery-powered vehicles is being generated.

Nichols said she’s not sympathetic to various other forms of potential relief, like cutting existing targets for 2021, pushing the current 2025 targets to a later date, or watering down zero-emission vehicle targets in states like New York and Massachusetts that have opted to follow the California approach.

So far, Trump hasn’t launched what could be his most potent weapon -- a court challenge to California’s special authority to write its own pollution rules, which dates back to the 1970 Clean Air Act. A compromise today could help prevent a court showdown later.

“If there’s a way they can keep us all united without having to roll over California, they’d like that,” Nichols said of her impressions of the White House’s position. Carmakers don’t want changes at the federal level to create a rift with California and the handful of states who’ve adopted the same targets, fearing costly discrepancies if emissions standards diverge. Pressure for a compromise is also building because, even in California, zero-emission vehicle sales have been stuck at about three percent since 2014.



“I really feel like if the industry folks are as ready as I think they are to talk about future standards, it shouldn’t be all that hard,” Nichols said. “But there are differences in the kind of relief they want.”

Nichols said she expects three-way talks between California, the administration and automakers to begin soon in order to influence a formal report on fuel economy and emissions that the Trump administration is planning for April.

While the state is willing to at least discuss compromise in the short term, California has no intention of retreating from its legislative mandate to cut carbon dioxide emissions to 40 percent below 1990 levels by 2030, Nichols said. California Governor Jerry Brown and the Air Resources Board have vowed to remain a bulwark against the president’s push for environmental deregulation, and Nichols said long-term goals haven’t changed.

Automakers can’t abandon the cleaner-car goals entirely either, since major car markets China and the European Union are now contemplating their own zero-emission vehicle mandates modeled after California’s. China said this month it will set a deadline for automakers to end sales of fossil-fuel-powered vehicles, becoming the biggest market to do so and driving global demand for battery-operated autos.

Seeking To Retain Vehicle GHG Rules, New Group Signals Auto Sector Split

A new industry coalition including automakers, utilities and equipment manufacturers is urging the Trump administration to retain Obama-era light-duty vehicle greenhouse gas and fuel economy rules through model year 2025, raising prospects for an industry split because other automakers have been eying softer requirements.

The new group, the National Coalition for Advanced Transportation (NCAT), has not yet announced its members, but it is already weighing in with comments on early efforts by the

National Highway Traffic Safety Administration (NHTSA) to develop corporate average fuel economy (CAFE) rules for MY22-25 and potentially weaken final standards for MY21.

In recent comments to NHTSA, NCAT describes itself as “a coalition of leading companies that support electric vehicle and other advanced transportation technologies and related infrastructure.” It says it “supports government initiatives that provide regulatory, financial and other support for emerging electric and other clean vehicle technologies, as well as related infrastructure, to compete in the marketplace.”

The coalition will also file comments by an Oct. 5 deadline on EPA’s formal notice that it is reopening its GHG rules for those same model years -- after the Obama administration concluded its “mid-term review” earlier than expected in January and determined that the EPA standards through MY25 were appropriate.

“Our going-in position is, if anything, these standards are now easier to meet based on technology development, not harder. We do not see a basis for relaxing the standards,” reportedly says the new coalition.

In August 25 comments on NHTSA’s notice of intent to prepare the EIS, the new industry coalition “strongly urges” the agency to “maintain the currently enforceable [MY21] standards for light-duty vehicles that NHTSA, along with [EPA], adopted as part of the National Program for [CAFE and GHG] emission standards. Weakening of the MY 2021 standards cannot be justified.”

The comments also urge NHTSA to “require that the current EPA and [California] MY 2022-2025 standards be formally reflected in the ‘no action’ alternative for purpose of the EIS analysis,” rather than NHTSA’s current plan of using the MY21 standards as the baseline.

“Further, regardless of how the ‘no action’ alternative is defined as a formal manner, there is no question that these EPA and state standards should constitute the analytical baseline for assessing the impacts of the rulemaking,” the comments say. “They are in force today and any regulatory decision or suite of decisions linked to the NHTSA MY 2022-2025 rulemaking that affects continued implementation of the current standards must be fully analyzed with regard to the impacts of those decision.”

Using the current EPA and California standards through MY25 as the baseline in the NEPA review could make it more difficult to justify weaker CAFE rules for MY22-25, given that it likely would show a significant decline in stringency.

On the other hand, using NHTSA’s MY21 standard as the baseline could allow the agency to portray its rule as boosting stringency, even if the rule is weaker than current EPA limits.

The comments note that advanced vehicle technology prices have dropped significantly since the 2012 rule was issued. “The upshot of all of this is that electric vehicle technologies are increasingly available as an affordable and attractive option -- making compliance with MY 2021, as well as MY 2022-2025 standards, even more feasible than was projected in the 2012 rulemaking.”

The group warns that reconsidering the standards “would create uncertainty and impose resulting costs on manufacturers and others in industry that are relying on the standards,” adding that a major benefit of the earlier rulemaking “was the substantial lead time that it provided. . . . NHTSA has never in history revised an already-adopted CAFE standard; this would be an unprecedented and severely damaging step.”

Finally, NCAT tells NHTSA that it must take a “hard look” at adverse impacts of any decision to weaken its fuel economy standards, as well as the beneficial impacts of a decision to strengthen them.

This includes the environmental impacts of fuel economy achieved by the range of CAFE standards NHTSA considers for MY22-25, noting that energy conservation is the focus of the statute under which it has authority. “In particular, NHTSA should consider how more stringent CAFE standards that promote the use of electricity and natural gas as vehicle fuel would continue to decrease consumption of petroleum and increase reliance on these U.S.-produced fuel sources,” the comments say.

NHTSA must also consider the air quality impacts, including tailpipe emissions and upstream emissions from the production and distribution of the fuels, such as power plants that generate electricity to charge electric vehicles.

It also must consider climate impacts, the group says. “Given the large volume of scientific analysis already available, the potential for uncertainty of impacts does not absolve NHTSA of its obligation to fully consider impacts,” it says, warning NHTSA against “undervaluing” the benefits and “overvaluing” the costs of stronger standards.

Automakers Resist Analysis of Stronger Vehicle Fuel Economy Standards

Auto industry trade groups are urging regulators to treat the current EPA and Department of Transportation vehicle greenhouse gas and fuel economy program as the “upper bound” for what will be required for industry as the agencies review the rules, offering the latest indication that automakers are pushing to ease the standards.

In joint September 25 comments on the National Highway Traffic Safety Administration’s (NHTSA) plans to conduct a National Environmental Policy Act (NEPA) review to inform its vehicle fuel economy standards for model years 2022-2025, the Alliance of Automobile Manufacturers and Global Automakers also urged the administration to proceed with its plan to use MY21 as the baseline against which to assess any future changes -- a move that would likely allow regulators to portray standards weaker than current requirements as still providing environmental gains.

The automakers’ joint request further raises the prospect of a clash with California and allied states, environmentalists and other defenders of the current standards, including even auto parts suppliers that have chafed at rolling back some requirements. (See above.)

Automakers have long called for a rethink of the fuel economy and GHG rules to enable more flexibility, but the two auto trade associations put a sharper point on it by explicitly arguing that NHTSA should not even evaluate a program stronger than current requirements.

“[T]he present reality of the gasoline prices, market demand, and actual technology performance create considerable uncertainty regarding the augural standards,” the two associations write, using NHTSA’s term to describe its preliminary endorsement of MY22-25 standards several years ago.

“It is understandable if NHTSA decides to select the augural standards as an upper bound [alternative] for stringency under its NEPA review,” the comments add, referencing a NEPA

requirement to examine scenarios ranging from taking no regulatory action to imposing aggressive fuel economy rules.

The advocacy is not surprising given persistent appeals by vehicle makers for EPA and NHTSA to consider multiple factors that they claim require more program flexibility, including changes in consumer preferences due to current low gasoline prices.

But the call also underscores how the discussion of the vehicle program has changed since the Obama administration -- when some federal officials suggested that the rules could be strengthened. It also highlights how the stances of automakers and California regulators appear to be publicly diverging, despite rhetoric from all parties to maintain "one national program" for GHGs and fuel economy.

NHTSA in 2012 adopted its "augural" MY22-25 fuel economy rules in an effort to set up a national GHG and fuel economy program for MY17-25. The agency is limited to looking no more than five years ahead when setting fuel economy limits. Because EPA faced no similar statutory constraints, it finalized its GHG standards through MY25.

Despite having authority to enforce state GHG rules that are tougher than federal limits, California aligned its standards with national requirements. They are also finalized through MY25.

Now, NHTSA has proposed to use its final MY21 standards as a baseline for its NEPA review -- a move that is drawing support from most automakers but opposition from supporters of the current rules.

"Consideration of a no action alternative is required for an [environmental impact statement]. As has been done by NHTSA historically, it is appropriate for NHTSA to consider a previously finalized standard baseline as the no action alternative," the automakers say in support of the MY21 baseline proposal.

That stance puts automakers at odds with California officials and others, who have already responded to NHTSA's plan by claiming that it must craft its baseline by accounting for final EPA and California standards, as well as its own "augural" limits. If NHTSA presses ahead with its plan to use its MY21 rule as a baseline, it "risks arbitrarily masking the severe consequences of weakening standards after 2021 in contravention of NEPA," California said in its comments.

Underscoring a potential split in the auto industry, some auto suppliers expressed concerns about MY21 changes at EPA's September public hearing. Also, a new industry coalition including some automakers, utilities and equipment manufacturers recently said in comments that NHTSA must ensure that EPA and CARB requirements are "formally reflected in the 'no action' alternative for purpose of the [NEPA] analysis."

Additionally, comments from the Manufacturers of Emission Controls Association essentially warns NHTSA to consider the possibility that weakening its rules could drive "two separate and distinct standards," given California's authority and the ability of other states under the Clean Air Act to follow the Golden State's lead.

Margo Oge Urges Bill Ford to Lead on Emissions Standards

Former EPA official Margo Oge says the auto industry needs "an adult" to help sort out differences over the federal greenhouse gas program and boldly reaffirm automakers' commitment to stricter emissions standards. She's got someone in mind.

"We need a real leader in the industry to stand up," said Oge, who helped broker the 2011 deal between the Obama administration and the auto industry that envisioned doubling fleetwide average fuel economy to 54.5 mpg by the 2025 model year. "And given the politics right now, it has to be a Detroit company. The one I see shaping this dialogue is Bill Ford."

Oge told Automotive News she wants to see the executive chairman of Ford Motor Co., a longtime environmental advocate, "stand up and help California and the federal government negotiate any flexibilities for 2025 and set the road map for 2030." "I believe if he does that, we will see the investor community respond with a stock price increase in Ford," Oge said, "because investors are looking for companies that are not behaving like the traditional OEMs with competition from Silicon Valley, Tesla and China."

The industry's effort to reopen the midterm review of 2022-25 model year greenhouse gas standards is self-destructive and will ultimately fail, Oge said, because there is wide recognition that the program is working. Manufacturers "would do much better if they walk the talk that they are building cool, clean and smart cars," she said. "In the end, the markets will reward those that unequivocally embrace the future, not ones who keep sending out mixed messages."

She blamed the Alliance of Automobile Manufacturers for instigating industry backsliding on the standards, but predicted that legal challenges, as well as automakers' need to keep up with rising emissions standards in California and other countries, will keep the industry on track.

In crafting the 2011 agreement and the standards that were finalized in 2012, Oge recalled, U.S. officials met one-on-one with engineers rather than bring companies to group discussions, which would have stifled sharing of confidential technical data by competitors. Engineers had to prove to the government's technical experts their claims that certain efficiency improvements were unattainable.

That process, she said, was objective compared with the Auto Alliance's assertions now that the regulations will cost sales and jobs. (Automakers cite a study by the industry-funded Center for Automotive Research concluding that the tougher standards would put 1 million jobs at risk.) "The alliance represents the lowest common denominator, so you don't have the dynamics and the trust we had when setting the standards," said Oge, an engineer who worked at the EPA for more than 30 years until 2012.

Oge said the CAFE and carbon emissions program could be adjusted in positive ways that give the industry some of the relief it's seeking without undermining the goals of the program or throwing automakers' investment plans into disarray.

For example, she suggested not counting upstream greenhouse gas emissions for electric vehicles — that is, the environmental impact of producing the electricity that powers them — "because EVs are a new technology and car companies should not be held responsible for emissions coming from the energy sector." She also recommended more government incentives for EVs.

But there is no leadership within the White House to bring together the EPA, the Transportation Department, California air-quality regulators and the industry, she lamented. That's where Bill

Ford could play a key role, she said. "It will take an adult in the car industry to stand up and I'd like Bill Ford to do that," said Oge, noting that former Ford CEO Alan Mulally was "big in helping us set the standards in 2012."

Environmentalists Cite Harvey's Impacts in Defense of Vehicle GHG Rule

Environmentalists and a national security group are citing catastrophic flooding from Hurricane Harvey to bolster their arguments for retaining current EPA light-duty vehicle greenhouse gas standards, arguing that the rule is needed to limit continued GHG emissions and associated warming that exacerbated the storm's impacts.

It is not yet clear whether Harvey will have more than a rhetorical impact on the battle over the vehicle regulations -- touted as the single largest EPA action on the books to reduce GHGs -- given that proponents of the standards might still be more likely to cite consumer fuel savings and technology arguments for keeping the rules in place.

But a September 5 press call by consumer advocates, environmentalists, and other rule backers provides a preview of how the widespread impacts from Harvey are already coloring substantive and political arguments over the vehicle rules for model years 2022-2025.

Climate scientists have cited Harvey as an example of how climate change intensifies hurricanes and other extreme weather events, though the Trump administration has sought to downplay this issue.

Many arguments by the rules' backers focused on how the rules could save consumers money on gasoline, or on analysis showing that fuel economy technology is advancing and becoming cheaper. Other statements underscored that any federal rollback would be met with a swift response in court from more than a dozen states and environmentalists.

Environmentalists -- and other defenders of the standards -- remain willing to frame the rules as an important test for federal climate policy. Many wasted little time citing Harvey -- and climate risks in general -- as a major reason to retain the rules, with citing the links between climate change to particular health risks caused by storms like Harvey, which climatologists have predicted will be more intense as climate change worsens.

"Storms and floods and the aftermath take an enormous toll on the health of those impacted," ALA's Paul Billings said. He cited impacts from Harvey including: the release of over 1 million pounds of air pollutants from oil refineries and chemical plants across the Texas Gulf Coast in the week after Harvey struck, as well as longer-term risks in the region from sewage, chemicals, mold and "other lung health hazards" in the wake of the storm.

Billings also cited wildfires out West from drought that are threatening property and human health, including from increased air pollution. He said the September 6 public hearing on the vehicle rules is likely to tee up three other talking points: Motor vehicle emissions threaten health; clean vehicles are popular with the public; and climate change is happening now and threatening public health.

Retired Marine Corps Brig. Gen. Stephen Cheney, did not reference Harvey by name but called EPA's decision to reopen its review of the standards "unnecessary" and "a harm to American interests," including to consumers for whom the rules are projected to save billions in fuel costs.

Cheney added that the standards “expand energy security” and “simultaneously address the security threats of climate change. . . . The Department of Defense has stated that climate change is a direct threat to our global and national security.”

Harvey-related climate arguments supplemented other economic arguments in defense of the standards. For instance, Consumers Union’s Shannon Baker-Branstetter touted analysis showing that the MY17-25 standards could save an average consumer thousands of dollars over the life of a vehicle even with low gas prices, and that consumers are willing to pay for fuel economy improvements that pay for themselves within five years.

She also referenced analysis from the International Council on Clean Transportation that costs of some fuel economy technologies have been overstated by as much as 40 percent.

14. Developments Regarding Review of Heavy-Duty GHG Rule

Truck, Engine Makers Raise Fears On EPA

EPA’s decision to reconsider portions of its greenhouse gas rule for heavy-duty vehicles that apply to trailers and “glider kits” is drawing concern from truck and engine manufacturers who fear the move could undermine the compromises the Obama administration struck that won widespread industry buy-in, as well as national uniformity ensured by California’s agreement to follow the rule.

The industry officials say the agency’s review is increasing uncertainty, especially since portions of the rule are slated to take effect early next year and EPA is not planning to stay its implementation.

On August 17th, the agency announced it would reconsider the trailer and glider kit portions of its 2015 phase 2 heavy- and medium-duty vehicle GHG rule, though it said it is not staying the trailer portion of the rule “at this time,” a move that sector had sought. The trailer portion of the rule requires compliance beginning Jan. 1. The rule’s glider provisions -- which impose current emission standards on incomplete chassis known as glider kits that are often paired with refurbished older engines -- also kick in on that date, though the rule includes flexibilities to ramp up to full implementation.

EPA’s brief announcement said it would reconsider parts of the rule and included a statement from Administrator Scott Pruitt that officials would “revisit the Phase 2 trailer and glider provisions.” Both sectors charge that EPA lacks authority to regulate their products because they are not “self-propelled” motor vehicles subject to Clean Air Act limits. The Obama EPA rejected those claims and included the equipment in the final rule.

But the agency’s latest move is sparking fears from others subject to the rule that the review could upend the whole agreement. The American Trucking Associations (ATA) issued a statement saying it is “concerned” that reopening the rule “could undermine federal uniformity” by “setting the stage for California to impose a de facto national standard, superseding federal rules.”

That refers to California’s special Clean Air Act waiver authority to enforce stricter vehicle requirements than federal standards. Unlike its GHG rules for light-duty vehicles, however, the state has not yet received an EPA waiver covering its phase 2 heavy-duty GHG rules.

ATA President Chris Spear said the group is proud of its record on fuel efficiency and sustainability, and that largely due to the group’s support for the phase 1 rule, “today’s trucks are

cleaner and more efficient than ever. We had worked closely with EPA and the National Highway Traffic Safety Administration on phase 2 to continue building on that success, but by reopening the rule to reexamine trailers and glider kits, EPA has opened the door to California taking the lead, and a more aggressive track, in setting trailer standards."

Instead, ATA wants "a single national standard, set by federal regulators."

California officials recently delayed plans to finalize their phase 2 rule due to litigation over EPA's rule filed by trailer makers in the U.S. Court of Appeals for the District of Columbia Circuit. It remains unclear, however, whether California would significantly revise its proposal, which aligns with the federal rule, if EPA drops the trailer provisions.

That litigation, Truck Trailer Manufacturers Association (TTMA) v. EPA, has been paused so EPA could review several administrative reconsideration petitions. The agency August 17 filed another motion asking to continue the pause until September 18, without objection from any of the industry petitioners.

TTMA had objected to the agency's original stay request, but the court paused the case anyway.

Reportedly there is widespread concern about "greater uncertainty" from the EPA reconsideration. "What does this reconsideration of the phase 2 rule mean? Is it just focused on trailers and gliders or will they open up other issues? If it's just trailers and gliders, what will California do? Will it lead to a non-50-state approach?"

Some also question how the trailer GHG limits can take effect in just over four months while EPA is reviewing them. "It's confusing, and I don't know how it will work out between the court case" and the EPA review.

Further, EPA has been criticized for its lack of detail in making its announcement. Its press release contained two paragraphs and some background information.

But in letters EPA sent to the industry petitioners, including to TTMA, Fitzgerald Glider Kits and to Harrison Truck Centers. Pruitt says the groups' petitions -- including an April 3 TTMA petition and June 26 supplement and a July 10 glider petition -- raise "significant" issues to be reviewed, including EPA's air act authority to regulate trailers and gliders.

The industries have long argued that their products are precluded from regulation as a "vehicle" because they lack engines and are not "self-propelled," but both the Obama EPA and the National Academy of Sciences rejected that argument.

Pruitt in his letter to TTMA says EPA has "made no decision at this time" on the stay request. If it ultimately declines to issue a stay, that could be a signal that the agency has accepted the limits of its authority to do so following an appellate court ruling vacating its attempt to stay an oil and gas methane rule. In that ruling, the court said EPA could not stay the rule under air act section 307 if it was not required to launch reconsideration proceedings. That section says the agency must reconsider aspects of a rule if parties raise issues on which it was "impracticable" to comment during the original rulemaking and are "central" to the rule.

In the case of the heavy-duty rulemaking, the agency could struggle to show that its reconsideration is mandatory, given that the trailer industry in the original rule offered detailed legal comments on EPA's authority to regulate trailers.

If the trailer provisions are not stayed, an engine industry source told reporters that it is clear the reconsideration cannot be completed before the compliance deadline. "We support the rule in its entirety," the source reportedly said. "It represents a compromise, and a compromise means no one got everything they wanted, they ended up in the middle. We got dates in front of us. It's a national program. Let's not disrupt all of that with everything else going on. Let's just implement it as it is."

Even TTMA did not seem entirely thrilled with the latest news, writing in a press release that it is "pleased with the agencies' progress and looks forward to full administrative review of the trailer greenhouse gas rules. Our concern remains over the implementation of those rules, which are still scheduled to begin with January 2018 trailer production, just a few short months away."

In addition, the group has lead time concerns, with none of the GHG-compliant equipment certified yet by EPA.

Environmentalists also criticize the reconsideration, with the Environmental Defense Fund saying in an August 17 statement that EPA plans to "weaken critical health and environmental standards for freight trailers . . . in capitulation to industry requests" and ignoring the robust technical record confirming their cost-effectiveness and legal basis.

GHG cuts tied to the trailer standards are estimated to provide up to 9 percent of the rule's overall emission reductions. It is not clear how much of the rule's emission cuts could be at risk if the agency scraps the standards for gliders. That sector is not a major portion of the market but has been growing in recent years.

Meanwhile, the glider manufacturers won a compromise in the rule that allows them to stay in business while providing them a ramped-up pathway to clean up their engines. Truckers largely buy gliders to replace a vehicle that was damaged in an accident. The "kits" allow older engines to be installed that do not meet current emission requirements.

In addition to its claim that the kits are not self-propelled vehicles, the glider industry also argues that fully assembled glider vehicles are not "new" trucks. EPA's authority under air act section 202 is limited to new vehicles. However, EPA wanted to include them in the regulation because their emissions can be 20-40 times higher than state-of-the-art engines, according to agency data. The agency has predicted that the growing glider sector could add as many as 10,000 trucks annually -- data the glider reconsideration petition questions.

The rule allows a limited number of gliders with old engines to continue to come to market and requires the manufacturers to move to newer technology over time. The limited numbers seek to halt any efforts by fleets to circumvent the phase 2 rules and continue to buy cheaper, higher-emitting emissions technology.

Trailer Makers Ask D.C. Circuit To Stay EPA's Truck GHG Rule

The Truck Trailer Manufacturers Association (TTMA) is asking an appellate court to stay all portions of EPA's greenhouse gas rule for medium- and heavy-duty trucks that apply to trailers, arguing that the agency's reconsideration of those provisions while refusing to stay them ahead of a looming January 1 compliance deadline irreparably harms them.

TTMA tells the U.S. Court of Appeals for the District of Columbia Circuit in a September 25 motion in TTMA, et al. v. EPA, et al. that a stay is warranted and the group is likely to prevail on the merits of its challenge to the trailer standards. “The Clean Air Act makes manifestly clear that EPA lacks authority to impose emissions standards on trailers,” the group says.

TTMA has long argued that the air law only applies to motor vehicles that are “self-propelled.” “No one disputes that a trailer is not self-propelled. That ends the matter,” the motion to the D.C. Circuit says.

But the group’s position was rebuffed by the Obama EPA, which finalized the rule at issue, and the National Academy of Sciences, both of which concluded the trailer was a key portion of a vehicle system that must take steps to become more aerodynamic and reduce GHGs.

The motion says EPA in the rule unlawfully called a trailer an “incomplete vehicle,” a term that does not exist in the air law, and it argues that the court should not grant EPA deference on this issue. But even if it does, it says the agency’s argument should fail as unreasonable under the Supreme Court’s Chevron deference doctrine.

TTMA says its members will suffer irreparable harm absent a stay, because trailer manufacturers will lose sales and customers, “and the problem is happening now” because trailers are built to order and ordered months in advance.

“Many trailer customers do not want the equipment that the Final rule requires manufacturers to sell, and have informed TTMA’s members that they do not want to purchase trailers that contain such equipment,” the motion says, adding that, “Compounding the problem, EPA has been slow in certifying equipment that is compliant with the new regulations.”

The group also argues that no party will be harmed by a stay -- a position likely to be challenged by environmental groups that intervened to defend the rule.

TTMA recently filed an objection to EPA’s motion to hold the case in abeyance while the agency administratively reconsiders the trailer requirements. In that filing, it hinted that it would seek to stay the rule because EPA’s refusal to pause the rule’s implementation harmed them.

The group said in a September 18 brief in response to EPA’s same-day request to the court to continue to pause the litigation that it did not oppose the request as long as the rule was also stayed. If the court were to deny its stay request, TTMA asks the court deny EPA’s request for permanent abeyance and to set a briefing schedule.

EPA said it would reconsider the trailer and “glider vehicle” provisions of the heavy-duty truck GHG rule last month -- a reconsideration that is being opposed by the American Trucking Associations and many engine makers who support the rule in its entirety and are prepared to comply with it.

California Plans Tighter Trailer GHG Rules If EPA Pulls Back Phase 2 Standards

California air board officials are detailing plans to tighten their greenhouse gas rules for model year 2018-2027 truck trailers operating in the state if EPA weakens or rescinds federal Phase 2 GHG standards for the vehicles that were adopted last year, or if pending litigation delays the rules, according to documents board staff released August 30.

The Phase 2 rules generally require manufacturers of new truck tractors and trailers to equip the vehicles with aerodynamic parts, such as side fairings or skirts, as well as low rolling-resistant tires, to improve fuel economy. While EPA's trailer rules apply to manufacturers of new trailers, CARB's trailer rules apply to truck fleet operators, who must have the equipment installed on their vehicles.

EPA is currently reviewing the federal Phase 2 GHG rules, in part as a result of litigation challenging the trailer portions of the regulation brought by the Truck Trailer Manufacturers Association (TTMA), which is pending in the U.S. Court of Appeals for the District of Columbia Circuit. The trailer portion of the federal rule currently requires compliance beginning Jan. 1, 2018.

CARB recently delayed plans to finalize its Phase 2 rules to largely mimic the federal standards due to the TTMA litigation. The litigation has been paused so EPA can review several administrative reconsideration petitions. The agency on August 17th filed another motion asking to continue the pause until September 18, without objection from any of the industry petitioners.

But CARB staff is now laying out options for how to proceed with its Phase 2 GHG rules, including those affecting trailers, should the EPA rules be delayed or shelved.

"The lawsuit and reconsideration of the trailer provisions . . . does not affect California's authority to establish standards for trailers hauled by heavy-duty tractors and [CARB] is accordingly proposing to establish specific requirements for trailers," states a staff slide presentation prepared for the August 31 workshop.

CARB staff notes that EPA's trailer program consists of a four-step phase-in of standards, for model years 2018, 2021, 2024 and 2027, with separate categories for long box trailers, which are longer than 50 feet; short box trailers, which are less than 50 feet; and "non-box" trailers.

CARB's existing Phase 1 tractor-trailer GHG rule, which became effective on Jan. 1, 2010, regulates owners of fleets traveling in California. The existing state rules reduce GHG emissions from long-haul semis by improving tractor aerodynamics and requiring 53-foot or longer trailers to be equipped with side skirts and rolling-resistance tires, provisions that are based on EPA's SmartWay program.

If the federal Phase 2 trailer standards are "significantly weakened or removed," CARB staff may propose more stringent aerodynamic technology requirements for MY 2020 trailers that are 53 feet or longer, according to the presentation. Other proposals under consideration include:

- That MY 2018-2019 long box-type trailers be retrofitted to SmartWay "Elite" standards by 2024.
- New rules affecting 2020-22 model years, including trailer compliance verification procedures that are similar to verification procedures affecting tractors, the presentation says.
- The existing Phase 1 tractor-trailer rule may also be "restructured" to address Phase 2 trailer categories for MY 2024 and beyond such as for trailers that are 50 feet and longer.
- Further, that the aerodynamic and tire requirements for MY 2027 and later vehicles be applied to MY 2024 and later trailers.
- That aerodynamic requirements be applied to non-box type trailers, such as flatbeds and tankers, based on the results of a pending study, the presentation says.

If, on the other hand, the federal Phase 2 trailer standards remain effective, CARB staff is proposing to harmonize with EPA's rules, including trailer certification requirements; modify the current Phase 1 tractor-trailer GHG rule for MY 2018-19; and sunset requirements for 53-foot trailers at model year 2018, or add a requirement that Phase 2 certified trailers are compliant with Phase 1, the presentation says.

However, staff still would plan to tighten rules under its Phase 2 rule affecting the 2020-22 period. And depending on the pending study, CARB may still proposed requirements for aerodynamic technologies on MY 2024 and non-box trailers.

CARB staff plans to release draft regulatory language in September or October, with formal public comment being collected beginning in December.

The board is scheduled to consider the regulations in February.

15. Developments Regarding EPA's Budget

Harvey's Toll May Complicate Administration's Push for EPA Budget Cuts

Hurricane Harvey's environmental and human toll could complicate efforts by the Trump administration and Republican lawmakers to cut EPA's budget just as the House nears floor consideration of legislation that would trim the agency's budget and likely hundreds of senior agency staffers are poised for imminent exit under planned early departure programs.

Harvey is creating immediate demands on the agency to mount emergency response activities and sharpening criticism of budget cuts that could hamper the agency's ability to respond to the consequences of current disasters and prevent or minimize the impacts of future ones.

Among other things, the recent reported explosions at an Arkema chemical plant have already prompted involvement by the agency.

Former EPA Region 2 Administrator Judith Enck, a leader in the agency's response to Superstorm Sandy in 2012 and 2013, criticized ongoing agency efforts to speed early departures of senior personnel under early retirement and buyout programs, saying it will strain resources. "It's not a good week to be losing some of your most experienced and seasoned career staff," she told the press. "You're going to need a huge number of experienced staff dealing with the Harvey response in Texas and Louisiana ... There should be staff enhancement."

While EPA's Region 6 and the headquarters' Office of Land and Emergency Management will lead the response to Harvey, Enck says she expects the storm will strain resources across the agency. Given that the response and recovery will be a long process, staff from other regions will be needed to sub in and prevent Region 6 officials from burning out.

The response to Sandy, a smaller-scale disaster than Harvey, relied on a swath of agency staff from water experts to address sewage problems and public affairs staff to address requests for information, she said.

Enck also charged that the Trump administration's proposed 31 percent budget cut to EPA, or even lesser cuts proposed by the House, would also significantly harm the agency's hurricane response efforts. "It definitely will affect Harvey if they go through a budget cut like this," Enck

said, noting that the cuts would take effect in October when the cleanup efforts will still be in full swing. “If the Pruitt budget gets adopted it will cripple EPA.”

House Passes Interior, EPA Budget Bill with Some Key Amendments

The US House of Representatives approved the Fiscal 2018 Interior Department, Environment, and Related Appropriations bill on September 14 that included two amendments affecting oil and gas producers that it adopted the previous day. Approval of the amended bill was by a 211-198 vote, heavily along party lines. One Democrat, Rep. Colin C. Peterson (Minn.), voted with Republicans for the measure, while 14 Republicans joined Democrats in opposing it.

Oil and gas association officials applauded H.R. 3354 overall. They cited specific provisions denying funding to the US Environmental Protection Agency for its methane emission program and a social cost of carbon program, and approving support for development of a 2019-24 US Outer Continental Shelf program including timely consideration of seismic activity applications for surveys along the Mid-Atlantic OCS.

The bill also preserves vital conservation and restoration funding through the 2006 Gulf of Mexico Energy Security Act, prevents costly offshore drilling inspection fee increases, prohibits enforcement of an Obama administration Arctic drilling rule that President Donald Trump ordered rescinded, and protects Pacific energy production, National Ocean Industry Association Pres. Randall B. Luthi said.

“However, NOIA remains concerned that certain language in the bill restricts the ability of the federal government to permit and develop OCS energy resources,” Luthi said. “As our nation pursues its energy dominant agenda, it is imperative producers of all forms of energy have full faith in the sanctity of lease terms and can confidently view the federal government as a partner in good standing.”

The approved bill contains provisions that will make it less burdensome for US independents to operate safely and responsibly on federal, state, and private lands, Independent Petroleum Association of America President Barry Russell said. He cited Markwayne Mullin’s (R-Okla.) amendment keeping EPA and other federal agencies from using social cost of carbon calculations when formulating federal regulatory proposals.

The House adopted the amendment by a 225-186 vote along party lines on September 13 as four Democrats joined Republicans in their support, and five Republicans voted with Democrats in opposition. It also approved, by a 281-195 vote, another Mullin amendment that would deny EPA funding to enforce its rule limiting oil and gas methane emissions. Balloting in this action also was largely along party lines as three Democrats joined Republicans in support of the move, and 11 Republicans voted with Democrats to oppose it.

“This rule is currently facing litigation and uncertainty, and Congress must act to block this job-killing regulation estimated to cost the US economy \$530 million annually,” said Mullin a week earlier during debate on Amendment No. 73. “Methane emissions from oil and natural gas have significantly declined in recent decades without multiple, overlapping federal regulations, and this is no exception.”

IG, GAO Say EPA Needs More Staffing Despite Agency’s Push for Buyouts

Top EPA Inspector General and Government Accountability Office (GAO) officials are warning lawmakers that the agency's biggest needs to achieve its goals are more staffing and additional funding across a host of EPA offices, despite the Trump administration's push to cut staffing including through hundreds of buyouts by the end of September.

At a joint September 6 hearing of the House Energy & Commerce Committee's environment and oversight panels, Rep. Raul Ruiz (D-CA) questioned EPA Office of Inspector General (OIG) Counsel Alan S. Larsen and GAO Director of Natural Resources and Environment Alfredo Gómez on the most significant "barrier" to EPA achieving its goals.

Larsen said, "I would think it's resources. People and money," while Gómez answered that the deciding factor on a host of agenda items is "whether they have enough people."

But the Trump EPA is pushing ahead with a plan to cut workforce through voluntary buyouts and early "separation" agreements before the end of fiscal year 2017 on September 30. An official told reporters September 5 that the agency is slated to cut its current workforce of about 15,000 to about 14,428 by the end of the month, a level below those in FY88 at the end of the Reagan administration -- though that is before cuts planned for FY18 are implemented.

While they did not address the process during the hearing, both Energy & Commerce Committee Chairman Greg Walden (R-OR) and oversight subcommittee chairman Tim Murphy (R-PA) are backing the buyouts as a way to cut costs at EPA.

They sent a September 5 letter to agency administrator Scott Pruitt urging him to ensure that the process will succeed in that goal.

They say new controls are needed after an August 15 OIG audit of its own operations found that the office mishandled a round of cuts in 2014, expanding them to positions not approved by the agency's Office of Personnel Management (OPM) and hiring new staff to replace employees who took buyouts rather than eliminating those positions.

"While EPA has made some progress improving the agency's use of buyouts, given the lack of controls during the previous Administration, the Committee wants to ensure that the separation payments becoming effective in September 2017 are an efficient use of taxpayer money and are in compliance with OPM requirements," the letter says.

In addition to touting EPA's staff needs, Larsen also spoke on similar concerns about an inadequate workforce within the OIG. He said that proposed budget cuts could damage its ability to investigate waste and misconduct, even though those investigations have been shown to save the federal government money.

While the agency's budget for FY18 is still uncertain, he said officials are planning for a drop in funding that could force them to cut staff and take up fewer discretionary investigations like the recently begun audit of Pruitt's travel to and from his home state of Oklahoma.

"We have had to cut our workforce year by year by year, and we are down from 360 or so down to 270, and we anticipate having to go fewer than that based on the most likely budget scenarios.We will have to do many fewer such projects in any given year, based on the likely budget outcomes," Larsen said.

In his written testimony, Larsen urged legislators to safeguard OIG against funding cuts by highlighting the finding that the office generates savings for the federal government as high as 22 times its budget by identifying waste, fraud and abuse.

“The EPA OIG returned \$22 for every dollar given to us in FY 2016. When the OIG is unable to carry out its responsibilities because of inadequate funding, it is a net loss to the federal government and the American taxpayers. While I am aware this is not an appropriations subcommittee, I respectfully ask for any help you can provide us in this regard,” Larsen said.

The OIG under Inspector General Arthur Elkins Jr. has long touted its return on investment as an argument against the Trump administration’s proposed cuts, which would be part of a requested 31 percent cut to EPA’s overall \$8.1 billion budget. Since 90 percent of OIG’s funding goes to personnel costs, Elkins and others have repeatedly said that any cuts would lead to fewer investigations and audits, reducing not just discretionary work but legally mandated studies.

16. Ontario to Pick Up Tab for Low-Carbon Commercial Trucks

Ontario businesses that lease or buy vehicles with low carbon dioxide emissions are eligible for rebates of up to 50 percent as part of the province’s C\$170 million (\$140 million) incentives package. The proposed program would be funded with proceeds from the province’s cap-and-trade carbon market and comes with the backing of motor vehicle manufacturers. Companies like Mercedes-Benz Trucks, Freightliner Trucks, Tesla Inc., and Cummins Inc. are planning to bring electric and diesel hybrid trucks to the market.

Canada’s foreign-owned vehicle manufacturers are pleased that Ontario is offering incentives for the commercial and heavy-duty transportation sectors after a heavy emphasis on passenger vehicles, David Adams, president of the Global Automakers of Canada, told reporters.

“That’s important, but it also has to be done carefully,” Adams said.

It makes sense to use Ontario’s carbon market revenues to reduce transportation emissions, the province’s second-largest source of greenhouse gas emissions, Sarah Petrean, senior policy adviser with Clean Energy Canada, said. It’s particularly important that the program covers testing of newer, innovative technologies that could have a big impact in the future, Petrean told the press.

The Green Commercial Vehicle Program was announced in June 2016 as part of the province’s Climate Change Action Plan, which sets targets to reduce greenhouse gas emissions by 15 percent from 1990 levels by 2020, 37 percent by 2030, and 80 percent by 2050.

17. New England, Canada Strive for Deeper Greenhouse Gas Cuts

New England and eastern Canadian provinces will lean more heavily on renewable energy, electricity conservation, and zero-emissions vehicles as they aim for deeper greenhouse gas reductions. The governors and premiers set a goal to reduce harmful carbon emissions 35 percent to 45 percent below 1990 levels by 2030 in a plan they released August 31.

The region easily met previous carbon-reduction goals in 2010 and 2015, the leaders of the six New England states and five Canadian provinces said during their annual meeting on Prince Edward Island, Canada. In order to reach the 2030 target, the region has to be more aggressive, the leaders said.

The region must reduce greenhouse gas emissions that are associated with the transmission and distribution of electricity and natural gas, they said. Other ideas on the table include creating a regional energy efficiency standard for electrical appliances and enhancing the energy efficiency of new buildings.

The leaders previously set a goal of bringing greenhouse gas emissions back down to 1990 levels by 2010. By 2010, the region had brought emissions 4.1 percent below 1990 levels, they said. By 2015, the region achieved the 2020 goal of reducing emissions 10 percent below 1990 levels.

Data from 2001 through 2015 show that the reductions were achieved by intentionally curbing emissions. Emissions generally increase when economies and populations grow. The regional economy grew 32 percent during this period, and population increased by 6 percent. Still, greenhouse gas emissions decreased 21 percent per person during the same period.

18. Panel Backs Call For Ammonia-Based NAAQS, Boosting Environmentalists

Members of EPA's panel examining the ecological effects of nitrogen oxides (NO_x), sulfur oxides (SO_x) and particulate matter (PM) are urging the agency to set a national ambient air quality standard (NAAQS) for nitrogen to mitigate rising ammonia emissions, a long-standing but so far unsuccessful goal of environmentalists.

On a conference call August 31 to discuss a draft letter and report to EPA on the agency's draft integrated science assessment (ISA), synthesizing scientific studies on the ecological effects of NO_x, SO_x and PM, members of the Clean Air Scientific Advisory Committee (CASAC) panel examining the issue suggested a new NAAQS may be required.

"Ammonia emissions are increasing in many regions of the U.S. and the CASAC recommends that EPA consider the need for developing National Ambient Air Quality Standards for reduced forms of nitrogen during the Risk and Exposure Assessment and Policy Analysis phases of this NAAQS review," the draft letter says.

If the agency were to adopt an ammonia-based standard, it would achieve a long-running goal of environmentalists who have sought to have EPA list the substance as a "criteria" pollutant subject to NAAQS.

There are currently NAAQS established for NO_x, SO_x, PM, carbon monoxide, lead and ozone under the Clean Air Act, requiring states to craft plans outlining control measures to cut these criteria pollutants.

But the agency has never shown interest in doing so for ammonia, which contributes to adverse human health effects as well as increased nitrogen loading to waterbodies and the environment.

Earlier this year, environmentalists without comment dropped a lawsuit seeking to force the agency to respond to a 2011 petition that sought a finding that ammonia gas endangers public health and welfare, to designate ammonia as an air law criteria pollutant and to establish NAAQS for the gas. That would then require states to craft state implementation plans detailing steps they will take to ensure NAAQS compliance. Areas designated in "nonattainment" with the standards must include pollution control measures in their plans.

Also, listing ammonia as a criteria pollutant would trigger air permitting requirements under the prevention of significant deterioration and new source review programs, and also the Title V operating permit program.

But such efforts have been strongly opposed by industry groups, especially the agriculture sector whose animal feeding operations are one of the largest sources of ammonia emissions. They are likely to continue to oppose calls for a NAAQS though a federal appellate court recently ruled to require EPA to require concentrated animal feeding operations (CAFOs) to report their releases of ammonia and other substances under Superfund and right-to-know requirements.

And environmentalists recently filed a new suit in federal court to force EPA to respond to a separate petition seeking air and climate emissions rules for CAFOs, after a previous suit failed on procedural grounds.

The draft ISA the panelists are reviewing will serve to support a review of the “secondary” NAAQS for NO_x and SO_x -- but not PM - which might result in a novel combined standard. Secondary standards are intended to protect the environment, while primary NAAQS are aimed at protecting human health.

EPA is once again reviewing the two pollutants’ effects on the environment together, even though the Obama EPA ultimately determined there was not enough scientific certainty to set a novel combined standard for the pollutants based on their capacity to acidify waterbodies, as suggested by the agency’s scientific staff.

EPA reviewed the secondary NAAQS for NO_x in 2012, retaining the annual limit of 53 parts per billion (ppb) first set in 1971. The agency further reviewed the SO₂ secondary standard in 2012 and retained the 50 ppb limit over three hours also set in 1971.

The ISA synthesizes scientific evidence on the pollutants’ effects, with emphasis on new evidence gathered since the last NO_x-SO_x secondary NAAQS review concluded in 2012. The current review of those standards will not conclude until 2020 or later. A risk and exposure analysis (REA) may be conducted, if EPA feels it is warranted, to determine risks to the public from exposure to a pollutant. Both the REA and ISA serve to inform a subsequent policy assessment document setting out policy options for the agency when it crafts a proposal to either change the NAAQS standards or leave them unaltered.

CASAC panel members at a May 24 meeting in Durham, NC, said that EPA and CASAC should more strongly emphasize the growing role of ammonia in nitrogen deposition as part of the NO_x-SO_x review. But in calling for the establishment of a new NAAQS, they are going further.

Panel members on the August 31 call appeared in general agreement on the need to urge EPA to consider a new NAAQS, but did not fully agree on how to precisely define the target pollutant. Panelists discussed various formulations, such as “total reactive nitrogen,” or a standard that “encompasses reduced forms of nitrogen.”

In their draft letter, panelists also called on EPA to better define the concept of “ecosystem services” that appears throughout the document, and to outline how and why it matters to the NAAQS review. Ecosystem services is broadly defined as the positive benefits that ecosystems provide to people, but precise definitions differ. EPA in the ISA, however, does not appear to offer a definition, and makes reference to the diverse ways the subject is treated by different institutions globally.

Panelists called for EPA to improve its ISA by “incorporating a better definition of ecosystem services; explaining why ecosystem services analysis is important; incorporating ‘plain spoken’ stories or narratives to help the public understand aspects of human welfare that are affected by emissions of oxides of nitrogen, oxides of sulfur, and particulate matter; incorporating a clear statement of conclusions; and incorporating a summary table in the Draft ISA to list ecosystem services in the U.S. that are potentially affected by oxides of nitrogen, oxides of sulfur, and particulate matter.”

19. Judge Dismisses Wyoming’s Suit Over VW Defeat Devices

A federal district judge has rejected Wyoming’s bid for separate Clean Air Act and other penalties against Volkswagen (VW) for its emissions cheating scandal, saying the air law bars states from enforcing EPA-approved limits on pollution from “new” vehicles unless they adopt California’s emissions standards.

The August 31 ruling, by District Judge Charles R. Breyer of the U.S. District Court for the Northern District of California, says that even though Wyoming did not take part in the landmark case that EPA brought against VW for its use of “defeat devices” in diesel vehicles, the Clean Air Act forbids it from filing its own case to recover damages above and beyond settlements negotiated by the agency.

In *Wyoming v. Volkswagen Group of America*, the state argued that VW’s defeat devices violated provisions in its EPA-approved state implementations plans (SIPs) for reducing air emissions that bar deactivating or “tampering” with emissions controls on motor vehicles -- paralleling claims that at least eight other states have filed in state courts, according to the decision.

Both Wyoming and the other states that launched similar cases said the devices violated their SIPs, separately from the Clean Air Act violations EPA prosecuted, and sought damages for the resulting losses of air quality. But Breyer held that whether the company violated SIP restrictions is irrelevant, since the air law says only EPA can enforce emissions limits that apply to “new vehicles.”

“Wyoming, by attempting to apply its SIP’s tampering and concealment rules to Volkswagen’s use of a defeat device, seeks to ‘enforce [a] standard relating to the control of emissions from new motor vehicles.’ Because the Clean Air Act prohibits States from enforcing such standards, Wyoming’s claims cannot go forward,” the ruling says.

The only way states can be exempted from that limit is if they adopt California’s vehicle emission standards instead of those promulgated by EPA, Breyer notes. However, GOP-led states such as Wyoming have been loath to adopt the Golden State’s more stringent air policies. “Volkswagen has settled environmental-type claims with at least Maine, Massachusetts, New York, and Pennsylvania. Unlike Wyoming, each of these States has adopted California’s emission standards,” the ruling says.

20. Waxman Favors Vehicle Rules Over Ethanol for Curbing GHGs

Former Rep. Henry Waxman (D-CA) is backing environmentalists’ efforts to curb corn ethanol production, saying that aggressive Obama-era vehicle fuel efficiency and tailpipe emissions rules that the Trump administration is threatening to weaken are a better mechanism for curbing greenhouse gases than EPA’s renewable fuel standard (RFS).

On a conference call with the National Wildlife Federation (NWF) on August 31st, the former Democratic House Energy & Commerce Committee Chairman who now leads the Mighty Earth campaign group called on EPA to reduce volumes of corn ethanol and biofuels made from other food sources, such as soy and palm oil, under the RFS. Although Waxman voted for the RFS in 2007, he now says “the RFS was a mistake.”

Promised environmental benefits from first-generation biofuels such as reduced GHG emissions “have failed to materialize,” and food-based fuels are “a cure worse than the disease,” Waxman said ahead of the August 31 deadline for public comment on EPA’s proposed RFS fuel volumes for 2018.

Citing “massive” land-use change driven by demand for corn ethanol under the RFS that is causing nutrient runoff, loss of species habitat and compromising GHG reductions, Waxman called on EPA to reduce corn ethanol volumes in the final 2018 rule, which EPA must issue by a statutory November 30 deadline.

But he further called on Congress to reform the program by permanently reducing its requirements for corn ethanol and biodiesel made from soy or palm oil, and instead promote second-generation biofuels made from non-food sources, such as cellulosic ethanol.

A better mechanism to reduce GHGs than corn ethanol, Waxman said, would be to force automakers “to meet their commitments to rapidly increase fuel efficiency” as agreed under a sweeping deal between auto companies and the Obama administration.

The Trump EPA has vowed to review the Obama fuel economy goals, overturning an EPA finding that they are still appropriate and restarting a “mid-term review” of the fuel economy rules for 2022-2025 that could lead to a weakening of the standards. But Waxman said, “it is not too late to push back on that.”

NWF CEO and President Collin O’Mara called the RFS a “disaster,” but like Waxman argued against a full repeal as sought by some of the program’s opponents in the oil sector. He called on EPA to reduce the amount of corn and vegetable-based fuels, and to “enforce laws already on the books” to prevent land conversion to biofuel production. But beyond the 2018 volumes rule, “the onus is really on Congress to act,” O’Mara said.

O’Mara also took a swipe at recent unsuccessful efforts led by Sen. Deb Fischer (R-NE) to allow sales of high ethanol blend fuel (E15) year-round, calling it “a brazen attempt to double down on a bad policy.”

The Renewable Fuels Association (RFA) has also pressed EPA and the Department of Energy, with some significant success, to expand to the whole country emergency waivers from fuel volatility rules initially issued for Texas and Louisiana to ease fuel production and supply in wake of Hurricane Harvey and allow for the sale of E15.

EPA’s latest waiver, valid until September 15, effectively allowed expanded E15 sales in 38 states and the District of Columbia: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, Maryland, New Jersey, New York, Pennsylvania, Florida, Georgia, North Carolina, South Carolina, Virginia, West Virginia, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Ohio, Oklahoma, Tennessee, Wisconsin, Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas.

21. U.S. Ethanol Industry Asks Trump to Intervene in Brazil Dispute

U.S. ethanol producers will ask the Trump administration to intervene in a trade dispute with Brazil as tensions between the industry and foreign competitors continue to escalate.

The Renewable Fuels Association, Growth Energy and the U.S. Grains Council—all Washington-based lobbying organizations—said in a statement on September 7th that the government should “take immediate action and consider all avenues to encourage Brazil” to revoke or at least ease the 20 percent tariff on ethanol imports from the U.S. it announced last month.

The groups are drafting a letter that they plan to send to the U.S. Agriculture Department and the U.S. Trade Representative, requesting the agencies consider the tools that they have under World Trade Organization rules, Growth Energy Chief Executive Emily Skor said in an interview. More than \$750 million in U.S. exports and jobs are at stake, the groups said.

The move comes two weeks after the U.S. Commerce Department proposed duties on biodiesel imported from Indonesia and Argentina, claiming producers in those countries benefit from state subsidies. Earlier this year, China slapped tariffs on U.S. ethanol and a byproduct that’s used as animal feed.

The U.S. government’s response will be a test for Trump, who has repeatedly pronounced his support for the domestic ethanol sector, most recently during a campaign-style rally in June. Recently, Sen. Charles Grassley (R-Iowa) said the president had assured him that he’s “pro-ethanol.”

“My members are looking at how this president campaigned,” Skor said. “Based off of that, there is a hope, and I would add, an expectation, that this government will do everything” it can to help.

Ethanol is made primarily from corn in the U.S., while soybeans are the main feedstock for biodiesel. Production of biofuels and the crops in the U.S. are concentrated in the Midwest, a region that helped swing the November general election to Trump. Yet many farmers have been dismayed by Trump’s threats to exit the North American Free Trade Agreement, which would undermine U.S. farm exports.

Trump’s support must go beyond setting the annual domestic consumption targets for ethanol under the Renewable Fuel Standard, said Skor, whose group represents U.S. ethanol producers Poet LLC and Green Plains Inc. The administration should know that “there’s a global aspect as well” to the industry’s demands, she said.

The Brazilian ethanol duty applies to imports from the U.S. in excess of an annual cap of 600 million liters (158 million gallons). Brazil’s own ethanol industry uses sugarcane, of which it’s the largest grower.

Argentina is trying to strike an accord to suspend the preliminary duties set by the U.S. on biodiesel, Horacio Reyser, the Foreign Ministry’s international secretary, said by phone from Brussels. Any deal would have to be approved by U.S. producers.

Separately, the European Union confirmed Thursday it’s slashing anti-dumping duties on imports of Argentine biodiesel, in line with a ruling from the WTO.

22. ExxonMobil Appeals \$20 Million Citizen Suit Penalty

Oil company ExxonMobil is appealing a federal district court's ruling imposing an almost \$20 million penalty for Clean Air Act violations, a ruling that some environmentalists say highlights the importance of citizen enforcement if the Trump EPA reduces enforcement significantly compared to the Obama administration.

On August 28th Exxon appealed the case, Environment Texas Citizen Lobby, Inc., et al., v. ExxonMobil Corporation, et al., to the U.S. Court of Appeals for the 5th Circuit, seeking to overturn a U.S. District Court for the Southern District of Texas judge's decision in late April to impose a \$19.95 million penalty for hundreds of alleged air law violations stemming from excess releases at its Baytown, TX, oil refinery and petrochemical plant -- one of the largest in the country.

The plant is one of several on the Gulf Coast currently affected by the aftermath of Hurricane Harvey. It is located in a region where sudden plant shutdowns forced by bad weather associated with Harvey may be already causing excess air pollution because emissions controls are being bypassed and regulatory air quality monitors are inoperative, according to media reports.

The ruling in the case marked the culmination of a years-long legal battle, during which the district court in 2014 first rejected environmentalists' citizen suit case. But the 5th Circuit then reversed that decision and remanded the suit back to the lower court. Environment Texas at the time called the fine the "largest penalty resulting from a citizen suit in U.S. history."

Exxon's appeal to the 5th Circuit could therefore focus on challenging the size of the penalty faced by the company, rather than merits of the case already addressed by the appeals court.

Environmentalists have pointed to the case as an example of successful citizen enforcement in an era when environmental enforcement may not be the federal government's top priority. For example, Public Employees for Environmental Responsibility, a group that represents federal whistleblowers, has charged that cuts to EPA staffing and enforcement begun during the Obama administration and continued by Administrator Scott Pruitt have led to a major drop in criminal enforcement cases, especially against white-collar defendants -- and warning the trend is set to continue.

Also, former EPA enforcement officials claim that the Trump EPA's early enforcement results, including civil cases, have been disappointing and point to weak future enforcement.

23. EPA Broadens Harvey Fuel Waivers, Providing Limited Support For E15 Call

EPA has expanded the scope of its emergency clean fuel waivers to address the impacts of Hurricane Harvey by temporarily waiving requirements for reformulated and low volatility gasoline in the southeast and Mid-Atlantic, a move the renewable fuel sector says grants in part its request for a broader waiver that would allow for the sale of higher-volume ethanol blends.

"EPA has waived requirements for reformulated gasoline and low volatility gasoline through September 15 in the following states: Alabama, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, Texas, Louisiana and the District of Columbia," the agency said in a press statement.

"As required by law, EPA and Department of Energy (DOE) evaluated the situation and determined that granting a short-term waiver was consistent with the public interest. EPA and

DOE are continuing to actively monitor the fuel supply situation as a result of Hurricane Harvey, and will act expeditiously if extreme and unusual supply circumstances exist in other areas.”

The move appears to agree in part to an August 28 request from the Renewable Fuels Association (RFA) seeking temporary national flexibility under the fuels program to allow for the sale of 15 percent ethanol (E15) to address concerns over fuel shortages.

Although EPA’s waiver opens the door to sales of E15, it may not ensure it as refiners and others in the supply chain may not provide the fuel.

The group’s request asked EPA to expand the scope and coverage of prior fuel standards waivers from reformulated gasoline and Reid Vapor Pressure (RVP) requirements that the agency had already issued to portions of Texas and Louisiana.

But the request sought to make the flexibility national in scope, focusing on a request for EPA to relax RVP limits, a measure of volatility, to 10.0 pounds per square inch (psi) for “all finished gasoline blended with ethanol in conventional and reformulated gasoline.”

RFA and its supporters in Congress have been pushing legislation to allow year-round sale of E15, with E15 currently prohibited in some areas during the summertime due to air pollution control requirements.

But the effort is being strongly opposed by the oil and refining industries, who charge that increased use of ethanol in the fuel supply would corrode engines and other fuel infrastructure and would increase harmful air emissions.

It is not entirely clear whether the emergency waiver will have broader E15 policy implications, as it is only a temporary waiver and is not national in scope.

And RFA, at least for now, is not explicitly linking the emergency waiver to broader national policy. In a statement, RFA President and CEO Bob Dineen says the agency action “effectively allows for an early end to the summer volatility control season and allows immediate use of winter gasoline in conventional gasoline areas.”

Dineen also says that the move allows for the sale of E15 in conventional gasoline areas of the states covered by the waiver and “is effectively what we asked of the agency.”

He also notes that “consumers facing likely gasoline supply issues as a result of Hurricane Harvey are one important step closer today to a high octane, low cost alternative,” and that the waiver does not do away with requirements that retailers follow other regulatory requirements associated with E15, including steps to prevent misfueling of vehicles.

EPA Administrator Scott Pruitt in an August 30th letter to governors of the affected states outlines the emergency waiver in more detail, noting that the agency’s action with regard to federal RVP standards will allow sale through mid-September of wintertime gasoline with an RVP of 11.5 psi in areas in those states that would otherwise require summertime conventional gasoline blends.

The EPA action also waives federal reformulated gasoline requirements in the affected region, allowing sale of winter gasoline with an RVP of 11.5 psi in any RFG area and also waiving prohibitions on combining RFG blendstocks for oxygenate blending with other gasoline, blendstock or oxygenates.

The letter also includes additional language making clear that the waiver covers provisions in Texas' federally enforceable state implementation plan that codifies low volatility requirements within the state.

EPA in the letter to governors acknowledges that it is not proceeding with a national waiver, noting that its action reflects in part statutory requirements that such waivers apply to the "smallest geographic area" necessary to address fuel supply concerns

At the same time, Pruitt appears to leave his options open for further action, saying "should conditions warrant, this waiver may be modified, terminated or extended, as appropriate."

24. Small Fuel Retailers' Lawsuit Seeks To Change EPA RFS 'Obligation' Point

Small fuel retailers are suing EPA in a bid to force a change to the renewable fuel standard's (RFS) "point of obligation" compliance duty from refiners and fuel importers to blenders or others, ahead of the agency's expected rejection of petitions seeking the change -- a decision said to have spurred presidential adviser Carl Icahn to quit that position.

In the suit, filed August 28 in the U.S. District Court for the Northern District of Texas, the Small Retailers Coalition challenges EPA's RFS volumes rule for 2017 under the Regulatory Flexibility Act (RFA), claiming the agency has violated the RFA by failing to discharge its duty to consider the adverse impact of the existing obligation point on small businesses.

The group seeks remand of the 2017 RFS to the agency and a mandate from the court "ordering EPA to promptly prepare and make available for public comment regulatory flexibility analyses concerning the impact of the Final Rule on small petroleum retailers as required by sections 603 and 604 of the RFA."

Further, the group alleges that EPA has failed to discharge a Clean Air Act duty to periodically re-evaluate whether the RFS places the compliance obligation with the correct "obligated parties," meaning those entities that are responsible for ensuring that blending of the various categories of renewable and alternative fuel meets the program's annual goals. Currently the obligation rests with refiners and importers, not blenders.

EPA set the existing point of obligation in a 2010 rule, but the retailers say this is not sufficient and EPA must re-evaluate the obligation annually for potential change. Recent press reports suggest that the agency is preparing to soon formally deny administrative petitions asking for the change.

The coalition in its suit reprises arguments raised in earlier comments on RFS rules, saying that the existing obligation point allows large fuel retailers to generate compliance credits, known as renewable identification numbers (RINs), and sell them to refiners and importers at a profit. Refiners then sell the finished fuel to small retailers that cannot blend their own fuels, placing them at a competitive disadvantage to large retail chains.

EPA's 2010 rule setting the point of obligation included a regulatory flexibility analysis, as required by the RFA, but this "did not consider the significant economic impact the Point of Obligation would have on small petroleum retailers even though petroleum retailers are expressly regulated under the RFS," the coalition says. "In subsequent revisions to the RFS, EPA relied on this

deficient analysis as the basis for RFA certifications by making a finding that the revisions did not 'have a significant economic impact on a substantial number of small entities,'" the group says.

Also, EPA has an obligation when setting annual fuel volumes rules to ensure its RFS regulations as "appropriate," and this includes the compliance obligation, the group argues.

25. EPA Weighs Regulatory 'Relief' Options For Ozone NAAQS Implementation

EPA is weighing several options to provide states and industries regulatory "relief" when implementing the Obama-era's 2015 rule tightening the ozone national ambient air quality standard (NAAQS), including streamlining Clean Air Act permitting reviews, revising monitoring procedures, and more according to a report to Congress.

The August 14 report says the agency could offer the measures in its pending rule detailing the steps states can take in their state implementation plans (SIPs) for complying with the 2015 standard of 70 parts per billion (ppb).

"EPA is examining and may include additional relief in its final implementation rule for the 2015 ozone NAAQS and will further consider other mechanisms for providing regulatory relief suggested by stakeholders," the report says.

EPA is yet to issue a final implementation rule for the 2015 ozone standard, but its implementation rule for the weaker 2008 ozone limit of 75 ppb faces a suit scheduled for argument next month over measures that environmentalists fear will weaken implementation of the standard and lead to increased ozone air pollution.

As the agency crafts the 2015 ozone NAAQS implementation rule, the report says that regulatory relief options that are under consideration include: "[S]treamlining preconstruction permitting review for new and modified stationary sources, whether there are flexibilities for areas significantly impacted by background ozone in addition to the statutory international transport relief provided for areas impacted by international sources, and establishing a nonattainment area classification scheme that provides states with as much flexibility as possible to craft local solutions before the onset of more prescriptive mandatory requirements."

Other relief options "that have been suggested" according to the report are: "[R]evising monitoring or data handling procedures to exclude exceedances attributable to background ozone, deferring designations in locations impacted by background ozone, and designating areas influenced by background ozone as unclassifiable. EPA is still exploring whether these additional mechanisms may provide a viable path forward for providing regulatory relief."

EPA also says it will "continue investing in the science" on ozone to better evaluate and quantify naturally occurring background ozone that cannot be regulated, and to assist in exceptional events demonstrations.

Congress mandated in the consolidated fiscal year 2017 appropriations law enacted May 5 that EPA provide the House and Senate spending panels with a report "examining the potential for administrative options to enable States to enter into cooperative agreements with the Agency that provide regulatory relief and meaningfully clean up the air."

The lawmakers' directive responds to concerns from GOP lawmakers, industry groups and others that the 70 ppb standard is unnecessarily strict and will lead to onerous and expensive air pollution

reduction mandates for businesses. Critics of the tighter standard say that simply being placed in nonattainment with the NAAQS is enough to drive companies away, due to their fear about the costs of having to comply with a strict SIP written for such areas.

Existing steps that EPA has offered through ozone implementation rules and other measures include discounting ozone pollution associated with “exceptional events” such as wildfires from counting toward NAAQS compliance, and allowing some areas almost in attainment to be classified as “marginal attainment” rather than violating the standard -- a move that means they are subject to less-onerous SIP requirements for reducing ozone.

But the additional new regulatory relief steps EPA says it is weighing could face legal challenges from environmentalists and Democratic-led states if they fear the measures could weaken implementation of the 70 ppb limit, in turn increasing ozone air pollution that poses a risk to public health and the environment.

EPA Administrator Scott Pruitt had previously tried to delay from October this year until October 2018 the deadline for issuing designations for which areas are attaining or violating the NAAQS, which triggers the Clean Air Act clock for writing SIPs. The U.S. Court of Appeals for the District of Columbia Circuit’s vacatur of an unrelated delay of a methane rule was said to be a factor in Pruitt’s decision to withdraw the ozone designations delay.

Pruitt is asking a federal appeals court to dismiss litigation over the delay as moot, but petitioners are opposing the request for fear he might try a similar delay again. A coalition of Democratic-led states is asking the D.C. Circuit to vacate the delay as unlawful to prevent any attempt to revive it.

The report to Congress does not wade into the legal back-and-forth over the designations delay and instead largely summarizes prior and existing EPA efforts designed to help states and industries with their steps toward complying with federal ozone standards. Toward the end of the report the agency outlines the various regulatory relief measures that it is considering, but avoids making a commitment on adopting any of them.

EPA also acknowledges that some of the regulatory relief measures in the 2008 ozone NAAQS implementation rule face ongoing legal challenges in a D.C. Circuit case. In particular, it notes that its decision in that rule to revoke the prior 1997 ozone standard expressed as 84 ppb is one of the issues in the consolidated litigation South Coast Air Quality Management District v. EPA, et al. “This provision is currently in litigation in the D.C. Circuit, and the outcome of that litigation could affect moving forward with this [relief] in the future,” the agency says.

26. EPA Fights ‘Speculative’ Bid to Vacate Ozone NAAQS Designations Delay

EPA is fighting several states’ request for a federal appeals court to vacate the agency’s since-withdrawn notice delaying by one year designations for which areas are attaining the 2015 ozone air standard, saying it is “speculative” for the states to say the delay was unlawful and that EPA should be prevented from trying it again.

“Petitioners’ concern that the withdrawal could be reversed by the Court in some future action is highly speculative, and could be adequately addressed by the Court in its review of any such future action. Accordingly, that speculation provides no basis for the Court to reach out and vacate an action that the Agency has already withdrawn,” EPA says in an August 29 filing with the U.S. Court of Appeals for the District of Columbia Circuit.

EPA is responding to separate filings from environmentalists and a coalition of Democratic-led states about how to proceed in consolidated litigation over agency Administrator Scott Pruitt's now-scraped notice saying emissions data gaps justified delaying the ozone designations from October this year until October 2018.

Pruitt issued the one-year delay on June 6, saying it was vital to allow more time to assess the data that the Obama administration used to justify tightening the ozone limit from the 75 ppb level set in 2008 down to 70 ppb. But on August 2, after environmentalists and states sued to overturn that delay and reinstate the original deadline for the designations, Pruitt withdrew his letter through a Federal Register notice and said the review could instead be completed this year. EPA asked the court to then dismiss the case, which environmentalists and the states are opposing.

Environmentalists want to continue the case to challenge the delay on its merits, while the states say that if the D.C. Circuit dismisses the case then it should vacate the delay as unlawful to prevent EPA reviving it.

EPA's new filing reiterates the agency's arguments that the case is moot because the agency has withdrawn the notice, and says the suit must be dismissed. The case "is a petition for judicial review of a discrete agency action that the Agency has now formally withdrawn. There is no ongoing course of action for the Agency to resume," EPA says, downplaying environmentalists' fears that EPA could reinstate the delay.

If "EPA decides at a future time that a new extension of the designation deadline is appropriate for one or more areas, it will have to take a new discrete action to promulgate such an extension, which will be based on the particular record for that extension," EPA says. Environmentalists would have to challenge that specific action, EPA says, and it is "speculative" to assume that the D.C. Circuit would rule against the delay.

"Furthermore, because the extension was withdrawn prior to the pre-existing deadline for extensions, which is now back in effect, it did not cause any harm to Petitioners and cannot cause any harm to Petitioners in the future. Thus, there is no harm or effect of the challenged action for the Court to remedy."

Observers say EPA will likely miss its reinstated October 1 deadline for designations, as it has not taken necessary administrative steps to achieve it, such as informing states of which areas it thinks should be in nonattainment. Nonetheless, the agency in the new filing says "the original deadline for designations is currently in effect."

Should the agency miss this deadline, environmentalists have already indicated they will likely file a fresh lawsuit to force release of the area designations as soon as possible.

27. HFC Rule Supporters Eye Rehearing Bid Despite Risk of Deference Limits

Supporters of a scrapped Obama EPA rule on reducing ozone-depleting substances are eyeing requests for a federal appeals court to rehear the suit that vacated the rule, despite some observers' suggestions that a successful rehearing bid could help EPA to defend deregulatory actions or aid GOP efforts to limit courts' deference to agencies.

In a 2-1 ruling issued August 8, a panel of the U.S. Court of Appeals for the District of Columbia Circuit said the 2015 rule was unlawful because of clear statutory prohibitions on what EPA was

trying to achieve -- therefore failing the first part of the two-part test for granting agencies deference on their decision-making. Under the test, known as Chevron, a court first determines whether statutory language is ambiguous, and then if the agency's interpretation is reasonable.

Judge Robert Wilkins dissented and said the statutory language at issue was unclear, and environmentalists who support the rule agree with Wilkins. But one attorney following the proceedings saw the dissent "tie itself in knots" to find ambiguity, which could risk undermining the overall Chevron test.

Foley & Hoag attorney Seth Jaffe wrote in an August 9 post at the Law & Environment blog that if the dissenting view in the case, known as *Mexichem Fluor v. EPA, et al.*, were to become law, either in rehearing or before the Supreme Court, it could render the high court's Chevron deference standard so broad as to be useless.

"If the dissent were to prevail here, it would only add legitimate fuel to the fire that those who oppose Chevron are trying to set. If there's an ambiguity here, it's difficult to conceive of many statutes that aren't ambiguous, leaving all interpretation to agencies. That's not supposed to be what Chevron is about, though it is what Chevron's critics say it is about. Supporters of Chevron should not be giving ammunition to its critics," Jaffe wrote.

GOP legislators and conservative judges have recently called for cutting back or ending Chevron, which they see as giving agencies too much power, either through lawmaking or with a Supreme Court ruling setting a new deference test.

Despite that risk, one environmental attorney says, "People should expect rehearing petitions" from supporters of the rule, which used restrictions on ozone-depleting substances to limit use of refrigerants that contribute to climate change.

The majority in *Mexichem* said these limits on high global warming potential (GWP) hydrofluorocarbon (HFC) refrigerants exceeded EPA's Clean Air Act section 612 Significant New Alternatives Policy (SNAP) authority. The court vacated much of the Obama administration's policy for limiting high-GWP HFCs using the SNAP program under Clean Air Act section 612. The majority opinion, written by Judge Brett Kavanaugh and joined by Judge Janice Rogers Brown, said that section is intended only to reduce ozone-depleting substances, and excludes HFCs since they are generally not considered to fall into that category.

Wilkins dissented, writing that the statutory language did not clearly define the meaning of the mandate for EPA to have companies "replace" existing chemicals with those that "reduce overall risks to human health and the environment," meaning it cleared the first stage of Chevron.

Jaffe wrote in his post that the air law's SNAP language is clear, and "The dissent just seems to tie itself in knots in order to find an ambiguity in the statute so it can get to step 2 of Chevron." However, the environmental attorney -- who supports Wilkins' dissent -- counters that the air law "certainly is not unambiguously forbidding what EPA did." And the attorney says that despite Jaffe's argument, environmental groups see a path to limiting EPA's discretion even if courts hold that the air law's SNAP language is ambiguous and open to interpretation -- such as in litigation over the Obama administration's Clean Power Plan (CPP) limiting greenhouse gas emissions from existing power plants.

28. Volkswagen Executive Pleads Guilty in Diesel Emissions Case

A Volkswagen executive has pleaded guilty to federal charges arising from a continuing investigation into the automaker's diesel emissions scandal. The charges against the executive, Oliver Schmidt, stem from his role in Volkswagen's decade-long scheme to rig diesel cars with devices that circumvented federal emissions tests.

Mr. Schmidt, 48, the former head of Volkswagen's environmental and engineering center in Michigan, had been facing three charges since his arrest in January. He has been held without bond in prison pending trial. But last week his lawyers told a federal judge here that Mr. Schmidt had decided to enter a guilty plea.

Under a revision of the charges, he pleaded guilty to two counts: conspiracy to defraud the federal government and violating the Clean Air Act. A third charge of aiding and abetting wire fraud was rolled into the conspiracy charge.

Mr. Schmidt admitted conspiring with other Volkswagen employees to mislead and defraud the United States in 2015 by failing to disclose that thousands of diesel cars were rigged to evade detection of excess emissions levels. He also admitted filing fraudulent emissions reports to regulators. Mr. Schmidt faces maximum penalties of five years in prison and a \$250,000 fine on the conspiracy charge, and two years in prison and a \$250,000 fine on the environmental charge. He is to be sentenced on Dec. 6.

There was no discussion at the hearing of his potential role as a witness in other federal cases.

Volkswagen has already pleaded guilty to charges of conspiracy to commit wire fraud and to violate the Clean Air Act, customs violations and obstruction of justice.

Mr. Schmidt was a key player in Volkswagen's efforts to deceive regulators in the United States about the company's compliance with federal emissions rules. He acted as a liaison to federal and California regulators during a period when, according to the authorities, Volkswagen was engaged in an orchestrated attempt to conceal the emissions fraud.

Mr. Schmidt reported to Heinz-Jakob Neusser, the former head of engine development at Volkswagen, who is among eight Volkswagen executives to be charged in the United States. Mr. Neusser reported to the Volkswagen management board.

One of the executives charged, James Robert Liang, has pleaded guilty to charges of conspiracy and violating the Clean Air Act, and is awaiting sentencing.

Last month, Zaccheo Pamio, an Italian who worked for Volkswagen's Audi luxury division, was arrested by German authorities after being indicted here.

The other executives charged in the United States are Germans residing in Germany, which does not extradite its citizens, making it unlikely they will face prosecution in an American court.

29. Koch Mexico Brings First Imports of Ultra-Low Sulfur Diesel to Mexican Market

Koch Supply & Trading Mexico (Koch Mexico) is importing its first cargo of ultra-low sulfur diesel (ULSD) into Mexico through the Port of Veracruz. The product was supplied via Koch's US export system and will be delivered through a multi-year services agreement with the newly revamped Veracruz facility owned and operated by Vopak Mexico who has obtained the first regulatory authorization for an independent party to store and handle petroleum liquids.

This cargo, which meets or exceeds all Mexican-regulated quality and environmental standards, will be the first waterborne delivery of motor vehicle fuel by a private party since the Mexican petroleum industry was nationalized in 1938. Under the country's wide-ranging energy reform which began in 2013, independent companies can provide new alternatives for fuel supplies. By utilizing an existing facility that has been retrofitted, Koch Mexico can deliver imports significantly earlier versus other terminals which have yet to be permitted and constructed.

"This is an important new supply route to Mexico for transportation fuels produced by US refineries such as Koch Mexico's affiliate, Flint Hills Resources, which operates a 300,000 barrel per day facility in Corpus Christi, Texas. Koch Mexico plans to import up to 40,000 barrels (6.4 million liters) per day of these products into Veracruz, and our intention is to lower costs for the citizens of Mexico," said Pete Ramirez, vice president of Koch Mexico. "By working with Vopak and the regulatory agencies in Mexico we are now able to provide downstream distributors and retailers the opportunity to augment the supplies of fuel that are currently available in the market. We are planning to be a reliable importer of petroleum products as part of a long-term strategy for development in the country."

"We are proud to contribute to more security of supply for the Mexican energy market by developing improved storage and logistics solutions," said Cristhian Perez, managing director of Vopak Mexico. "Working with established industry leaders like Koch allows us to break through into the Mexican fuel storage market, which has been opened by the energy reform, ultimately benefitting Mexican consumers."

All applicable federal, regional and local permits have been secured by Koch and Vopak. Terms of the deal have not been disclosed.

ASIA-PACIFIC

30. Factories Scramble to Move Goods as China Limits Diesel Trucks

The Ministry of Environmental Protection has given tens of thousands of companies in 28 cities until November 1st to halve their use of diesel trucks over the winter months, when air pollution is worst. In a policy document, the ministry also instructed more than 20 power and steel companies to send at least half of their shipments by rail. Trucking is a cheaper mode of transport for heavy industry in China, especially for inland companies moving goods over short distances.

Some provinces have taken even tougher stances on trucks. In Hebei and central Henan, some steel producers must deliver as much as 90 percent of their products via rail, up from around 50 to 60 percent currently.

The moves are the latest in Beijing's battle to tackle the air pollution that blankets the north as houses turn up the heat between November and March, drawing on the nation's power plants, which are mainly fueled with coal.

China also will force steel mills and other factories to shut up to 50 percent of their capacity across the north during the winter to ease air pollution.

The truck restrictions follow bans earlier this year on coal transports by diesel trucks in major ports. The shift to China's 120,000 km railroad network is a cornerstone of Beijing's Belt and Road initiative, which aims to revive old trade routes linking Chinese companies with overseas markets.

The scale of the shift is immense. Highways accounted for 77 percent of freight transported in China last year, compared with 8 percent for rail.

Companies were already preparing for a grim winter, having been ordered to slash output as part of measures to clean up the air in Chinese cities. Now, many are struggling to get space on the rail network by the November 1 deadline.

Major state-owned companies like Sinopec and Aluminum Corp. of China have long-term access to railroads, leaving little room for smaller companies. Many factories are hundreds of miles away from any railhead.

There are also concerns that bottlenecks could create chaos, cutting off supplies of critical raw materials and hurting the ability of companies to get products to market. Rail also is more expensive and takes longer for some routes. An executive from Xingtai Iron & Steel estimated that using rail would add as much as 40 yuan per ton, raising his costs 10 percent.

“We might resort to reducing production in the winter if we cannot get enough supplies and have difficulties sending our products due to the railway Armageddon,” said a manager with Yanzhou Coal Mining Co.’s coke plant in Shandong province, which produces two million tons per year.

In Shandong, the nation’s eastern industrial and agricultural heartland, the rail bureau proposed raising freight rates by 1 cent per ton per kilometer at an internal meeting with key clients two weeks ago, according to the Yanzhou Coal manager. That is equivalent to an almost 10 percent increase to move products to Jiangsu, about 100 miles to the south. It is not clear whether the plan has been submitted to the state planner for approval. The state planner sets freight prices.

“Some of our clients are only 40 miles away from us,” said a sales manager with Xingtai Iron & Steel’s steel wire subsidiary. “Trucking is more flexible than rail and cheaper,” the manager said. “For our clients in Zhejiang and Jiangsu, about 500 miles away, rail takes almost a week but trucking takes one or two days.”

Rail traffic has increased this year due to increased shipments of coal. Rail is the most popular mode of transport for coal, which accounted for a third of traffic last year. China’s rail network is mainly run by China Railway Corp. State-owned companies such as China National Coal Group and coal miner China Shenhua Energy also own some specific routes, giving them lower transportation costs.

Many are bewildered by the enormity of the undertaking. A manager with Longyu Chemical Co. in central Henan province said he had no access to rail. “I honestly have no idea how we are going to deal with it this winter,” he said. The trucking freight rate is also rising because of the crackdown on diesel trucks.”

31. Developments in China Regarding New Energy Vehicles

China Fossil Fuel Deadline Shifts Focus to Electric Car Race

China will set a deadline for automakers to end sales of fossil-fuel-powered vehicles, becoming the biggest market to do so in a move that will accelerate the push into the electric car market led by companies including BYD Co. and BAIC Motor Corp.

Xin Guobin, the vice minister of industry and information technology, said the government is working with other regulators on a timetable to end production and sales. The move will have a profound impact on the environment and growth of China's auto industry, Xin said at an auto forum in Tianjin on September 9th.

The world's second-biggest economy, which has vowed to cap its carbon emissions by 2030 and curb worsening air pollution, is the latest country seeking to phase out vehicles using gasoline and diesel. In making this commitment, China joins a growing group of countries that have pledged to retire the internal combustion engine.

International plans to ban petrol and diesel vehicles

Country	Deadline issued	Deadline	Content of ban	Current status
Holland	April 2016	2025	Ban on sale of petrol and diesel vehicles	Proposed
Norway	May 2016	2025	Ban on sale of petrol and diesel vehicles	Awaiting final decision
Germany	October 2016	2030	Ban on the sale of traditional internal combustion engine vehicles	Decided
India	June 2017	2030	Ban on sale of petrol and diesel vehicles	Planned
France	July 2017	2040	Ban on sale of petrol and diesel vehicles	Decided
UK	July 2017	2040	Ban on sale of petrol and diesel vehicles	Decided

The looming ban on combustion-engine automobiles will goad both local and global automakers to focus on introducing more zero-emission electric cars to help clean up smog-choked major cities.

As for China's timeline, the details have yet to emerge. Analyst Yan Jinghui said the transition would be very unlikely to happen within 10 years. According to the transportation department of the Public Safety Bureau, there were 205 million vehicles on the road in China as of June this year, of which 1.09 million were new energy vehicles in 2016.

"The implementation of the ban for such a big market like China can be later than 2040," said Liu Zhijia, an assistant general manager at Chery Automobile Co., the country's biggest passenger car exporter that unveiled a new line for upscale battery-powered and plug-in hybrid models at the recent Frankfurt motor show. "That will leave plenty of time for everyone to prepare."

While many global manufacturers from billionaire Elon Musk's Tesla Inc. to Nissan Motor Co. and General Motors Co. are racing to grab a slice of the electric-vehicle market in China, it is the local manufacturers that have found considerable success thanks to generous government subsidies.

Warren Buffett-backed BYD led the pack in sales in the first seven months of this year, delivering 46,855 electric and plug-in hybrid vehicles, according to the China Passenger Car Association. Beijing Electric Vehicle, the EV division of state-owned BAIC Motor, followed with 36,084 units. In comparison, General Motors has sold 738 cars run on electricity since it launched the Velite 5 plug-in hybrid model at the Shanghai auto show this April. That is 0.04 percent of its 2.1 million vehicles sold in total in China during the seven months.

Besides subsidies that also are aimed at meeting the strategic goal of cutting expensive oil imports, the government plans to require automakers to earn enough credits or buy them from competitors with a surplus under a new cap-and-trade program for fuel economy and emissions. (See story below.)

Honda Motor Co. will bring its electric car for the China market in 2018, China Chief Operating Officer Yasuhide Mizuno said at the Tianjin forum. The Japanese carmaker is developing the vehicle with Chinese joint ventures of Guangqi Honda Automobile Co. and Dongfeng Honda Automobile Co. and will create a new brand with them, he said. Nissan, which unveiled an upgraded model of its Leaf EV last week, said it will introduce the car in China in 2018 or 2019.

Internet entrepreneur William Li's Nio will start selling ES8, a sport-utility vehicle powered only by batteries, in mid-December. The startup is working with state-owned Anhui Jianghuai Automobile Group, which also is in a venture with Volkswagen AG to introduce an electric SUV next year.

Tesla said in June that it's working with the Shanghai government to explore local manufacturing, a move that would allow it to achieve economies of scale and bring down manufacturing, labor and shipping costs.

Though China has announced its intentions, the process will be complicated and will take time for all the auto-sector regulators to come up with an implementation plan, said Zhang Yang, a vice president at Nio. But it will help set a clear direction for manufacturers, he said on the sidelines of the Tianjin forum. China has the world's largest scale of fossil-fuel vehicle production facilities.

"This will ask everyone, from energy and technology sectors as well as traditional automakers, to change to the lane to develop new powertrains," said Zhang. "It's hard to say who can be the winners at the moment. All of us should stand the test of speed and endurance in this run."

Chery's Liu said as newer technologies are developed in the meantime, the strongest among the manufacturers with better resources will adapt to the market and continue to dominate. "Those who currently are outrunning the others in EVs will not necessarily continue to stay ahead," he said.

China Set to Unveil Cap-and-Trade Auto Emission, Mileage Rules

China will soon unveil a mandatory cap-and-trade credit program for electric cars, starting the countdown for automakers to be in compliance with stricter rules on emissions and fuel economy, according to the country's state-backed auto association.

The policy could be announced very soon, Shi Jianhua, deputy secretary-general of the China Association of Automobile Manufacturers, said at a September 11 briefing in Beijing. Shi didn't provide a specific date.

Under draft rules released in September for public consultation, companies will be required to obtain a minimum new-energy vehicle credit score next year, derived from different weightings assigned to various types of zero- and low-emissions vehicles. Companies that fail to meet the requirement face fines or will have to buy credits from those that exceeded the minimum.

China is considering dialing back or delaying the proposed measures after industry feedback that the targets are overly ambitious. The government will implement the cap-and-trade policy in 2019 instead of next year, Caixin reported last month, citing people close to the Ministry of Industry and Information Technology.

A spokesman for the Ministry of Industry and Information Technology said in late July the policy will be released soon. As stipulated in a draft which is widely believed to vary little from the final version it demands the credits an automaker earns from selling new energy vehicles should account for 8 percent of its total sales in 2018.

One electric car will be calculated as two or more units depending on a number of factors including their mileage on one charge, and one plug-in hybrid as two units. If carmakers fails to do so, they will either have to buy credits from other automakers, or will simply face a fine, although the amount has not been stipulated by the authorities.

The task will become increasingly challenging, with the percentage growing to 10 percent in 2019 and 12 percent in 2020, according to the draft.

Auto Makers Partner On Electric Cars in China

Daimler AG and BYD Co. plan to expand their partnership to bring new electric vehicles to China as Beijing weighs a proposal to phase out fossil-fuel powered vehicles. BYD is discussing more investment in Shenzhen Denza New Energy Automobile, its 50-50 venture with Daimler, BYD Chairman Wang Chuanfu said.

The two automakers are working together to add more models under the Denza brand, Wang said, without elaborating. Currently the marque sells just one model, a five-seat sedan. Denza has been unprofitable since 2014, the year the model hit the market.

BYD and other EV producers hope to benefit from a surge in demand for the non-polluting vehicles as China prepares to set a deadline to end the sale of automobiles powered by gasoline and diesel fuel.

In 2012, Daimler partnered with BYD to produce and sell electric cars under the Denza brand. In May, BYD said it would increase its 500 million yuan (\$76 million) investment in the joint venture, with a matching contribution from Daimler.

Other automakers such as Volkswagen Group also have partnered with local manufacturers, allowing them to postpone construction of their own EV production lines.

A recent report said China is discussing a plan to allow foreign carmakers to set up wholly owned EV businesses – a major departure from current rules that require them to form joint ventures with Chinese automakers.

The Renault-Nissan Alliance is partnering with Dongfeng Motor Group to develop and sell electric vehicles in China, which analysts said is primarily to prepare for China's imminent introduction of a plan that stimulates sales of such automobiles. Renault SA and Nissan Motor will each hold 25 percent of the new joint venture, eGT New Energy Automotive Co, while Dongfeng will hold the remaining 50 percent, according to a Nissan news release. The new joint venture will produce electric cars at a Dongfeng facility in Hubei province, which has an annual production capacity of 120,000 vehicles. The first model, a compact SUV, will start production in 2019.

The move came within a week of Ford's signing a memorandum of understanding with Zotye Automobile to produce electric cars. Volkswagen partnered with JAC Motors on electric cars in May.

Nissan said its move is to tap the potential of the fast-growing segment in China. While agreeing on the prospects for the segment in China, analysts expect that a more urgent mission of the Renault-Nissan Alliance's move is to get prepared for the policy China is set to introduce to boost new energy car sales.

In Volkswagen's contract with JAC, it is stipulated that Volkswagen will enjoy priority if it needs to buy credits from the joint venture. Ford and the Renault-Nissan Alliance did not reveal whether they have similar privileges.

BYD Chief Expects China to Ban Internal Combustion Engines By 2030

To reduce China's dependence on oil imports, the central government will set an aggressive timetable to phase out internal combustion engines, BYD Co. Chairman Wang Chuanfu told reporters in Shenzhen. China is considering a proposal to mandate electric buses by 2020 and electric passenger vehicles by 2030, he said.

BYD, headquartered in Shenzhen, is considering a plan to supply batteries to other automakers and expects to announce its first contract by year end, Wang said. BYD also is exploring joint investments for battery production. A battery factory can cost three times as much as an EV assembly plant, he said.

EV, Plug-In Hybrid Demand Remains Robust

Sales of electric vehicles and plug-in hybrids in China jumped 76 percent from a year earlier and approached 68,000 in August. The surge was driven by demand for EVs. Approximately 56,000 EVs were sold across the country last month, a gain of 96 percent year on year, according to the China Association of Automobile Manufacturers.

Plug-in hybrid deliveries advanced 22 percent to around 12,000 vehicles during the month.

Through August, nearly 320,000 EVs and plug-in hybrids were sold in China, an increase of 30 percent from the same period last year. The tally reflects more than 260,000 battery EVs and 59,000 plug-in hybrids.

Under Chinese policy, only domestically built EVs, plug-in hybrids and fuel cell vehicles qualify for government subsidies. No automaker has launched sales of a fuel cell vehicle in China.

BYD: Tiny Electric Cars for China Could Be 75 Percent of Sales

Chinese automaker BYD was the world's largest producer of plug-in electric cars last year, and the outlook for new markets in its home country are quite healthy, suggesting strong continued growth.

BYD plans to tackle the country's inland cities, viewed as a new frontier for automakers, with a small and very affordable electric car. The industry considers China's non-coastal cities, which aren't nearly as saturated with cars as the coastal markets, to be ripe for new vehicle sales.

Chairman of BYD Wang Chuanfu believes mini electric vehicles could eventually account for 75 percent of its sales in China. Affordability will help enormously: BYD says its first mini electric car could be priced under \$10,000 after subsidies are applied, according to Caixing.

To put matters into perspective, the new cities in which BYD seeks to sell aren't small, even if they rank lower in priority at the moment. China has more than 100 cities with a population of 1 million people or more—so it's easy to see why BYD is so optimistic about its future growth.

BYD isn't alone in recognizing the coming need for affordable, small electric cars. Nissan is said to be readying its own mini electric vehicle for 2020, and Renault-Nissan has described such a vehicle as essential to boosting sales in China and other emerging markets.

As BYD starts to focus on outlying Chinese markets, it's begun to get serious about the U.S. market as well.

The Chinese automaker has long focused on public-sector vehicles, but it plans to begin building commercial electric vehicles for private use as well. The electric trucks and other commercial vehicles will be built at its production facility in Lancaster, California; orders have already been placed by such companies as Facebook, along with local California universities.

Its assault on the United States' highly-competitive private car market, however, remains far from ready.

32. China's Air Pollution Crackdown Could Close 176, 000 Businesses

Up to 176,000 businesses in the Beijing, Tianjin and Hebei province could be forced to shut down because of air pollution violations if they do not address the problems by the end of September, the Chinese government says. Electricity and water supplies could be cut to businesses that fail to implement controls to curb harmful emissions, the Ministry of Environmental Protection (MEP) announced July 24, warning that machinery and other assets could be confiscated.

"Companies that cannot upgrade will be asked to stop production or forced to shut down," Tian Weiyong, director of the MEP's environmental monitoring center, said in a statement.

The violations were discovered during inspections by the ministry over the past four months. More inspections will continue through the end of the year to coincide with the end of an Air Pollution Action Plan launched in late 2013 to reduce emissions of sulfur dioxide, nitrogen oxide, particulate

matter, and later volatile organic compounds (VOCs) in areas around Beijing, Shanghai and the Pearl River Delta region of South China.

The MEP is in the middle of an eighth round of large-scale inspections of companies in 28 cities in the area, including, Beijing and Tianjin, that started in April.

The investigations have focused on what environmental authorities call “small-scattered-polluting enterprises,” which can range from small backyard workshops to businesses operating outside of industrial clusters, sometimes without licenses, to any others with major air emissions problems.

Enforcement actions, such as those that could force businesses to close, have been taken in the past. For example, in the town of Guiyu in Guangdong province, once known as the “Electronic Waste Capital of the World,” authorities put banners up throughout the city threatening power supply cuts to workshops that did not shut down by the December 2015 deadline. The unregulated workshops quickly disappeared.

Some of the recent MEP inspections were unannounced, and in several cases investigators found previously inspected companies that were still operating even though they said they would shut down or relocate, authorities said on July 23.

Some of the companies named in recent violations include large state-owned enterprises, including CNR Tangshan Railway Vehicle Co., Ltd., known as TRC, China's first railway manufacturer, founded in 1881. The Hebei company was found with excess sulfur dioxide and particulate matter emissions.

Volatile organic compounds, which react with sunlight to form ground-level ozone, were also included in the inspections after being added as a key pollutant targeted for reduction under China's 13th Five-Year Plan (2016-2020).

A study on healthy Chinese adults released July 17 by researchers at Duke University's China campus in Kunshan, Jiangsu province, found that ozone not only impairs lung function—as was previously known—but can lead to cardiovascular diseases contributing to heart attacks, high blood pressure and strokes.

“Chinese authorities have not yet done as much in decreasing VOC emissions, compared with NOx, largely because ozone has not been recognized as a [key] pollutant, given China's focus on control of small particulates [PM 2.5] in recent years,” Jim Zhang, lead author of the study, told reporters on July 25. “The first step is to get a better emissions inventory for VOCs and then start to control specific sources,” he said.

Environmental authorities singled out the city of Tangshan in Hebei province as having particularly poor VOC controls, according to MEP statements from July 24. Of the more than 1,300 businesses that had environmental violations in recent Tangshan inspections, more than 500 involved VOC violations.

33. Key Job Changes Have Occurred in China

Mayor of Beijing –China's Minister of Environmental Protection Chen Jining was appointed acting mayor of Beijing in June. The appointment was made at a meeting of the Standing Committee of the Beijing Municipal People's Congress. The former mayor, Cai Qi, was appointed

to the post of the secretary of the Beijing Municipal Committee of the Communist Party of China (CPC), the CPC Central Committee announced on May 27.

New Environment Minister - The new Environment Minister is LI Ganjie. He was Vice Environment Minister and worked in Hebei Province as Deputy Party Secretary right before his promotion. He used to be in charge of nuclear security in MEP.

34. Five Cities in Hebei Are China's Worst Polluters

The latest data from the Ministry of Environmental Protection showed the top five cities with severe air pollution among the 74 major domestic cities were from Hebei province. Handan topped the list.

Reaching beyond the province, the 13 major cities in the Beijing-Tianjin-Hebei region experienced good air on only half (50.6 percent) the days during that period, a year-on-year decline of 6.8 percent. The PM2.5 average level increased by 11.3 percent year-on-year, the ministry said.

Hebei has analyzed the sources of the declining air quality and has imposed strict and targeted controls to lower emissions, which appear to be working, the provincial environmental authority said.

"In spite of the dramatic increase in January and February, we have managed to lower the pollution level from March to July by 7.1 percent year-on-year," Yin Guangping, deputy head of the Hebei Environmental Protection Bureau, said at a news conference in Shijiazhuang. In the first two months, the province saw the PM2.5 increasing by 46.2 percent year-on-year, he added.

Yin from the Hebei provincial environmental bureau said the province, in which heavy industries like steel and iron are the pillar, has cut 12.26 million tons of iron production capacity, and 10.53 million tons of steel production capacity, which will be cut further by year's end.

The province has shut down 94 percent of the known 69,601 companies that pollute severely in the first seven months. It has taken strict controls on coal consumption for heating and production, a major source for the autumn and winter smog in the northern region, the bureau said.

"The controls on smog has been a priority for the governments in Hebei," Yin said, adding that over 3,600 officials were held accountable for poor performances in environmental protection in the first seven months.

To control the severe air pollution in Beijing-Tianjin-Hebei region, the ministry has launched a yearlong inspection of provincial level areas since April, revealing heavily polluting companies and encouraging the governments to resolve the pollution issues.

35. New Vehicle Sales Continue to Grow in China

July sales were up 6.2 percent from the same month last year, according to the China Association of Automobile Manufacturers (CAAM). This brought sales in the first seven months of the year to 15.32 million vehicles: 4.1 percent growth year-on-year.

Sales of **passenger cars** which accounted for the absolute majority of vehicle sales in the country stood at 1.67 million vehicles in July. In the first seven months of the year, sales totaled 12.93 million, 2 percent growth year-on-year. Even this growth would have been impossible without

soaring **SUV** sales. Statistics from the CAAM show that from January to July, 5.21 million SUVs were sold, a 17 percent rise year-on-year. All other segments sedans, multipurpose vehicles and minivans saw sales fall, ranging from 2.8 percent to 26.3 percent.

Compared with passenger cars, **commercial vehicles** are another story altogether. In July nearly 300,000 such vehicles were sold, soaring 18.4 percent year-on-year. This brought January to July sales up to 2.39 million vehicles, 17.5 percent growth from the same period last year.

New energy cars are the fastest-growing segment so far. Some 56,000 such vehicles were sold in July, a 55 percent surge from the same month 2016. From January to July, 250,000 new energy cars were sold, up 21.5 percent year-on-year. The CAAM estimated new energy car sales could hit 700,000 vehicles this year because sales usually grow faster in the latter half of the year, a pattern that was seen in the past two years.

36. China Proposes First Public Pollution Disclosure Requirement

China's major manufacturers for the first time would have to publicly disclose emissions of sulfur dioxide, nitrogen oxides, and other nationally regulated pollutants under a proposal by the Ministry of Environmental Protection. The proposal—which also calls for the creation of a searchable database of manufacturers and pollutants—represents a major step toward improving the information companies must share.

“Government disclosure of pollution information [such as air and water quality] has made great progress, but when it comes to corporate disclosure, it has been far from satisfactory,” Ma Jun, director of the Institute of Public and Environmental Affairs, a nonprofit group which publishes a pollution map tracking water and air pollution data across China, told reporters.

The proposal requires the reporting from major sources of pollution such as iron and steel manufacturers, coal-fired power plants and cement and textile plants.

These companies now have to report their pollution to the government, but there's currently no requirement to make that information available to the public. Under the proposed plan, major sources of pollution would have to release information publicly about their pollution and detail efforts to implement pollution prevention and control.

Foreign companies in many cases release environmental responsibility reports with emissions reports and other environmental data about their supply chains. They could suffer harm to their reputations from association with heavily polluting suppliers.

A public comment period on the draft expired on September 18. China gave no indication when the proposal could be implemented.

37. China Plans Nationwide Ethanol Use By 2020

China plans to expand use of ethanol in gasoline nationwide by 2020 to curb smog and fossil fuel demand, the government has announced, joining United States, Brazil and other nations that use blended fuel. The announcement adds to a series of initiatives to clean up smog-choked Chinese cities and control surging demand for imported oil. The government is spending heavily to develop an electric car industry and has raised sales taxes on vehicles with larger engines.

Plans call for China to develop a demonstration facility by 2020 that can make 50,000 tons of ethanol a year from cellulose, according to the Cabinet's National Energy Administration. It said that would expand to commercial scale by 2025.

"It is an ideal alternative to fossil fuel," said an unidentified NEA official quoted by the official Xinhua News Agency.

China is the world's biggest energy consumer and auto market. It started producing ethanol from corn in 2004 but banned use of food crops in 2007, prompting suppliers to switch to straw stalks and other materials. About one-fifth of gasoline produced in China has added ethanol, according to Xinhua.

Regulators later eased the ban on use of food crops in some areas. Xinhua said the latest plan is intended in part to use up aging stockpiles of corn.

Other governments including Brazil and the United States require gasoline to contain from 10 percent to as much as 85 percent ethanol to curb emissions and reduce petroleum demand.

The NEA gave no indication what level of ethanol would be required, but Xinhua reported it would be 10 percent.

38. Electric Car Boom Drives Rush to Australia's Lithium Hub

A scramble by the lithium market's biggest players to tie up supply of the high-tech metal is gathering pace in the 170-year-old heartland of Australia's \$90 billion mining industry.

Rising Chinese demand for lithium-ion batteries needed for electric vehicles and energy storage is driving significant price gains and an asset boom in Australia, already the world's largest lithium producer. The fast-developing hub is drawing investment and deals from global producers as well as chemical-to-battery manufacturers in China, the top consumer.

Western Australia has four operations in production and three more major projects being advanced to begin output. Major players are likely to continue to scope for deals in the state to secure supply for the next 20 or 30 years, according to consultant Benchmark Mineral Intelligence.

"There are serious companies investing and people are starting to lock up the biggest, long-life resources. The question is, who's next?" Simon Moores, managing director of Benchmark Mineral, said. Though on a smaller scale, "it's a land grab like in the petroleum industry when BP, Shell and others rounded on the Middle East in the 1960s and 1970s," he said.

Greenbushes in Western Australia, the world's biggest hard-rock lithium mine, is being expanded to more than double annual capacity, Talison Lithium, a joint venture between China's Tianqi Lithium Corp. and North Carolina's Albemarle Corp., said. The site, first mined for tin from about 1888, already accounts for about 30 percent of global lithium production, according to Australia's government. Tianqi is also planning about A\$717 million (\$578 million) in processing plant expansions.

Jiangxi Ganfeng Lithium Co., which has interests in projects in countries including Ireland and Argentina, holds about 43 percent of Australia's Mt. Marion operation and in May agreed to a supply and investment pact with Pilbara Minerals Ltd. for a mine development. Battery maker

Shaanxi J&R Optimum Energy Co. in July struck an agreement for future output from Altura Mining Ltd.'s project.

"It's the most significant expansion in lithium supply ever, and we are still undershooting demand," said Chris Reed, chief executive officer of Neometals Ltd., a partner with Ganfeng and Mineral Resources in the Mt. Marion operation. Reed is scheduled to speak August 9 at the close of the three-day Diggers and Dealers mining forum in Kalgoorlie, Western Australia.

Soc. Quimica & Minera de Chile SA, the world's second-largest lithium supplier, in July made a first move outside South America to invest about \$110 million for 50 percent of Kidman Resources Ltd.'s Mt. Holland project in Western Australia, aiming to enter production by at least 2021. The project would add to SQM's expansion into Argentina.

Prices of lithium carbonate, the primary base-chemical produced by the industry, more than doubled in the five years to 2016, according to UBS Group AG. The material advanced about 5 percent to average \$14,250 a metric ton in July from the previous month, even as Australian exports rise, according to Benchmark Mineral.

"We don't see any price fall in the next three years," Benchmark's Moores said. "When you look at all the battery plants being built and the plans for EVs, even if only about 25 percent of those are realized, we're still going to be short of lithium. It's a unique once-in-a-generation situation."

Chinese companies plan battery factories with capacity to pump out about 120 gigawatt-hours a year by 2021, more than three times the proposed volume of Tesla Inc.'s Gigafactory in Nevada, according to Bloomberg New Energy Finance. About 55 percent of global lithium-ion battery production is already based in China, compared with 10 percent in the U.S. by 2021, China's share is forecast to grow to 65 percent, according to the forecasts.

Electric cars will outsell fossil-fuel powered vehicles within two decades as battery prices plunge, Bloomberg New Energy Finance estimates.

The world's biggest car manufacturers are joining the race to secure raw materials, Galaxy Resources Ltd.'s Chief Financial Officer Alan Rule told reporters August 7 at the Kalgoorlie forum. "They want to talk to us directly, to get access to long-term supply," he said. "They are really concerned." Galaxy visited major Western automakers in recent weeks, some of whom have reviewed more than 200 lithium projects and developers, he said.

Mineral Resources Ltd. and Galaxy are Australian producers that this year began new shipments of lithium concentrate to China, while project developers including Pilbara Minerals are targeting exports from 2018. The project pipeline is cementing Australia as a dominant player, UBS said in a June report.

For battery makers and auto-manufacturers "it's starting to dawn on them that there could be a supply chain issue," Pilbara CEO Ken Brinsden said recently in Kalgoorlie.

Perth-based Mineral Resources is a touchstone for the shift from old-to-new industry in Western Australia as this fiscal year the iron ore producer will earn more from lithium than the steel-making ingredient, according to Deutsche Bank AG, which has a buy rating on the stock. It also sees Albemarle and Orocobre Ltd. as among the best global lithium prospects.

Lithium's current \$2.5 billion market is a fraction of the \$86 billion a year seaborne iron ore trade, and some miners have eschewed opportunities to add projects. Fortescue Metals Group Ltd. in December agreed to the sale of a lithium exploration portfolio. BHP Billiton Ltd. argues it is poised to benefit most from electric vehicle growth through copper demand. Australia will face competition from lithium projects in Canada, Chile, and Argentina, according to UBS.

New lithium production and a potential addition of cobalt output and graphite projects—two other metals experiencing rapid demand growth from the battery sector—promise to add to mining exports from Australia. The value of mined exports is forecast at A\$113.7 billion (\$89.6 billion) in the year to next June 30, according to its government.

39. Two Wheelers To Lead Electric Vehicle Market in India

Two-wheelers are set to outpace four-wheelers in India's ambitious drive towards all-electric mobility, as all top scooter and motorcycle manufacturers have lined up their clean-energy products for launch starting next year.

Hero MotoCorp, Honda Motorcycle & Scooter India, TVS Motor, Mahindra Two Wheelers, Yamaha and Bajaj Auto all have scheduled launches of electric two-wheelers from 2018. The government has a 2030 target to transition the country entirely to electric vehicles.

The two-wheeler segment, in fact, has gained a head start with companies such as Hero Electric, Electrotherm selling electric scooters in India for several years now — the mainstream companies, though, are yet to launch their own electric two-wheelers.

In the passenger vehicle segment, while Mahindra & Mahindra makes and sells electric cars, technology to commercially develop full-size electric vehicles is still at an early stage even globally.

"It will take some time for electric cars to be sold en masse. But sales of electric two-wheelers can take off quickly," said Sohinder Gill, director, Society of Manufacturers of Electric Vehicles. "With cost of li-ion batteries coming down, performance of products has improved and more and more manufacturers have started work in the segment, which will give more choices to the consumer."

Some 450,000 electric two-wheelers were sold in India in the past eight years. The potential of electric vehicles in this segment is massive, say industry executives, given that more than 17 million two-wheelers are sold annually in the country.

Hero MotoCorp, the world's largest motorcycle maker by sales volume, is working on developing electric two-wheelers in-house at its Centre for Innovation & Technology in Jaipur.

This is in addition to its strategic investment in electric two-wheeler startup Ather Energy. Chennai-based TVS Motor is also developing an electric scooter (codename U218), which may hit the roads sometime next financial year.

Bajaj Auto has reportedly announced plans to launch a new brand, Urbanite, for electric vehicles that will be launched by 2020. Bajaj also claims to be developing a premium motorcycle, an equivalent of the Tesla in cars.

Tork Motorcycles is planning to bring in an electric two-wheeler (codename P6X) early next year.

"Hero MotoCorp intends to enhance its participation in the EV space by pursuing its internal EV program in addition to partnering with Ather," Rajat Bhargava, head of strategy, performance transformation and global business at the company, told reporters.

The company is looking at mobility solutions for the future and in accordance with this objective, it has started engaging with external players, including startups, he said. Hero Moto-Corp had invested Rs 205 crore in Ather Energy in October 2016.

Ather Energy on its own is scheduled to launch India's first indigenously designed and developed electric scooter (S340) next year. Chief executive Tarun Mehta had told reporters that the S340 would be priced in the same range of 110-150 cc scooters.

TVS Motor CEO KN Radhakrishnan said the company had for some time been investing in electric technology. "In a years' time you will see an alternative from TVS and we may do both hybrid and electric, as the challenges on charging stations still remain," he said. "It is not a pilot, it is serious marketable solution from the company."

For Radhakrishnan and others in the industry, lack of public facilities to charge vehicle batteries is a major worry. The government, though, has promised to build infrastructure to address the concerns.

We need proactive public policy to boost solar-power charging points for electric scooters in urban areas. There's also the need to incentivize roof-top solar power for the purpose. To generate 1kwh of solar power, about 10 square meters of roof-top space is required. A 0.5-kwh facility will half the requirement. Solar roof-tops of about 0.5-1kwh can charge small e-vehicles overnight, and also provide 'green' power for household inverters.

40. NGT Refuses To Lift Ban On 10-Year -Old Diesel Vehicles in Delhi-NCR



The National Green Tribunal (NGT) has refused to lift a ban it had imposed on 10-year-old diesel vehicles in Delhi and the National Capital Region (NCR), says media reports. It dismissed the Centre's plea, which sought a modification of its order.

The NGT said one diesel vehicle causes pollution equal to 24 petrol vehicles and 40 CNG vehicles.

In April, the NGT had reserved its judgment for the Centre's submission on the removal of the ban on 10-year-old diesel vehicles in Delhi-NCR. The Delhi government had asked the Tribunal to remove the ban on older diesel cars in the capital stating that they were not major contributors to air pollution.

The Centre argued that the NGT can't prove that 10-year-old or more diesel vehicles are the sole reason for causing pollution, while other kinds of fuel - like CNG and petrol cause pollution in different capacities.

41. India's Top Oil Refiner Seeks Paths to Modi's Cleaner Future

India's top oil refiner is exploring the use of natural gas and electricity to power vehicles as Prime Minister Narendra Modi's government envisions multiple paths toward reducing the country's dependence on petroleum-based fuels. Indian Oil Corp., which supplies about half the oil products to the world's fastest-growing consumer, is aiming to sell natural gas for vehicles through its existing retail network and has formed teams to research concepts to power electric vehicles, build fuel cells and make different types of fuels including biofuels, according to its chairman

"We don't know the kind of energy we'll have 15 years down the line, but we know we have to be fast and we have a firm plan on how aggressive we will be," Sanjiv Singh said in a press interview. "We will be part of the change."

India's efforts to lessen its reliance on oil, as well as cut emissions and its import bill, include a goal to more than double the use of natural gas in its energy mix by 2021 and a proposal to sell only electric cars by 2030. Modi, an advocate of clean energy, has pledged to cut emissions by a third by 2030.

Modi's moves have already prompted some Indian companies to expand into alternative energy technologies. Reliance Industries Ltd., along with partner BP Plc, is considering venturing into renewable energy storage. Last month, JSW Energy Ltd., a power producer, announced plans to make electric vehicles.

"There could be various ways to supply power and we are not limiting ourselves to batteries," Singh said at the company's office in central Mumbai. "Whichever becomes more viable, we go more aggressively on those options."

The development reflects moves by oil majors such as Royal Dutch Shell Plc, Total SA and Exxon Mobil Corp. to invest in new-energy technologies to improve electricity grids and develop fuels from renewable resources.

Singh doesn't see an immediate threat to the oil business and says electric vehicles still need to beat gasoline and diesel engines in terms of efficiency and emissions. "It's not the petrol vehicles that are bad, it's the tail-pipe emissions," he said. "Euro-6 tail-pipe emissions are hardly anything," he said, referring to the cleaner fuel standards that will be introduced by 2020.

"Someone who is coming with a new solution has to be more efficient than this," Singh said.

About 70 percent of vehicles run on diesel in India, one of the world's top automobile markets. Several of its state-run natural gas companies are seeking to extend the use of gas to trucks and scooters and build infrastructure to fuel long-haul travel.

Indian Oil plans to sell compressed natural gas for vehicles through its 26,000 gasoline and diesel retail outlets. The company is also working toward using more gas as a fuel for its refineries to raise the output of its oil products and reduce emissions, Singh said.

The company uses fuel oil, a product of refining crude, to power most of its 11 refineries. It plans to replace fuel oil with natural gas in phases and use as much as 40 percent of its existing and planned liquefied natural gas import capacity internally.

“Now I use 8.5 percent to 9 percent of my crude as internal fuel,” Singh said. “If I am able to use gas as internal fuel, this can be converted into products. Gas will improve the efficiency of my refinery.”

42. Indian Auto Industry on Growth Trajectory

After skidding in June 2017, the Indian automotive sector is back on track with a growth rate of 14.49 per cent in August 2017. It had earlier suffered the pangs of demonetization in November last year. Almost all segments of industry have shown a double-digit growth boosted by infrastructure development and construction activity that has fueled growth, especially in the commercial vehicle (CV) segment.

Rural demand has also picked up on the back of good monsoon due to which light commercial vehicles (LCV) and motorcycles are picking up steam. Interest rates have also declined by making an easy access to financing.

This has spiked up the market demand. With the festive season round the corner, the next couple of months are expected to see heightened activity in the market giving a further fillip to sales.

August 2017 domestic sales

SEGMENT	2016	2017	% Change
PASSENGER VEHICLE			
Passenger Cars	177,829	198,811	11.8%
UVs	65,760	78,664	19.62%
Vans	15,148	16,860	11.3%
Total PVs	258,737	294,335	13.76%

“In June, it was a demand hold back but the July-August months are experiencing a return to normal business activity and market sentiment. We are optimistic that this growth will pick up further in the coming months, especially after the GST enforcement,” said Vishnu Mathur, Director General of SIAM.

The CV market that was bogged down due to the de-growth in the MHCV segment is now on the road to recovery though it is still below the peak level of 40,000 units reached in March 2010-11. Similar is the case in LCVs that was 55,365 units in the same year. Today, the MHCV segment is at 26,376 units. Current LCV sales are pegged at 38,934 units in August 2017.

LCVs earlier also faced problems accessing loans as financing companies were not ready to extend finance to small businessmen. MHCVs grew 28.43 per cent in August 2017 compared to a 6.68 per cent uptick in July, while LCVs saw a rise of 19.93 per cent during the month under review, a marginal increase over the July’s growth of 18.74 per cent.

SEGMENT	2016	2017	% Change
CVs and M&HCVs			
Passenger carrier	4,100	2,969	-27.59%
Goods Carriers	16,437	23,407	42.4%
Total sale	20,537	26,376	28.43%
LCVs			
Passenger carrier	3,824	3,321	-13.15
Goods Carriers	28,640	35,613	24.35
Total LCVs	32,464	38,934	19.93
Total CVs	53,001	65,310	23.22

However, passenger carriers in both the segments continued to be in the red, down by 13.15 per cent for LCVs and 27.59 per cent for Medium & Heavy Commercial Vehicles (MHCVs). Overall, CVs grew 23.22 per cent in August 2017.

On the other hand, passenger vehicles continued to cruise, growing 13.76 per cent with utility vehicles (UV) in the forefront at 19.62 per cent, passenger cars growing 11.80 per cent, and vans at 11.30 per cent. In July, the PV sales growth was higher at 15.12 per cent with UV sales rising over 35 per cent.

Apprehensions of GST Cess (tax) rising by 10 per cent from 15 per cent to 25 per cent in addition to the basic 28 per cent GST rate has now been stemmed. The GST Council has frozen the GST cess at lower than 25 per cent across the board on larger cars and SUVs. Taxation on mid-sized passenger cars has been almost restored to the pre-GST levels, while taxes on luxury cars and SUVs have been slightly moderated compared to the pre-GST rates.

SEGMENT	2016	2017	% Change
THREE WHEELERS			
Passenger Carriers	41,176	41,945	1.87%
Goods Carriers	9,017	9,506	5.42%
Total	50,193	51,451	2.51%

These should now see the further revival of the passenger vehicle segment.

Two-wheelers in August 2017 were up 14.69 per cent with scooters continuing to hold the fort with sales growing 18.61 per cent and motorcycles experiencing a step up of 12.93 per cent and mopeds 8.60 per cent.

Staging a recovery, three-wheelers grew by 2.51 per cent with both passenger carriers and goods carriers witnessing a marginal growth. Three-wheeler sales were in the red by 11.07 per cent in July as some of their growth was shaved off by the LCV segment in rural markets. Exports during the month under review were in single-digits at 7.24 per cent with exports of PVs down by 24.74 per cent and CVS declining by 28.28 per cent.

SEGMENT	2016	2017	% Change
TWO WHEELERS			
Scooter	567,782	673,444	18.61%
Motorcycles	1,005,654	1,135,699	12.93%
Mopeds	75,435	81,919	8.6%
Total	1,648,871	1,891,062	14.69%

During April-August 2017, passenger vehicles grew by 8.67 per cent over the same period last year. Passenger cars, utility vehicles and vans grew by 6.57 per cent, 15.97 per cent and 2.27 per cent, respectively during this period.

The overall CV segment grew by 1.58 per cent in April-August 2017 compared to the same period last year. MHCVs declined by 13.60 per cent, however, LCVs grew by 12.37 per cent during this period. Three-wheelers were down by 16.26 per cent in April-August 2017 over the same period last year. Passenger carriers registered degrowth of 20.55 per cent, however, goods carriers grew by 3.51 per cent.

Total Domestic sales, August 2017

GRAND TOTAL	2016	2017	%CHANGE
	2,010,802	2,302,158	14.49%

Two-wheeler sales registered a growth at 10.41 per cent during the period under review. Scooters and motorcycles grew by 18.27 per cent and 7.89 per cent, respectively, while mopeds declined by 8.60 per cent.

In April-August 2017, overall automobile exports grew by 10.27 per cent. While PVs, three-wheelers and two-wheelers grew 2.62 per cent, 17.27 per cent and 13.82 per cent, CV exports declined by 33.08 per cent in April-August 2017 over the same period last year.

43. Electric Vehicle Could See 30-40% Penetration by 2030: SIAM

Recently Union Minister of Road Transport and Highways Nitin Gadkari said, "The industry should reduce the thrust on diesel vehicles and plan for the next 25 years, or else I will bulldoze. In this, electric vehicles play a key role."

With this, it is evident that the intention of the government is crystal clear on going complete electrification of the vehicles by 2030. However, many from the industry believe that it is near to impossible to achieve 100 per cent electrification of cars.

On this, Vishnu Mathur, Director General, Society of Indian Automobile Manufacturers Association (SIAM), said, "Firstly, let me say targets and ambitions should always be high, and that is exactly what is being done. We have been told and given an ambitious target.

He further added, "We have a high ambition to achieve. We will put all our energy and resources and focus on a particular direction, still we are going to achieve at least 30-40 per cent. The direction is very clear. We have to move as quickly as possible towards the all-electric. So I look at it more as a direction, then as an end date. Obviously, it can't be an end date. The other countries are saying, they will do it by 2040. So it is a process, we are starting a process and starting it very seriously. That is the way we are looking at it."

The implementation of electric vehicles is not new to the Indian automobile market. The whole process was started six years back in 2011 when the industry and the government collaborated to work together in this direction.

It started in three stages: In the first stage, a joint study was commissioned by the government and the industry with an international consulting organization Booz & Co., which did a big study on electric vehicle and also included interviews with potential customers from all over the country.

Based on that report, a National Mission on Electric Mobility was formed in 2012. Under this mission, two committees were setup, inter-ministerial committees.

One was the committee, which was called the National Board on Electric Mobility (NBEM) – this consisted of the secretaries of various ministries.

There was another senior level committee, which was the ministerial level committee, ministers were there, and this was called the National Council on Electric Mobility (NCEM). This activity led to the launching of the National Mission on Electric Mobility, by the then Prime Minister, which happened in 2013.

Now, that mission led to something called a Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) scheme. It was announced in 2015, but due to the shortage of funds, the industry did not receive the 10-year plan with Rs 10,000 crore¹, which was demanded. The industry received a 2-year plan with Rs 780-800 crore, out of which only Rs 75 crore were released in the first year, and about Rs 123 crore in the second year.

The FAME scheme has also got budget reallocation, even after 2017. It finished in March 2017, it got one extension in September, and now the Finance Minister has announced another extension on 7th September for another period of 6 months. Now the NITI Aayog² is also re-working on the FAME scheme, in-line with the ambitions of the government.

44. South Korea's Environment Budget Targets Pollution From Transportation

South Korea's environment ministry is proposing a 6.5 trillion won (\$5.8 billion) budget for 2018 that includes new efforts to cut air pollution from transportation and construction equipment. The budget would benefit companies that make devices to reduce air pollution from transportation, Kim Hyeong-rae, planning and finance director of the Ministry of Environment, told reporters. Ministry officials outlined the budget proposal August 29th.

"In the transportation sector, emissions reduction devices are being bought, school buses for children need to be converted to LPG (liquefied petroleum gas) vehicles, so there are more opportunities for growth," Kim said August 30th. "The emissions reduction business is increasing in the transportation sector this year, so small and medium enterprises that create the devices will benefit."

The outline said the environment budget focuses on the "health and sustainability of people and nature" in line with new President Moon Jae-in's "people-oriented fiscal policy."

The ministry would ramp up its purchases of emission-reduction devices for construction equipment, nearly 18-fold more than this year, while increasing financial support for drivers to scrap their old diesel cars.

Kim Yong-hui, a sales representative at Ijin Electric Co., which sells automobile emissions-reduction devices such as diesel particulate filters, said his company plans to take advantage of the government's push for cleaner air. "Because the [government] budget has increased, we are planning on increasing production," Kim told the press. "We are awaiting specifics and will increase production once plans have become finalized."

¹ 1 crore = 10 million

² National Institute for Transforming India

Other businesses that would be positively influenced are those developing fine dust filtering devices, said Yun Sun-jin, graduate professor of environmental and energy policy at Seoul National University. “Companies that can really help solve the pollution problem will benefit,” she told reporters.

The 2018 environment budget would actually shave 2.5 percent from 2017, but that’s in large part because several one-time water infrastructure costs are being paid for this year.

As the transportation sector is one of the main causes of fine dust pollution in the metropolitan area, the budget calls for more funds to strengthen management of large emission sources such as trucks and construction machinery. It also will increase spending on air pollution monitoring and fine dust-related research and development, build an artificial intelligence-equipped forecasting system, expand irrigation systems to prepare for drought, and more than double a subsidy to convert 1,800 school buses to use liquefied petroleum gas.

It also establishes an 800 million won (\$712,000) remote management system to monitor atmospheric pollution created at small-scale businesses.

The environment ministry also aims to bring closure to victims of a toxic humidifier disinfectant disaster that killed 161 people and injured many others, according to an ongoing investigation commissioned by the ministry in 2014. The government would add 10 billion won (\$8.9 million) to a special relief account and add three more hospitals in regional areas equipped to accommodate the victims, while strengthening chemical management to prevent the recurrence of similar disasters, the environment ministry said.

The Ministry of Strategy and Finance sent the full national budget to the National Assembly September 1 for deliberation, and it is to be finalized by December 2nd.

45. South Korea Carmakers Get One-Year Extension on Emissions Test

The South Korean government and the country’s carmakers have struck a deal that will postpone for one year the adoption of a strengthened emissions test procedure for diesel automobiles. The new regulation under the Worldwide Harmonized Light-duty Vehicle Test Procedure (WLTP)—which applies to all automakers including those of imported cars and was scheduled to take effect for all new cars in South Korea by September 2018—will be delayed to provide lead time for manufacturers, the Ministry of Environment said September 19.

The deal will allow carmakers, between September 1, 2018 and August 31, 2019, to release cars that passed using the old test, but they are allowed to release no more than 30 percent of the previous year’s production.

Local manufacturers, meanwhile, agreed to voluntarily reduce 456 tons of nitrogen oxide emissions to offset the 337 ton increase caused by the delay of the new test procedure. That is equivalent to a net decrease of 79 tons of nitrogen oxide emissions, the ministry said.

Carmakers will meet those standards by discontinuing some models that will not be able to pass the WLTP once it is implemented in September 2019, the ministry said.

The ministry originally sought to apply the new standards this year for new cars and in September 2018 for certified cars currently in production. But local carmakers requested a delay, citing

concerns over the negative effect on the economy and job market, the ministry said. Carmakers including SsangYong Motor, Renault Samsung, Hyundai-Kia Group, and GM Korea, said the one-year delay the ministry agreed to will benefit the local economy and secure jobs, including for 1,250 subcontractors working for the companies.

"The initial regulation with stricter measures could have impacted SsangYong's business, but as the newly announced one reflected our needs through negotiation with the government, we don't see the regulation bringing much of an impact," Choi Jin-wung, spokesperson for the local automaker, told reporters.

"We expect to accelerate our efforts to produce more environmentally friendly products as a way to respond to the government's focus on the environment," he added.

"We are happy with the new regulation. They changed it in the way to accommodate to our schedule, and we welcome their help," Hwang Jae-mo, a spokesperson at local automaker Renault Samsung, said.

There are two testing options for vehicle certification in the WLTP. An indoor test measures exhaust through a virtual driving mode, while a road test measures the exhaust generated in real-life conditions.

The government and carmakers will publicly confirm the details of the agreement and meet to discuss the long-term vision and goals for the expansion of environmentally-friendly automobiles September 28, the ministry said.

The program will contribute to South Korea's efforts to achieve its Paris climate agreement goals of reducing emissions by 37 percent by 2030. The country is aiming to reduce nitrogen oxides emissions by 79 tons, according to Lee.

46. S. Korean Automaker Hopeful About Indonesia's Auto Market

Hyundai Indonesia Motor is hopeful about the country's auto market, as interest in sport utility vehicles is rising and the government is setting higher exhaust emission standards.

"The opportunity for us is that more upcoming global products can actually be utilized in the Indonesian market," Hyundai Indonesia Motor president director Mukiat Sutikno said in a panel discussion during the Asean Marketing Summit — a marketing event in Jakarta, organized by MarkPlus and Phillip Kotler Center for Asean Marketing.

Mukiat referred to the company's market study that sees a rising demand for sport utility vehicles (SUV) in emerging countries, including Indonesia, replacing the demand for multi-purpose vehicles (MPV).

Indonesia has a "unique market composition" in which MPVs occupy the largest segment, Mukiat said. The demand for MPVs reaches 42.5 percent, followed by commercial cars (19.7 percent), city cars (17.2 percent), SUVs (15.4 percent), other (4.3 percent), and sedans (0.9 percent).

Three out of seven types of Hyundai cars sold in Indonesia are SUVs. Mukiat said Hyundai's upcoming portfolio will feature new SUV models, one of which, Konia, has already been introduced in South Korea.

He also said that the Indonesian government's decision to adopt the Euro 4 emission standard will force stakeholders in the auto and energy industries to comply with it. According to the standard, the sulfur content of the fuel has to be lower than 50 parts per million (ppm), meaning Indonesia needs to stop consuming RON 88 gasoline — known as Pertamina Premium — by 2018.

Pertamina Retail, the retail arm of state oil company Pertamina, said the sales of RON 88 fuel have been dropping. Currently, 65 percent of consumers are no longer using the low-octane fuel, compared with less than 50 percent last year, Pertamina Retail corporate secretary Ivan Asmara said, as quoted by Kontan.co.id.

"With the population size and motorization demand, the auto industry will continue to grow massively in Indonesia," he said.

According to data from the Indonesian Automotive Association (Gaikindo), automakers sold 85,131 vehicles in July, up from 61,891 units sold during the same period a year earlier. This year, 618,632 cars were sold so far, up 4.1 percent compared with the same period last year.

47. Japan's Cosmo Oil to Boost Diesel Output to Meet Demand From Ships From 2020

Japan's Cosmo Oil plans to increase diesel output at its Sakai refinery in Osaka, looking to capitalize on an expected jump in demand when a global mandate for ships to switch to cleaner fuels kicks in from 2020, its top executives said.

The company, wholly owned by Cosmo Energy Holdings, is considering adding units such as a desalter that will allow its 100,000-barrels per day crude distillation unit (CDU) to process more heavy oil and maximize diesel output from its delayed coker in Sakai, Cosmo Oil President Hisashi Kobayashi told reporters on the sidelines of an industry event.

A desalter removes salt and water from crude before it is processed at a refinery.

The move will allow Cosmo Oil to comply with a third round of directives from Tokyo aimed at keeping the nation's refining sector competitive, while helping meet an expected surge in diesel demand when ships are required to use cleaner fuels under an International Maritime Organization mandate. Besides processing vacuum residue from the expanded Sakai CDU, the delayed coker will also receive more feedstock from Cosmo's refineries in Chiba and Yokkaichi, said Masashi Nakayama, director of Cosmo Oil's supply unit. The company plans to adjust operations at the 29,000-bpd coker to maximize its diesel output, he said.

He declined to say how much more diesel the unit could produce.

Cosmo Oil expects Asia's oil benchmark Dubai to steadily rise to \$55-\$65 a barrel next year on production cuts led by the Organization of the Petroleum Exporting Countries and strong global demand-growth, Kobayashi said. It was just below \$55 per barrel last week.

Still, Cosmo Oil expects the market to remain well-supplied until after 2020 as prices at above \$60 a barrel could draw new crude streams into the market, he said.

Cosmo Oil will continue to buy 30 percent of its crude in the spot market, its executives said, and it could step up purchases of heavy crude from Latin America and Canada, in addition to traditional supplies from the Middle East to feed its expansion.

"We expect residue fuel demand to tank and middle distillates to surge and that will widen the light-heavy crude price differential," said Mitsuyasu Kawaguchi, general manager of Cosmo Oil's crude and tanker department.

MIDDLE EAST

48. Dubai Introduces Incentives to Spur Electric Vehicle Market

Electric-car drivers in Dubai will enjoy free parking, recharging, vehicle registration, and toll exemptions until the end of 2019, the Dubai Supreme Council of Energy announced. The incentives are designed "to encourage the public use of electric vehicles in Dubai to help protect the environment," said Mohammed Al Tayer, vice chairman of the energy council and managing director/chief executive officer of the Dubai Electricity and Water Authority.

The move is part of the Dubai Green Mobility initiative to motivate organizations to use more hybrid and electric vehicles to help reduce carbon emissions in ground transportation, which is the second-largest greenhouse gas emitter in Dubai, according to Al Tayer.

At least 10 percent of the new cars that Dubai's government institutions buy between 2016 and 2020 will be electric or hybrid, helping to raise the proportion of such vehicles to 2 percent by 2020 and 10 percent by 2030.

"This supports the Dubai Clean Energy Strategy 2050 for Dubai to have the lowest carbon footprint in the world by 2050, and the Dubai Carbon Abatement Strategy to cut carbon emissions by 16 percent by 2021," Al Tayer added.

Abu Dhabi currently has 100 public electric vehicle charging stations, with 100 more planned in 2018. Electric or hybrid cars are distributed by Tesla, BMW, Renault, and Toyota. The sector grew by 30 percent from 2014 to 2016, Al Tayer said.

The incentives could save the average driver commuting daily to Dubai's business district, charging and parking for free and using the Salik toll gates more than 10,000 dirhams (about \$2,722) each year, said Nabeel Alzaka, co-founder and CEO of Surface Mobility Consultants in Dubai.

"There is an appetite for electric vehicles, particularly now that car manufacturers are becoming a little bit more inventive," Alzaka said, noting that some electric models, like the BMW i8 now in service with the Dubai police, matched in looks and performance the high-end supercars popular in the Emirates.

"These cars are as fast as Lamborghinis and Ferraris. They are as glitzy and as glamorous," he said. "The car manufacturers are heading toward providing those fast supercars the Dubai market will want. Will that ever eradicate Ferraris and Lamborghinis? I don't think so. People will still want to have the gas-guzzlers and the sound of the engines but I think you'll find people will swap their petrol cars for a nice, shiny, sparkling electric vehicle."

49. Tehran Air Quality Best in 3 Years



Air quality in Tehran was the best in summer 2017 compared to the past two years.

With 81 days of good air quality and only 12 days of light pollution causing discomfort to sensitive groups, this summer beats the past two summers in terms of air quality, Mehr quoted Tehran Air Quality Control Company spokeswoman Leila Nazari as saying.

Criteria pollutants weren't emitted into the atmosphere as much this year, Nazari highlighted. She went on to say that 79 days of good air quality and 14 days of light pollution in the last summer and 73 days of good air quality, 18 days of light pollution and 2 days of heavy pollution affecting all in summer 2015 were reported.

Relatively speaking, this summer holds the record for best air quality so far, she stated.

Never-ending air pollution in Tehran and other metropolises of Iran is nothing new. Although everyone seems to know the causes of the predicament more or less no responsible organization has ever managed to address the issue and mitigating it.

The great number of cars and motorcycles, old clunkers, heavy vehicles of poor standards which mostly operate on diesel engines on one hand and pollutant industries located on the outskirts of the capital on the other hand coupled with poor infrastructure for development of public transport are among the main causes of severe and choking air pollution of Tehran.

Tehraners who may experience better air quality during spring and summer face their worst nightmare during cold, dry, and rainless days of autumn and winter.

Temperature inversion when air pollutants such as smog being trapped close to the ground and form a brownish haze that can cause respiratory problems is now pretty normal during cold seasons in Tehran and the only short term remedial measure the officials have come up with so far is shutting down schools.

With a new city council winning the control of the capital and the new Mayor Mohammad Ali Najafi taking office some hope that sensible policies regarding air pollution will shake things up.

50. Iranian Gasoline Consumption Up 8% in Six Months

Gasoline consumption in the first half of the current fiscal year (started March 21) reached an average of 81.7 million liters per day, an increase of nearly 8% compared with the corresponding figure of last year (75.4 ml/d).

According to Shana, consumption of the fuel soared to 88.2 ml/d on average between August 23 and September 23, showing an 8.4% rise compared with last year's corresponding figure of 81.4 ml/d.

Reportedly, Iranian people burnt as much as 104.6 million liters of gasoline on September 23, the highest amount of consumption in a single day this year. Iran's all-time daily consumption record, 105.9 million liters, was set on March 31, 2016, during the annual Norouz (New Year) holidays.

Diesel consumption in August 23-September 22 reached an average of 79.2 million liters per day, indicating a 5.2% rise compared with the corresponding figure of last year, namely 75.3 ml/d. In the first half of the current year, 77.9 ml/d of diesel were burned, up 5.4% compared with the same period of a year ago.

According to Mohammad Reza Mousavikhah, a deputy at the National Iranian Oil Products Distribution Company, gasoline consumption increased due to post-sanctions economic prosperity and an increase in automobile production and import. "Gasoline inventories and domestic production are at such levels that there is no ground for concern over a possible shortage of the fuel in the near future," Mousavikhah said earlier.

Iran has 37 main gasoline distribution centers with various storage capacities. The provinces of North Khorasan, Tehran, Mazandaran and Gilan have the biggest gasoline inventories, as they normally host the largest number of travelers throughout the year.

According to the Oil Ministry's website, Euro-4 quality gasoline distributed in the country by the National Iranian Oil Refining and Distribution Company complies with international standards.

Rejecting speculations about the high proportion of sulfur in the fuel distributed in Tehran, which was asserted by officials of Tehran Air Quality Control Company (TAQCC), a subsidiary of Tehran Municipality, NIORDC noted that prior to the distribution of Euro-4 gasoline, the fuel contained as much as 350 parts per million (ppm) of sulfur, yet this amount has plummeted to 50 ppm, which is within global limits. Officials in TAQCC recently announced that samples from random filling stations across the capital were analyzed and the results revealed alarming levels of dangerous substances.

However, NIORDC said in a statement, "There are no concerns over the quality of Euro-4 gasoline distributed in mega cities." It added that concerted efforts have been made to facilitate the process

of monitoring the quality of fuel on a regular basis and as of 2014, special refineries have been selected to provide metropolitan areas with the much-needed fuel.

According to published reports, the cities of Tehran, Shiraz, Ahvaz, Karaj, Isfahan, Arak and Mashhad are now receiving 22 million liters of Euro-4 gasoline per day.

GENERAL

51. Air Pollution Linked to Kidney Disease

Breathing polluted air can lead to an increased risk of heart disease, stroke, lung disease and cancer, but as if that weren't enough, people in places like Los Angeles need to worry about an increased risk of kidney disease as well, according to new research recently published.

Researchers at St. Louis' Washington University School of Medicine tracked pollution levels in cities across the U.S., along with rates of kidney disease among nearly 2.5 million military veterans from 2004 to 2012, using data from the Environmental Protection Agency, NASA and the Department of Veterans Affairs. What they found was that as pollution levels rose, so did the rate of kidney disease among their subjects.

"There are about 45,000 new cases of kidney disease per year that can be attributed to air pollution," said Ziyad Al-Aly, senior author of the study, which was published in the Journal of the American Society of Nephrology.

The culprit is particulate matter that ends up in the air largely as a result of the burning of fossil fuels and organic matter. It's only 2.5 microns thick (a human hair is 50-70), which means that when it's inhaled it can easily enter the bloodstream through the lungs and spread throughout the body.

"We think that the kidney is especially prone to developing ... adverse consequences from bad air because it filters a huge amount of blood," said Al-Aly.

Researchers believe that the kidneys, which filter nearly 50 gallons of blood per day, are inundated with particulates. They can cause inflammation, oxidative stress and damage to the kidney tissue's DNA. Over time, kidney function can decrease, necessitating transplant or dialysis.

Southern Californians experience some of the highest levels of particulate matter in the U.S., according to the American Lung Association. Los Angeles has the fourth highest annual level, primarily because of the huge number of cars in the area.

The amount of particulate matter in L.A.'s air in 2016 was nearly double what the EPA considers safe. However, the Washington University researchers also found an increase in kidney disease in areas with particulate levels below the EPA's "safe" threshold.

52. Jaguar Land Rover to Electrify All Its Cars By 2020

Jaguar Land Rover (JLR) has pledged to stop building cars powered solely by petrol and diesel. The company hopes that every car built after 2020 will either be fully electric or a hybrid that makes use of both an electric motor and a traditional petrol-powered engine.

"Every new Jaguar Land Rover model line will be electrified from 2020," Jaguar Land Rover boss Ralf Speth said in a statement. "We will introduce a portfolio of electrified products across our model range, embracing fully electric, plug-in hybrid and mild hybrid vehicles."

The move comes just months after rival Volvo Cars confirmed that it would electrify its entire range of vehicles by 2019. Between 2019 and 2021, Volvo plans to launch five new electric vehicles, while every other car in the range will feature some form of hybrid engine. Honda has also promised that all of its new models from 2020 on will have an electrified variant.

Vehicle manufacturers are coming under increasing pressure to reduce emissions in order to meet stringent European carbon targets, which call for a maximum of 95g of CO2 emissions per kilometer. According to JLR's 2015 sustainability report, its average CO2 emissions were far higher at 164g per kilometer.

Recently, the Scottish government pledged to phase out petrol and diesel cars entirely by 2032—eight years earlier than the UK and France, which hope to ban sales of new cars with internal combustion engines.

While electric cars have been promised for years, it's only in recent years that developments in battery technology have allowed car manufacturers to create fully electric vehicles with practical distance ranges. The 2017 Tesla Model S, which features a 100kWh battery pack, can travel 335 miles on a single charge.

Meanwhile, Hyundai hopes to release its own long-range electric car (greater than 300 miles) by 2021.

Aside from electric vehicles, JLR is also dabbling with driverless cars. The company plans to launch a fleet of more than 100 autonomous and semi-autonomous vehicles on UK roads by 2020, with testing taking place along 41 miles of roads near Coventry and Solihull.

53. Nissan Leaf Electric Car Goes Further With One-Pedal Driving

Nissan has launched a longer-range version of its best-selling Leaf electric vehicle, as it fights growing competition in the electric car market. The new Leaf can travel about 50% further on a single charge than its predecessor, according to the firm. But it still falls short of the ranges offered by other recent electric cars from Tesla and General Motors.

Other updates include a new one-pedal driving system, auto-parking tech and a more modern design.

More than 283,000 Leaf cars have been sold since the Japanese firm launched the brand in 2010, making it the world's most purchased electric car. However, it is facing increasing competition in the fast-developing "green" car market, fueled in part by tightening emissions standards around the world.

"The general industry standard for model cycles is around six-to-seven years, so the launch of the second generation Leaf falls neatly in to this timeframe," commented Ian Fletcher, principal automotive analyst at the IHS Markit consultancy. "However, the next three to four years looks set to see further upgraded and brand new vehicles, and manufacturers in this space still have everything to play for."

The new Leaf, on sale in Japan from October and elsewhere early next year, has a longer range thanks to a bigger 40 kilowatt hour (kWh) battery.

Because different territories have different tests for electric vehicles, the new Leaf's quoted range varies according to where it will be sold:

- in Europe it is 378km (235 miles)
- in Japan it is 400km (248 miles)
- in the US it is 241km (150 miles)

Electric cars tend to achieve about 20-25% below the European quoted figures in real-world tests.

However, Nissan says the introduction of a one-pedal system - in which a button press turns the accelerator pad into an "e-Pedal" that can start, accelerate, brake and stop the vehicle - will provide added energy efficiency gains. Motorists can, however, drive with both a separate accelerator and brake pedal if they prefer.

Prices will start at 3,150,360 yen (£22,220), Nissan said. The Japanese carmaker said it would offer a higher priced model, with greater power and range, next year.

But despite boosting its range, rival models can go further than Nissan's latest offering.

The Tesla Model 3 can run between 354km to 499km (220 to 310 miles), according to US tests. It starts at \$35,000 (£26,850).

General Motor's Chevy Bolt - which is rebadged as the Opel Ampera E in parts of Europe - has a quoted range of 238 miles (383 km), according to the same measurement system. It starts at about \$38,000 (£29,150).

The Nissan Leaf faces more direct competition from models including the Volkswagen e-Golf, BMW i3 and Hyundai's Ioniq.

Car companies are accelerating plans for electric vehicles. Volvo says that after 2019, every new model will have some sort of electric engine on board. Jaguar's launching a rather gorgeous rival to the Tesla. But big challenges still remain.

Every significant journey needs planning to check the charge points properly.

Electric cars are also expensive. They are hard to charge if you live in a terraced house. The batteries lose power after a few years, and the country will need extra power stations to cope if everyone suddenly starts charging their cars.

Diesel and petrol cars work because they are so convenient. Go anywhere. Fill up in minutes. And they can be very cheap to buy. Electric cars aren't nearly there yet.

Nissan was one of the first automakers to market an electric vehicle to the masses when it launched the first Leaf in 2010. The Leaf became the world's biggest-selling, all-battery car, with more than 280,000 units sold.

Despite heavy investment, electric vehicles still represent only a fraction of conventional vehicle sales. Just over two million electric vehicles were registered worldwide as of 2016, according to the International Energy Agency, just a slice of the more than 80 million vehicles sold last year.

One big opportunity is China. Automakers are jostling for a piece of the world's biggest car market ahead of the introduction of new rules designed to fight pollution. China wants electric battery cars and plug-in hybrids to account for at least one-fifth of its vehicle sales by 2025.